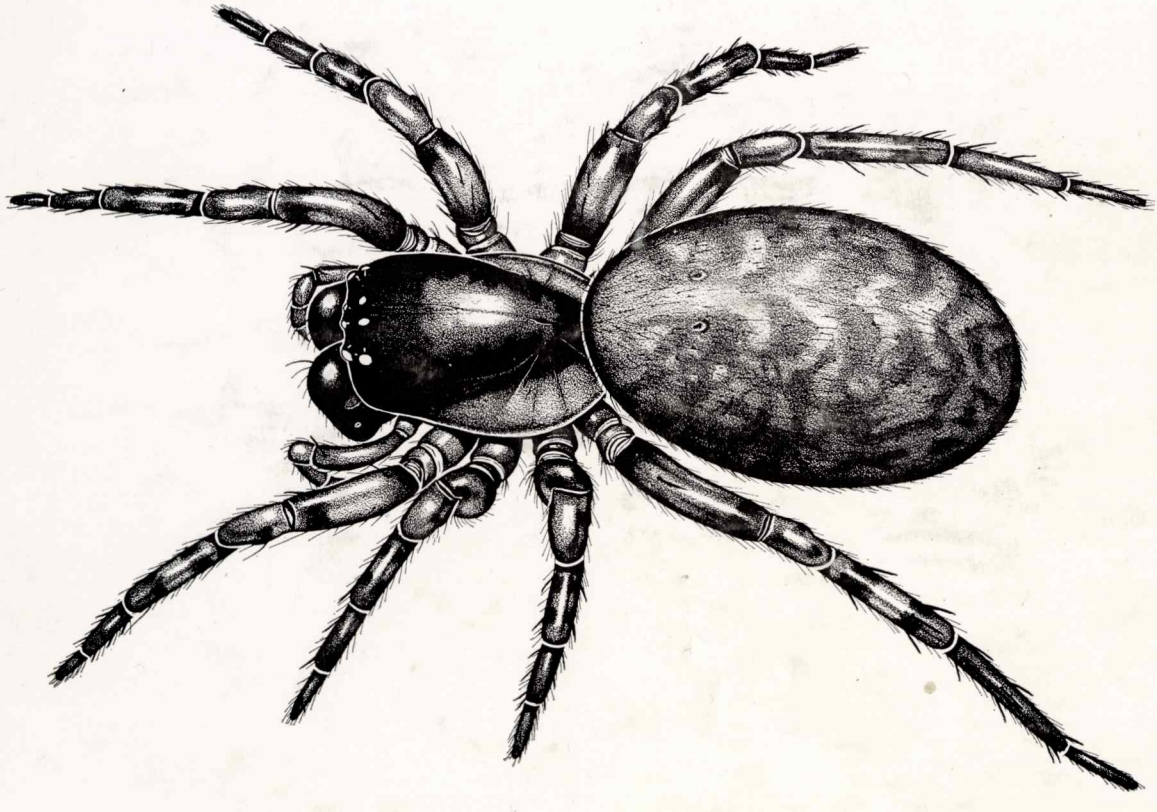
THE SPIDERS OF NEW ZEALAND

PART IV



by

R. R. FORSTER

C. L. WILTON

THE SPIDERS OF NEW ZEALAND

The Spiders of New Zealand

PART IV

AGELENIDAE, STIPHIDIIDAE, AMPHINECTIDAE, AMAUROBIIDAE, NEOLANIDAE, CTENIDAE, PSECHRIDAE.

by R. R. Forster
C. L. Wilton

Otago Museum Bulletin No. 4
Dunedin, 30 September 1973

Published by the Otago Museum Trust Board,
Dunedin, New Zealand, 30 September 1973

*Printed in New Zealand by John McIndoe Ltd.,
Dunedin*

CONTENTS

	Page
Introduction	15
Acknowledgements	15
Family Grouping	15
Systematic methods and interpretation	16
Legs	16
The cribellate problem	19
Family Agelenidae	21
Key to the New Zealand Genera of Agelenidae	21
Genus *Tegenaria* Latreille	22
Tegenaria domestica (Clerk)	23
Genus *Orepukia* n.gen.	25
Orepukia sorenseni n.sp.	25
Orepukia riparia n.sp.	27
Orepukia tonga n.sp.	28
Orepukia egmontensis n.sp.	29
Orepukia similis n.sp.	29
Orepukia orophila n.sp.	30
Orepukia pallida n.sp.	31
Orepukia poppelwelli n.sp.	32
Orepukia catlinsensis n.sp.	33
Orepukia redacta n.sp.	34
Orepukia dugdalei n.sp.	35
Orepukia virtuta n.sp.	35
Orepukia rakiura n.sp.	36
Orepukia simplex n.sp.	38
Orepukia prina n.sp.	38
Orepukia nota n.sp.	39
Orepukia florae n.sp.	40
Orepukia insula n.sp.	41
Orepukia geophila n.s.p.	42
Orepukia grisea n.sp.	43
Orepukia tanea n.sp.	43
Orepukia alta n.sp.	44
Orepukia sabua n.sp.	45
Orepukia nummosa (Hogg)	45
Genus *Neorepukia* n.gen.	46
Neorepukia pilama n.sp.	46

Page

Neorepukia hama n.sp. 48

Genus *Mahura* n.gen. 48

Mahura turris n.sp. 48

Mahura boara n.sp. 50

Mahura detrita n.sp. 51

Mahura accola n.sp. 52

Mahura sorenseni n.sp. 52

Mahura hinua n.sp. 53

Mahura spinosa n.sp. 53

Mahura spinosoides n.sp. 54

Mahura vella n.sp. 55

Mahera takahea n.sp. 56

Mahura crypta n.sp. 57

Mahura musca n.sp. 58

Mahura southgatei n.sp. 59

Mahura scuta n.sp. 60

Mahura rufula n.sp. 61

Mahura rubella n.sp. 61

Mahura bainhamensis n.sp. 62

Genus *Porotaka* n.gen. 63

Porotaka detrita n.sp. 64

Porotaka florae n.sp. 65

Genus *Tuapoka* n.gen. 65

Tuapoka ovalis n.gen. 66

Tuapoka cavata n.sp. 67

Genus Paramyro n.gen. 68

Paramyro apicus n.sp. 68

Paramyro parapicus n.sp. 69

Genus Ahua n.gen. 70

Ahua vulgaris n.sp. 70

Ahua kaituna n.sp. 70

Ahua dentata n.sp. 71

Ahua insula n.sp. 73

Genus *Tararua* n.gen. 73

Tararua celeripes (Urquhart) 74

Tararua clara n.sp. 75

Tararua diversa n.sp. 76

Tararua foordi n.sp. 77

Tararua versuta n.sp. 78

Page

Tararua ratuma n.sp. 78

Tararua puna n.sp. 79

Genus *Huka* n.gen. 80

Huka pallida n.sp. 80

Huka minuta n.sp. 81

Huka minima n.sp. 83

Huka alba n.sp. 83

Huka lobata n.sp. 83

Genus *Oramiella* n.gen. 84

Oramiella wisei n.sp. 84

Genus *Oramia Forster* 85

Oramia rubrioides (Hogg) 85

Oramia chathamensis (Simon) 87

Oramia marplesi Forster 88

Oramia littoralis n.sp. 90

Oramia occidentalis (Marples) 91

Oramia mackerrow (Marples) 91

Oramia solanderensis n.sp 91

Genus *Neoramia* n.gen. 93

Neoramia charybdis (Hogg) 99

Neoramia janus (Bryant) 101

Neoramia setosa (Bryant) 103

Neoramia oroua n.sp. 104

Neoramia childi n.sp. 106

Neoramia mamoea n.sp. 109

Neoramia finschi (L. Koch) 109

Neoramia matua n.sp. 110

Neoramia raua n.sp. 112

Neoramia nana n.sp. 112

Neoramia marama n.sp. 113

Neoramia minuta n.sp. 115

Neoramia hokina n.sp. 116

Neoramia allanae n.sp. 116

Neoramia otagoa n.sp. 117

Neoramia fiordensis n.sp. 118

Neoramia komata n.sp. 120

Neoramia margaretae n.sp. 121

Neoramia alta n.sp. 122

Neoramia koha n.sp. 124

Page

Neoramia hoggi (Forster) 125
Neoramia crucifera (Hogg) 126
Family Stiphidiidae 128
Key to the New Zealand Genera of Stiphidiidae 128
Genus *Stiphidium* Simon 130
Stiphidium facetum Simon 132
Genus *Procambridgea* n.gen. 134
Procambridgea rainbowi n.sp. 134
Procambridgea cavernicola n.sp. 136
Genus *Cambridgea* L.Koch 136
Cambridgea antipodiana (White) 137
Cambridgea fasciata L.Koch 139
Cambridgea agrestis n.sp. 141
Cambridgea annulata Dalmas 141
Cambridgea arboricola (Urquhart) 142
Cambridgea secunda n.sp. 144
Cambridgea occidentalis n.sp. 146
Cambridgea peculiaris n.sp. 146
Cambridgea sylvatica n.sp. 146
Cambridgea foliata (L.Koch) 147
Cambridgea plagiata n.sp. 149
Cambridgea turbotti n.sp. 150
Cambridgea reinga n.sp. 151
Cambridgea ramsayi n.sp. 151
Genus *Nanocambridgea* n.gen. 152
Nanocambridgea gracilipes n.sp. 154
Genus *Ischalea* L.Koch 155
Ischalea spinipes L.Koch 156
Family Amphinectidae n.fam. 157
Key to the New Zealand Genera of Amphinectidae 158
Genus *Amphinecta* Simon 159
Amphinecta decemmaculata Simon 159
Amphinecta puka n.sp. 161
Amphinecta mara n.sp. 161
Amphinecta milina n.sp. 161
Amphinecta mula n.sp. 161
Amphinecta pika n.sp. 162
Amphinecta pila n.sp. 163

Page

Amphinecta luta n.sp. 163
Amphinecta tula n.sp. 164
Amphinecta dejecta n.sp. 164
Amphinecta tama n.sp. 164

Genus *Maniho* Marples 164
Maniho tigris Marples 167
Maniho vulgaris n.sp. 168
Maniho insulanus n.sp. 169
Maniho cantuarius n.sp. 170
Maniho ngaitahu n.sp. 171
Maniho australis n.sp. 172
Maniho meridionalis n.sp. 172
Maniho otagoensis n.sp. 173
Maniho centralis n.sp. 173
Maniho pumilio n.sp. 174

Genus *Akatorea* n.gen. 175
Akatorea gracilis (Marples) 176
Akatorea otagoensis n.sp. 178

Genus *Rangitata* n.gen. 178
Rangitata peelensis n.sp. 179

Genus *Oparara* n.gen. 179
Oparara valla (Marples) 180
Oparara karamea n.sp. 181

Genus *Dunstania* n.gen. 181
Dunstania hesperis n.sp. 183
Dunstania salmoni n.sp. 185
Dunstania montana n.sp. 185
Dunstania angustiae (Marples) 186
Dunstania nuntia (Marples) 186
Dunstania hova n.sp. 187
Dunstania mira n.sp. 188
Dunstania hinawa n.sp. 188
Dunstania kochi n.sp. 189
Genus *Makora* n.gen. 189
Makora figurata n.sp. 190
Makora calypso (Marples) 190
Makora detrita n.sp. 191
Makora mimica n.sp. 192

Page

Makora diversa n.sp. 192

Genus *Marplesia* Lehtinen 192

Marplesia dugdalei n.sp. 193

Marplesia pohara n.sp. 195

Genus *Waterea* n.gen. 197

Waterea cornigera n.sp. 197

Genus *Reinga* n.gen. 198

Reinga aucklandensis (Marples) 198

Reinga grossa n.sp. 199

Reinga apica n.sp. 200

Reinga media n.sp. 200

Reinga waipoua n.sp. 200

Genus *Mamoea* n.gen. 202

Mamoea rufa (Berland) 202

Mamoea unica n.sp. 205

Mamoea otira n.sp. 206

Mamoea westlandica n.sp. 207

Mamoea maorica n.sp. 207

Mamoea florae n.sp. 208

Mamoea rakiura n.sp. 209

Mamoea montana n.sp. 210

Mamoea grandiosa n.sp. 210

Mamoea pilosa (Bryant) 212

Mamoea bicolor (Bryant) 213

Mamoea inornata n.sp. 213

Mamoea assimilis n.sp. 214

Mamoea hughsoni n.sp. 214

Mamoea monticola n.sp. 215

Mamoea cantuaria n.sp. 215

Mamoea hesperis n.sp. 215

Mamoea mandibularis (Bryant) 216

Mamoea cooki n.sp. 218

Genus *Paramamoea* n.gen. 218

Paramamoea incerta n.sp. 218

Paramamoea urewera n.sp. 218

Paramamoea incertoides n.sp. 219

Paramamoea aquilonalis n.sp. 219

Paramamoea parva n.sp. 220

Paramamoea arawa n.sp. 221

Page

Paramamoea pandora n.sp. 221
Paramamoea waipoua n.sp. 221
Paramamoea paradisica n.sp. 222
Paramamoea insulanus n.sp. 222

Genus *Huara* n.gen. 223
Huara antarctica (Berland) 225
Huara grossa Forster 225
Huara ovalis (Hogg) 226
Huara pudica n.sp. 228
Huara hastata n.sp. 228
Huara mura n.sp. 229
Huara kikkawa n.sp. 230
Huara decorata n.sp. 231
Huara inflata n.sp. 231
Huara chapmanae n.sp. 232
Huara dolosa n.sp. 233
Huara marplesi n.sp. 233

Genus *Neororea* n.gen. 234
Neororea sorenseni (Forster) 234
Neororea homerica n.sp. 236

Genus *Rorea* n.gen. 237
Rorea aucklandensis n.sp. 237
Rorea otagoensis n.sp. 238

Genus *Holomamoea* n.gen. 238
Holomamoea foveata n.sp. 239

Family Amaurobiidae 240

Key to the New Zealand Genera of Amaurobiidae 242
Genus *Waitetola* n.gen. 244
Waitetola huttoni n.sp. 244

Genus *Pakeha* n.gen. 245
Pakeha protecta n.sp. 245
Pakeha minima n.sp. 246
Pakeha media n.sp. 247
Pakeha maxima n.sp. 248
Pakeha insignita n.sp. 249
Pakeha subtecta n.sp. 249
Pakeha tecta n.sp. 250
Pakeha duplex n.sp. 251

Page

Pakeha inornata n.sp. 252
Pakeha kirki (Hogg) 253
Pakeha stewartia n.sp. 253
Pakeha paratecta n.sp. 254
Pakeha parrotti n.sp. 255
Pakeha pula n.sp. 256
Pakeha lobata n.sp. 257
Pakeha hiloa n.sp. 258
Pakeha buechlerae n.sp. 259
Pakeha manapouri n.sp. 259

Genus *Otira* n.gen. 259
Otira satura n.sp. 260
Otira parva n.sp. 261
Otira terricola n.sp. 262
Otira indura n.sp. 263
Otira liana n.sp. 263
Otira canasta n.sp. 263

Genus *Auhunga* n.gen. 264
Auhunga pectinata n.sp. 264

Genus *Muritaia* n.gen. 266
Muritaia suba n.sp. 266
Muritaia parabusa n.sp. 266
Muritaia kaituna n.sp. 266
Muritaia orientalis n.sp. 267
Muritaia longispinata n.sp. 267

Genus Paravoca n.gen. 268
Paravoca otagoensis n.sp. 269
Paravoca opaca n.sp. 269

Genus *Mala* n.gen. 270
Mala cavernicola n.sp. 270

Family Neolanidae 272

Genus *Neolana* n.gen. 272
Neolana dalmasi (Marples) 273
Neolana septentrionalis n.sp. 275
Neolana pallida n.sp. 276

Incertae sedis 278
Genus *Aorangia* n.gen. 278
Aorangia ansa n.sp. 279

Page

Aorangia pilgrimi n.sp. 280
Aorangia poppelwelli n.sp. 281
Aorangia muscicola n.sp. 281
Aorangia agama n.sp. 282
Aorangia tumida n.sp. 284
Aorangia mauii nsp. 284
Aorangia silvestris n.sp. 285
Aorangia isolata n.sp. 285
Aorangia semita n.sp. 285
Aorangia obscura n.sp. 286
Aorangia fiordensis n.sp. 286
Aorangia singularis n.sp. 287
Aorangia pudica n.sp. 287
Aorangia otira n.sp. 288
Aorangia kapitiensis n.sp. 289

Family Ctenidae 290

Genus *Nemoctenus* n.gen. 290

Nemoctenus aurens (Hogg) 291

Genus *Horioctenoides* Main 292
Horioctenoides sp. 293

Genus *Zealoctenus* n.gen. 295
Zealoctenus cardronaensis n.sp. 295

Family Psechridae 296

Genus *Poaka* n.gen. 297
Poaka graminicola n.sp. 297
Genus *Haurokoa* n.gen. 299
Haurokoa filicifolia n.sp. 299

Family Desidae 301

Subfamily Desinae 301

Genus *Nuisiana* n.gen. 301
Nuisiana arboris (Marples) 302

Subfamily Myroninae 302
Genus *Hulua* n.gen. 302
Hulua convoluta n.sp. 303
Hulua pana n.sp. 305
Hulua manga n.sp. 305
Hulua minima n.sp. 305

Page

Genus *Neomyro* n.gen. 306

Neomyro scitulus (Urquhart) 306

Neomyro amplius n.sp. 307

Neomyro circe n.sp. 308

Subfamily Toxopinae 309

Genus *Toxopsoides* n.gen. 309

Toxopsoides huttoni n.sp. 309

INTRODUCTION[1]

THE majority of the spiders considered in this and the previous volume are found in forest. One clear characteristic of the invertebrate forest fauna in New Zealand is that it forms a 'closed community' in the sense that introduced invertebrates rarely become established in virgin forest in direct contrast to lowland grassland and pasture habitats where fauna consists mainly of recent introductions, mostly by man but possibly others by transoceanic dispersal. The subalpine fauna is however strongly endemic. It is probable that the invertebrate forest fauna represents a fairly complete faunistic cross-section of those animals characteristic of the Gondwanaland land mass prior to the separation of New Zealand in the late Mesozoic and the relationship of these animals even when considered as a whole is undoubtedly with the southern continents and subantarctic islands. With the full description of the Amaurobiodea-Dictynoidea section of the New Zealand spider fauna we now have a distorted picture of the true situation as it would appear that this small land area retains a much broader spectrum of this southern fauna than do the main southern continents. However we know of many related but as yet undescribed spiders from Australia, particularly Tasmania and the eastern portion of the mainland, and as very little systematic collecting has been undertaken over much of this area many more undoubtedly will be discovered in the future. A similar situation probably holds for southern South America but the representation of this group in South Africa seems to be limited. In the subantarctic islands only a few species have been recorded but the proportion of these when compared with the total fauna is quite high and fully comparable with the situation in New Zealand. The degree of relationship of New Zealand spiders with Australian and South America is mainly at a generic level but it probable that, as the Australian fauna becomes better known, more genera will be found to be common to both countries.

The New Zealand forest fauna is also characterised by extensive geographical speciation, much of which has little direct relationship with the present day or recent distribution of forest. Much of this speciation can be attributed to changes in the disposition of the New Zealand land mass during the Tertiary. Patterns of speciation follow closely those discussed in detail in an earlier paper on the harvestmen (Forster, 1954. Canterbury Museum Bulletin No. 2). The New Zealand forest spiders do not appear to extend their range far beyond the shelter of forest and relatively narrow stretches of grassland or pastoral land seem sufficient to prevent ready exchange between populations. It is interesting to find however that many of the forest floor spiders will persist amongst fallen logs when forest is cleared and will also be found beyond the confines of the forest when an abundant cover of loose-lying rocks are available. A recent survey of the spiders inhabiting leaflitter in contiguous areas of virgin and cut-over native beech (*Nothofagus*) forest and planted pinus forest in the Westland region of the South Island shows clearly the inability of these spiders to colonize this new forest habitat. Of over seventy species recorded from the native forests only 10% were recorded from long established stands of pinus and the population density of most of these species was so low that it is doubtful that they could maintain a viable population without continued repopulation from the contiguous native forest.

ACKNOWLEDGMENTS

We wish to express our thanks to the numerous individuals who have assisted in the collection and the loan of material studied in this and earlier papers and to the continued interest and most valuable comment and criticism from colleagues in other countries.

FAMILY GROUPING

While we do not consider that we are able at the present time to present a fully revised system for the classification of this group of spiders which would provide the stability so obviously needed we have listed below the placement within superfamilies of those families we have studied. It is probable that the Miturgidae and Dolomedidae will also be included in the Amaurobioidea after further study.

Superfamily Dictynoidea
- Dictynidae
- Hahniidae
- Desidae
- Cybaeidae
- Argyronetidae
- Amaurobioididae
- Anyphaenidae

Superfamily Amaurobioidea
- Amaurobiidae
- Agelenidae
- Stiphidiidae
- Amphinectidae
- Neolanidae
- Psechridae
- Ctenidae
- Cycloctenidae

[1] The research work in this paper has been supported by grants from the Scientific Distribution Committee, Golden Kiwi Lottery Fund, National Institutes of Health, Education and Welfare, U.S.A., and the Nuffield Foundation, Great Britain. Some of the material studied was obtained from a pitfall trapping programme financed through a grant to C. L. Wilton from the Hutton Fund, Royal Society of New Zealand. Publication costs have been supported in part by a grant from the Scientific Distribution Committee, Golden Kiwi Lottery Fund.

SYSTEMATIC METHODS AND INTERPRETATION

We feel that some comment is needed on the method by which the conclusions on the classification of the spiders covered in this and the previous volume were reached. At the beginning of the study we were faced with a huge collection of rather similar spiders encompassing a large number of species the bulk of which were undescribed. It was decided first to separate out and describe the species and on completion of this task to group the species into genera before considering the problem of the higher taxa. This is the reverse of the approach normally used when recording new species but was necessary because at a very early stage we realized that the validity of the taxa generally accepted at the family level were unsatisfactory in that most were polyphyletic and that most of the generic groupings could be new. The main reasons for this conclusion were related to the tracheal system and the cribellate question. At a very early stage it was realised that the presence or absence of a cribellum was often of no more than generic significance and in some instances (*Mahura, Tararua* etc.) could not even be used for limiting a genus. It was obvious that the groups we were dealing with were evolutionarily active and that the loss of the cribellum was a process taking place at the present time. Secondly an extensive investigation of the internal structure of these spiders showed that the two basic forms of trachea, branched and simple, could be correlated with other characters such as the form of male palp, suggesting that there was a very early splitting of these spiders into two groups which we have separated into two superfamilies we have named Dictynoidea and Amaurobioidea.

It was also evident that throughout these two superfamilies the cribellate members tended to be conservative structurally while the loss of the cribellum, which was usually associated with a change from the passive use of a snare to active pursuit of prey, could lead to rapid radiation of the ecribellate derivatives which then could exhibit quite radical structural changes away from the ancestral form. Such changes are particularly striking in the modifications of the eyes. The alignment of the eyes away from the basic two straight rows along with the enlargement of the posterior and sometimes the anterior lateral eyes is evidently advantageous to a vagrant hunting spider in improving perception of movement over a wider section of the surrounding area. In both superfamilies spiders are found with the eyes modified in this way. Modifications are commonly found in the Desidae (Myroninae, Toxopinae), Dictynoidea and are relatively constant in the Ctenidae and Cycloctenidae two families which we consider belong in the Amaurobiodea.

Similar modifications have become stabilised in the Lycosidae and Pisauridae both of which have probably been derived from Amaurobioid stock. The somewhat similar movement of the eyes in the Salticidae is coupled with the development of the AME into very efficient visual organs and is not directly comparable although it might possibly be considered that these spiders are distantly related to the Dictynoidea.

The difficulties involved in evaluating all of these trends not only in eyes but also chelicerae, legs, and other appendages the structure of the female genitalia and the sclerites of the male palp as well as internal structure are self evident. Initially the classical family limitations which have generally been accepted in the past were ignored and parameters were adopted into which the spiders studied could be fitted. The final requirement was then to consider the relationships of these taxa with the family limits previously established. While we are convinced that the results of this study more clearly presents the phylogeny of this group of spiders than previous classifications we freely admit that the limitations of the taxa finally adopted and the general lack of key characters brings a certain vagueness to the classification of the group which we feel will only be eliminated after the fauna of other countries becomes better known. We have not attempted at this stage to establish taxa between genus and family, not because we feel that such subdivisions are not warranted, but because we consider a much deeper knowledge of the fauna of other countries, including presently undescribed species would be needed if a worthwhile contribution were to be made. It is interesting to note that Lehtinen (1967) in his revision of the same group of spiders came to almost identical conclusions. "I am inclined to confess that the limitations of taxa at the family group level in the Amaurobiides is more a matter of opinion at the family group level than in any other group treated in this paper. . . . Thus the adaptive radiation of the Amaurobiides is still in rapid progress, and many of its subdivisions may be fairly young".

LEGS

Although the spination of legs can provide much useful data for diagnostic purposes discretion in their use must be exercised as not all spines are of equal diagnostic value and aberrations occur even with those spines which appear to be important.

We have taken the figure of a leg (fig. 2) and drawn in it what is probably the basic pattern of spination. Variation from this pattern is usually in the reduction of the number of spines and this reduction appears to follow set patterns which will be discussed more fully when considering each segment. Sometimes additional spines are present and the genus *Ischalea* L. Koch is an exceptional example of this. *I. spinipes* L. Koch is very aptly named. Spines are sometimes reduced to bristles, or more rarely to very small stout spines, especially on the patellae and dorsal surfaces of the tibiae.

It is usual to regard the lateral surfaces of the legs as being respectively prolateral and retrolateral thus implying that the longitudinal axis

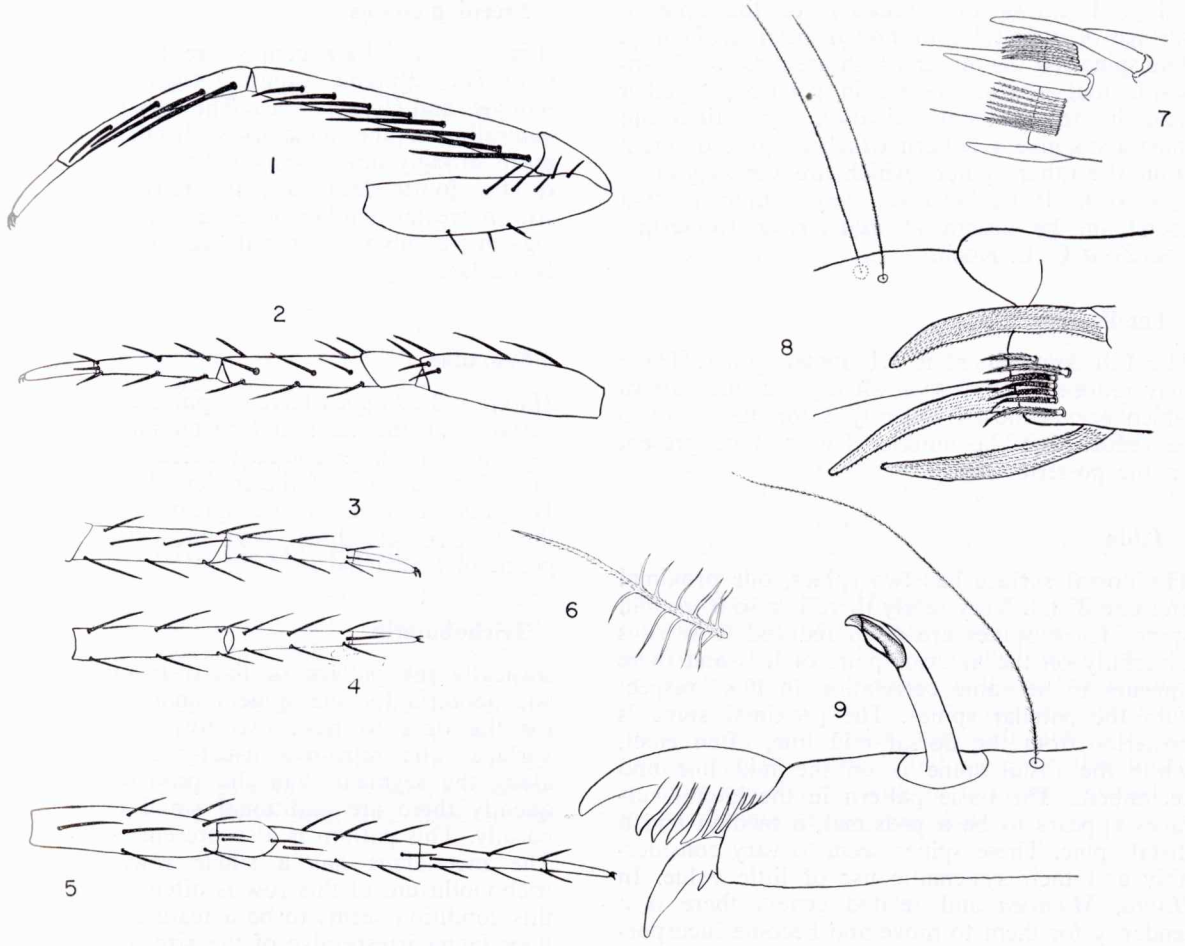


Fig. 1 *Poaka graminicola* n.sp. Prolateral view of the first leg showing spination. Figs. 2-5 Basic spination of first pair of legs in the Amaurobioidea (diagrams modified from Chamberlain, 1940). Fig. 2 Prolateral surface. Fig. 3 Retrolateral. Fig. 4 Ventral. Fig. 5 Dorsal. Fig. 6 Plumose hair from leg of *Aorangia*. Fig. 7 Ventro-distal surface metatarsus of leg 3 showing preening combs, *Amphinecta*. Fig. 8 Distal retrolateral surface of metatarsus and proximal surface of tarsus of *Otira indura* showing preening comb and double row of tarsal trichobothria. Fig. 9 Distal surface of tarsus of *Otira indura* showing long distal trichobothrium and tarsal rod.

of the legs is set at right angles to that of the body. The distribution of the trichobothria and lyriform organs substantiate this view of orientation. However some modifications of spination suggest that it may be convenient in some circumstances to regard the legs as having a different orientation. The prograde spider with the anterior legs directed forwards and the posterior pair backwards make the prolateral surfaces of the former and the retrolateral surfaces of the latter the inner surfaces and the retrolateral surfaces of the anterior pairs and the prolateral surfaces of the posterior pairs the outer surfaces. This view has significance with regard to some modifications to femoral and ventral tibial spines. This also applies to preening combs.

The posterior legs are more conservative in spination, especially the third pair, and the greatest modification occurs on the first leg. The second pair tends to resemble the first pair but with a lesser degree of modification. When there is little difference between all the legs with a minimum of reduction or accretion then the spider has a primitive spination. This primitive condition is much more evident in cribellate than in ecribellate species.

Femur

The spines are in three rows on the dorsal surface, a mid row of three and a row of two spines on each side. The usual order of reduction is for the basal spines of the lateral rows to go first, then the distal one of the mid row and the remaining lateral spines next. The persistent spine is the basal one of the mid row which, when all other femoral spines have disappeared, will be found at least on the posterior legs (*Huka*). These spines however vary considerably. In addition to the above spines a pominent spine is often present on the distal half of the prolateral surface of the first leg. We have termed this spine the prolateral spine of the first femur. Most cribellate spiders of the group under discussion possess it but it is often lacking in the ecribellate species. Occasionally there is a similarly sited spine on the other legs, less prominent, between the two spines of the pro-dorsal row.

Fig. 1 shows the spination of the anterior surface of a first leg of *Poaka graminicola* n.sp. The spines on the femur which are directed downwards and almost ventral in position, together with the heavy ventral spination of the tibia and metatarsus give a pattern which is quite different from the other spiders which are the subject of this work. It is, however, very similar to that found in the genera *Acanthoctenus* Keyserling and *Zora* C. L. Koch.

Patella

The full complement is 1.1 dorsal spines. These may reduce to bristles on all legs but the pattern which occurs most frequently is for the spines to be reduced on the anterior legs and be present on the posterior legs.

Tibia

The dorsal surface has two spines, one proximal and one distal. Very rarely there is also a median spine. These spines are often reduced to bristles especially on the anterior pairs of legs and there appears to be some correlation in this respect with the patellar spines. The proximal spine is posterior from the dorsal mid line, often erect, while the distal spine is on the mid line and recumbent. The basic pattern in the lateral surfaces appears to be a proximal, a median and a distal spine. These spines seem to vary considerably and their systematic use of little value. In *Huara, Mamoea* and related genera there is a tendency for them to move and become incorporated with the ventral system. The ventral spines are reduced from the basic 2.2.2. (proximal, median and distal) pattern either by losing the distal pair (*Huara, Amphinecta* etc.) or by retaining the distal pair and losing spines from the other pairs. These spines seem to be just as unstable on the posterior pairs of legs as on the anterior pairs.

Metatarsus

The proximal, median and distal siting of spines also obtains on the metatarsus. Reduction frequently occurs on the anterior legs but the number of proximal and median lateral spines on the posterior legs is often doubled. The distal spines are arranged in a whorl consisting of a mid-ventral and two lateral spines on each side. On the first pair of legs occurs less frequently and often only three ventrally situated spines or even more so (*Huara-Mamoea* group) by losing the mid-ventral spine also. Reduction in the whorl on the second pair of legs occurs less frequently and often only the dorso-lateral spine on the retrosurface is lost.

Tarsus

Very small spines occur on the ventral surface of the distal half of this segment of the posterior legs. These spines are not obvious and only in the genus *Mala* are they of any consequence.

Preening combs

(Figs. 7, 8). These combs are to be found in *Orepukiā, Pakeha* group, *Amphinecta, Paramamoea* and *Holomamoea.* They are found latero-ventrally on the metatarsus distally. They are more strongly developed on the third legs. Those on the fourth legs have the retro-lateral comb with a greater number of setae and on the second legs this comb is often reduced to no more than two setae.

Scopulae

Huara and *Mamoea* have scopulae on the ventral surfaces of the tarsi and metatarsi while *Paramamoea* has the scopulae restricted to the metatarsi. Unlike some of the spiders described in the Dictynoidea none of the spiders dealt with in this part possess three claws and claw tufts composed of tenent hairs.

Trichobothria

Basically the pattern of the distribution of the trichobothria for the spiders under discussion is for the tibia to have two rows on the dorsal surface. The retro-row usually extends further along the segment than the pro-row. Very frequently there are additional small trichobothria basally. This pattern is also present on the palps. The metatarsus has a single row. The distal trichobothrium of this row is often very long and this condition seems to be a feature of the forest floor fauna irrespective of the size of the animal. This trichobothrium is also often sharply bent backwards at a point about two-thirds from the base. There does not seem to be any phylogenetic significance as these two latter conditions occur among different groups. The *Pakeha* group of genera have an additional trichobothrium posterior from the row about level with the penultimate trichobothrium of the row. The tarsal trichobothria are usually in a single row. However in the *Pakeha* group and *Haurokoa* the trichobothria become alternately staggered and form a double row. On the palps, the tarsal segment of the female and cymbium of the male, do not always have trichobothria. They appear to be lacking on those spiders we have placed in the Agelenidae and Neolanidae and the genera *Aorangia* and *Haurokoa.*

Tarsal organ

A tarsal organ is usually found on all the tarsi of the legs and palps. They may be always present but at times become very small and very difficult to see. However there are two modifications which appear to have generic importance. In most cases the tarsal organ is distal to all trichobothria but on the legs of the genera *Oramiella, Akatorea, Rangitata,* and *Huara* there is at least one trichobothrium more distal in position than the tarsal organ.

Tarsal Rod

The structure we have named the 'tarsal rod' is unlike any previously found in spiders. (Fig 9). It appears as a single erect translucent rod on each pedal tarsus in the amaurobiid genus *Otira*. The tarsal rod rises up from a circular pale area on the dorsal surface of the tarsus and is positioned from about the midlength to two-thirds of the segment. The structure is at present being examined with by scanning microscope and from sections. From ordinary microscope examination it appears to consist of a thin sheath which arises from the integument within which is a solid although gelatinous looking rod. *Otira* is not otherwise unusual in that it apears to be closely related to the smaller species of *Pakeha* which have typical tarsal organs. Tarsal organs are lacking in *Otira*.

THE CRIBELLATE PROBLEM

All of the families treated in the present volume, have both cribellate and ecribellate genera. The evidence which is now becoming available suggests strongly that all of the araneomorph spiders, both haplogyne and entelegyne, have passed through a cribellate phase and that whereas some of fairly well defined lines represented by such families as the Salticidae, Lycosidae and Oonopidae etc. have been long fixed in the ecribellate state members of many other taxa are still losing this organ. It is also clear that the loss of these structures is often correlated with a decrease in the dependance on a snare to catch prey. A clear example of this trend is shown with the recent discovery of a cribellate Gradungulid inhabiting caves in Australia. This spider, as yet undescribed, constructs a large snare whereas the ecribellate members of the family are terrestrial hunting spiders which do not even construct a retreat.

A number of instances were listed in the previous volume of this work (Forster, 1970) of related cribellate-ecribellate genera and in one genus *Goyenia* both cribellate and ecribellate species were described. In the present volume a number of similar instances of relationship at a generic level are described but also within the large genus *Mahura* there are species pairs (*spinosa-spinosoides scuta-southgatei*) which differ mainly in the presence or absence of the cribellum and calamistrum. *Mahura* is of considerable interest in that as a group these spiders are only weakly cribellate. The spinning fields of the cribellate species is usually small and the calamistrum consists of only a few hairs and these are often long and slender, very different from the typical apically curved and rigid bristles found in most cribellates. *Mahura* is closely related to the ecribellate genus *Orepukia*.

Family AGELENIDAE C. L. Koch 1837

THE family Agelenidae has over the years been a convenient depository for those three-clawed generalized ecribellate spiders which do not exhibit any striking derived characters. The two most recent revisions (Lehtinen, 1967, Roth, 1967) differ mainly in the restriction of the family by Lehtinen to those spiders with a divided colulus and with the posterior pair of spinnerets more or less lengthened. While this limitation does provide a nicely circumscribed and almost certainly monophyletic group of mainly Northern Hemisphere spiders it raises major problems when the spiders of the Australasian region are considered. On the basis of the reproductive organs, the sometimes divided colulus and other characters the New Zealand ecribellate genus *Orepukia* seems to be a typical agelenid, but the posterior pair of spinnerets are not lengthened. This genus is however undoubtedly closely related to *Mahura* in which the derived ecribellate species do not have a double colulus. Furthermore if we accept *Orepukia* as an agelenid and also accept its relationship with *Mahura* we are led through related cribellates to such genera as *Porotaka, Ahua* and the *Neoramia* group of genera. Again the ecribellates which have been derived from these genera do not possess a divided colulus. The tendency with all these spiders is for the cribellum to be reduced to a conical structure before losing the spinning fields. The colulus is then a more or less triangular structure, and the hairs are not separated into two bunches.

Our interpretation of the limits of this family approaches the classical view by including spiders with both forms of colulus which may or may not have the posterior spinnerets elongate. We have also added a further dimension by including cribellate genera.

The result is of course by no means satisfactory in that it is at least to some degree polyphyletic and can be considered to be perpetuating the practice of using this family as a 'dump' for those generalized three clawed spiders which do not possess sufficiently distinctive derived characters to warrant their location in another family. We have however, by relocating a number of genera which had been placed in this family earlier, along with many described in this present paper which would previously have been placed in the Agelenidae, clarified the phylogeny of this group to some extent.

The diagnosis we have used for this family is as follows:—

Cribellate and ecribellate spiders Eyes in two transverse rows. Median apophysis of the male palp of the basic weakly sclerotized, apically hooked form or derived forms, but not heavily sclerotized and flattened. (c.f. Amaurobiidae) Embolus usually spiniform. Conductor usually well developed and often T-shaped. Cymbium and tarsus of female palp, without trichobothria. Legs with basic spination. Trichobothria usually numerous and in a double row on the tibiae and a single row on metatarsi and tarsi. Three claws, without claw tufts or scopulae. Plumose hairs sometimes present. Chelicerae with boss. Teeth on both margins. Internal genitalia strongly receptaculate. Cribellum, when present, divided. Colulus paired or single. Calamistrum in a single row. Tracheal system consisting of up to four simple tubes limited to the abdomen.

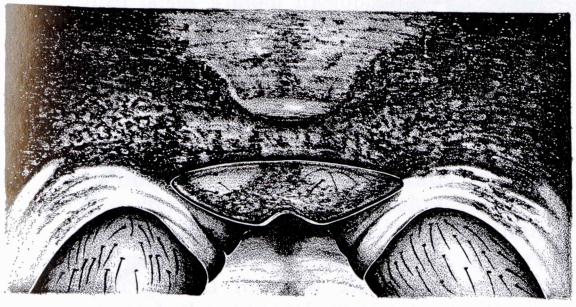
The only single character which sets this family apart is the absence of trichobothria on the cymbium of the male palp. This is a character which is completely ignored by all workers and so we are not certain how much emphasis should be placed on it.

KEY TO THE NEW ZEALAND GENERA OF THE FAMILY AGELENIDAE

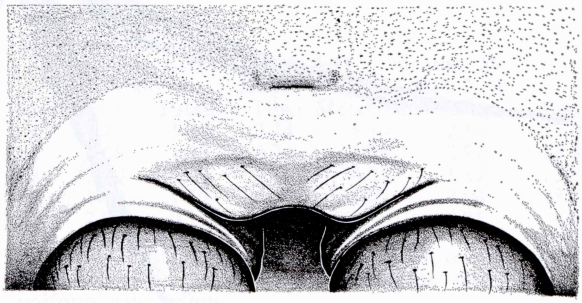
1. Plumose hairs present — 2
   Plumose hairs absent — 3

2. Posterior pair of spinnerets much longer than anterior pair. Chelicerae with four teeth on the retromargin. Colulus much wider than long, with two patches of hair
   Tegenaria Latr.
   Anterior and posterior pairs of spinnerets more or less equal in length. Chelicerae with two teeth on the retromargin. Colulus with hairs evenly spread
   Neorepukia n.gen.

3. Very small (2 mm or less in body length). Lacking pigment. Usually cream in colour — 4
   Much larger or if small with a definite colour pattern — 5



11



12

Fig. 11 Colulus of *Orepukia similis* n.sp. Fig. 12 Colulus of *Tegenaria domestica.*

4. First two parts of legs without spines. Cribellate

Huka n.gen.

All legs with spines. Cribellate

Tuapoka n.gen.

5. Colulus much wider than long with hairs in two patches. Ecribellate

Orepukia n.gen.

Usually cribellate but if ecribellate then colulus compact, with hairs evenly spread 6

6. Eyegroup compact, occupying one half of the width of the head. AME small, situated within a ring formed by remaining eyes. Ecribellate

Paramyro n.gen.

Eyes not arranged as above and occupying more than one half of the width of the head 7

7. Tarsal trichobothria extending beyond the tarsal organ. Cribellate

Oramiella n.gen.

Tarsal organ distal to the trichobothria 8

8. Small, body length usually much less than 5 mm 9

Medium sized to large. Body length usually much greater than 5 mm 12

9. Conductor of male palp large and T-shaped with the embolus resting along the distal margin of the T 10

Conductor well developed but not T-shaped 11

10. Epigynum strongly sclerotized, usually with a prominent median plate. Cribellum present or absent

Mahura n.gen.

Epigynum weakly sclerotized, with a small transverse plate along the posterior margin. Cribellum present or absent

Porotaka n.gen.

11. Epigynum with paired spines along the posterior margin. Only distal portion of embolus resting on conductor. Cribellum present or absent

Tararua n.gen.

Epigynum without spines but with subtriangular plate on posterior margin. Most of embolus resting along the conductor. Cribellate

Ahua n.gen.

12. Embolus flattened and twisted distally. Ducts of internal genitalia well developed. Probably restricted in distribution to the spray zone along sea beaches

Oramia Forster

Embolus slender and spiniform. Ducts of internal genitalia short. Distribution wide and not restricted in habitat

Neoramia n.gen.

Tegenaria P. A. Latreille 1804

Cephalic portion of the carapace narrow. Eight eyes in two rows which are straight or gently procurved. Eyes

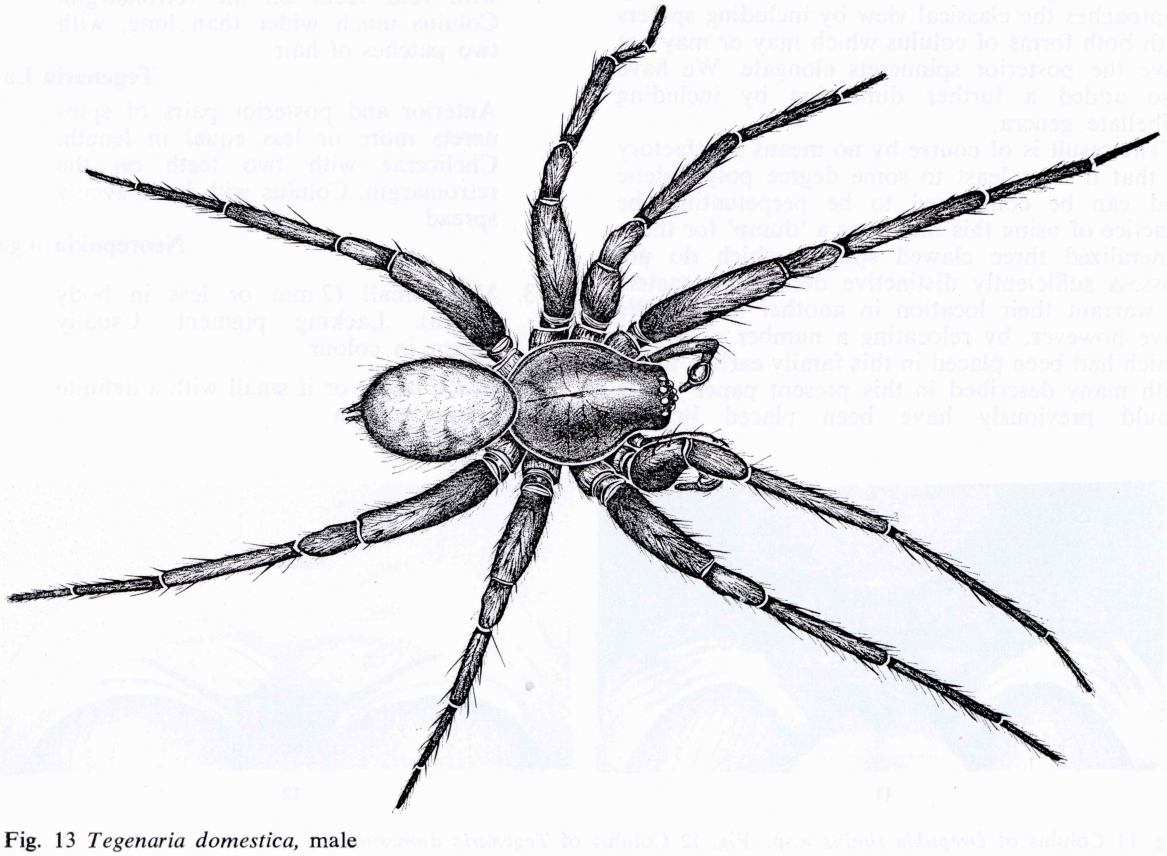


Fig. 13 *Tegenaria domestica,* male

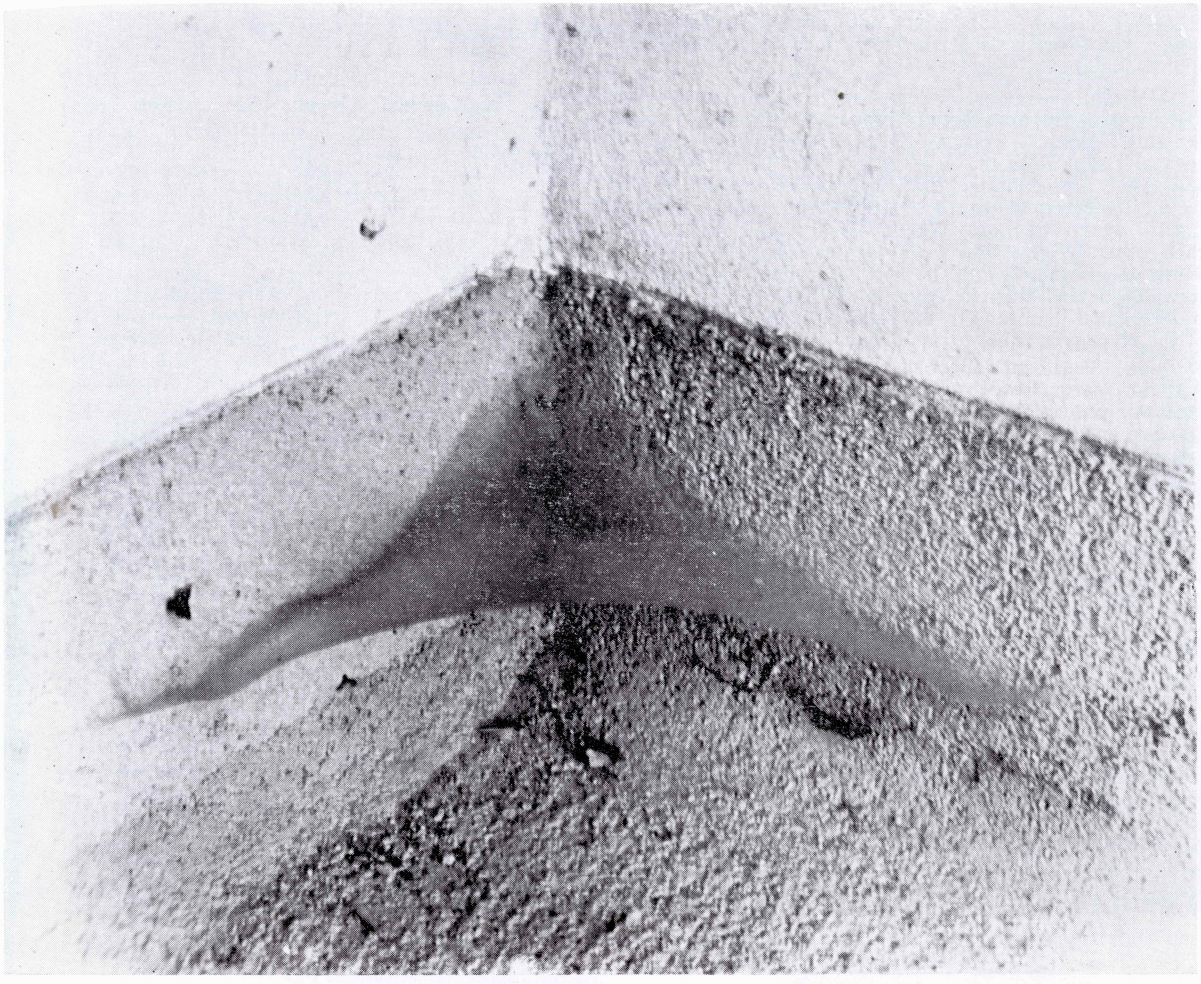


Fig. 14 Web of *Tegenaria domestica.*

subequal in size with the AME usually slightly smaller than the lateral eyes. Lateral eyes slightly separated. Posterior spinnerets with the apical segment as long as the basal segment. Colulus relatively broad with two clumps of hairs (Fig. 12). Legs long, with plumose hairs. Spines long and aculeate. The femur of the first pair of legs has a prolateral spine and a similarly sited spine is also present on the second pair. The mid-dorsal distal spine is lacking on all femora. Tibial dorsal spines are present on the third and fourth pairs of legs but lacking on the first and second. The ventral surface of the tibia of the first pair of legs has at least one distal spine. The distal whorl of spines on the metatarsus of the first pair of legs is reduced to three spines, the prolateral and retrolateral dorsal spines missing. Legs lacking combs and scopulae. Tarsal organ distal to trichobothria on legs. Palpal tarsus without trichobothria. Cymbium of male palp pointed distally and projecting well beyond the bulb. Embolus spiniform. Conductor a prominent T-shaped structure. Median apophysis simple. Epigynum small.

Type species *Araneus domesticus* Clerk.

This genus is well known in the Northern Hemisphere but does not occur naturally in this country. Two species are recorded below but the one commonly found is the cosmopolitan *Tegenaria domestica.* These fast moving spiders are easily recognised in New Zealand by their slender legs and the general hairiness which is quite unlike the bulk of our native forms. They are usually found in and around houses. The elongate distal segment of the posterior pair of spinnerets is an immediate diagnostic character in this country and is otherwise found only in *Aorangia.* The web is a distinctive sheetweb, often constructed in corners (Fig. 14) leading to a retreat in which the spider normally remains. The only similar web commonly seen in New Zealand is that of *Cambridgea* (Fig. 396) but *Tegenaria* runs on the upper surface of the sheet while *Cambridgea* uses the under surface.

Tegenaria domestica (Clerk)

Figs. 12-14, 17-21

MALE

Measurements

Carapace length 4.93 width 2.89
Abdomen length 3.91 width 2.38

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.42	1.19	3.74	5.10	2.55	17.00
2	4.08	1.36	3.74	4.08	2.21	15.47
3	3.40	1.02	3.40	4.25	1.87	13.94
4	5.10	1.19	4.59	5.27	2.04	18.19
Palp	2.04	0.51	0.68		0.85	4.08

Colour Cephalothorax and legs uniform reddish brown. Abdomen grey, without markings. Some specimens are uniform pale yellow.

Carapace The head region is narrow, only slightly more than half of the width of the thorax. The thoracic

groove is shallow and distinct only on the lateral surfaces. The fovea is deep and the surface on each side is slightly humped.

Eyes From above the anterior row is slightly recurved and the posterior row slightly procurved. From in front the anterior row is straight and the posterior row is procurved. The ratio of the AME.ALE.PME.PLE. = 4.5.4.5. The AME are separated from each other and the ALE by a distance equal to 1/4 of the diameter of an AME. Lateral eyes contiguous. The PME are separated from each other by 3/4 and from the PLE by 2/4 of the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 11.9 and wider behind than long in the ratio of 11.10. The height of the clypeus is equal to the diameter of an AME.

Sternum Scutiform, longer than wide in the ratio of 5.4. Anterior margin straight, lateral margins undulate. The posterior projection is sharp and separates coxae 4 by a distance equal to 7/20 of the width of a coxa.

Maxillae Lateral margins sub-parallel, anterior margin oblique. Twice as long as wide.

Labium Notched at the base. Lateral margins gently curved. Anterior margin straight. Wider than long in the ratio of 15.13.

Chelicerae Lateral boss present. Retromargin with four teeth, promargin with three teeth. A definite carina extends from the proximal tooth to the base of the chelicera.

Palp (Figs. 19,20) The embolus is stout and the conductor is a stout plate hollowed in the ventral surface.

Legs 4123. Clothed with numerous strongly plumose hairs, and longer smooth hairs. The spines are grouped mainly on the ventral surfaces of the tibiae and metatarsi. First leg. Tibia, v.2.2.2. Metatarsus, v.2.2.1. Second leg. Tibia, v.2.1.1. Metatarsus, v.2.2.1. Third leg. Tibia, v.2.0.2. Metatarsus, v.2.2.1. Fourth leg. Tibia, v.2.2.2. Metatarsus, v.1.1.2.1. Trichobothria are numerous. Tibia, 1.2.1.1.1. Metatarsus, 3. Tarsus, 5. Superior claws with from 9-10 teeth. Inferior claw with 4 teeth.

FEMALE

Measurements

Carapace length 4.62 width 2.91

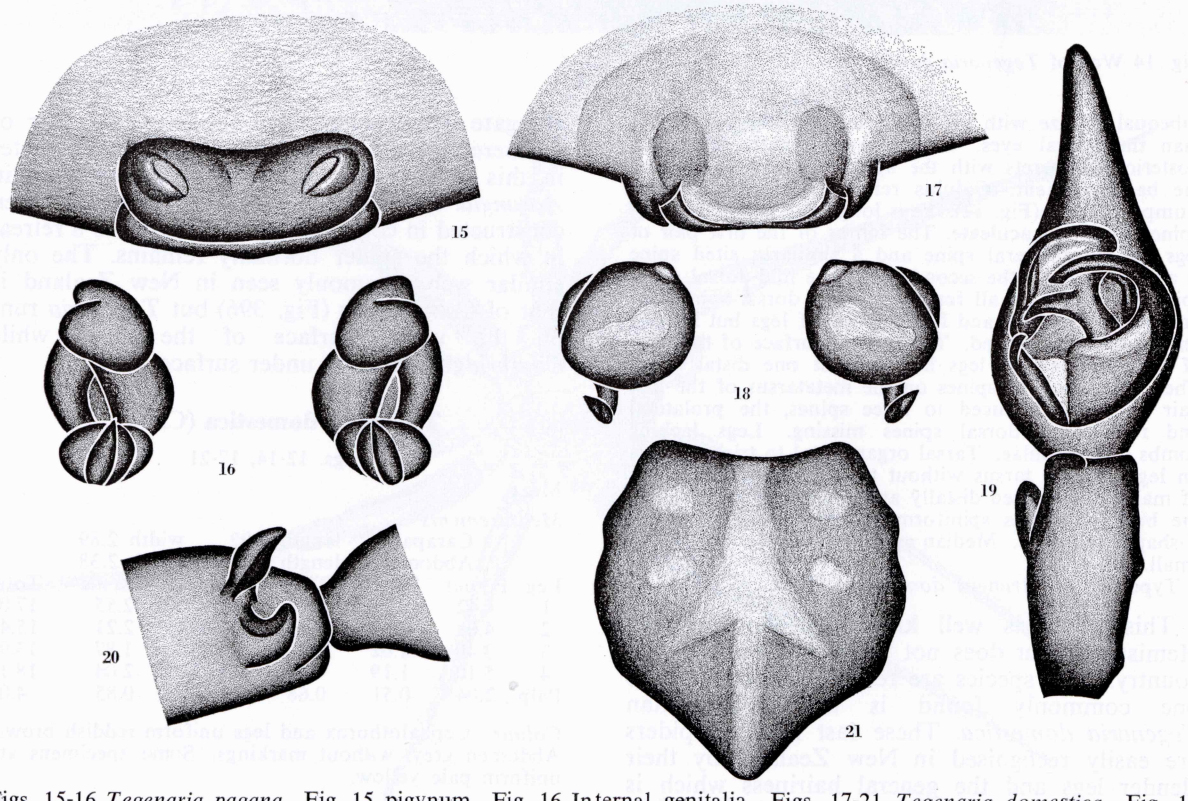
Abdomen length 4.32 width 2.86

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.60	1.40	3.36	3.60	2.32	14.28
2	3.36	1.40	3.00	3.36	2.00	13.12
3	3.26	1.20	2.80	3.36	1.60	12.22
4	4.00	1.36	3.82	4.58	2.00	15.76
Palp	1.60	0.64	1.00		1.60	4.84

Similar to the male in most characteristics. The epigynum is shown in Fig. 17. The internal genitalia are simple and are shown in Fig. 18. Palp. Spines: Femur, d.0.0.1.1.1. Patella, d.1.1. Tibia, p.1.1.d.1.0. Six trichobothria on the tibia arranged 2.1.1.1.1. Claw with 7 teeth

Records Te Paki Homestead, North Auckland, 8.iii.1960. Canterbury. Christchurch, 6.xii.1950, L. P. Hughson. Christchurch, 10.ii.1945, W. Woods. Christchurch, 10.x.1949, W. H. Dukes. Christchurch, 18.x.1949, W. H. Dukes. Canterbury Museum grounds, 24.xi.1948, R.R.F. Otago Museum, Dunedin, 26.vi.1953, B. J. Marples. Cromwell, under stones, 7.xi.1958, R.R.F. Taradale, Hawkes Bay, 13.iii.1963, iv.1967, 12.i.1965, R. W. Hutton.

This is a cosmopolitan species which has been established in New Zealand for many years. It is often found in houses and sheds. Rarely seen in open country and never in forest. Distributed throughout New Zealand but the number of specimens in collections is small because specimens are rarely preserved.



Figs. 15-16 *Tegenaria pagana*. Fig. 15 pigynum. Fig. 16 Internal genitalia. Figs. 17-21 *Tegenaria domestica*. Fig. 17 Epigynum. Fig. 18 Internal genitalia. Fig. 19 Ventral view of male palp. Fig. 20 Tibial processes of male palp. Fig. 21 Sternum.

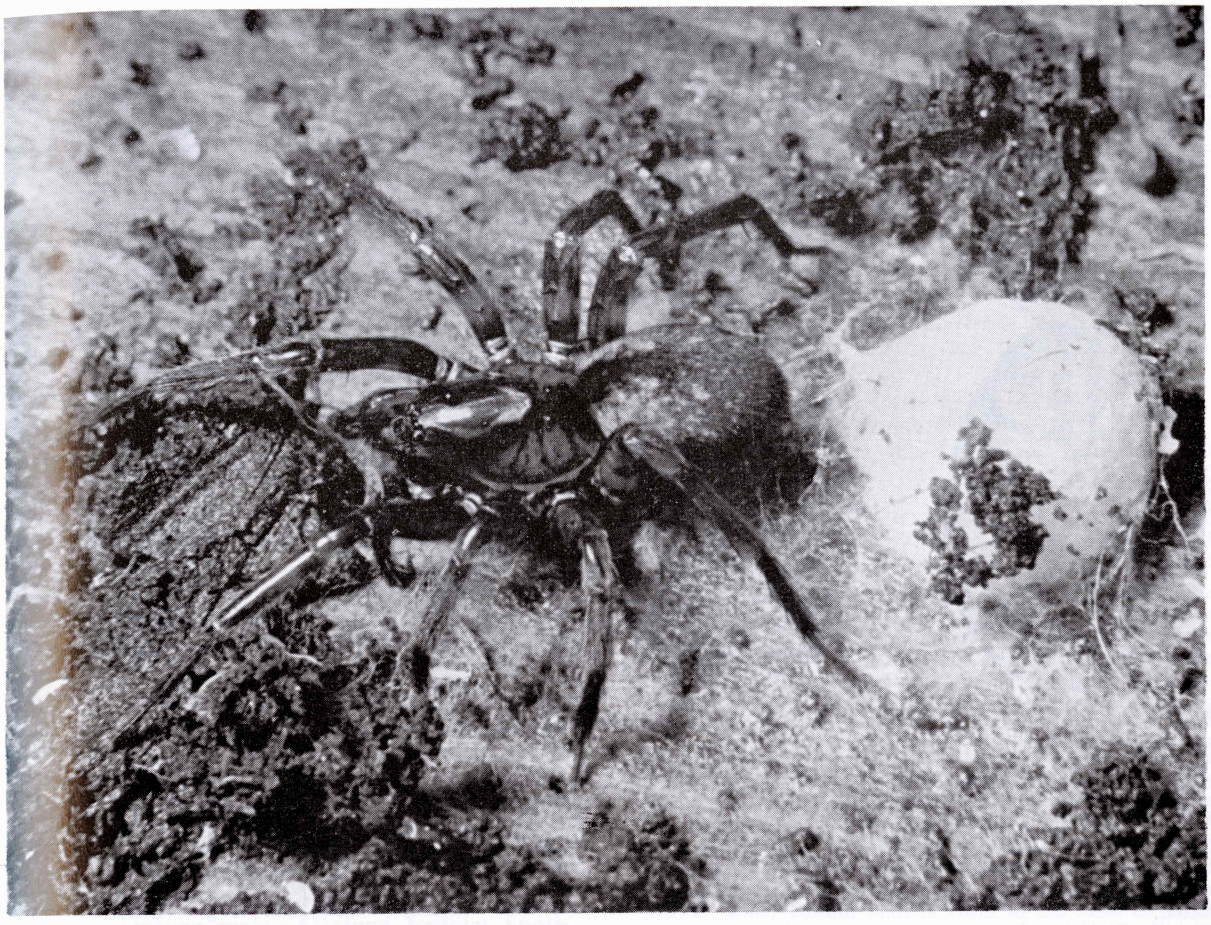


Fig. 22 *Orepukia poppelwelli* n.sp. with eggsac.

Orepukia n.gen.

Medium sized (body length 6-7.5 mm) ecribellate spiders. The eye-group is compact and occupies approximately one half of the width of the head. Eight eyes in two rows. Anterior row straight and posterior row slightly procurved. AME approximately one half of the size of the ALE. ALE.PME.PLE subequal. Lateral eyes contiguous or nearly so. Chelicerae vertical, with boss. Retromargin with two teeth. Promargin with two normal teeth and usually a group of small even sized teeth. Labium notched at the base. Wider than long or as wide as long. Legs 4123, without plumose hairs. The trochantera are notched but the anterior pairs only very slightly. Femoral spines long and curved. Prolateral spine of the femur of the first pair of legs lacking. Femoral spines usually d.1.1.1. p.r.0.1. The tibial dorsal spines strong on the third and fourth pairs of legs but reduced to bristles on the first and second pairs. Tibia of the first pair of legs with paired ventral spines, one pair being distal in position. The distal metatarsal whorl of spines on the first pair of legs may reduce by the loss of the dorsolateral spines or that spine on the retrolateral surface only. Preening combs are present on the metatarsi of the second, third and fourth pairs of legs. The tarsal organ is distal to the trichobothria. Superior claws similar, strongly pectinate. Inferior claw with from 2-4 teeth. Scopulae, claw tufts and tenent hairs lacking. Trichobothria in a double row on tibia and a single row on metatarsi and tarsi. Claw of female palp with teeth. Trichobothria in a double row on the tibia but absent from the tarsus. Tibia of male palp with retrolateral processes. Embolus slender, spiniform, evenly curved, originating from the posterior prolateral margin. Distal portion of embolus supported by the apical branch of a large T-shaped conductor which originated from near the base of the embolus. Median apophysis simple.

Type species *Orepukia sorenseni* n.sp.

This widespread endemic genus has been recorded from all parts of the country except for the northern half of the North Island. They are found mainly on the forest floor where they construct a rather formless web under fallen logs and debris. Several species have been found living in crevices in banks and cliff faces. As they are commonly collected from pitfall traps set in grassland the spiders must also at times live in relatively open country. *O. poppelwelli* is often found in gardens in Dunedin where it constructs its web under litter in undisturbed areas. The majority of the species recorded are from the South Island. They are only rarely found in the North Island and do not seem to extend further north than Egmont.

Orepukia sorenseni n.sp.

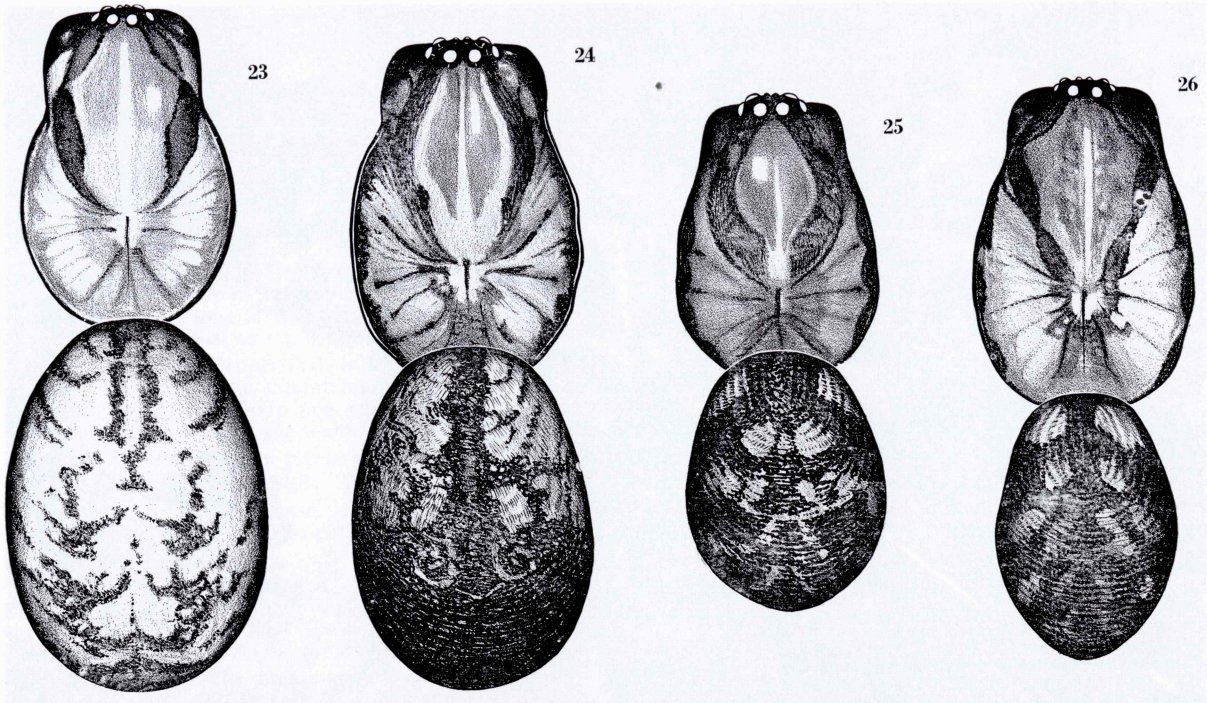
Figs. 25, 27-30.

MALE

Measurements

Carapace length 3.42 width 2.20
Abdomen length 3.29 width 2.00

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.55	1.05	2.18	2.25	1.38	9.41
2	2.38	1.05	1.80	2.05	1.20	8.48
3	2.15	1.03	1.55	2.08	1.00	7.81
4	2.63	1.15	2.23	2.68	1.25	9.94
Palp	1.20	0.40	0.40		1.36	3.36



Figs. 23-26 Dorsal view of body of female. Fig. 23 *Orepukia pallida* n.sp. Fig. 24 *O. poppelwelli* n.sp. Fig. 25 *O. sorenseni* n.sp. Fig. 26 *O. riparia* n.sp.

Colour Chelicerae and legs reddish brown. Carapace and abdomen as in Fig. 25.

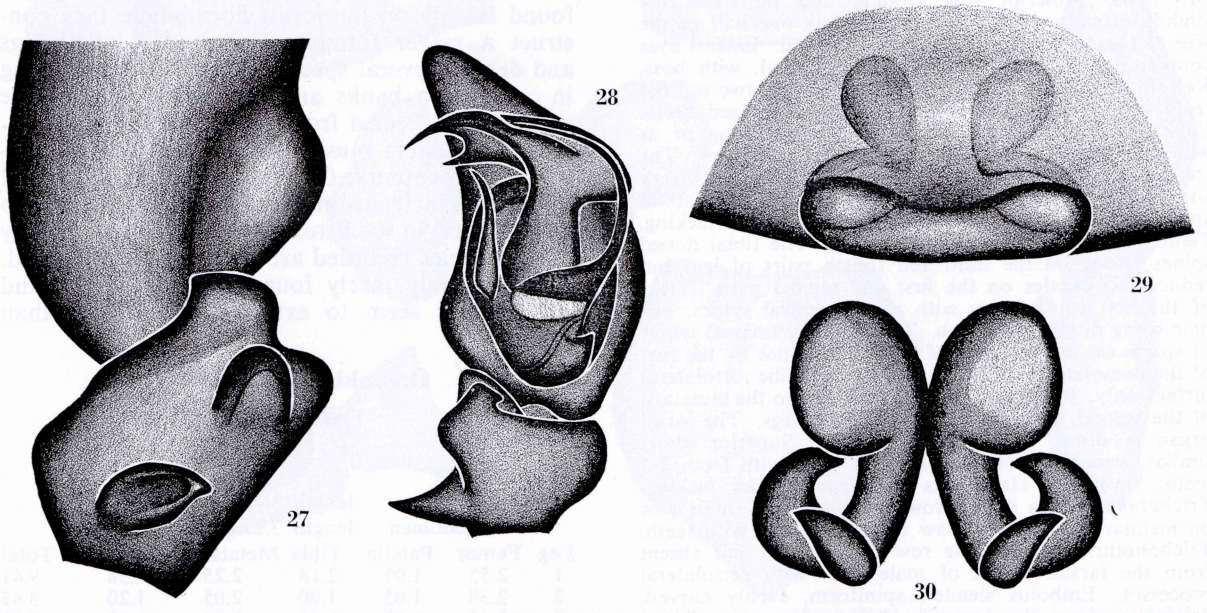
Carapace The width of the head is equal to 3/5 of the width of the thorax. Lateral margins straight and parallel. Fovea distinct with the lateral margins slightly raised.

Eyes The eyegroup occupies 9/16 of the width of the head. From above both rows are straight. From in front the anterior row is straight. AME level with the posterior margins of the ALE and the posterior row slightly procurved. The ratio of AME.ALE.PME.PLE. = 6.16.13.14. AME separated from each other by a distance equal to 3/6 of the diameter of an AME. PME separated from each other by 11/6 and from the PLE by 8/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 37.30. Height of the clypeus equal to 16/6 of the diameter of an AME.

Sternum Slightly wider than long. Anterior margin straight, lateral margins gently undulate. Posterior projection sharp, separating coxae 4 by a distance equal to one half of the width of a coxa.

Maxillae Lateral margins straight and parallel. Anterior margin evenly curved. Twice as long as wide.

Labium Notched at the base. Lateral margins straight and slightly convergent. Anterior margin indented.



Figs. 27-30 *Orepukia sorenseni* n.sp. Fig. 27 Tibial processes of male palp. Fig. 28 Ventral view of male palp. Fig. 29 Epigynum. Fig. 30 Internal genitalia.

Chelicerae Length of the chelicerae equal to 3/8 of the length of the carapace. Both pro- and retromargins with two teeth.

Palp Tibial processes and bulb as in Figs. 27-28.

Legs 4123. Spines: First leg. Femur, d.0.1.1.1. p.0.0.0.1. r.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.r.0.1.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.1.1.1. r.0.0.1. Metatarsus, v.2.2.1. p.r.1.1.2. Third leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.1.1.1. r.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p.r.1.1.2. d.0.1.0. Fourth leg. Femur, d.0.1.1.1. p.r.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.r.1.1.1. d.0.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.1.1.2. d.0.1.0. Trichobothria. Metatarsus and Tarsus, 4. Tibiae. First leg. 1.1.2.2.2.1.1.1. Second leg. 1.2.2.2.2.1.1. Third leg. 2.2.1.2.1. Fourth leg. 2.2.1.1.1.1. Tarsal organ subdistal. Super claws with from 10-11 teeth. Inferior claw with four teeth of which the basal tooth is small.

Abdomen The anterior pair of spinnerets are stouter than the posterior pair. Colulus three times as wide as long. Spiracle distinct and situated at the base of the spinnerets.

FEMALE

Measurements

	Carapace		length 3.20		width 2.00	
	Abdomen		length 3.20		width 2.29	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.18	1.00	1.88	1.78	1.10	7.94
2	2.00	1.00	1.53	1.60	0.98	7.11
3	1.93	0.88	1.35	1.65	0.88	6.69
4	2.38	1.00	1.98	2.20	1.08	8.64
Palp	1.20	0.55	0.65		1.03	3.43

Similar in most characters to the male. Abdomen with from 3-4 pale chevrons on the postero-dorsal surface. Palp. Spines, Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, 0.1.2. d.1.1. Tibia with 7 trichobothria arranged 1.1.2.2.1. Claw with 6 teeth. The epigynum and internal genitalia are shown in Figs. 29, 30.

Types Holotype male. Allotype female. Southland. Orepuki, under logs, 9.V.49, R. R. Forster (Otago Museum).

Records Southland. Tuatapere, under logs, 1.vi.1963, B. J. Marples. Tuatapere, 19.v.1962, B. J. Marples. Tuatapere, xii.1952, B. J. Marples. Longwood Rg, 1,000 ft, 17.v.1948, J. H. Sorensen. Orepuki, 9.v.1949, R.R.F. Orepuki, under logs, 9.v.1949, R.R.F. Orepuki, 1.ix.1948, J. H. Sorensen. Bluff, under logs, 27.i.1946, R.R.F. Stewart Is, Halfmoon Bay, 20.iv.1947, O. Allan. Fiordland. Manapouri, beech forest, 6.vii.1952, B. J. Marples. Eglinton Valley, under logs, 30.v.1963, B. J. Marples.

Orepukia riparia n.sp.

Figs. 26, 31-34

FEMALE

Measurements

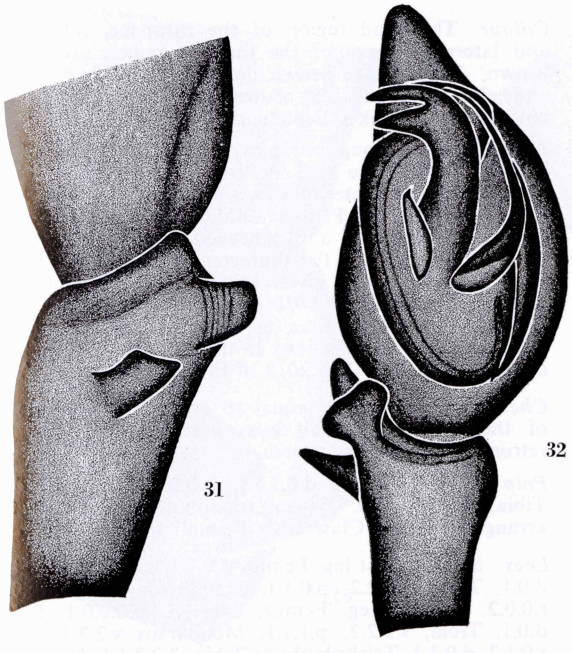
	Carapace		length 4.20		width 2.80	
	Abdomen		length 4.00		width 2.10	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.10	1.30	2.70	2.35	1.45	10.90
2	2.90	1.30	2.25	2.25	1.40	10.10
3	2.75	1.25	2.00	2.35	1.25	9.60
4	3.50	1.35	2.80	3.10	1.50	12.25
Palp	1.70	0.70	0.80		1.25	4.45

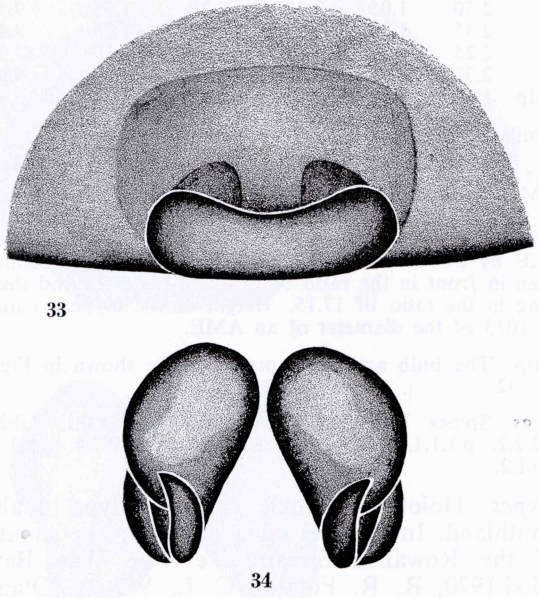
Colour The carapace pattern is shown in Fig. 26. The legs have dark bands. The abdomen is shaded black with a pale area on each antero-lateral surface. There is a pair of pale spots on the anterior dorsal surface followed by three pairs of oblique bars or chevrons. Ventral surface pale with the spinnerets surrounded by dark shading.

Eyes The group occupies about half of the width of the head. From in front the anterior row is slightly procurved and the posterior row procurved. From above the anterior row is almost straight and the posterior row procurved. Ratio of AME.ALE.PME.PLE = 4.8.8.8. AME separated from each other by a distance equal 3/4 and from the ALE 2/4 of the diameter of an AME. M.O.Q. wider behind than in front in the ratio of 21.11 and wider behind than long in the ratio of 21.19. Height of clypeus equal to 15/4 of the diameter of an AME.

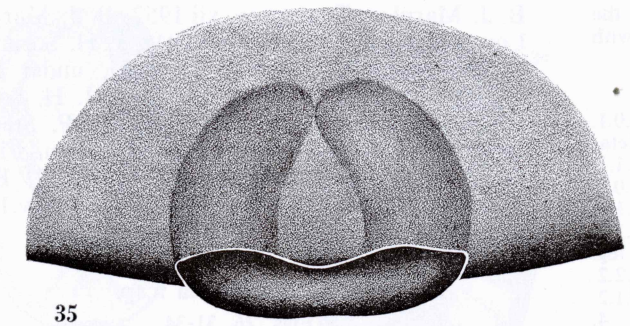
Sternum, maxillae, labium and *chelicera* are typical.

Palp Spines typical. Trichobothria. Tibia, 1.2.2.2.2.2.2. Tarsus, 0. Tarsal organ very small.

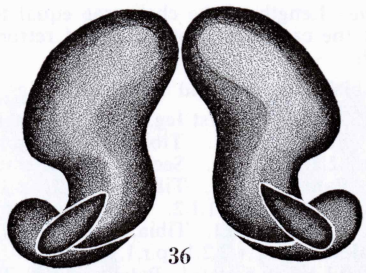




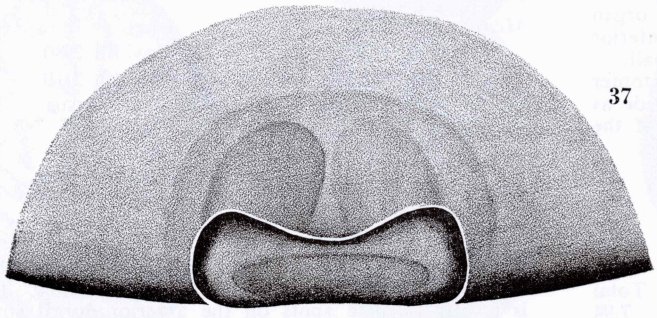
Figs. 31-34 *Orepukia riparia* n.sp. Fig. 31 Tibial processes of male palp. Fig. 32 Ventral view of male palp. Fig. 33 Epigynum. Fig. 34 Internal genitalia.



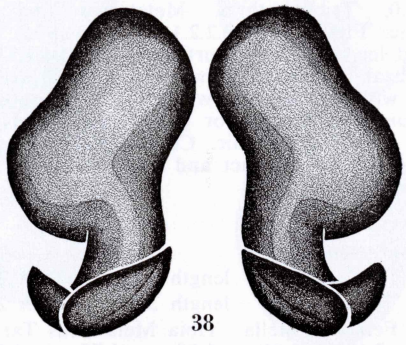
35



36



37



38

Figs. 35-36 *Orepukia tonga* n.sp. Fig. 35 Epigynum. Fig. 36 Internal genitalia. Figs. 37-38 *Orepukia egmontensis* n.sp. Fig. 37 Epigynum. Fig. 38 Internal genitalia.

Legs Spines: First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.0.1.1. r.0. d.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.1. Trichobothria. Tibia, each row with six. Metatarsus and tarsus, 7. Superior claws with thirteen teeth and inferior with four.

Abdomen Epigynum and internal genitalia are shown in Figs. 33, 34.

MALE

Measurements

Carapace	length 3.10		width 2.35	
Abdomen	length 2.70		width 1.90	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.50	1.05	2.20	2.20	1.35	9.30
2	2.35	1.00	1.85	2.00	1.25	8.45
3	2.25	1.00	1.60	2.00	1.10	7.95
4	2.70	1.05	2.20	2.60	1.35	9.90
Palp	1.60	0.60	0.50		1.10	3.80

Similar in appearance to the female.

Eyes The ratio of AME.ALE.PME.PLE = 3.7.7.7. The AME are separated from each other by a distance equal to their diameter and 2/3 of that distance from the ALE. The PME are separated from each other and from the PLE by the diameter of an AME. MOQ wider behind than in front in the ratio of 17.9 and wider behind than long in the ratio of 17.15. Height of the clypeus equal to 10/3 of the diameter of an AME.

Palp The bulb and tibial processes are shown in Figs. 31, 32.

Legs Spines First leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.2.2.2. p.1.1.1. r.0.1.1. d.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2.

Types Holotype female and allotype male. Southland. In crevices on a cliff near the mouth of the Rowallan Stream, Te Wae Wae Bay, 25.xi.1970, R. R. Forster, C. L. Wilton (Otago Museum).

Record Southland. Same locality as types, 11.iii.1970, C.L.W.

Orepukia tonga n.sp.

Figs. 35-36

FEMALE

Measurements

Carapace	length 3.00		width 2.12	
Abdomen	length 2.80		width 2.20	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.30	1.00	1.98	1.75	1.08	8.11
2	2.13	0.90	1.65	1.55	1.00	7.23
3	2.00	0.95	1.40	1.70	0.93	6.98
4	2.50	1.00	2.13	2.25	1.08	8.96
Palp	1.13	0.50	0.58		1.00	3.21

Colour The head region of the carapace, the median and lateral surfaces of the thoracic region are reddish brown. Legs orange brown darkening distally. Sternum and chelicerae reddish brown. Abdomen brown but covered with black reticulate markings.

Eyes The eyegroup occupies 3/5 of the width of the head. From above and in front the anterior row is straight and the posterior row is slightly procurved. Ratio of AME.ALE.PME.PLE = 8.15.13.15. AME separated from each other by a distance equal to 6/8 and from the ALE by 3/8 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other and from the PLE by 10/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 12.8 and wider behind than long in the ratio of 12.11. Height of the clypeus equal to 20/8 of the diameter of an AME.

Chelicerae Chelicerae equal to one third of the length of the carapace. Small boss present. Both pro and retromargins with two teeth.

Palp Spines Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.0. Seven trichobothria on the tibia arranged 2.2.2.1. Claw with 5 small teeth.

Legs Spines: First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus v.2.2.1. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.1. Trichobothria: Tibia, 2.2.2.1.1. Metatarsus, 5. Tarsus, 3. Superior claws with from 9-10 teeth. Inferior claw with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 35, 36. Anterior pair of spinnerets slightly larger than the posterior pair.

Type Holotype female. Chateau Tongariro, 20.xii.1948, R. R. Forster (Otago Museum).

Orepukia egmontensis n.sp.

Figs. 37-38

FEMALE

Measurements

Carapace	length 2.50	width 1.55	
Abdomen	length 2.75	width 1.90	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.80	0.75	1.50	1.40	0.85	6.30
2	1.60	0.70	1.25	1.20	0.80	5.55
3	1.50	0.65	1.05	1.30	0.70	5.20
4	1.95	0.75	1.55	1.65	0.90	6.80
Palp	0.90	0.40	0.45		0.80	2.55

Colour Pattern of carapace clearly defined. There is a pale narrow band extending from a point between the PME to the median fovea. The legs have bands. The prolateral surfaces on each side of the abdomen are pale and the median dorsal pattern is composed of two pairs of oblique bars followed by two chevrons.

Eyes The group occupies 3/5 of the width of the head. The curvature of the rows is typical. Ratio of AME. ALE.PME.PLE = 3.5.5.5. AME separated from each other by a distance equal to 2/3 and from the ALE by 1/3 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 14.8 and wider behind than long in the ratio of 14.13. Height of clypeus equal to 8/3 of the diameter of an AME.

Palp Spines: Femur, d.1.1.1. p.1.3.0. Patella, 1.1. Tibia, d.1.1. p.1.2. Trichobothria: Tibia, 2.2.2.2. Claw with five teeth.

Legs Spines: First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles 2.1. p.0.1.1. r.0.0.1. Trichobothria. Tibia, pro-row, 5, retro-row, 5. Metatarsus and tarsus, 5. Subdistal tarsal organ. Superior claws with nine teeth and the inferior claw with three teeth.

Abdomen Epigynum and internal genitalia as in Figs. 37, 38.

Type Holotype female. Taranaki. Mt Egmont, above Stratford House, 3,505 ft, 21.iii.1969, R. R. Forster, C. L. Wilton (Otago Museum).

Record Same locality as holotype, 22.ii.1967, C.L.W.

Orepukia similis n.sp.

Figs. 39-41

MALE

Measurements

Carapace	length 2.90	width 2.20	
Abdomen	length 3.00	width 1.90	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.30	0.95	2.05	2.00	1.40	8.70
2	2.15	0.90	1.65	1.80	1.20	7.70
3	2.05	0.90	1.40	1.80	1.05	7.20
4	2.50	1.00	2.15	2.50	1.20	9.35
Palp	1.10	0.40	0.40		1.20	3.10

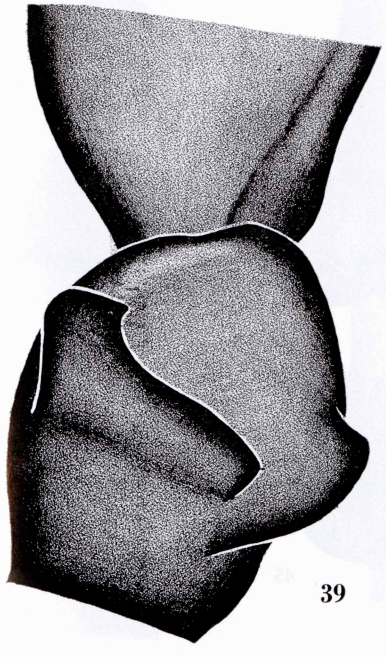
Colour Pattern of the carapace well defined but the abdominal pattern indistinct. There is a sclerotized patch on the anterior surface of the abdomen.

Eyes The group occupies 4/7 of the width of the head. The curvature of the rows is typical. Ratio of AME. ALE.PME.PLE = 2.5.5.5. AME separated from each other by a distance equal to the diameter of an AME and from the ALE by 1/2 the diameter of an AME. Laterals narrowly separated. PME separated from each other by 3/2 and from the PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 13.6 and wider behind than long in the ratio of 13.12. Height of clypeus equal to 10/2 of the diameter of an AME.

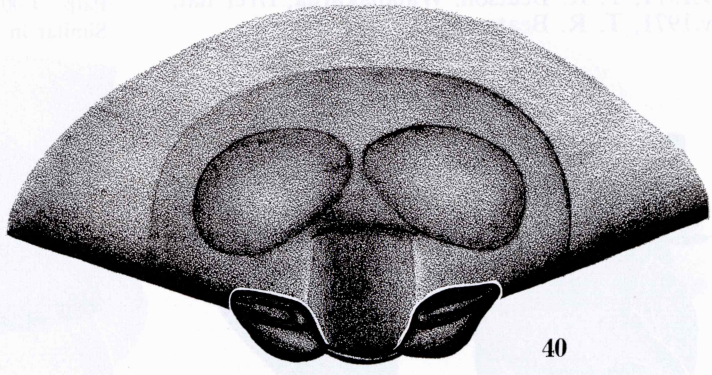
Chelicerae Typical.

Palp Bulb typical and tibial processes as in Fig. 39.

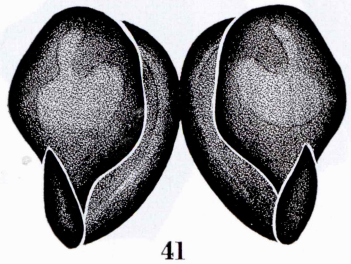
Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.1.1.1. r.0.1.1. d.1.1 bristles. Metatarsus, v.2.2.1. p,r.0.0.2. Second leg is the same as



39



40



41

Figs. 39-41 *Orepukia similis* n.sp. Fig. 39 Tibial processes of male palp. Fig. 40 Epigynum. Fig. 41 Internal genitalia.

the first leg. Superior claws with eight teeth, inferior claw with three.

FEMALE

Measurements

	Carapace	length 2.50		width 1.65	
	Abdomen	length 2.90		width 1.90	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.75	0.80	1.50	1.40	0.90	6.35
2	1.60	0.75	1.25	1.25	0.80	5.65
3	1.60	0.70	1.00	1.25	0.75	5.30
4	2.00	0.75	1.60	1.75	1.00	7.10
Palp	0.90	0.40	0.50		0.85	2.65

Similar in colour and appearance to the male but without a sclerotic patch on the abdomen.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.0.0.1. r.0. d.1.1. bristles. Metatarus, v.2.2.1. p.0.1.2. r.0.0.1. Trichobothria. First leg. Tibia, 2.2.2.2.2. Metatarsus, 6. Tarsus, 5.

Abdomen The epigynum and internal genitalia are shown in Figs. 30, 31.

Types Holotype male, allotype female. Otago. Macraes Flat (S43-0931), pitfall, 13.iv.1968, C. L. Wilton (Otago Museum).

Records Otago. Macraes Flat (S43-0931), pitfall, C.L.W. 15.xi.1967, 9.ii.1968, 14.iii.1968, 18.iv.1968, 23.v.1968, 11.vi.1968, 30.vii.1968, 12.ix.1968, 12.xii.1968, 16.ii.1969, 17.iv.1968. Patearoa (S33-7644), pitfall, 24.ix.1967, 24.iii.1968, C.L.W. Hyde (33-9343), pitfall, C.L.W. 16.viii.1967, 8.v.1968, 15.viii.1968, 29.ix.1968, 20.xi.1968, 6.iii.1968, 16.v.1969. North of Tiroiti (33-9447), pitfall, 30.vii.1968, C.L.W. Mt Misery Rd, Waianakarua, 22.v.1971, T. R. Beatson. Waianakarua, river flat, 23.v.1971, T. R. Beatson.

Orepukia orophila n.sp.

Figs. 42-45

FEMALE

Measurements

	Carapace	length 3.15		width 2.05	
	Abdomen	length 4.10		width 2.60	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.05	1.00	1.80	1.55	1.15	7.55
2	1.90	0.95	1.45	1.45	1.05	6.80
3	1.80	0.90	1.30	1.65	0.95	6.60
4	2.50	1.00	2.00	2.25	1.20	8.95
Palp	1.10	0.50	0.60		1.00	3.20

Colour Carapace pattern not strongly marked but pattern of the abdomen typical.

Eyes Occupying slightly over half the width of the head. Curvature of the rows typical. Ratio of AME. ALE.PME.PLE = 3.6.6.6. AME separated from each other and from the ALE by a distance equal to 2/3 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.8 and wider behind than long in the ratio of 16.14. Height of clypeus equal to 10/3 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella. 1.1. Tibia, d.1.1. p.1.2. r.0. Trichobothria. Tibia, 2.2.2.2. Tarsus, 0.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.0.0.1. r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p.0.1.1. r.0.0.1. Second leg. Tibia, v.2.2.2. p.1.1.1. r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.1. Trichobothria. First leg. Tibia, 2.2.2.2.2.2. Metatarsus and tarsus, 6. Superior claws with eight teeth, inferior claw with three.

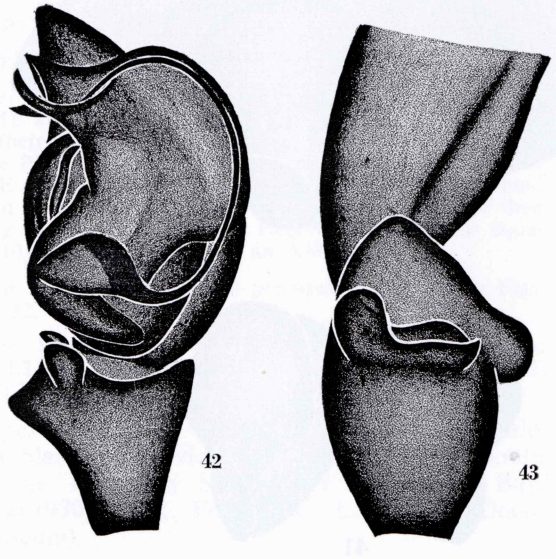
Abdomen The epigynum and internal genitalia are shown in Figs. 44, 45.

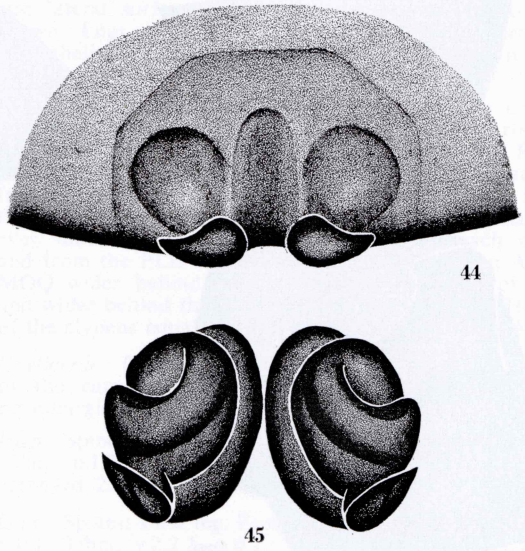
MALE

Measurements

	Carapace	length 2.60		width 2.00	
	Abdomen	length 2.52		width 1.98	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.90	0.85	1.60	1.50	1.00	6.85
2	1.75	0.80	1.35	1.35	1.00	6.25
3	1.70	0.80	1.15	1.50	0.90	6.05
4	2.10	0.95	1.80	2.00	1.00	7.85
Palp	1.00	0.35	0.35		1.00	2.70

Similar in colour and appearance to the female.





Figs. 42-45 *Orepukia orophila* n.sp. Fig. 42 Ventral view of male palp. Fig. 43 Tibial processes of male palp. Fig. 44 Epigynum. Fig. 45 Internal genitalia.

Eyes Ratio of AME.ALE.PME.PLE = 2.5.5.5. AME separated from each other by their diameter and from the ALE by half that distance. PME separated from each other by 3/2 and from PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 13.6 and wider behind than long in the ratio of 13.11. Height of clypeus equal to 9/2 of the diameter of an AME.

Palp The bulb and tibial processes are shown in Figs. 42, 43.

Legs Spination similar to that of the female.

Types Holotype female. Otago. Pitfall trap, N.6, one mile south of Summit Rock Ski Hut 4,500 ft, herbfield, Rock and Pillar Range, 14.ix.1969, J. Child. Allotype male. Same locality, pitfall trap N.5, among cushion vegetation, 1.iii.1970, J. Child (Otago Museum).

Orepukia pallida n.sp.

Figs. 23, 46-49

MALE

Measurements

Carapace	length 3.25		width 2.40		
Abdomen	length 3.25		width 2.19		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.75	1.20	2.45	2.35	1.50	10.25
2	2.30	1.15	2.00	2.10	1.20	8.75
3	2.20	0.85	1.55	2.00	1.15	7.75
4	2.80	1.00	2.40	2.65	1.35	10.20
Palp	1.60	0.70	0.70		1.15	4.15

Colour The carapace is pale cream with pale yellow brown shading. The medium region of the cervical groove on each side is shaded black (Fig. 23). The legs are generally pale without black bands except on the ventral surfaces of the femora. The abdomen is pale but well flecked with black. The anterior dorsal surface has the appearance of being sclerotized but the integument yields to slight pressure.

Eyes The group occupies 7/13 of the width of the head. Curvature typical. Ratio of AME.ALE.PME.PLE = 3.6.5.6. AME separated from each other and from the ALE by a distance equal to 2/3 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 5/3 and from the PLE by 4/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 15.8 and wider behind than long in the ratio of 15.13. Height of clypeus equal to 12/3 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Tibia, a group of 4 to 5 on the inner surface. Trichobothria. Tibia, a prorow of 1.1.1.1.1. and retro 1.1.1.1. The bulb and the tibial processes are shown in Figs. 46, 47.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.1.1.1. r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Second leg. Metatarsus, v.2.2. and distal subwhorl of 5, p.1.2. r.0.1. Trichobothria. First leg. Tibia, pro 5, retro 6. Metatarsus and tarsus, 6. Superior claws with 10, inferior claw 4 teeth.

FEMALE

Measurements

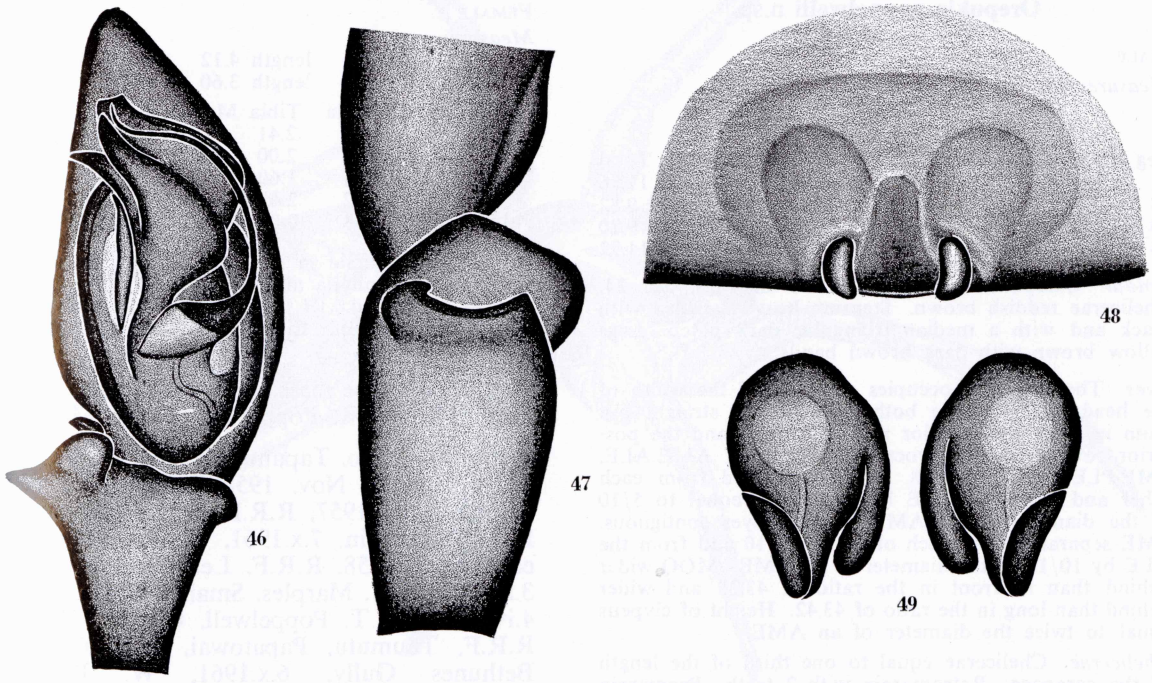
Carapace	length 3.25		width 2.25		
Abdomen	length 4.20		width 2.90		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.25	1.00	1.90	1.75	1.10	8.00
2	2.05	0.85	1.55	1.60	1.00	7.05
3	1.90	0.95	1.25	1.55	0.95	6.60
4	2.50	1.00	2.00	2.15	1.10	8.75
Palp	1.25	0.55	0.70		1.00	3.50

Similar in colour and appearance to the male except that the sclerotized area on the anterior of the abdomen is lacking. The eyes resemble those of the male but the clypeus is slightly narrower.

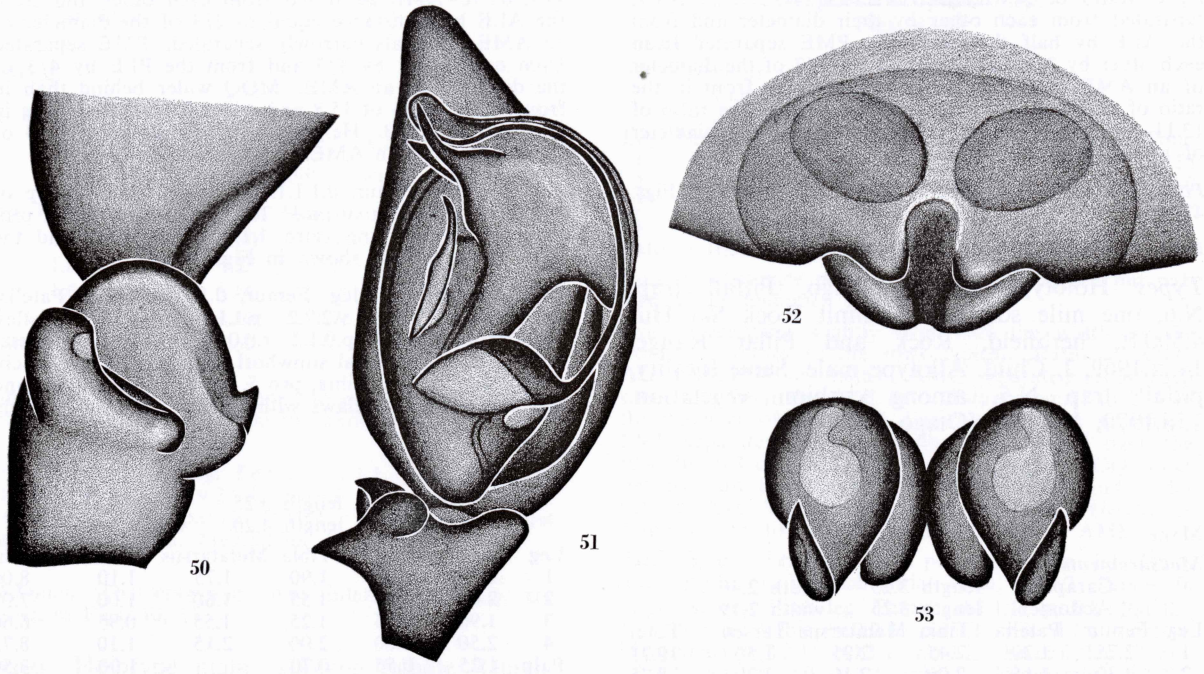
Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.0. p.2.2. r.0. Trichobothria. Tibia, 2.2.2.2.2. Tarsus, 0. Claw with six teeth.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 0.1. bristle. Tibia, v.2.2.2. p.0.0.1. r.0. d.1.1 bristles. Metatarsus, v.2.1.1. p.1.1.2. r.0.0.1.

Abdomen The epigynum and internal genitalia are shown in Figs. 48, 49.



Figs. 46-49 *Orepukia pallida* n.sp. Fig. 46 Ventral view of male palp. Fig. 47 Tibial processes of male palp. Fig. 48 Epigynum. Fig. 49 Internal genitalia.



Figs. 50-53 *Orepukia poppelwelli* n.sp. Fig. 50 Tibial processes of male palp. Fig. 51 Ventral view of male palp. Fig. 52 Epigynum. Fig. 53 Internal genitalia.

Types Holotype male. Capburn Hill, Tiroiti (S33-9447), pitfall, 12.ix.1968, C. L. Wilton (Otago Museum).

Records Maniototo Rd. near Patearoa, pitfall, C.L.W. 15.v.1967, 11.vi.1968, 9.vii.1968. Capburn Hill, Tiroiti, pitfall, C.L.W. 11.vi.1968, 15.viii.-1968, 26.vi.1968, Waipori Gorge, 8.xii.1966, R.R.F., C.L.W.

Orepukia poppelwelli n.sp.

Figs. 22, 24, 50-53

MALE

Measurements

	Carapace		length 4.00		width 3.00	
	Abdomen		length 2.80		width 2.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.20	1.24	2.60	2.68	1.84	11.56
2	2.80	1.24	2.00	2.34	1.44	9.82
3	2.60	1.16	1.84	2.24	1.36	9.20
4	3.20	1.24	2.76	3.08	1.44	11.72

Colour Carapace and abdomen as in Figs. 22, 24. Chelicerae reddish brown. Sternum heavily shaded with black and with a median triangular dark patch. Legs yellow brown with dark brown bands.

Eyes The eyegroup occupies one half of the width of the head. From above both rows appear straight but from in front the anterior row is straight and the posterior row is slightly procurved. Ratio of AME.ALE. PME.PLE = 10.18.15.18. AME separated from each other and from the ALE by a distance equal to 5/10 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 13/10 and from the ALE by 10/10 of the diameter of an AME. MOQ wider behind than in front in the ratio of 43.25 and wider behind than long in the ratio of 43.42. Height of clypeus equal to twice the diameter of an AME.

Chelicerae Chelicerae equal to one third of the length of the carapace. Retromargin with 2 teeth. Promargin with 9 minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp As shown in Figs. 50, 51.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p.1.1.1. r.0.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Trichobothria. Tibia, 1.2.2.2.1. Metatarsus, 6. Tarsus, 7. Superior claws with 8 teeth. Inferior claws with 4 teeth.

Abdomen The posterior pair of spinnerets are slightly smaller than the anterior pair.

FEMALE

Measurements

	Carapace		length 4.12		width 3.02	
	Abdomen		length 3.60		width 2.64	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.00	1.60	2.41	2.41	1.60	11.02
2	2.72	1.20	2.00	2.00	1.48	9.40
3	2.40	1.21	1.60	2.00	1.08	8.29
4	3.20	1.32	2.48	3.00	1.48	11.48
Palp	1.40	0.68	0.80		1.24	4.12

Similar to the male in most characters. The epigynum and internal genitalia are shown in Figs. 52, 53. Palp. Spines, Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p,d.1.1. Claw with 8 teeth. Eight trichobothria on the tibia arranged 1.1.2.2.2.

Types Holotype male. Allotype female, Dunedin, May 1961, W. T. Poppelwell (Otago Museum).

Records Otago. Tapanui, vi.1961, W. T. Poppelwell. Tapanui, Nov. 1958, R.R.F. Dunedin, in garden, Nov. 1957, R.R.F. Dunedin, Nov. 1963, R.R.F. Dunedin, 7.x.1961, W. Poppelwell. Dunedin, Nov. 1958, R.R.F. Leith Saddle, ex bush, 3.iv.1952, B. J. Marples. Smaill's Beach, Dunedin, 4.iv.1961, W. T. Poppelwell. Clinton, 30.ix.1959, R.R.F. Taumutu, Papatowai, 11.i.1961, R.R.F. Bethunes Gully, 6.x.1961, W. Poppelwell. Balclutha Plant Reserve, 20.xi.1958, R.R.F. Balclutha Plant Reserve, 29.ix.1959, R.R.F.

Opoho Bush, Dunedin, pitfall, C.L.W., 10-17.xi.1970, 17-23.xi.1970, 23-30.xi.1970, 30.xi.-1970-7.xii.1970, 7-14.xii.1970, 14-21.xii.1970, 21-28.xii.1970, 28.xii.1970-4.i.1971, 4-11.i.1971, 11-18.i.1971, 18-25.i.1971, 25-31.i.1971, 1-8.ii.1971, March-April 1971. Flagstaff, Dunedin, pitfall, C.L.W., 29.xi.1970-6.xii.1970, 20-27.xii.1970, 27.xii.1970-3.i.1971, 3-10.i.1971, 10-17.i.1971, 17-23.i.1971, 23-31.i.1971, 21.ii.1971-7.iii.1971, 7-21.ii.1971, 21.iii.1971, 3.iv.1971, 11-29.iv.1971, 17.v.1971. Portobello, 1.ix.1966, M. Forster. Portobello, 21.v.1967, C.L.W., R. W. Hutton. Frazer's Gully, Dunedin, 13.v.1967, 17.v.1969, C.L.W., R.W.H. St Clair, Dunedin, 27.xii.1965, 22.viii.-1966, R.R.F. St Clair, Dunedin, with eggsac, 18.x.1970, R.R.F. Dunedin, May 1961, W. T. Poppelwell. Sullivan's Dam, 12.x.1966, 1.xi.1966, R.R.F. Saddle Hill, 14.ii.1968, R.R.F., C.L.W. Opoho Bush, Dunedin, leafmould, 13.v.1970, R.R.F., C.L.W. Leith Saddle, pitfall, 4.vi.1967, 8.vii.1967, 25.viii.1967, R.R.F.

Orepukia catlinsensis n.sp.

Figs. 54-58

FEMALE

Measurements

Carapace length 3.25 width 2.60
Abdomen length 4.60 width 3.10

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.75	1.20	2.25	2.10	1.40	9.70
2	2.50	1.15	1.85	1.90	1.30	8.70
3	2.40	1.10	1.60	2.10	1.10	8.30
4	2.95	1.20	2.40	2.70	1.15	10.40
Palp	1.50	0.65	0.75		1.35	4.25

Colour As in Fig. 54.

Eyes The group occupies about half the width of the head. Curvature of the rows typical. Ratio of AME. ALE.PME.PLE = 4.7.6.7. AME separated from each other by a distance equal to 2/4 and from the ALE by 1/4 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 5/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 17.10 and as long as wide behind. Height of the clypeus equal to 14/4 of the diameter of an AME.

Palp Typical. Claw with five teeth.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.0.0.1. r.0. Metatarsus, v.2.2.1. p.0.1.1. r.0.0.1. Superior claws with nine teeth, inferior claw with three teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 57, 58.

MALE

Measurements

Carapace length 3.25 width 2.30
Abdomen length 2.75 width 1.90

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.70	1.10	2.25	2.25	1.45	9.78
2	2.50	1.10	1.90	2.05	1.30	8.85
3	2.35	1.00	1.60	2.20	1.10	8.25
4	2.90	1.10	2.40	2.80	1.35	10.55
Palp	1.40	0.50	0.50		1.25	3.65

Similar in general appearance to the female. The eyes resemble those of the female except that the clypeus is slightly narrower.

Palp The bulb and tibial processes are shown in Figs. 55, 56.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.2. p.1.1.1. r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2.

Types Holotype female and allotype male. Otago. Catlins Highway near Puketiro Road junction, 31.viii.1966, R. R. Forster (Otago Museum).

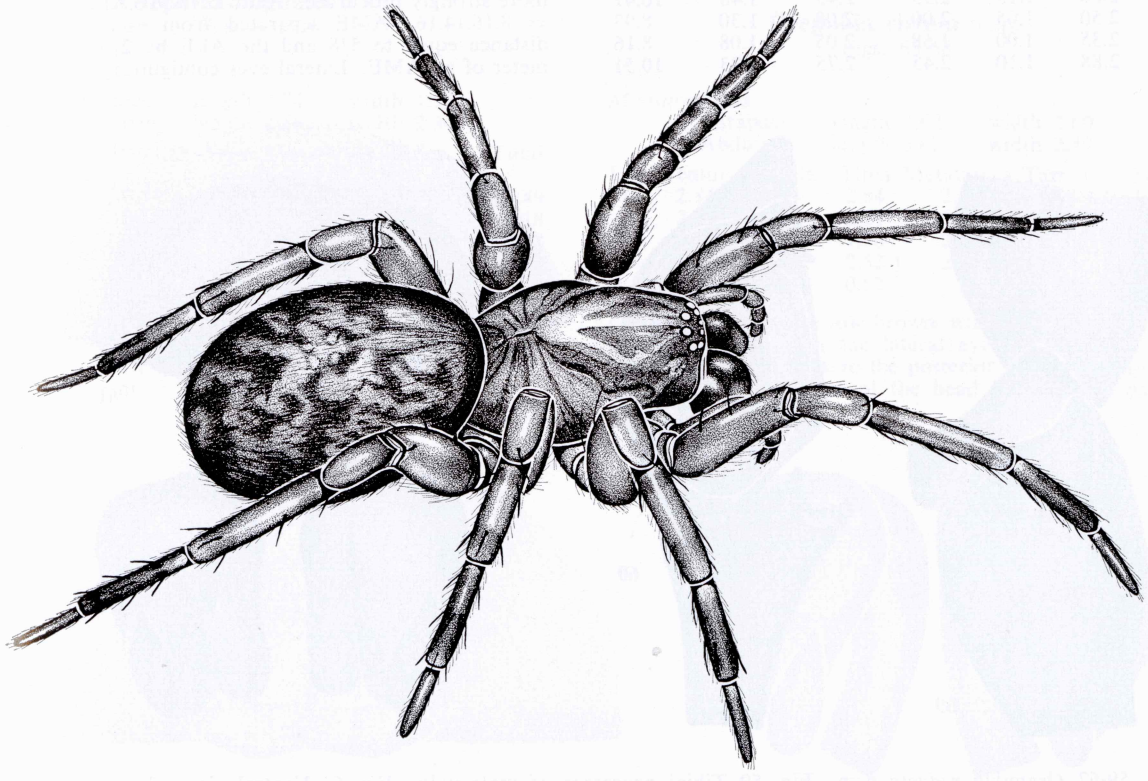


Fig. 54 *Orepukia catlinsensis* n.sp. female.

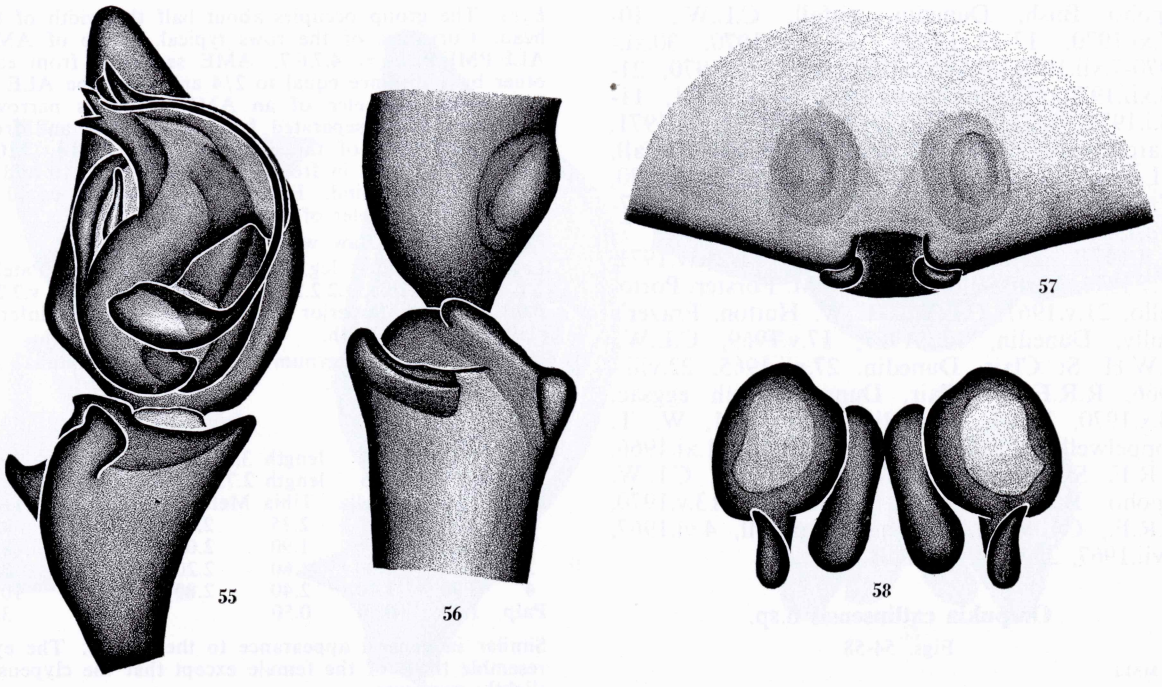


Fig. 55-58 *Orepukia catlinsensis* n.sp. Fig. 55 Ventral view of male palp. Fig. 56 Tibial processes of male palp. Fig. 57 Epigynum. Fig. 58 Internal genitalia.

Orepukia redacta n.sp.

Figs. 59-62

MALE

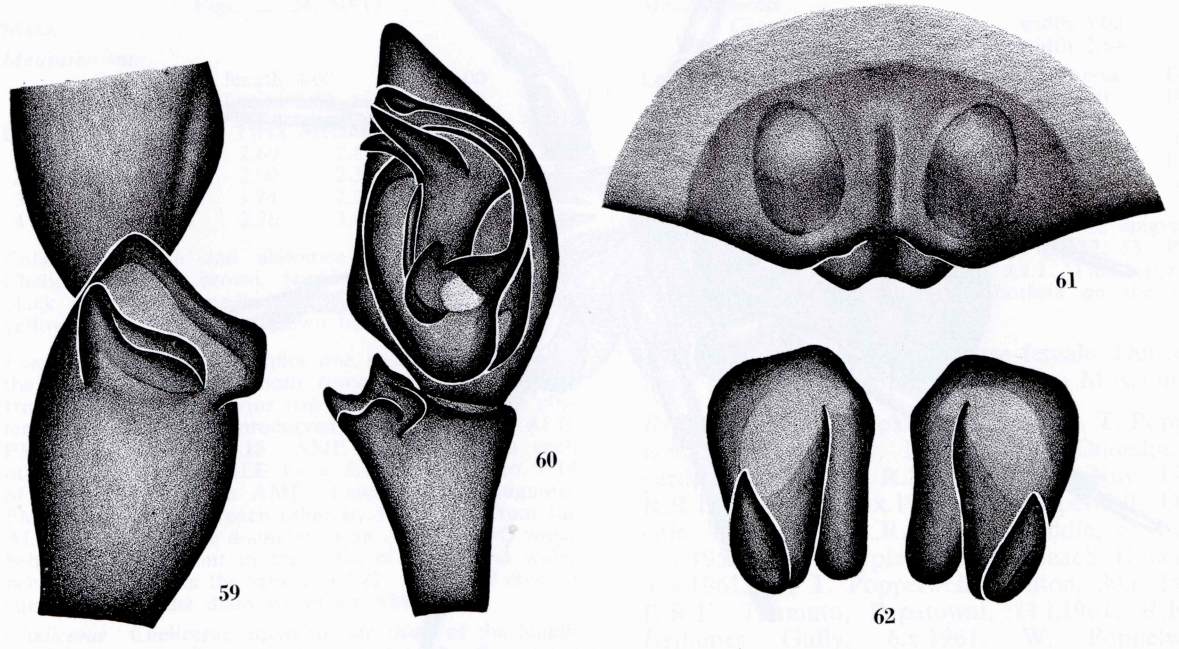
Measurements

Carapace length 3.20 width 2.40
Abdomen length 3.00 width 2.00

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.88	1.15	2.53	2.43	1.48	10.47
2	2.50	1.05	2.00	2.08	1.30	8.93
3	2.35	1.00	1.68	2.05	1.08	8.16
4	2.88	1.10	2.45	2.75	1.33	10.51

Colour Carapace orange brown with faint bands running back from the lateral eyes to merge at the fovea. Legs pale yellow brown. Chelicerae reddish brown. Abdomen cream mottled with brown.

Eyes The eyegroup occupies one half of the width of the head. From above the anterior row is straight and the posterior row is slightly procurved. From in front the anterior row is slightly procurved and the posterior row more strongly procurved. Ratio of AME.ALE.PME.PLE = 8.16.14.16. AME separated from each other by a distance equal to 5/8 and the ALE by 2/8 of the diameter of an AME. Lateral eyes contiguous. PME separ-



Figs. 59-62 *Orepukia redacta* n.sp. Fig. 59 Tibial processes of male palp. Fig. 60 Ventral view of male palp. Fig. 61 Epigynum. Fig. 62 Internal genitalia.

ated from each other by 10/8 and from the PLE by 7/8 of the diameter of an AME. The height of the clypeus is equal to 19/8 of the diameter of an AME.

Chelicerae Retromargin with two teeth. Promargin with 5 minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.
Palp As shown in Figs. 59, 60.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.0.0.2. r.0.1.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Trichobothria. First leg. Tibia, 1.1.1.2. Metatarsus and tarsus, 7. Other legs. Tibia, 1.2.2.2.2.1.1. Metatarsus, 6. Tarsus, 7. Superior claws with 7 teeth. Inferior claw with 3 teeth.

FEMALE
Measurements

	Carapace		length 2.60		width 1.86	
	Abdomen		length 2.80		width 2.12	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.14	0.95	1.89	1.64	1.07	7.69
2	1.89	0.95	1.45	1.51	0.95	6.75
3	1.76	0.88	1.26	1.51	0.82	6.23
4	2.21	0.95	1.89	2.14	1.07	8.26
Palp	0.95	0.44	0.57		0.95	2.92

Similar to the male. The epigynum and internal genitalia are shown in Figs. 61, 62. Palp. Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. r.1.1. Tibia with eight trichobothria arranged 1.1.2.2.2. Claw with 6 teeth.

Types Holotype male, allotype female. Canterbury. Hoods Bush, Malvern Hills, 3.v.1953, R. R. Forster (Otago Museum).

Records Canterbury. Sth Branch of Hurunui R., 12.v.1952, J. S. Dugdale. Kakahu, 30.iv.1950, R.R.F. Glentui Gorge, 17.ii.1950, I. W. T. Munro. Lake Taylor, 14.iv.1952, R.R.F. Alford Forest, 12.ix.1954, R.R.F.

Orepukia dugdalei n.sp.

Figs. 63, 64

FEMALE
Measurements

	Carapace		length 2.74		width 1.95	
	Abdomen		length 2.86		width 2.34	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	lacking					
2	1.58	0.75	1.20	1.18	0.78	5.49
3	1.50	0.75	1.05	1.23	0.65	5.18
4	1.93	0.75	1.63	1.73	0.88	6.92
Palp	0.88	0.40	0.50		0.75	2.53

Colour Carapace yellowish brown with a black band extending back from each lateral eye to merge at the fovea. Chelicerae orange-brown. Legs yellow, darkening to orange brown distally. Abdomen mottled with grey black and cream.

Carapace The width of the head is equal to 7/10 of the width of the thoracic region. The lateral margins of the head are straight and parallel and extend down 3/10 of the length of the carapace.

Eyes The eyegroup occupies 3/5 of the width of the head. From above both rows are straight but from in front the anterior row is straight and the posterior row is slightly procurved. The ratio of AME.ALE.PME.PLE = 5.11.12.12. AME separated from each other by a distance equal to 6/5 and from the ALE by 3/5 of the diameter of an AME. Lateral eyes are separated by a distance equal to 3/5 of the diameter of an AME. PME separated from each other by 8/5 and from the PLE by 7/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 30.16 and wider behind than long in the ratio of 30.27. The height of the clypeus is equal to three times the diameter of an AME.

Chelicerae Chelicerae equal to 5/12 of the length of the carapace. Boss prominent. Retromargin with two teeth. Promargin with 5 minute teeth, followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella. d.1.1. Tibia, p.1.2. d.1.1. Tibia with 7 trichobothria arranged 1.2.2.2. Claw with 7 teeth.

Legs Spines. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.1. p.0.1.0. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.2. d.0.1.0. Trichobothria. Tibia, 1.2.2.1.1. Metatarsus and tarsus, 5. Tarsal organ subdistal. Superior claws with from 8-9 teeth. Inferior claw with 3 long teeth.

Abdomen The epigynum and internal genitalia as in Figs. 63, 64. Posterior pair of spinnerets much more slender than the anterior pair and somewhat shorter. Colulus large and clothed with hairs.

Type Holotype female. Canterbury, Cass, moss, 23.v.1954, J. S. Dugdale (Otago Museum).

Records Goose Bay, Kaikoura, 2.vi.1952, J. S. Dugdale.

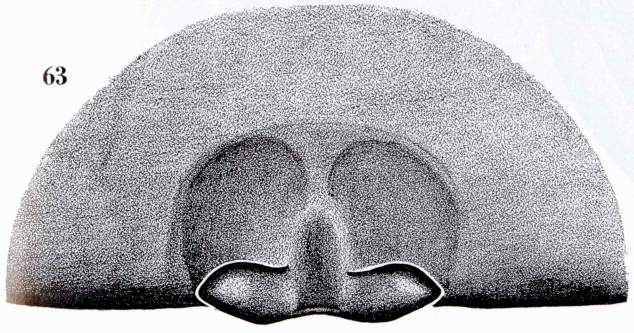
Orepukia virtuta n.sp.

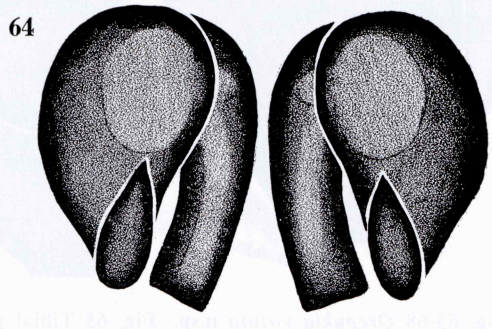
Figs. 65-68

MALE
Measurements

	Carapace		length 3.62		width 2.60	
	Abdomen		length 3.62		width 2.40	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.84	0.95	2.84	2.58	1.58	10.79
2	2.52	1.26	2.21	2.46	1.39	9.84
3	2.52	1.13	1.76	2.39	1.20	9.00
4	2.96	1.26	2.52	2.96	1.39	11.09
Palp	1.28	0.44	0.52		1.42	3.66

Colour Carapace yellow brown, with dark brown bands extending back from the lateral eyes to merge at the fovea and extend back to the posterior margin as a single band. The mid-surface of the head between the bands





Figs. 63-64 *Orepukia dugdalei* n.sp. Fig. 63 Epigynum. Fig. 64 Internal genitalia.

is also shaded with a paler brown. Legs yellow brown, banded with dark brown. Chelicerae reddish brown. Abdomen heavily shaded with black apart from the median dorsal and ventral surfaces.

Eyes The eyegroup is situated on a slightly raised area which overhangs the clypeus and occupies 11/17 of the width of the head. From above and from in front, the anterior row is straight and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 10.14.15.15. AME separated from each other by a distance equal to 7/10 and from the ALE by 5/10 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 15/10 and from the PLE by 11/10 of the diameter of an AME. MOQ wider behind than in front in the ratio of 45.27 and wider behind than long in the ratio of 45.37. Height of the clypeus equal to 15/10 of the diameter of an AME.

Chelicerae Chelicerae equal to one third of the length of the carapace. Retromargin with two teeth. Promargin with 3 minute teeth followed by 2 normal teeth at the base of the carina which extends to the base of the chelicera.

Palp As shown in Figs. 65, 66.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Trichobothria. First and second legs. Tibia, 1.2.2.1. Metatarsus, 5. Tarsus, 6. Third and fourth legs. Tibia, 1.2.1.2.2.2.1. Metatarsus, 5. Tarsus, 6. Superior claws with 8 teeth. Inferior claw with 3 long teeth.

FEMALE

Measurements

	Carapace		length 3.70		width 2.50	
	Abdomen		length 4.50		width 3.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.75	1.20	2.40	2.25	1.20	9.80
2	2.60	1.15	2.00	2.05	1.15	8.95
3	2.45	1.10	1.70	2.10	1.10	8.45
4	3.00	1.20	2.45	2.75	1.25	10.65
Palp	1.30	0.35	0.75		1.40	3.80

Colour The carapace is moderately patterned. The legs are banded and the abdominal dorsal pattern of pale bars and chevrons is rather confined and has a folium-like appearance. The epigynum and internal genitalia are as in Figs. 67, 68. Spination of a first leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.2.2.2. p.1.1.1. r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1.

Types Holotype male. Westland. Franz Josef, 29.iv.1959, R. R. Forster. Allotype female. Westland. Moana, 17.v.1953, C. Sinclair (Otago Museum).

Orepukia rakiura n.sp.

Figs. 69-72

FEMALE

Measurements

	Carapace		length 3.42		width 2.20	
	Abdomen		length 4.00		width 2.80	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.52	1.07	2.08	1.95	1.26	8.88
2	2.27	0.69	1.76	1.83	1.13	7.68
3	2.08	0.88	1.39	1.83	0.95	7.13
4	2.58	1.07	2.14	2.27	1.20	9.26
Palp	1.26	0.57	0.69		1.13	3.65

Colour Carapace and legs orange brown. Chelicerae reddish brown. Abdomen pale orange with dark brown markings which form an indistinct chevron pattern of the postero-dorsal surface.

Eyes The eyegroup is compact and occupies one half of the width of the head. From above and in front the anterior row is straight and the posterior row gently procurved. Ratio of AME.ALE.PME.PLE = 5.15.12.16. AME separated from each other by a distance equal to 4/5 and from the ALE by 5/5 of the diameter of an AME. Lateral eyes separated by a distance equal to 3/5 of the width of an AME. PME separated from each other by 13/5 and from the PLE by 16/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 37.14 and wider behind than long in the ratio of 37.33. Height of clypeus equal to four times the diameter of an AME.

Chelicerae Chelicerae 7/17 of the length of the carapace. Retromargin with 2 teeth. Promargin with 4 minute teeth followed by 2 normal teeth and a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tibia with 7 trichobothria arranged 1.2.2.2. Claw with 6 teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus. v.2.2.2. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.1. p.1.1.1.

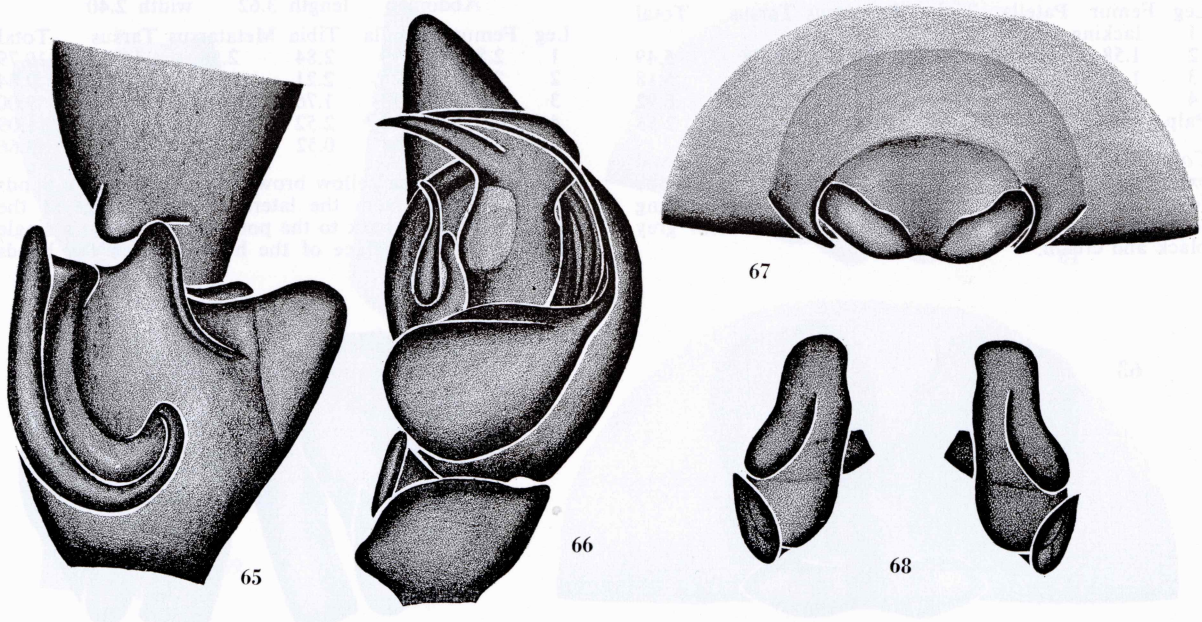
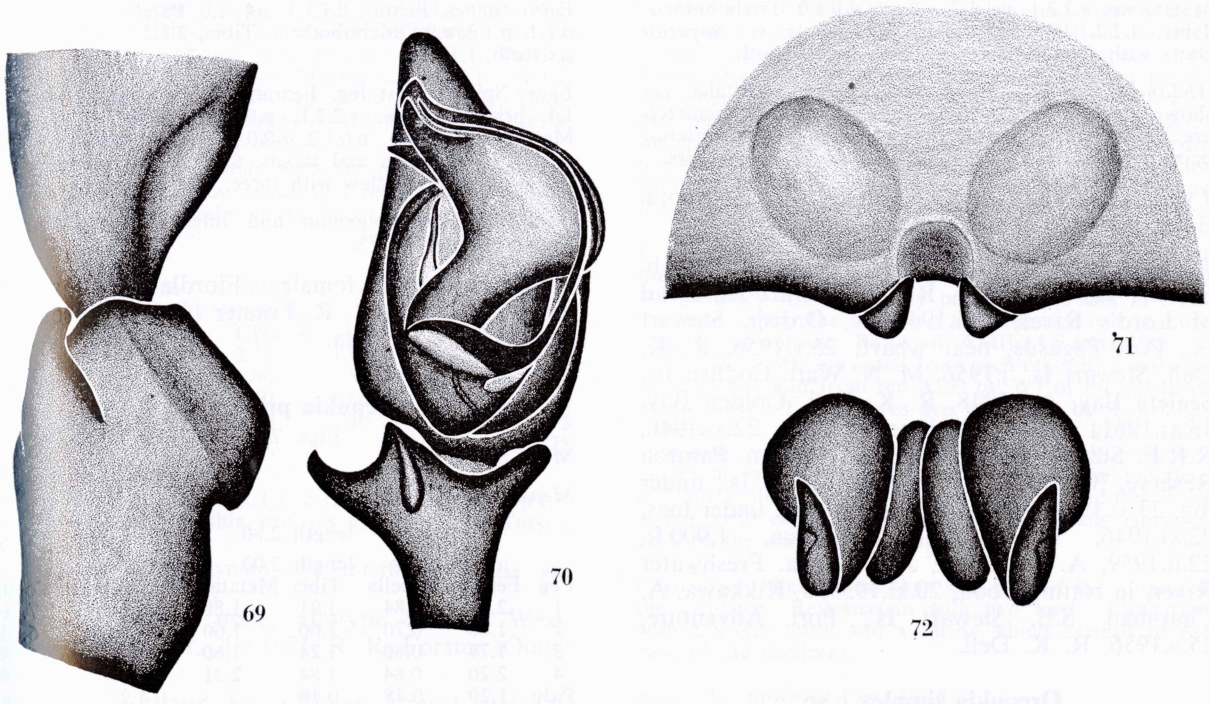


Fig. 65-68 *Orepukia virtuta* n.sp. Fig. 65 Tibial processes of male palp. Fig. 66 Ventral view of male palp. Fig. 67 Epigynum. Fig. 68 Internal genitalia.



Figs. 69-72 *Orepukia rakiura* n.sp. Fig. 69 Tibial processes of male palp. Fig. 70 Ventral view of male palp. Fig. 71 Epigynum. Fig. 72 Internal genitalia.

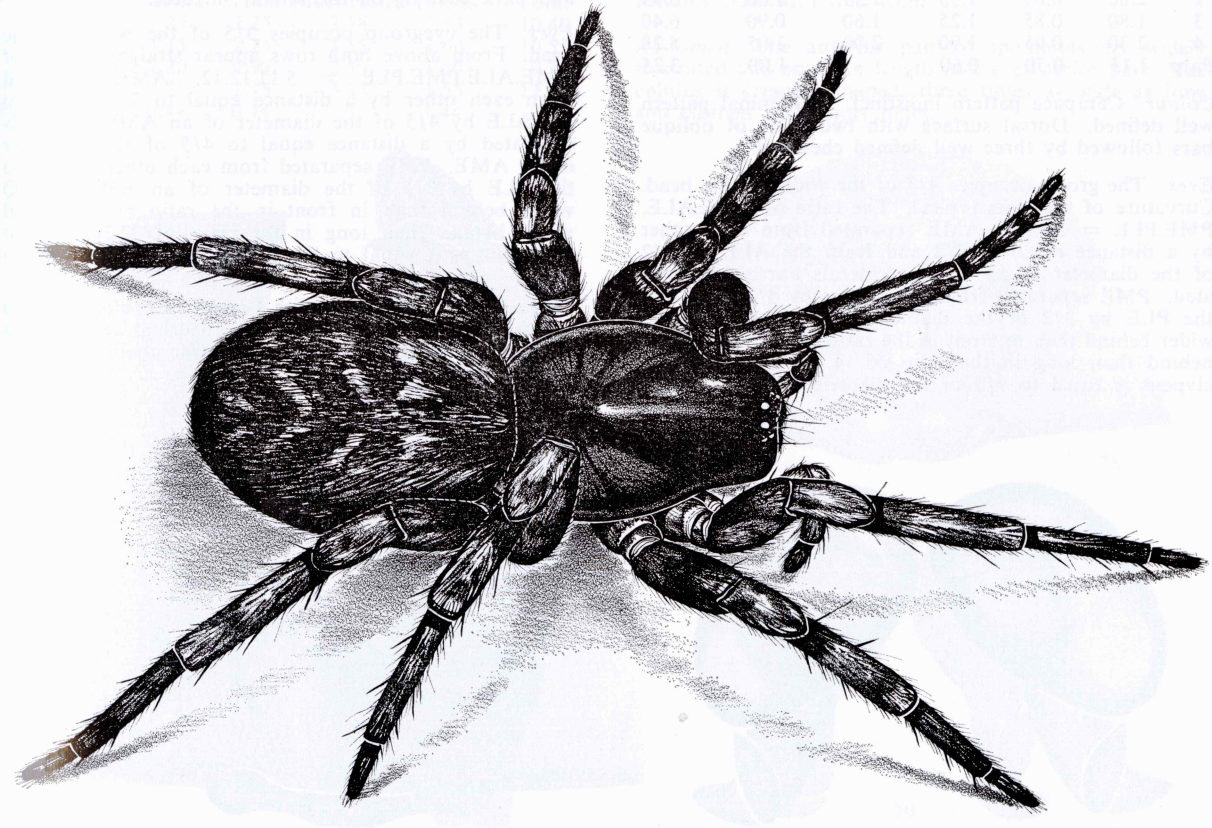


Fig. 73 *Orepuka simplex* n.sp. female.

Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.0. Trichobothria. Tibia, 1.2.2.1.1.1. Metatarsus, 4. Tarsus, 6. Superior claws with 9 teeth. Inferior claws with 4 teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 71, 72. The posterior pair of spinnerets are small, only one half of the length of the anterior pair. The colulus is large and flat, clothed with hairs.

Type Holotype female. Stewart Is. Halfmoon Bay, i.1949, O. Allan (Otago Museum).

Records Stewart Is., 20.xi.1947, O. Allan. Stewart Is., 22.xi.1946, R.R.F. Stewart Is., Head of Lord's River, 6.xi.1960, R. Ordish. Stewart Is., Port Pegasus, near wharf, 25.v.1956, R. K. Dell. Stewart Is., i.1956, M. N. Watt. Codfish Is., Sealers Bay, 4.xi.1948, R. K. Dell. Golden Bay, 15.xi.1961, R.R.F. Halfmoon Bay, 22.xi.1946, R.R.F. Stewart Is., 6.viii.1947, O. Allan. Pararoa Reserve, 30.x.1948, R. K. Dell. Bravo Is., under log, 23.xi.1946, R.R.F. Halfmoon Bay, under logs, 22.xi.1946, R.R.F. Mt Rakeahua, 1,900 ft, 22.ii.1959, A. Chapman, J. Kikkawa. Freshwater River, in rotting wood, 20.xi.1959, J. Kikkawa, A. Chapman. S.E. Stewart Is., Port Adventure, 25.v.1956, R. K. Dell.

Orepukia simplex n.sp.

Figs. 73-75

FEMALE

Measurements

Carapace length 3.00 width 2.00
Abdomen length 3.30 width 2.30

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.25	0.90	2.00	1.80	1.15	8.10
2	2.00	0.85	1.55	1.55	1.00	6.95
3	1.80	0.85	1.25	1.60	0.90	6.40
4	2.30	0.95	1.90	2.00	1.05	8.20
Palp	1.15	0.50	0.60		1.00	3.25

Colour Carapace pattern indistinct. Abdominal pattern well defined. Dorsal surface with two pairs of oblique bars followed by three well defined chevrons.

Eyes The group occupies 4/7 of the width of the head. Curvature of the rows typical. The ratio of AME.ALE. PME.PLE = 2.5.5.5. AME separated from each other by a distance equal to 3/2 and from the ALE by 2/2 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/2 and from the PLE by 3/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 14.7 and wider behind than long in the ratio of 14.12. Height of the clypeus is equal to 9/2 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1.3. r.0. Trichobothria. Tibia, 2.2.2.2. Claw with six teeth.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. bristles. Tibia, v.2.2.1. p.0.1.1. r.0. d.1.1. bristles. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Trichobothria. Tibia, p.5,r.5. Metatarsus and tarsus, 6. Superior claws with ten teeth, inferior claw with three.

Abdomen The epigynum and internal genitalia are shown in Figs. 74, 75.

Type Holotype female. Fiordland. Cascade Creek, 14.i.1971, R. R. Forster (Otago Museum). Paratypes, same data.

Orepukia prina n.sp.

Figs. 76-79

MALE

Measurements

Carapace length 2.80 width 2.00
Abdomen length 3.00 width 2.00

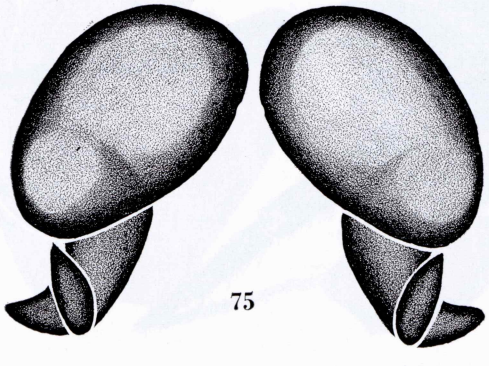
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.16	0.84	1.91	1.80	1.20	7.91
2	1.80	0.70	1.60	1.60	1.04	6.80
3	1.74	0.80	1.24	1.60	1.00	6.38
4	2.20	0.84	1.84	2.31	1.00	8.19
Palp	1.20	0.48	0.40		1.20	3.28

Colour Carapace with brown bands which extend back from the lateral eyes to converge at the fovea and continue as a single median band to the posterior margin. A further band extends around each lateral margin of the thoracic region. Chelicerae reddish brown. Legs yellow brown with faint darker bands. Abdomen cream with four dark brown chevrons on the dorsal surface and dark shading on the lateral surfaces.

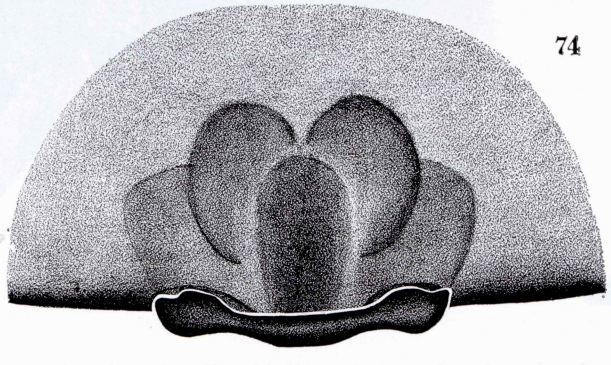
Eyes The eyegroup occupies 3/5 of the width of the head. From above both rows appear straight. Ratio of AME.ALE.PME.PLE = 5.11.12.12. AME separated from each other by a distance equal to 5/5 and from the ALE by 4/5 of the diameter of an AME. Laterals separated by a distance equal to 4/5 of the diameter of an AME. PME separated from each other and from the PLE by 8/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 32.15 and wider behind than long in the ratio of 32.28. Height of the clypeus equal to three times the diameter of an AME.

Chelicerae Retromargin with two teeth. Promargin with five minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp As shown in Figs. 76, 77.



75



74

Figs. 74-75 *Orepukia simplex* n.sp. Fig. 74 Epigynum. Fig. 75 Internal genitalia.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.1. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, v.1.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.2. Trichobothria. First leg. Tibia, 2.1.2.1.1.1. Metatarsus, 4. Tarsus, 5. Superior claws with ten teeth. Inferior claw with three teeth.

Abdomen Anterior and posterior pairs of spinnerets equal in size. Colulus relatively large, rounded behind, with two rows of hairs at the base.

FEMALE

Measurements

	Carapace		length 3.50		width 2.25	
	Abdomen		length 4.00		width 2.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.45	1.10	2.15	1.90	1.30	8.90
2	2.25	1.05	1.80	1.80	1.20	8.10
3	2.10	1.05	1.50	1.80	1.05	7.50
4	2.70	1.20	2.20	2.40	1.25	9.75
Palp	1.35	0.60	0.70		1.10	3.75

Similar to the male.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Tibia, d.1.1. p.1.2. r.0. Trichobothria. Tibia, pro-row 6, retro-row 5. Tarsus, 0.

Abdomen The epigynum and internal genitalia are shown in Figs. 78, 79.

Types Holotype male, allotype female, Westland. Franz Josef, 20.i.1971, R. R. Forster (Otago Museum).

Record Westland. Fox Glacier, August 1950, M. Warren. Franz Josef, 15.iv.1967, R. W. Hutton.

Orepukia nota n.sp.

Figs. 80-83

Measurements

	Carapace		length 3.86		width 2.80	
	Abdomen		length 3.60		width 2.20	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.88	1.25	2.25	2.58	1.53	10.49
2	2.98	1.15	2.25	2.55	1.60	10.53
3	2.75	1.20	1.98	2.50	1.30	9.73
4	3.30	1.25	2.75	3.33	1.55	12.18
Palp	1.48	0.44	0.44		1.44	3.80

Colour Except for conspicuous pale yellow areas extending from behind the eyes to the fovea and on the mid-lateral surfaces of the thoracic region, carapace dark brown. Legs orange brown with greyish brown bands. Abdomen heavily shaded with black brown but with two median pairs of pale spots on the antero-dorsal surface followed behind by three transverse rows of pale patches which form broken chevrons. Ventral surface with a row of pale spots on the lateral surfaces between the epigastric groove and the spinnerets.

Eyes The eyegroup occupies one half of the width of the head. From above the anterior row is straight and the posterior row is slightly procurved. From in front the rows appear the same but the posterior row is more strongly procurved. Ratio of AME.ALE.PME.PLE = 7.16.16.16. AME separated from each other by a distance equal to 6/7 and from the ALE by 3/7 of the diameter of an AME. Lateral eyes are separated by a distance equal to 5/7 of the diameter of an AME. PME separated from each other by 10/7 and from the PLE by 6/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 42.20 and wider behind than long in the ratio of 42.37. Height of the clypeus equal to 22/7 of the diameter of an AME.

Chelicerae Slightly less than one half of the length of the carapace. Retromargin with two teeth. Promargin with a single tooth and a carina which extends to the base of the chelicera.

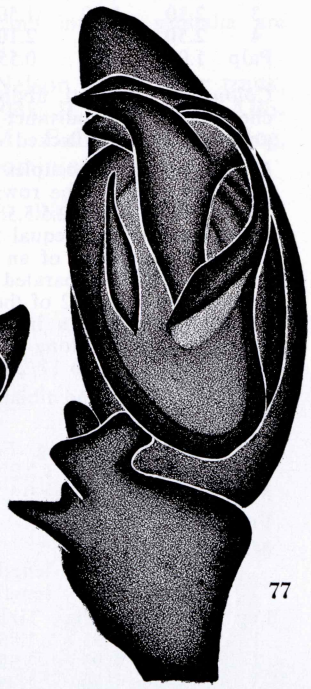
Palp As shown in Figs. 80, 81.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.2. d.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. r.0.0.0.2. Tibia, v.2.2.2. d.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Trichobothria. First leg. Tibia, 1.1.1.1.2.1. Metatarsus and tarsus, 6. Other legs. Tibia, 1.1.2.1.2.1.2. Metatarsus, 5. Tarsus, 7. Superior claws with from nine-ten teeth. Inferior claw with four teeth.

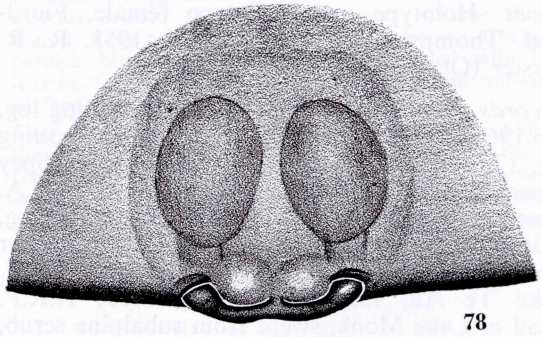
Abdomen The anterior pair of spinnerets are widely separated and equal in length to the posterior pair. The colulus is crescent shaped, three times as wide as long and clothed with short hairs.



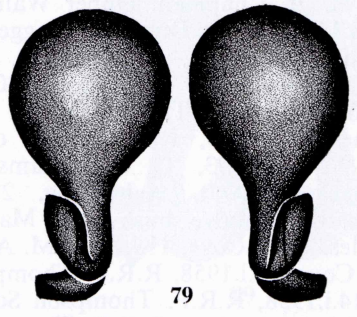
76



77

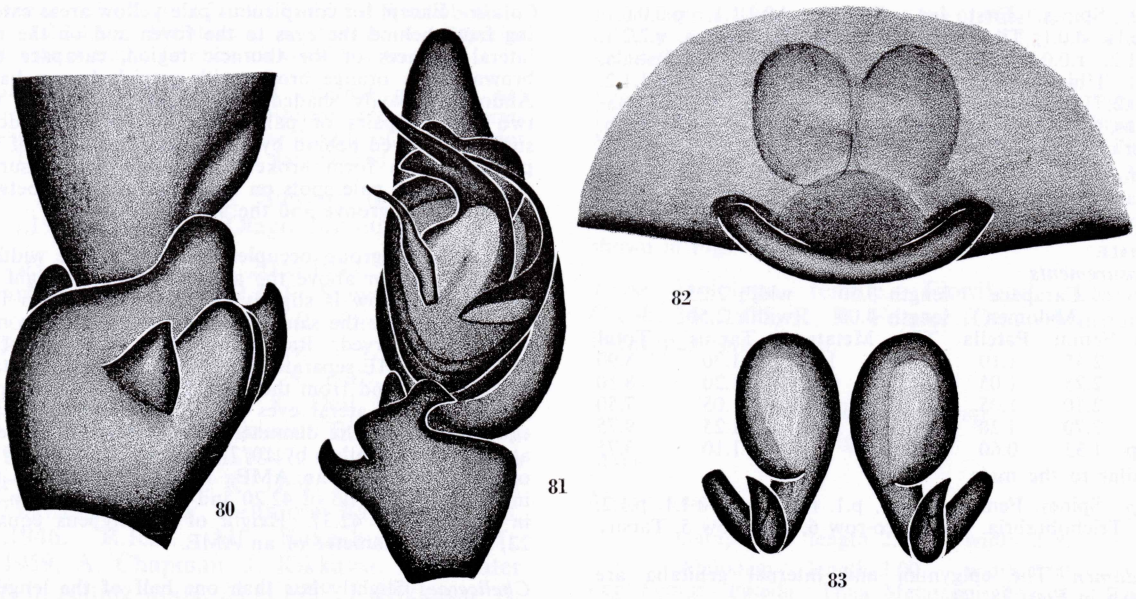


78



79

Figs. 76-79 *Orepukia prina* n.sp. Fig. 76 Tibial processes of male palp. Fig. 77 Ventral view of male palp. Fig. 78 Epigynum. Fig. 79 Internal genitalia.



Figs. 80-83 *Orepukia nota* n.sp. Fg. 80 Tibial processes of male palp. Fig. 81 Ventral view of male palp. Fig. 82 Epigynum. Fig. 83 Internal genitalia.

FEMALE

Measurements

	Carapace		length 3.84		width 2.20	
	Abdomen		length 3.60		width 2.79	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.48	0.88	2.25	2.18	1.25	9.04
2	2.28	1.00	1.63	1.88	1.13	7.92
3	2.20	0.98	1.50	1.95	1.00	7.63
4	2.63	1.00	2.20	2.50	1.18	9.51
Palp	1.35	0.55	0.75		1.18	3.83

Similar to the male. Palp. Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.0. Tibia with 10 trichobothria arranged 1.2.1.2.2.2. The epigynum and internal genitalia are shown in Figs. 82, 83.

Types Holotype male, allotype female, Fiordland. Thompson Sd, sea level, 14.i.1958, R. R. Forster (Otago Museum).

Records Fiordland. Lake Monk, dry rotting log, 17.i.1960, M. A. Chapman. Lake Monk, rotting log, 17.i.1960, M. A. Chapman. Manapouri. Spey River under bark on rotting log, 21.ii.1959, M. A. Chapman. Doubtful Sound, Hall's arm, under log, 16.ii.1959, M. A. Chapman. Lake Te Au, near Sth Arm Lake Te Anau, 12-24.i.1953, R.R.F. Lake Te Au, leafmould, 12-24.i.1953, R.R.F. Head of Lake Monk, swept from subalpine scrub, 3,000 ft, 17.i.1960, M. A. Chapman. Spey River, 21.ii.1959, M. A. Chapman. Upper Waimakariri Valley, viii.1952, J. S. Dugdale. Rugged Burn Valley, West Te Anau, 15-18.ii.1953, G. W. Ramsay. Eglinton Valley under logs, 30.v.1963, R.R.F. Kakapo Ridge, Thompson Sd, 3,400 ft, under stones, 21.i.1955, R.R.F. West of Lake Poteriteri, 12-13.ii.1953, G. W. Ramsay. Mt Arthur Track, 4,000 ft, under log, 22.i.1948, R.R.F. Monowai, above bush line, May 1953, B. J. Marples. Deep Cove, 11.i.1958, M. A. Chapban. Deep Cove, 25.i.1958, R.R.F. Thompson Sd, sea level, 14.i.1958, R.R.F. Thompson Sd, upper camp, 2,800 ft, under logs, R.R.F. Thompson Sd, upper camp, 2,500 ft, moss, 19.i.1958, R.R.F. Caswell Sound, under logs, 18.iv.1949, R.R.F. Takahe Valley, 24.x.1952, E. Percival. Homer Tunnel, under log, 24.iv.1946, R.R.F. Westland, Bruce Bay, 10.i.1954, W. Clark. Fox Glacier, viii.50, M. Warren.

Orepukia florae n.sp.

Figs. 84-87

MALE

Measurements

	Carapace		length 3.00		width 2.25	
	Abdomen		length 2.70		width 2.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.35	1.00	2.00	1.95	1.40	8.70
2	2.15	1.00	1.65	1.80	1.20	7.80
3	2.10	0.90	1.50	1.85	1.05	7.40
4	2.50	1.00	2.10	2.50	1.20	9.30
Palp	1.05	0.35	0.55		1.25	3.20

Colour The dorsal abdominal pattern of bars and chevrons is very indistinct and the whole surface of the abdomen sparsely flecked.

Eyes The group occupies 2/3 of the width of the head. The curvatures of the rows are typical. Ratio of AME. ALE.PME.PLE = 2.5.5.5. AME separated from each other by a distance equal to 3/2 and from the ALE by 2/2 of the diameter of an AME. Lateral eyes narrowly separated. PME separated from each other by 4/2 and from the PLE by 3/2 of the diameter of an AME. MOQ is wider behind than in front in the ratio of 14.7 and wider behind than long in the ratio of 14.12. Height of the clypeus equal to 11/2 of the diameter of an AME.

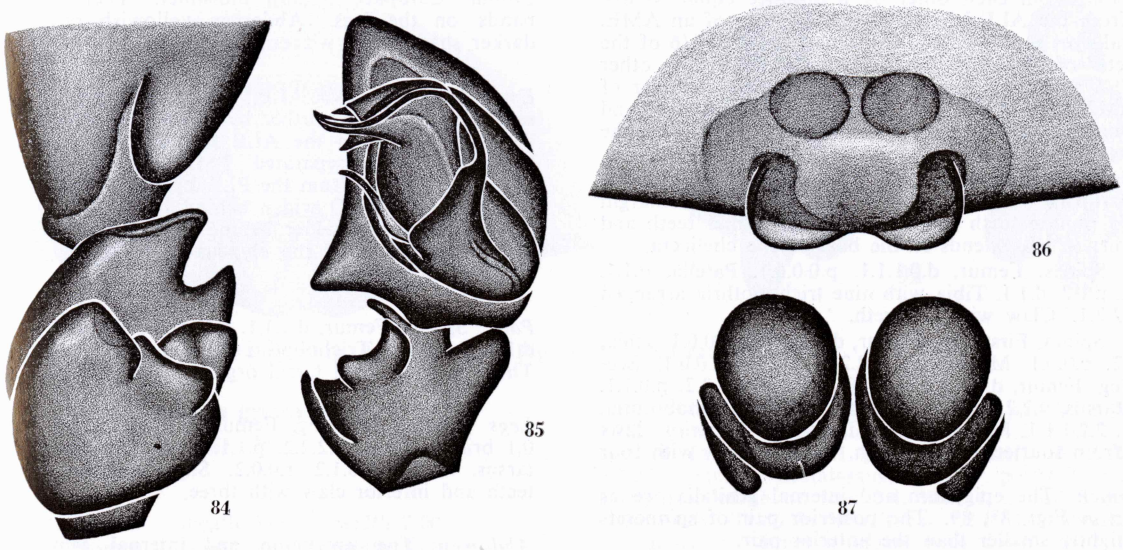
Palp The bulb and tibial processes are shown in Figs. 84, 85.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1 bristles. Tibia, v.2.2.1. p.1.1.1. r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p,r.0.1.2.

FEMALE

Measurements

	Carapace		length 3.05		width 2.00	
	Abdomen		length 3.40		width 2.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.20	0.95	1.85	1.70	1.15	7.85
2	2.00	0.95	1.55	1.55	1.00	7.05
3	1.95	0.80	1.35	1.60	0.90	6.60
4	2.35	0.95	2.00	2.30	1.10	8.70
Palp	1.05	0.45	0.60		1.10	3.20



Figs. 84-87 *Orepukia florae* n.sp. Fig. 84 Tibial processes of male palp. Fig. 85 Ventral view of male palp. Fig. 86 Epigynum. Fig. 87 Internal genitalia.

Colour Similar in appearance to the male.
Eyes The ratio of AME.ALE.PME.PLE = 3.6.6.6. AME separated from each other by a distance equal to their diameter and 2/3 of that distance from the ALE. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ is wider behind that in front in the ratio of 14.9 and wider behind than long in the ratio of 14.13. Height of the clypeus 11/3 of the diameter of an AME.

Palp Spine typical. Trichobothria. Tibia, 2.2.2.2. Claw with five teeth.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1 bristles. Tibia, v.2.2.2. p,r.0. d.1.1 bristles. Metatarsus, v.2.2.1. p.0.1.1. r.0.01 Superior claws with ten teeth and inferior claw with four

Abdomen The epigynum and internal genitalia are shown in Figs. 86, 87.

Types Holotype male. Nelson. Mt Arthur track, 3,500 ft, under log, 22.i.1948, R. R. Forster. Allotype female. Nelson. Mt Balloon, under log, 26.i.1948, R. K. Dell (Dominion Museum).

Records There were two males in the vial with the allotype female.

Orepukia insula n.sp.

Figs. 88-89

FEMALE

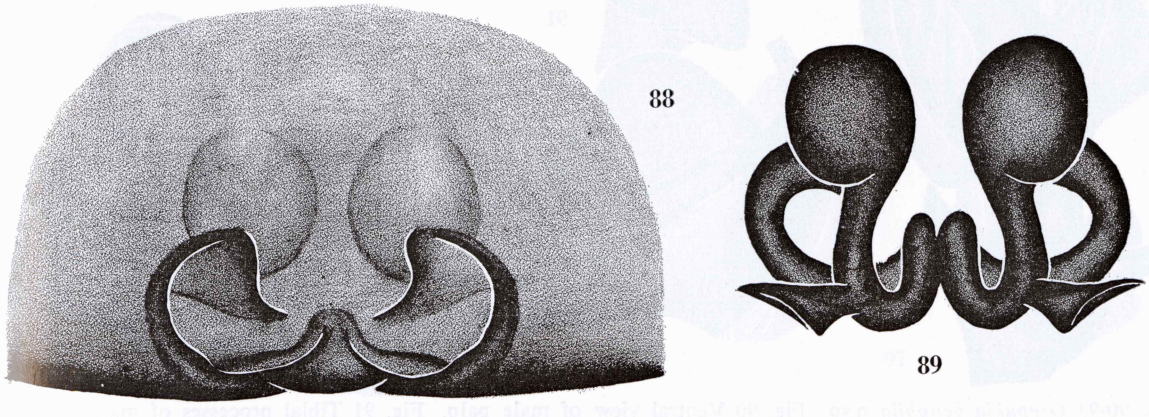
Measurements

Carapace length 3.45 width 2.40
Abdomen length 2.80 width 1.82

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.65	1.03	2.25	2.15	1.38	9.46
2	2.50	1.10	1.88	2.00	1.18	8.66
3	2.30	1.08	1.55	2.05	1.03	8.01
4	2.78	1.18	2.28	2.58	1.25	10.07
Palp	1.38	0.63	0.73		1.23	3.97

Colour Carapace orange brown with dark brown bands extending back from behind the lateral eyes to merge at the fovea and extend back as a single median band towards the posterior margin. A further brown band extends around the lateral margins of the thoracic region. Legs yellow with dark brown bands. Chelicerae reddish brown. Abdomen heavily shaded with black leaving four pairs of pale spots down the mid-dorsal surface.

Eyes The eyegroup occupies one half of the width of the head. The eyes are ringed with black and the area enclosed by the eyes is also dark. From above the anterior row is straight and the posterior row slightly procurved. From in front both rows appear procurved. Ratio of AME.ALE.PME.PLE = 6.15.15.17. AME



Figs. 88-89 *Orepukia insula* n.sp. Fig. 88 Epigynum. Fig. 89 Internal genitalia.

separated from each other by a distance equal to 8/6 and from the ALE by 4/6 of the diameter of an AME. Lateral eyes separated by a distance equal to 4/6 of the diameter of an AME. PME separated from each other by 10/6 and from the PLE by 13/6 of the diameter of an AME. MOQ twice as wide behind as in front and as long. Height of the clypeus equal to 11/6 of the diameter of an AME.

Chelicerae Chelicerae equal to 8/15 of the length of the carapace. Retromargin with two teeth. Promargin with 5 minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tibia with nine trichobothria arranged 1.1.2.2.2.1. Claw with six teeth.

Legs Spines. First Leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.2. p.0.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.2. d.0.1.0. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 3. Tarsus, 7. Superior claws with from fourteen-fifteen teeth. Inferior claw with four teeth.

Abdomen The epigynum and internal genitalia are as shown in Figs. 88, 89. The posterior pair of spinnerets are slightly smaller than the anterior pair.

Type Holotype female, S.W. Stewart Is. Solomon Is., 25.vi.1955, R. K. Dell, B. A. Holloway (Dominion Museum).

Records Same locality as type, 24.v.1956, R. K. Dell.

Orepukia geophila n.sp.

Figs. 90-93

FEMALE

Measurements

Carapace length 3.15 width 2.10
Abdomen length 3.00 width 2.20

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.35	1.00	2.10	1.90	1.00	8.35
2	2.15	0.95	1.70	1.70	1.00	7.50
3	2.00	0.90	1.45	1.75	0.85	6.95
4	2.60	1.00	2.10	2.35	1.05	9.10
Palp	1.15	0.50	0.70		1.10	3.45

Colour Carapace pattern indistinct. There are dark bands on the legs. Abdomen yellowish brown with darker shading but without pattern.

Eyes Ratio of AME.ALE.PME.PLE = 3.6.6.7. AME separated from each other by a distance equal to their diameter and from the ALE by 2/3 of that distance. Laterals narrowly separated. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.9 and wider behind than long in the ratio of 16.13. Height of the clypeus equal to 10/3 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1.2. r.0. Trichobothria. Tibia, 2.2.2.2.2. Tarsus, 0. There is a subdistal tarsal organ. Claw with nine teeth.

Legs Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 0.1 bristle. Tibia, v.2.2.2. p.1.1.1. r.0. d.1 bristle. Metatarsus, v.2.2.0. p.0.1.2. r.0.0.2. Superior claws with ten teeth and inferior claw with three.

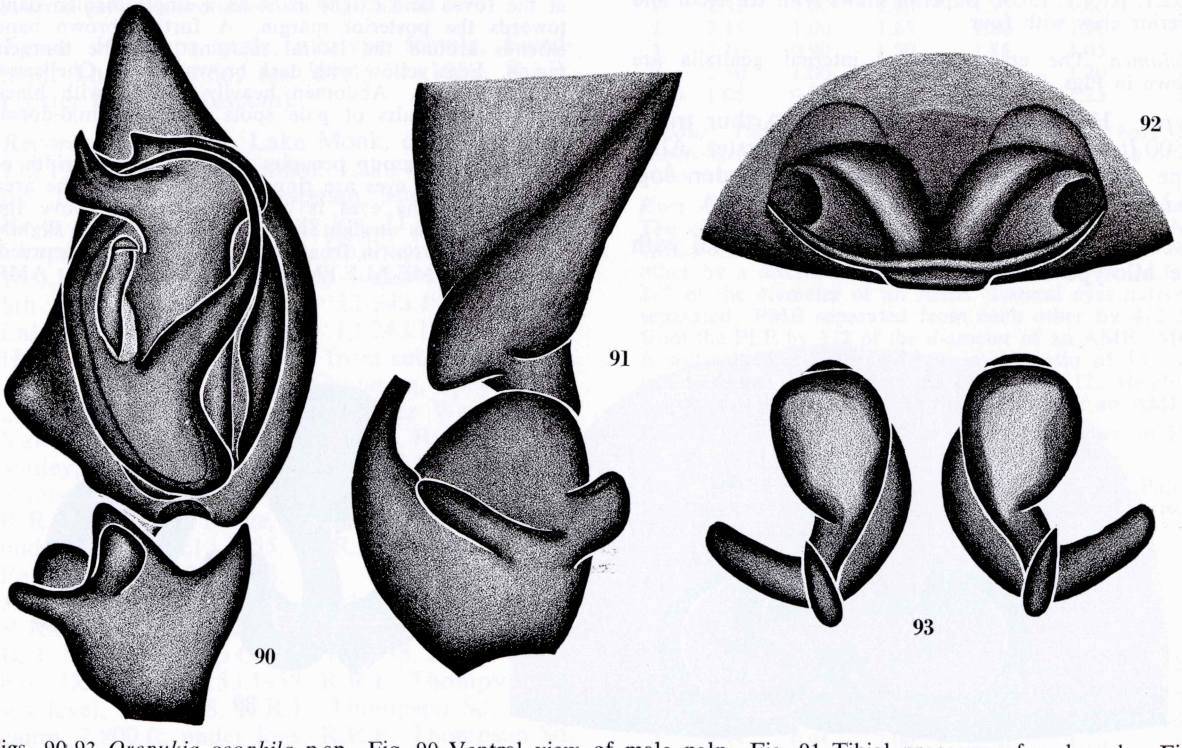
Abdomen The epigynum and internal genitalia are shown in Figs. 92, 93.

MALE

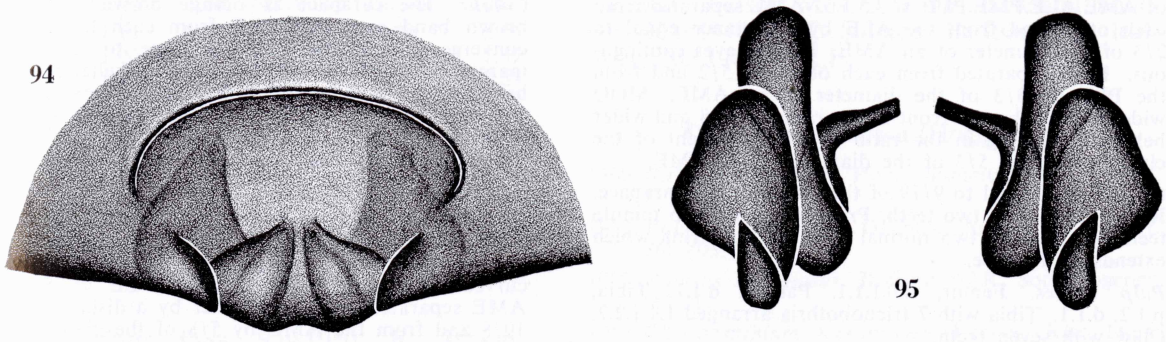
The only male specimen available has been dried and is shrivelled. The palp is shown in Figs. 90, 91.

Type Holotype female. Wairarapa. From beneath clods of clay at the foot of a bank, Mangareia, Masterton, October 1957, C. L. Wilton. Allotype male. Kiriwhakapapa, 6.iii.1966, C. L. Wilton (Otago Museum).

Records Mangareia, Masterton, 25.vii.1945, C.L.W. Turanganui, Wairarapa, July 1948, A. C. O'Connor.



Figs. 90-93 *Orepukia geophila* n.sp. Fig. 90 Ventral view of male palp. Fig. 91 Tibial processes of male palp. Fig. 92 Epigynum. Fig. 93 Internal genitalia.



Figs. 94-95 *Orepukia grisea* n.sp. Fig. 94 Epigynum. Fig. 95 Internal genitalia.

Orepukia grisea n.sp.

Figs. 94-95

FEMALE

Measurements

Carapace	length 3.00		width 2.00	
Abdomen	length 3.60		width 3.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	0.95	1.80	1.60	0.75	7.20
2	1.85	0.88	1.33	1.38	0.65	6.09
3	1.65	0.80	1.08	1.30	0.65	5.48
4	2.25	0.88	1.68	1.83	0.75	7.39
Palp	1.00	0.48	0.50		0.80	2.78

Colour Carapace pale brown with prominent reddish brown bands extending from the anterior corners to the fovea where they merge to form a single broad median band which continues back to the posterior margin. Chelicerae reddish brown. Legs yellow brown with reddish brown bands. Abdomen cream with indistinct pale brown markings.

Eyes Eyegroup compact occupying one half of the width of the head. From above both rows are straight but from in front both rows are slightly procurved. Ratio of AME.ALE.PME.PLE = 5.13.10.13. AME separated from each other by a distance equal to 8/5 and from the ALE by 5/5 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 10/5 and from the PLE by 7/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 30.18 and wider behind than long in the ratio of 30.25. Height of the clypeus equal to 11/5 of the diameter of an AME.

Chelicerae Chelicerae equal to 7/15 of the length of the carapace. Retromargin with two teeth. Promargin with five minute teeth followed by two normal teeth and a carina which extends to the base.

Palp Spines. Femur, d.0.1.1.1. p.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tibia with eight trichobothria arranged 2.2.2.2. Claw with four teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus, v.2.2.1. p,r.0.0.2. d.1.1.0. Metatarsal comb on legs 2-4, with 4, 8 and 5 bristles respectively. Trichobothria. Tibia, 1.2.1.2.2.1. Metatarsus, 6. Tarsus, 5. Superior claws with from 10-12 teeth. Inferior claw with two small teeth.

Abdomen The epigynum and internal genitalia are as in Figs. 94, 95. The posterior pair of spinnerets are only slightly smaller than the anterior pair.

Type Holotype female, Canterbury. Akaroa, 4.x.1949, R. R. Forster (Canterbury Museum).

Orepukia tanea n.sp.

Figs. 96-97

FEMALE

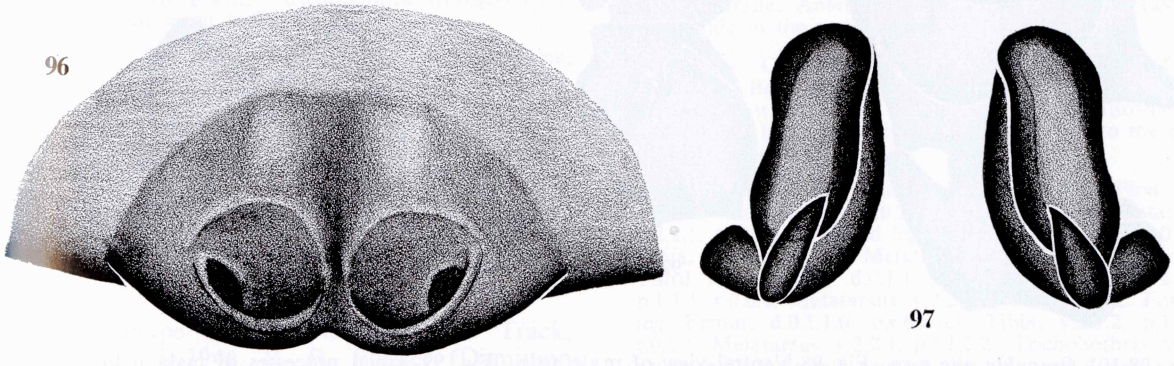
Measurements

Carapace	length 3.80		width 2.64	
Abdomen	length 4.00		width 2.40	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.04	1.20	2.71	2.64	1.40	10.99
2	2.80	1.20	2.40	2.48	1.40	10.28
3	2.80	1.20	2.00	2.48	1.24	9.72
4	3.28	1.28	2.80	3.24	1.40	12.00
Palp	1.51	0.56	0.84		1.32	4.23

Colour Carapace orange-brown with a dark brown band extending back from each lateral eye to merge at the fovea and continue back as a median band to the posterior margin at the scute. Chelicerae and sternum reddish brown. Legs orange brown with dark bands. Abdomen shaded with black but with pale areas on the antero-dorsal and ventral surfaces. There are four small chevrons on the postero-dorsal surface.

Eyes The eyegroup occupies 5/9 of the width of the head. From above and in front the anterior row is straight and the posterior row is gently procurved. Ratio



Figs. 96-97 *Orepukia tanea* n.sp. Fig. 96 Epigynum. Fig. 97 Internal genitalia.

of AME.ALE.PME.PLE = 3.5.5.5. AME separated from each other and from the ALE by a distance equal to 2/3 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 5/2 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 15.8 and wider behind than long in the ratio of 15.13. Height of the clypeus equal to 5/3 of the diameter of an AME.

Chelicerae Equal to 9/19 of the length of the carapace. Retromargin with two teeth. Promargin with two minute teeth followed by two normal teeth and a carina which extends to the base.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tibia with 7 trichobothria arranged 1.1.1.2.2. Claw with seven teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus v.2.2.1. p.1.1.2. r.0.1.2. Trichobothria. Tibia, 2.1.2.1.1. Metatarsus, 6. Tarsus, 5. Superior claws with from fourteen-fifteen teeth. Inferior claw with three long teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 96, 97. The posterior pair of spinnerets are slightly smaller than the anterior pair. The colulus is large, flat, curved posteriorly and clothed with hairs.

Type Holotype female. Fiordland. Eglinton Valley, under log, 13.xii.1943, J. T. Salmon (Dominion Museum).

Record Female collected with holotype.

Orepukia alta n.sp.

Figs. 98-101

MALE

Measurements

	Carapace		length 3.20		width 2.24	
	Abdomen		length 3.00		width 2.31	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.50	1.08	2.15	2.10	1.45	9.28
2	2.35	1.00	1.80	1.90	1.18	8.23
3	2.18	0.95	1.53	1.88	1.00	7.54
4	2.63	2.03	2.18	2.50	1.15	9.49

Colour The carapace is orange brown with a dark brown band extending back from each lateral eye to converge at the fovea and continue to the posterior margin as a broad median band. Chelicerae reddish brown. Legs pale brown with darker bands. Abdomen cream but heavily shaded with black patches which tend to leave pale areas, or a series of broken pale chevrons, down the median dorsal surface.

Eyes The eyegroup occupies one half of the width of the head and slightly overhangs the clypeus. From above both rows are straight but from in front the anterior row is straight and the posterior row is slightly procurved. Ratio of AME.ALE.PME.PLE = 8.15.12.14. AME separated from each other by a distance equal to 10/8 and from the AME by 5/8 of the diameter of an AME. Lateral eyes separated by a distance equal to one half of the width of an AME. PME separated from each other by 13/8 and from the PLE by 14/8 of the diameter of an AME. MOQ wider behind than in front on the ratio of 37.26 and wider behind than long, in the ratio of 37.35. Height of the clypeus equal to 15/8 of the diameter of an AME.

Chelicerae Stout and swollen proximally. Retromargin with 2 teeth. Promargin with a group from 6-7 minute teeth and two normal teeth followed by a carina which extends to the base of the chelicera.

Palp As shown in Figs. 98, 99.

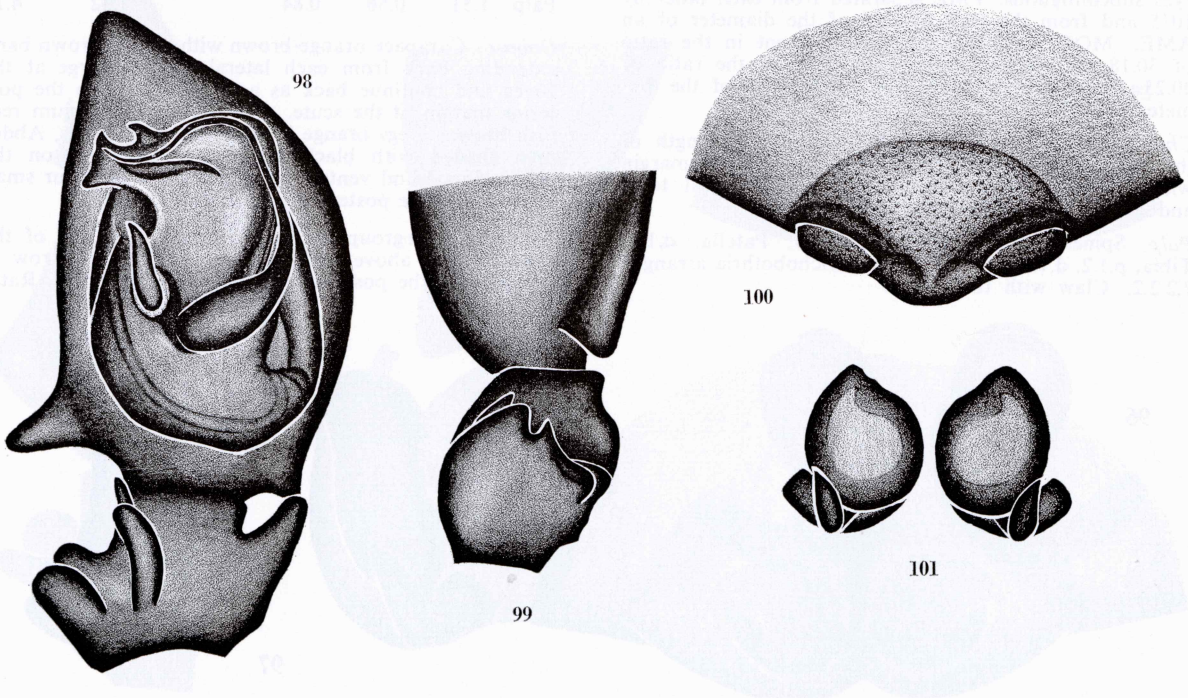
Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.0. Trichobothria. First leg. Tibia, 1.1.2.2.1.1. Metatarsus and tarsus, 6. Superior claws with from eight-nine teeth. Inferior claw with three teeth.

Abdomen The posterior pair of spinnerets are slightly smaller than the anterior pair. The colulus is large, two and a half times as wide as long, and clothed with short hairs.

FEMALE

Measurements

Carapace	length 3.52	width 2.40	
Abdomen	length 3.52	width 2.40	



Figs. 98-101 *Orepukia alta* n.sp. Fig. 98 Ventral view of male palp. Fig. 99 Tibial processes of male palp. Fig. 100 Epigynum. Fig. 101 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.45	1.13	2.13	2.08	1.20	8.99
2	2.28	1.00	1.78	1.78	1.05	7.89
3	2.23	1.03	1.53	1.85	0.90	7.54
4	2.78	1.13	2.25	2.50	1.13	9.79
Palp	1.33	0.55	0.75		1.18	3.81

Similar to the male in colour and structure. The epigynum and internal genitalia are shown in Figs. 100, 101.

Types Holotype male, allotype female. Canterbury. Avoca Hut, 20.i.1956, L. Osborne (Otago Museum).

Records Arthurs Pass, 9.iv.1950, R. Jenkin. Junction of Casey, Poulter Rivers, 4.iv.1950, J. S. Dugdale. Cass, under logs, 10.vii.1949, R.R.F. Hawdon River, September 1954, R. S. Bigelow.

Orepukia sabua n.sp.

Figs. 102-103

FEMALE

Measurements

Carapace	length	3.20	width	2.20
Abdomen	length	3.42	width	2.60

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.76	1.04	2.40	2.20	1.28	9.68
2	2.48	1.04	2.00	2.00	1.16	8.68
3	2.32	1.00	1.76	2.20	1.00	8.28
4	2.93	1.08	2.60	2.91	1.28	10.80
Palp	1.28	0.56	0.80		1.24	3.92

Colour Carapace with a dark brown band extending back from each anterior corner to merge at the fovea. Chelicerae reddish brown. Sternum orange brown. Legs orange brown with darker bands. Abdomen pale yellow brown with dark brown mottling, mainly on the antero- and postero-dorsal surfaces and the lateral surfaces.

Eyes The eyegroup is compact and occupies 4/7 of the width of the head. From above and from in front the anterior row is straight and the posterior row is slightly procurved. Ratio of AME.ALE.PME.PLE = 7.15.13.15. AME separated from each other by a distance equal to 6/7 and from the ALE by 4/7 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other and from the PLE by 10/7 of the diameter of an AME. MOQ wider behind than wide in front in the ratio of 36.20 and wider behind than long in the ratio of 36.29. Height of the clypeus equal to 20/7 of the diameter of an AME.

Chelicerae Chelicerae equal to one third of the length of the carapace. Retromargin with two teeth. Promargin with a row of five minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p,d.1.1. Tibia with 7 trichobothria arranged 1.2.1. 2.1. Claw with seven teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.1.1.0. p.1.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.2. Trichobothria. Tibia, 1.2.2.1.1.1. Metatarsus, 6. Tarsus, 5. Superior claws with eight teeth. Inferior claw with two long teeth.

Abdomen Epigynum and internal genitalia as shown in Figs. 102, 103. The posterior pair of spinnerets are slightly smaller than the anterior pair. The colulus is large, evenly curved posteriorly and clothed with short hairs.

Type Holotype female. Nelson. Flora Track, under log, 5.iv.1946, R. R. Forster (Dominion Museum).

Records Nelson. Mount Arthur Tableland, under log, 30.ii.1946, J. T. Salmon. Balloon Hut, leaf-litter, 26.i.1948, R.R.F.

Orepukia nummosa (Hogg) 1909

1909 *Rubrius nummosus,* Hogg. Subantarct. Is. N. Zeal. 1: 167.

1917 *Rubrius nummosus,* Dalmas. Ann. Soc. Ent. Fr. 86: 405.

1930 *Rubrius nummosus,* Berland. C.R. Soc. biogeogr. 60: 91.

1955 *Cheiracanthium nummosum,* Forster. Rec. Dom. Mus. 2(4): 183.

Figs. 106-107

MALE (Immature)

Measurements

Carapace	length	8.00	width	4.80
Abdomen	length	10.00	width	6.40

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.48	2.80	4.86	5.24	2.60	21.98
2	5.60	2.40	4.40	4.60	2.40	19.40
3	4.40	2.20	4.00	4.60	2.20	17.40
4	6.40	2.40	5.24	5.64	2.40	22.08
Palp	2.80	1.20	1.60		2.20	7.80

Colour Carapace pale reddish brown. Chelicerae dark reddish brown. Legs pale reddish brown, darker distally. Abdomen greyish brown with a series of faint pale spots in pairs down the mid-dorsal surface.

Carapace The width of the head is equal to 2/3 of the width of the thorax. The lateral margins of the head are straight and parallel, and extend down 1/4 of the length of the carapace. The fovea is distinct.

Eyes The eyegroup occupies one half of the width of the head. From above both rows are straight but from in front the anterior row is straight and the posterior row is slightly procurved. The eyes are relatively small. Ratio of AME.ALE.PME.PLE = 17.25.19.26. AME separated from each other by a distance equal to 7/17 and from the ALE by 15/17 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other and from the PLE by a distance equal to 29.17 of the diameter of an AME. MOQ wider behind than in front in the ratio of 67.41 and longer than wide behind in the ratio of 71.67. Height of the clypeus equal to twice the diameter of an AME.

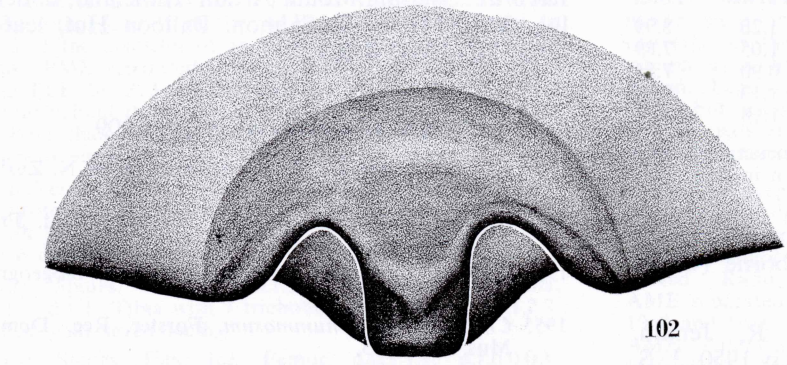
Sternum As long as wide. Anterior margin straight and lateral margins slightly undulate. Posterior projection short and sharp, separating coxae 4 by a distance equal to one half of the width of a coxa.

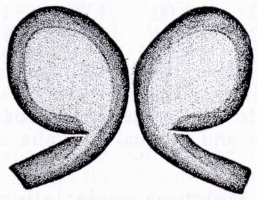
Maxillae Outer margins straight and the inner margins curved in distally over the labium. Twice as long as wide.

Labium Notched at the base. Lateral margins straight, almost parallel. Anterior margin slightly incurved. Longer than wide in the ratio of 6.5.

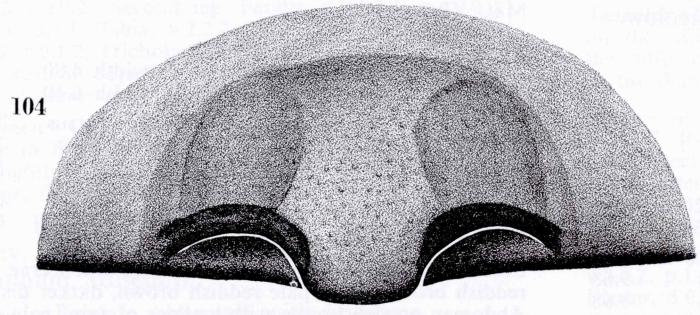
Chelicerae Chelicerae equal to 3/7 of the length of the carapace. Boss present. Retromargin with two teeth. Promargin with a row of 8 minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Legs Clothed with smooth hairs. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, p.1.1.1. Metatarsus, v.2.2.1. p,r.0.0.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.1.2. p.0.1.1. Metatarsus, v.2.2.1. p.1.0.2. r.0.0.2. Third leg. Femur, d.0.1.1.0. p,r.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. r.0.0.1. Metatarsus, v.2.2.1. p.1.2.2. r.1.1.2. Fourth leg. Femur, d.0.1.1.0. p,r.0.0.0.1. Tibia, v.2.1.2. p.1.1.1. r.0.1.1. Metatarsus, v.2.2.1. p,r.1.2.2. Trichobothria numerous, with a double row on the tibia and a single row on the metatarsi and tarsi. Superior claws with 5 teeth

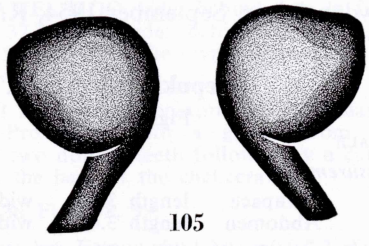




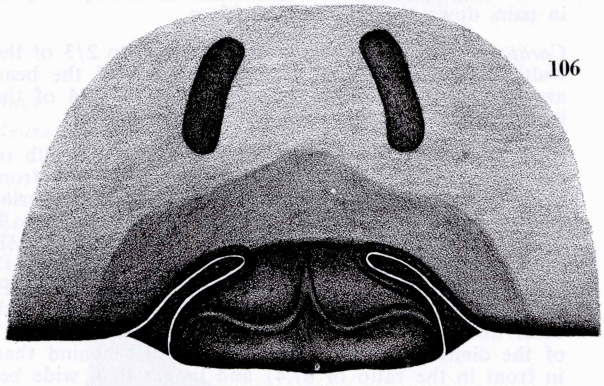
103



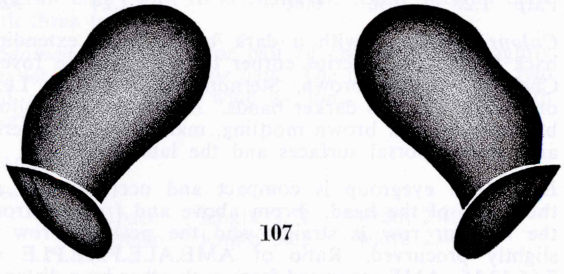
104



105



106



107

Figs. 102-103 *Orepukia sabua* n.sp. Fig. 102 Epigynum. Fig. 103 Internal genitalia. Figs. 104-105 *Orepukia eliminata* n.sp. Fig. 104 Epigynum. Fig. 105 Internal genitalia. Figs. 106-107 *Orepukia nummosa* (Hogg). Fig. 106 Epigynum. Fig. 107 Internal genitalia.

near the base. Inferior claw with two or three teeth. The distal portions of the tarsi are clothed with a dense covering of hairs but this is not a distinct scopula.

Abdomen The posterior pair of spinnerets are more slender than the anterior pair and slightly shorter. Colulus relatively wide, clothed with hairs, with the posterior margin evenly curved.

FEMALE

The legs have become detached from the female type specimen but the spination would appear to be similar to the male. The epigynum and the internal genitalia are shown in Figs. 106, 107. The general structure is similar to the male.

Type Holotype female. Bounty Island, collected by Professor Benham (Otago Museum).

Records Immature male, with the same data as the holotype. Ringdove Bay, Antipodes Is., under stones in Penguin colony, 5.xi.1950, E. G. Turbott. This species does not fit readily in *Orepukia*.

The AME are relatively larger than other species and the overall size far exceeds that of any of the species described from the mainland. There is little doubt however that it is related to the spiders placed in this genus and as it cannot remain in the genera in which it has been placed in the past it is listed under *Orepukia*.

Neorepukia n.gen.

Medium sized (body length 4.5-6.5mm) ecribellate spiders, which are separated from *Orepukia* mainly by the presence of plumose hairs. The internal genitalia are tubular and moderately convoluted as in some species of *Orepukia*. Unfortunately males are not known for the two species recorded.

Type species *Neorepukia pilama* n.sp.

Neorepukia pilama n.sp.

Figs. 108-109

FEMALE

Measurements

Carapace	length 2.00	width 1.40
Abdomen	length 2.56	width 1.68

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.45	0.65	1.28	1.20	0.75	5.33
2	1.38	0.63	1.00	1.08	0.65	4.74
3	1.25	0.60	0.88	1.05	0.58	4.36
4	1.68	0.63	1.28	1.45	0.75	5.79
Palp	0.78	0.33	0.43		0.75	2.29

Colour Carapace pale yellow with a blackish brown band running back from the outer margins of the eye-group to merge at the fovea and extend back as a single median band to the posterior margin of the carapace. Legs yellow brown with darker bands. Sternum yellow with dark brown shading on the margins and a median longitudinal band. Abdomen cream, heavily shaded with blackish brown on the lateral surfaces and with fewer dark patches on both dorsal and ventral surfaces.

Carapace The width of the head is equal to 5/7 of the width of the thoracic region. Lateral margins of the head straight and parallel, extending back a distance equal to 3/10 of the length of the carapace. Fovea distinct.

Eye Ringed with black. The eyegroup occupies 3/5 of the width of the head. From above both rows are straight. From in front the anterior row is straight and the posterior row is slightly procurved. Ratio of AME. ALE.PME.PLE = 6.11.11.11. AME separated from each other by a distance equal to 6/6 and from the ALE by 3/6 of the diameter of an AME. Lateral eyes separated by 3/6 of the diameter of an AME. PME separated from each other by 8/6 and from the PLE by 7/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 10.6 and wider behind than long in the ratio of 10.9. The height of the clypeus is equal to 8/6 of the diameter of an AME.

Sternum Anterior margin straight and the lateral margins evenly curved. Posterior projection sharply pointed, separating coxae 4 by a distance equal to one quarter of the width of a coxa.

Maxillae Lateral margins straight and parallel. Anterior margin gently curved. Longer than wide in the ratio of 14.9.

Labium Notched at the base. Lateral margins straight and convergent. Anterior margin gently incurved. Wider than long in the ratio of 8.7.

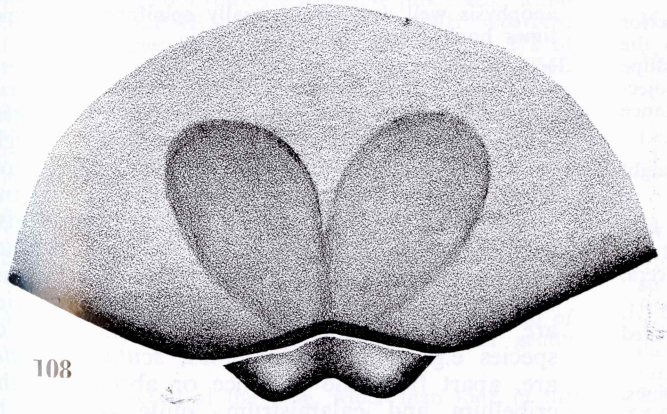
Chelicerae Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, p.1.2. d.1.1. Tibia with five trichobothria arranged 2.2.1. Claw with seven teeth.

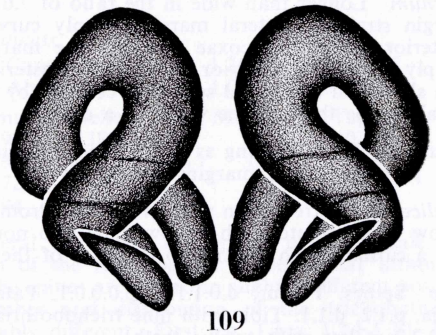
Legs 4123. With plumose hairs. Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.2. p.0.0.1. Metatarsus, v.2.2.2. p,r.0.0.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.1.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.1.1.1. r.0.1.1. d. 1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. There are irregular rows of bristles on the distal surface of metatarsi of legs 2 and 3 but fourth metatarsus with a typical comb consisting of four bristles. Trichobothria. Tibia, 1.2.1.1.2.1. Metatarsus and tarsus, 5. Superior claws with ten-eleven teeth. Inferior claw with three long teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 108, 109. The posterior pair of spinnerets are more slender than the anterior pair but are only slightly shorter. The colulus is large.

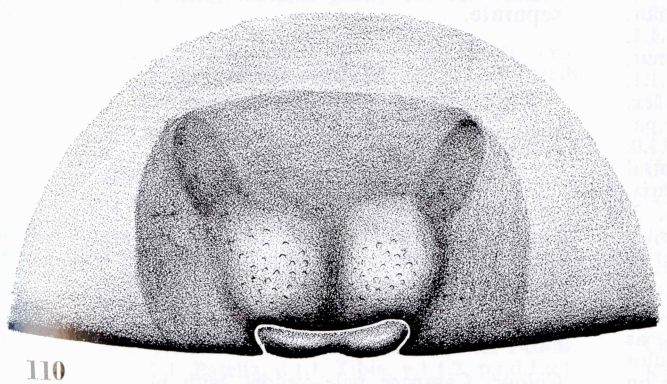
Type Holotype female. Cook Strait. Stephen Island, leafmould, 19.v.1950, R. R. Forster (Dominion Museum).



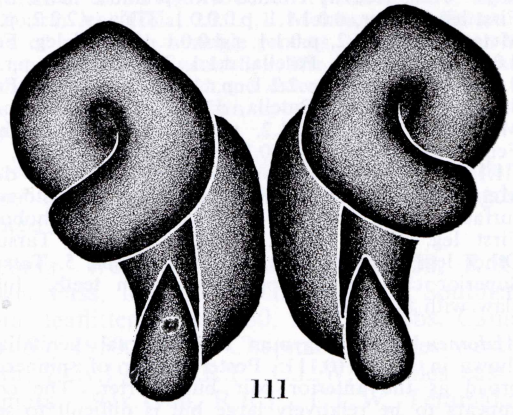
108



109



110



111

Figs. 108-109 *Neorepukia pilama* n.sp. Fig. 108 Epigynum. Fig. 109 Internal genitalia. Figs. 110-111 *Neorepukia hama* n.sp. Fig. 110 Epigynum. Fig. 111 Internal genitalia.

Neorepukia hama n.sp.

Figs. 110-111

FEMALE

Measurements

Carapace	length 3.20		width 2.00	
Abdomen	length 3.12		width 1.80	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.38	0.90	2.13	1.93	1.13	8.47
2	2.03	0.90	1.43	1.73	0.88	6.97
3	2.15	1.00	1.68	1.73	1.00	7.56
4	2.58	1.00	2.13	2.35	1.05	9.11
Palp	1.13	0.50	0.60		1.08	3.31

Colour Carapace deep orange brown with darker, reddish brown, shading on the lateral margins of the head, merging at the fovea to extend back to the posterior margin as a band. Chelicerae reddish brown. Legs orange brown. Abdomen heavily shaded with blackish brown on the dorsal and lateral surfaces. Ventral surface pale.

Carapace Width of the head region equal to 7/10 of the width of the thorax. Lateral margins of the head subparallel. Fovea distinct.

Eyes The eyegroup is compact and occupies 3/5 of the width of the head. From above the anterior row is straight and the posterior row is gently procurved. From in front the AME are level with the posterior margin of the ALE and the posterior row is strongly procurved. Ratio of AME.ALE.PME.PLE = 7.13.12.15. AME separated from each other by a distance equal to 8/7 and from the ALE by 3/7 of the diameter of an AME. Lateral eyes separated by 5/7 of the diameter of an AME. PME separated from each other by 11/7 and from the PLE by 9/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 35.22 and wider behind than long in the ratio of 35.34. Height of clypeus equal to 11/7 of the diameter of an AME.

Sternum Longer than wide in the ratio of 7.6. Anterior margin straight. Lateral margins evenly curved to the posterior margin of coxae 3 where the margins slope steeply in to the posterior projection. Posterior projection short and sharp and separates coxae 4 by a distance equal to one third of the width of a coxa.

Maxillae Twice as long as wide. Inner margins straight and parallel. Outer margins gently curved.

Chelicerae Retromargin with two teeth. Promargin with a row of 5 minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tibia with nine trichobothria arranged 1.2.2.2.2. Claw with twelve teeth.

Legs 4123. Heavily clothed with plumose hairs. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus, v.2.2.2. p.0.1.1. r,d.0.0.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.1.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.2.2. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.2. p.1.1.1. Metatarsus, 2.2.1. p.1.1.2. r.0.1.2. d.0.1.0. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v,p,r. 1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.0. Metatarsi of legs 3 and 4 with bristles on the disto-ventral surfaces which form an irregular row. Trichobothria. First leg. Tibia, 1.1.1.1.1.1. Metatarsus, 5. Tarsus, 3. Other legs. Tibia, 1.2.2.2.1.1.1. Metatarsus, 5. Tarsus, 3. Superior claws with from eight-eleven teeth. Inferior claw with three teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 110,111. Posterior pair of spinnerets as broad as the anterior pair but shorter. The colulus appears to be relatively large but is difficult to see on the type specimen.

30.xi.1947, R. R. Forster (Dominion Museum).

Mahura n.gen.

Small terrestrial spiders (1.5-3.5mm in body length). Cribellate or ecribellate. Cribellum when present small and divided. Colulus small and setose, of same shape as cribellum. Calamistrum proximal, never strongly developed, with from 5-10 fairly long bristles. Legs relatively short, prograde, usually female 4123, male 1423. Trichobothria in double row on tibiae and a single row on metatarsi and tarsi. Superior claws similar and strongly pectinate. Inferior claw with one or two teeth. Claw tufts, scopulae and tenent hairs absent. Without plumose hairs. Prolateral spine of the femur of the first pair of legs may or may not be present. Spination of femora usually d.1.1.1. p,r.0.1. Tibia of the first pair of legs lacking the distal pair of ventral spines and usually the lateral spines. The tibial dorsal spines are present on all legs, any reduction being in the length of the spines. The distal whorl of metatarsal spines reduced to three or two in number. Tarsal organ distal to trichobothria on legs. Trochantera with very wide but shallow indentations. Palpal tarsus without trichobothria. Colulus of ecribellate species usually medially notched on the posterior margin *(M. turris* and others).

The eyegroup occupies about two-thirds of the width of the head. The anterior row is usually straight and the posterior row slightly procurved. Lateral eyes narrowly separated. AME very small, at most equal to one half of the diameter of an ALE. ALE, PME and PLE subequal. Sternum scutiform, usually a little longer than wide. Labium notched at the base and normally wider than long. Maxillae sub-parallel. Chelicerae short, vertical, with boss. Retromargin with two teeth and promargin with from 5-7 teeth. Epigynum small but usually with well developed surface features. Internal genitalia simple, usually receptaculate with short ducts. Male palp with prominent retrolateral processes on the tibia. Bulb provided with embolus, conductor and median apophysis. Embolus spiniform, evenly curved, distal portion housed along the outer margin of a prominent T-shaped translucent conductor. Median apophysis well developed, usually spiniform but sometimes hooked apically.

Type species *Mahura turris* n.sp.

These small spiders are common on the forest floor where they live amongst the litter. A single male, representing an undescribed species, collected from under stone on Echo Pass, Fiordland at 6,400 ft, suggests that this genus may also extend into the sub-alpine region. They do not appear to construct a snare and are very fast moving. Both cribellate and ecribellate species are included in the genus and some pairs of species e.g. *spinosa-spinosoides, scuta-southgatei* are, apart from the presence or absence of the cribellum and calamistrum, quite difficult to separate.

Mahura turris n.sp.

Figs. 113-116

FEMALE

Carapace	length 1.32		width 0.90	
Abdomen	length 1.32		width 0.90	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.96	0.42	0.78	0.72	0.54	3.42
2	0.84	0.42	0.60	0.66	0.43	2.95
3	0.72	0.36	0.54	0.66	0.38	2.66
4	0.48	0.48	0.84	0.90	0.48	3.18
Palp	0.43	0.19	0.28		0.42	1.32

Colour Carapace pale yellow, with black shading on the head and faint dark bands extending from the fovea to the lateral margins where they merge with a thin black band which extends along the margin of the

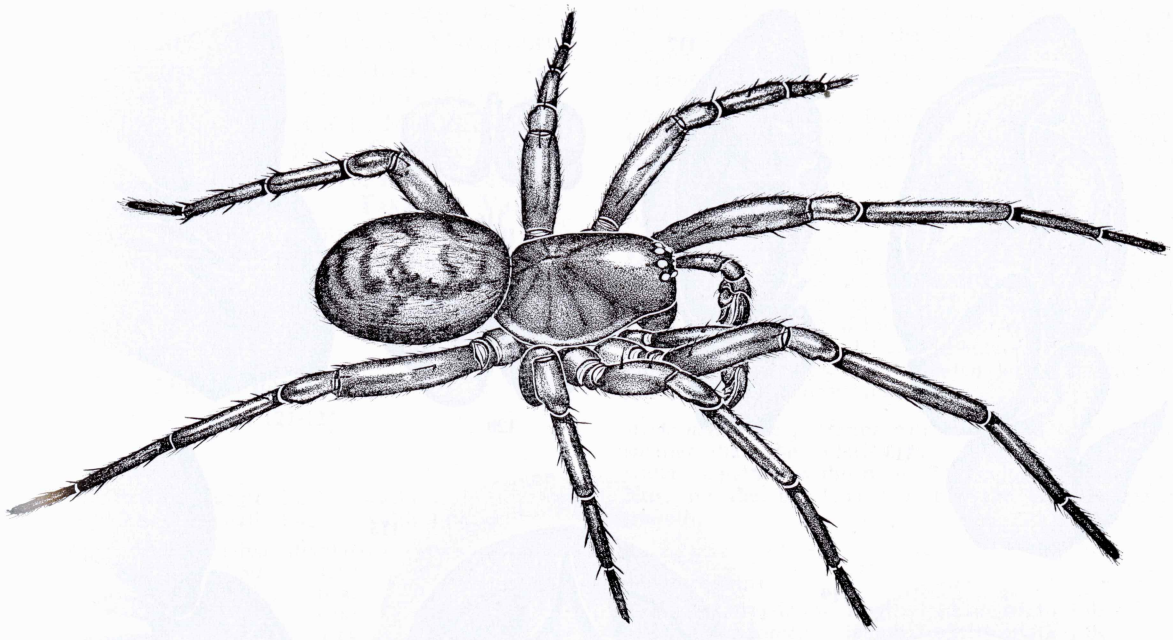


Fig. 112 *Mahura southgatei* n.sp. male.

thoracic region. The abdomen is heavily mottled with blackish brown which is broken up to form indistinct pale chevrons on the postero-dorsal surface. Sternum reddish brown with thin black shading. Legs banded with blackish brown.

Eyes The eyegroup is relatively compact and occupies 5/9 of the width of the head. From above the posterior row is slightly procurved and the anterior row is straight. From in front both rows are definitely procurved. Ratio of AME.ALE.PME.PLE = 2.6.6.6. AME separated from each other by 3/2 and from the ALE by 2/2 of the diameter of an AME. Laterals subcontiguous. PME separated from each other by 4/2 and from the PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.7 and longer than wide in the front in the ratio of 13.7. Clypeus narrow, equal in height to 5/2 of the diameter of an AME.

Sternum Scutiform, longer than wide in the ratio of 11.10. Anterior margin straight. Lateral margins evenly curved to the posterior projection which separates coxae 4 by a distance equal one half of the width of a coxa.

Maxillae Longer than wide at the base in the ratio of 5.3. Lateral margins straight, anterior margin gently curved.

Labium Notched at the base, wider than long in the ratio of 3.2. Lateral margins gently curved. Anterior margin straight.

Chelicerae Retromargin with two strong teeth, promargin with a distal row of five small peg-like teeth followed by one large and one small typical tooth.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tarsus many. Tarsal claw with six teeth. Six trichobothria on tibia arranged 2.2.2.

Legs Clothed with finely ciliate hairs. Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.2. Tibia, v.2.2.0. d.1.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.1. p.0.1.1. d.1.0.1. Metatarsus, v.2.2.2. p.0.1.1. r,d.0.0.1. Third leg. Femur, d.0.1.1.1. p.0.0.0.2. Patella, d.1.1. Tibia, v.1.1.1. p,r,d.1.0.1. Metatarsus, v.2.2.1. p.1.1.1. r.0.1.1. d.0.2.2. Fourth leg. Femur, d.0.1.0.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r,d.1.0.1. Metatarsus, v.2.2.2. p.1.1.1. r.1.0.1. d.1.2.2. Trichobothria. First and fourth legs. Tibia, 1.2.1.1. Metatarsus and tarsus, 3. Second and third legs. Tibia, 1.2.1. Metatarsus and tarsus, 3. Superior claws of legs 1 and 2 with nine teeth, 3 and 4 with five teeth. Interior claw with a single small tooth. A subdistal tarsal organ is present on the tarsi of all legs. Calamistrum absent.

Abdomen Colulus small. Spinnerets compact. The epigynum is shown in Fig. 115 the raised plate is broad and terminated anteriorly with a long sharp point. Internal genitalia simple (Fig. 116).

MALE

Measurements

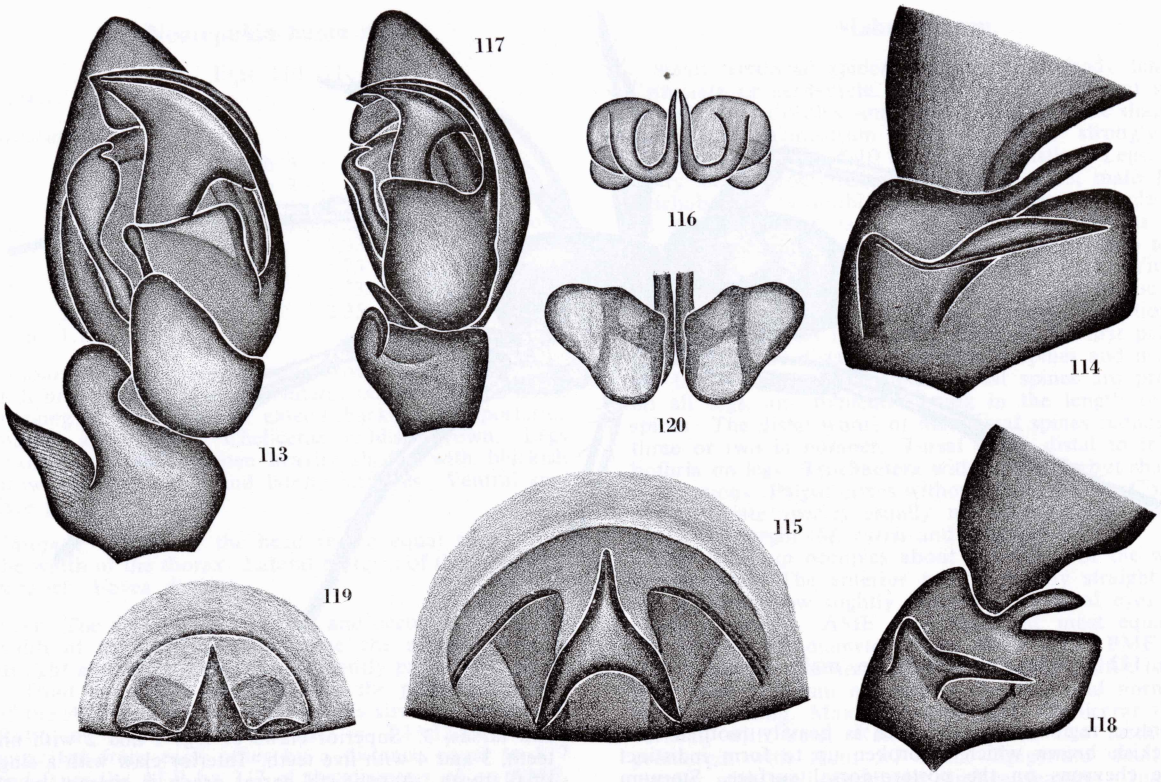
	Carapace	length 1.26		width 0.96	
	Abdomen	length 1.08		width 0.78	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.96	0.38	0.84	0.78	0.58	3.54
2	0.84	0.30	0.66	0.71	0.49	3.00
3	0.72	0.36	0.54	0.72	0.42	2.76
4	0.94	0.42	0.78	0.90	0.43	3.47

The general characters are similar to the female. The spination of the legs appears to be similar although a few of the spines are placed in slightly different positions. The number and distribution of the trichobothria is considerably different. First leg. Tibia, 1.2.1.1.2.1. Metatarsus, 4. Tarsus, 3. Second leg. Tibia, 1.2.2.2. Metatarsus, 2. Tarsus 3. Third leg. Tibia, 2.1.1. Metatarsus, 4. Tarsus, 3. Fourth leg. Tibia, 2.2.1.1.1. Metatarsus, 4. Tarsus, 3. Tibia of palp with a single process, cup shaped on top and pointed sharply ventrally. The ventro-distal portion of the segment flattened and extends as a lobe over the base of the bulb. Median apophysis large (Figs. 113, 114).

Types Holotype female, allotype male. Westland. Otira River, ex moss, 29.v.1954, J. S. Dugdale (Otago Museum).

Records Westland. Moana, 10.iii.1950, R.R.F. Lewis Pass, leaflitter, 20.iii.1949, G. Southgate. Otira, leaflitter, 26.vi.1950, R. J. Jacobs. Camerons, 5.ix.1950, R. A. Chapman. 5 miles west of Otira, 29.iv.1966, R.R.F., C.L.W. 3 miles east of Kumara, 29.ix.1966, R.R.F., C.L.W. Teramakau, leaflitter, 8.iii.1950, L. P. Hughson. Pfeiffer Ck., Teramakau, 19.iv.1954, W. Dukes. Upper Doubt-



Figs. 113-116 *Mahura turris* n.sp. Fig 113 Ventral view of male palp. Fig. 114 Tibial processes of male palp. Fig. 115 Epigynum. Fig. 116 Internal genitalia. Figs. 117-120 *Mahura turris* n.sp. Fig. 117 Ventral view of male palp. Fig. 118 Tibial processes of male palp. Fig. 119 Epigynum. Fig. 120 Internal genitalia.

ful River, leaflitter, 6.iv.1953, W. Dukes, Arthurs Pass, 2.xi.1969, C.L.W. Arthurs Pass, 28.ix.1966, R.R.F., C.L.W. Cass, 10.vii.1949, R.R.F. Lake Sumner, 13.iv.1952, J. S. Dugdale.

Mahura boara n.sp.

Figs. 117-120

MALE

Measurements

	Carapace		length 1.20		width 0.92	
	Abdomen		length 1.32		width 0.84	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.13	0.48	1.05	0.88	0.60	4.14
2	0.95	0.43	0.68	0.73	0.50	3.29
3	0.83	0.38	0.55	0.75	0.43	2.94
4	1.08	0.43	0.83	0.93	0.50	3.77
Palp	0.48	0.24	0.20		0.52	1.44

Colour Cephalothorax and legs pale reddish brown. Abdomen cream with faint grey shading.

Eyes The eyegroup is compact and occupies 4/7 of the width of the head. From above both rows are straight but from in front the AME are seen to be level with the posterior margin of the ALE and the posterior row is gently procurved. Ratio of AME.ALE.PME.PLE = 3.6.6.7. AME separated from each other by 2/3 and from the ALE by 1/3 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 4/3 and from the PLE by 2/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.8 and wider behind than long in the ratio of 16.15. Height of the clypeus to 8/3 of the diameter of an AME.

Chelicerae One third of the length of the carapace. Boss present. Retromargin with two teeth. Promargin with five minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp As shown in Figs. 117, 118.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Patella, d.1.1. Tibia, v.2.2.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.0. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Trichobothria. Tibia, 1.2.1.1. Metatarsus and tarsus, 3. The tarsal organ is subdistal on tarsi 1 and 2 and at three quarters of the length of tarsi 3 and 4. Superior claws with from seven-eight teeth. Inferior claw with three long teeth. Calamistrum absent.

Abdomen The posterior pair of spinnerets are slightly smaller than the anterior pair. The colulus is broad, with the posterior margin notched.

FEMALE

Measurements

	Carapace		length 1.20		width 0.80	
	Abdomen		length 1.69		width 1.12	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.93	0.40	0.75	0.65	0.45	3.18
2	0.80	0.38	0.58	0.55	0.40	2.71
3	0.75	0.38	0.48	0.60	0.38	2.59
4	0.98	0.45	0.68	0.80	0.43	3.34
Palp	0.45	0.20	0.25		0.38	1.28

Similar in general structure to the male. The head region is relatively wider than the male being equal to 7/10 of the width of the thoracic region and the lateral margins are straight and parallel. The epigynum is relatively simple and is shown in Fig. 119. The internal genitalia are shown in Fig. 120. Spines on the palp are Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.1. r.1.1. Tibia with five trichobothria arranged 2.2.1. Claw with seven teeth.

Types Holotype male, allotype female. Fiordland. Eglinton Valley, in leaf mould, 14.xii.1943, J. T. Salmon (Dominion Museum).

Records Fiordland. Hollyford, Gunns Camp, 17.v.1960, J. Winter. Beehive, south side of Lake

Manapouri from leafmould, 6.ii.1946, R.R.F. Peninsula, south side of Lake Manapouri, 6.ii.1946, ex moss, R.R.F. Lake Monk, mossy tree trunk, 20.i.1960, M. A. Chapman. Thompson Sound, 2,800 ft, 19.i.1958, R.R.F. Milford Sound, leafmould, 29.i.1946, R.R.F. Cascade Creek, Eglinton Valley, moss, 16.ii.1966, R.R.F. Cascade Creek, 25.i.1951, R.R.F. Takahe Valley, 24.xii.1952, E. Percival. Detention Cove, Long Is., Dusky Sd, March 1949, P. C. Bull. Lake Te Au, south arm of Lake Te Anau, 12-24.i.1953, R.R.F. Westland. Blackball, 6.v.1950, L. P. Hughson.

Mahura detrita n.sp.

Figs. 121-124

MALE

Measurements

Carapace	length 1.69	width 1.28	
Abdomen	length 1.43	width 1.04	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.38	0.55	1.30	1.10	0.75	5.08
2	1.15	0.50	0.93	0.90	0.63	4.11
3	1.05	0.43	0.75	0.90	0.50	3.63
4	1.35	0.45	1.10	1.18	0.65	4.73

Colour Carapace and legs orange brown. Abdomen mottled with yellow brown and grey.

Eyes the eyegroup occupies 2/3 of the width of the head. From above both rows are straight but from in front both rows are slightly procurved. The ratio of AME.ALE.PME.PLE = 4.9.9.9. AME separated from each other by 3/4 and from the ALE by 2/3 of the diameter of an AME. Lateral eyes are subcontiguous. PME separated from each other by 5/4 and from the PLE by 2/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.11 and wider behind than long in the ratio of 23.21. Height of the clypeus is equal to 9/4 of the diameter of an AME.

Chelicerae Two sevenths of the length of the carapace. Retromargin with two teeth. Promargin with 5 minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp As shown in Figs. 121, 122.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. Metatarsus, v.2.2.2. p.0.1.0. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. p.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.0.1.2. Trichobothria. Tibia, 1.1.2.1. Metatarsus and tarsus, 4. Superior claws with from nine-ten teeth. Inferior with two long teeth. No calamistrum.

Abdomen The posterior pair of spinnerets are slightly smaller than the anterior pair. The anterior pair are widely separate at the base. The colulus is small, with hairs on the basal portion but the anterior portion smooth.

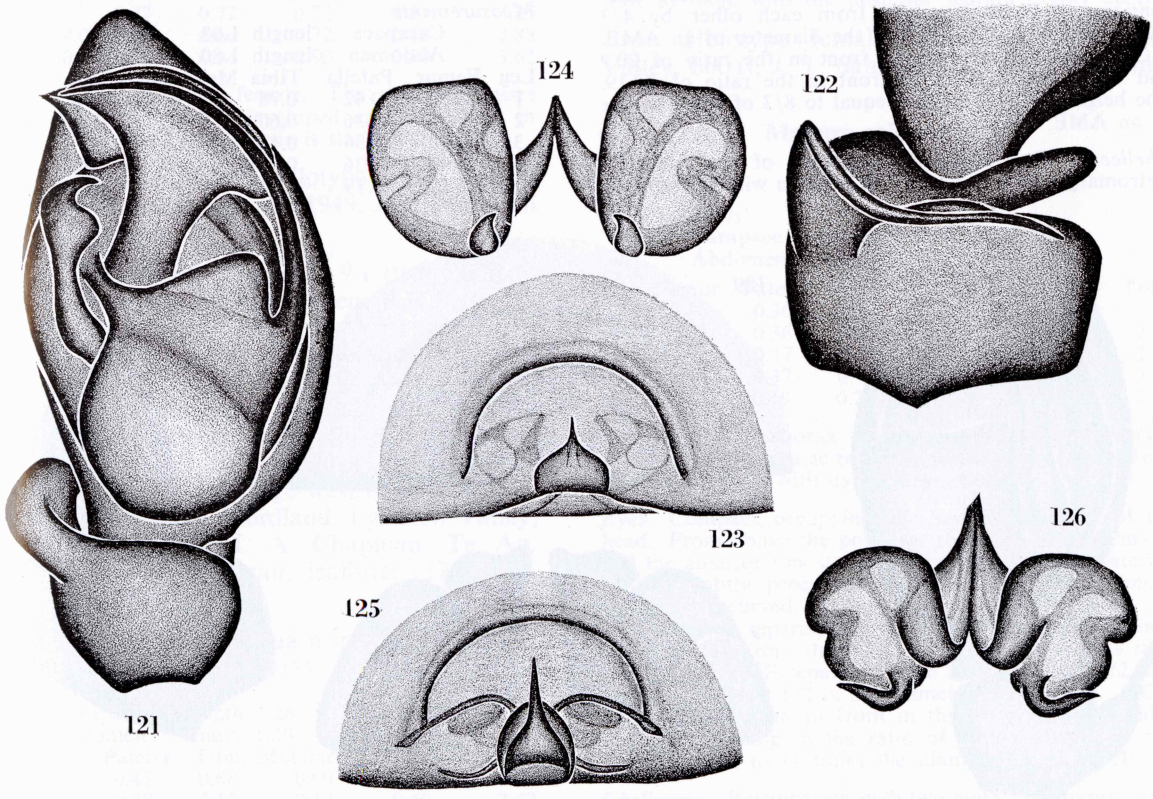
FEMALE

Measurements

Carapace	length 1.40	width 1.08	
Abdomen	length 1.45	width 1.04	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.15	0.50	1.00	0.83	0.55	4.03
2	0.95	0.45	0.75	0.73	0.50	3.38
3	0.93	0.38	0.63	0.80	0.43	3.17
4	1.20	0.50	1.00	1.08	0.60	4.38
Palp	0.55	0.25	0.30		0.50	1.60

The female is similar to the male in most characters. The epigynum and internal genitalia are shown in Figs. 123, 124. The head region is more clearly defined than in the male with the lateral margins to sub-parallel. The



Figs. 121-124 *Mahura detrita* n.sp. Fig. 121 Ventral view of male palp. Fig. 122 Tibial processes of male palp. Fig. 123 Epigynum. Fig. 124 Internal genitalia. Figs. 125-126 *Mahura accola* n.sp. Fig. 125 Epigynum. Fig. 126 Internal genitalia.

width of the head region is equal to 9/14 of the width of the thoracic region. The eyegroup is smaller occupying only one half of the width of the head but the proportional placing of the eyes is similar. The colulus is large without hairs and appears to be notched on the mid-posterior margin.

Palp Spines. Femur, d.0.0.1.1. Patella, d.1.1. Tibia, p.1.1. d.1.1. Three trichobothria on the tibia in a single row. Claw with six teeth.

Types Holotype male, allotype female. Canterbury. Mount Algidus, moss and lichen, 10.ii.1946, R. R. Forster (Dominion Museum).

Record Mount Algidus, leaflitter, 10.ii.1946, R.R.F.

Mahura accola n.sp.

Figs. 125-126

MALE

Measurements

Carapace length 1.56 width 1.16
Abdomen length 1.40 width 0.92

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.28	0.50	1.15	1.03	0.75	4.71
2	1.13	0.48	0.88	0.85	0.60	3.94
3	1.00	0.43	0.70	0.88	0.50	3.51
4	1.25	0.50	1.05	1.15	0.63	4.58
Palp	0.68	0.20	0.20		0.60	1.68

Colour Cephalothorax and legs yellow brown. Abdomen cream shaded with black brown.

Eyes The eyegroup occupies 3/5 of the head. From above both rows appear straight but from in front the AME is seen to be level with the posterior margin of the ALE and the posterior row is gently procurved. Ratio of AME.ALE.PME.PLE. = 3.9.8.9. AME separated from eath other by 3/3 and from the ALE by 1/3 of the diameter of an AME. Lateral eyes are subcontiguous. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 20.9 and wider behind than in front in the ratio of 20.19. The height of the clypeus is equal to 8/3 of the diameter of an AME.

Chelicerae One third of the length of the carapace. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. p.0.0.1. d.1.0.1. Metatarsus, v.2.2.2. p.0.1.0. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.1. p.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. d.0.1.0. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 4. Tarsus, 3. Superior claws with seven teeth. Inferior claw with two long teeth. No calamistrum.

Abdomen Posterior spinnerets more slender than anterior pair but of equal length. Colulus relatively large and furnished with short hairs.

FEMALE

Measurements

Carapace length 1.60 width 1.00
Abdomen length 2.20 width 1.58

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.98	0.45	0.75	0.75	0.50	3.43
2	1.13	0.48	0.95	0.85	0.58	3.99
3	0.88	0.43	0.63	0.78	0.43	3.15
4	1.15	0.50	0.98	1.05	0.50	4.18
Palp	0.50	0.25	0.43		0.50	1.68

The female is similar to the male. Pedipalp spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Six trichobothria on the tibia arranged 2.2.2. Claw with six teeth.

Types Holotype male. Westland. Okarito, ex moss, 26.v.1951, R. R. Forster. Allotype female. Fox Glacier, August 1950, M. Warren (Canterbury Museum).

Records Westland. Open Bay Island, pitfall, 20.i.1971, M. Miller. Waiho, 27.ix.1966, R.R.F., C.L.W. Franz Josef, moss, 2.vii.1951, M. Warren. Jacobs River, 27.ix.1966, R.R.F., C.L.W.

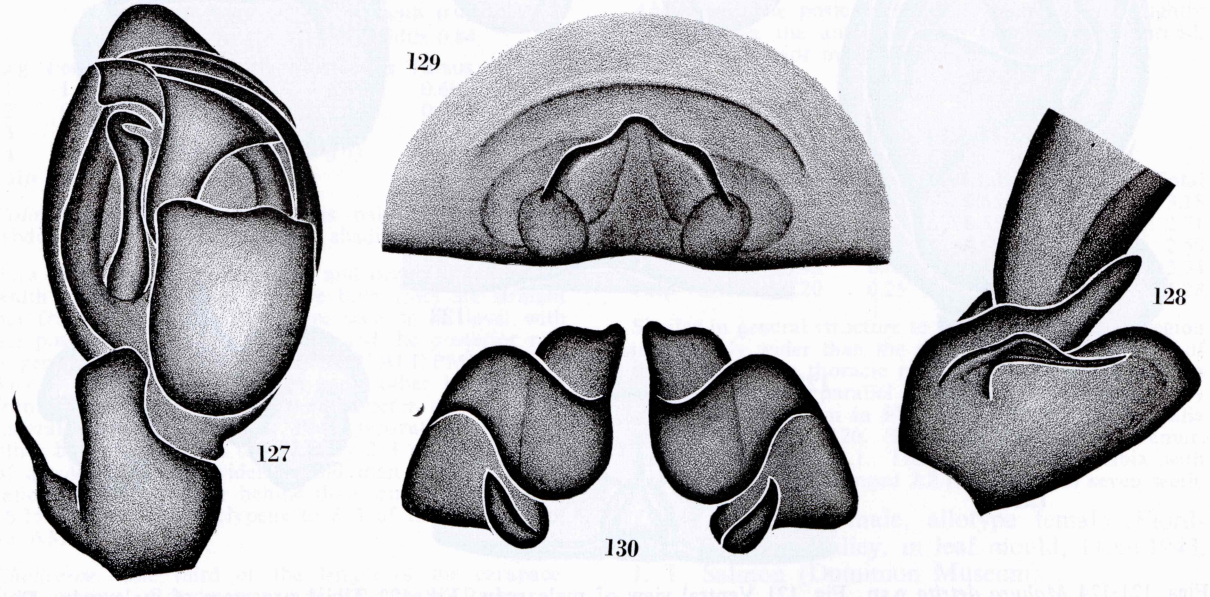
Mahura sorenseni n.sp.

Figs. 127-130

Measurements

Carapace length 1.08 width 0.82
Abdomen length 1.80 width 1.08

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.42	0.78	0.72	0.44	3.26
2	0.78	0.36	0.60	0.60	0.43	2.77
3	0.84	0.36	0.49	0.60	0.37	2.66
4	0.90	0.36	0.78	0.84	0.46	3.34
Palp	0.43	0.19	0.24		0.43	1.29



Figs. 127-130 *Mahura sorenseni* n.sp. Fig. 127 Ventral view of male palp. Fig. 128 Tibial processes of male palp. Fig. 129 Epigynum. Fig. 130 Internal genitalia.

Colour Cephalothorax and legs pale reddish brown. Abdomen cream, heavily mottled with blackish brown.

Eyes From above the posterior row appears slightly procurved and the anterior row straight. From in front both of the rows appear procurved. The ratio of AME. ALE.PME.PLE = 2.6.6.6. AME separated from each other by a distance equal to the diameter of an AME and from the ALE by half of this distance. Lateral eyes subcontiguous. PME separated from each other by twice, and from the PLE by a distance equal to, the diameter of an AME. MOQ wider behind than in front in the ratio of 16.6 and wider behind than long in the ratio of 16.11. Height of the clypeus equal to two and a half times the diameter of an AME.

Chelicerae Retromargin with two teeth but promargin with six of which the distal four are small and peg-like. *Palp* Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tarsus many. Five trichobothria on tibia arranged 2.2.1. Claw with seven teeth.

Legs Calamistrum consisting of ten hairs which extend down little more than 1/3 of the length of the metatarsus. Spines. First leg Femur, d.0.1.1.1. p.0.0.0.2. Patella, d.0.1. Tibia, v.2.2.0. p.0.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.1.1. d.0.0.1. Metatarsus, v.2.2.2. Trichobothria. Tibia, 1.1.2.2.1. Metatarsus, 1. Tarsus, .1.1.1. Superior claws of legs 1-3 with eleven teeth, leg 4 with seven teeth. Inferior claw with a single tooth.

Abdomen Cribellum small and divided. Epigynum as shown in Fig. 129 relatively simple. Internal genitalia as in Fig. 130.

MALE

Measurements

	Carapace		length 1.14		width 0.90	
	Abdomen		length 1.02		width 0.78	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.02	0.42	0.96	0.89	0.54	3.83
2	0.90	0.37	0.72	0.72	0.54	3.25
3	0.78	0.36	0.60	0.72	0.42	2.88
4	0.96	0.42	0.84	0.90	0.50	3.62

General characters as in female. The tibial processes of the male palp are well developed and are shown in Fig. 128. The median apophysis is slender (Fig. 127).

Types Holotype female, allotype male. Southland. Orepuki, under logs, 6.v.1949, J. H. Sorensen (Otago Museum).

Records Southland. Orepuki, 9.v.1949, R.R.F. Orepuki, 17.v.1945, J. H. Sorensen, R.R.F. Longwood R., west side, leafmould, 1.x.1948, J. H. Sorensen. Bluff, 17.v.1949, J. H. Sorensen. Aparina River, above junction with Waterloo Creek, 27.iv.1963, J. Sutherland. Stewart Is., January 1952, O. Allan. Stewart Is., leaflitter, 16.vii.1948, C. Lindsay. Sealers Bay, Codfish Is., 4.xi.1949, R. K. Dell. Codfish Is., ridge west of Sealers Bay, 8.xi.1948, R. K. Dell. Fiordland. Eglinton Valley, leaflitter, 19.iv.1960, M. A. Chapman. Te Au, 11.i.1953, R.R.F. Te Anau, leaflitter, 17.ii.1966, R.R.F., C.L.W.

Mahura hinua n.sp.

Figs. 131-133

Measurements

	Carapace		length 1.28		width 0.88	
	Abdomen		length 1.20		width 0.88	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.43	0.68	0.60	0.43	3.04
2	0.78	0.38	0.53	0.53	0.40	2.62
3	0.80	0.38	0.43	0.55	0.38	2.54
4	0.93	0.38	0.75	0.78	0.43	3.27
Palp	0.43	0.18	0.25		0.35	1.21

Colour Cephalothorax and legs pale reddish brown. Dorsal surface of the abdomen with five broad transverse bands of which the third and the fourth are bent to form chevrons. The ventral surface of the abdomen is pale.

Eyes The eyegroup is compact and occupies one half of the width of the head. From above both rows appear straight but from in front the AME are seen to be level with the posterior margin of the ALE and the posterior row is gently procurved (Fig. 131). Ratio of AME.ALE. PME.PLE = 2.6.7.9. AME separated from each other by 2/2 and from the ALE by 1/2 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 4/2 and from the PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 9.3 and wider behind than long in the ratio of 9.8. Height of the clypeus equal to twice the diameter of an AME.

Chelicerae Slightly more than 1/4 of the length of the carapace. Retromargin with two teeth. Promargin with one large tooth followed by a carina which extends to the base of the chelicera.

Palp Spines. Femur, d.0.0.1.1. Patella and tibia d.1.1. Six trichobothria on the tibia arranged in three pairs. Claw with from eight-nine teeth. Tarsal organ subdistal.

Legs Calamistrum weak, consisting of a few hairs on the median surface. Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, v.2.2.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.1.0. p.0.1.1. Metatarsus, v.2.2.2. p.0.1.2. Trichobothria. Tibia, 1.1.2.1. Metatarsus, 4. Tarsus, 3. Superior claws with from eleven-12 teeth. Inferior with two long teeth.

Abdomen The epigynum and the internal genitalia are shown in Figs. 132, 133. The anterior pair of spinnerets are stouter and longer than the posterior pair and are separated at the base by a distance equal to the width of the base of a spinneret. Cribellum large, twice as wide as long, with the posterior margin evenly curved.

Type Holotype female. Fiordland. Routeburn Valley, 800 ft, J. T. Salmon (Dominion Museum).

Mahura spinosa n.sp.

Figs. 134-137

FEMALE

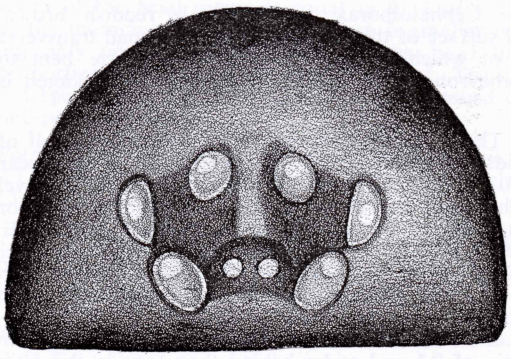
Measurements

	Carapace		length 1.26		width 0.90	
	Abdomen		length 1.92		width 1.26	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.86	0.36	0.78	0.66	0.45	3.11
2	0.72	0.36	0.60	0.57	0.42	2.67
3	0.72	0.37	0.49	0.60	0.36	2.54
4	0.90	0.37	0.78	0.81	0.48	3.34
Palp	0.42	0.18	0.24		0.36	1.20

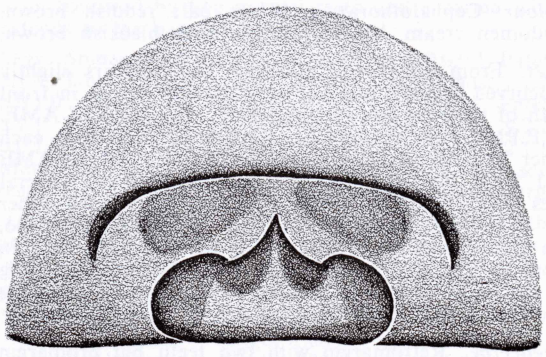
Colour Cephalothorax pale orange-brown with darker shading of the thoracic region. Legs uniform pale yellow. Abdomen cream with dark brown mottling.

Eyes Compact, occupying one half of the width of the head. From above the posterior row is gently procurved and the anterior row straight. From in front the anterior row is slightly procurved and the posterior row more strongly procurved. Ratio of AME.ALE.PME.PLE = 2.5.5.6. AME separated from each other by 2/2 of their diameter and from the ALE by 1/2. Lateral eyes subcontiguous. PME separated from each other by 4/2 and from the PLE by 1/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 14.6, wider behind than long in the ratio of 14.13. Height of the clypeus equal to 1½ times the diameter of an AME.

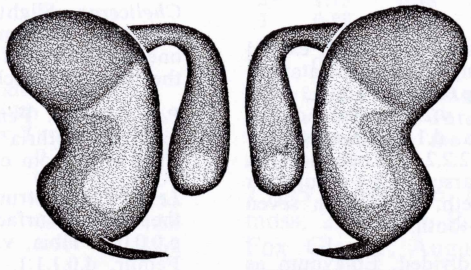
Chelicerae Retromargin with two teeth. Promargin with a row of five small uniform peg-like teeth on the distal surface and one large and one small normal tooth proximally.



131



132



133

Figs. 131-133 *Mahura hinua* n.sp. Fig. 131 Eyes of female, from in front. Fig. 132 Epigynum. Fig. 133 Internal genitalia.

Palp Spines. Femur, d.0.1.1.1. Patella and tibia, d.1.1. Tarsus many. Claw with seven teeth. Six trichobothria on the tibia arranged 2.2.2. Claw with seven teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.2.2.0. d.0.0.1. Metatarsus, v.2.2.2. p.0.0.1. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.0. p.0.1.1. Metatarsus, v.2.2.2. p.0.1.2. Trichobothria. Tibia, 2.1.1.2.1. Metatarsus and tarsus, 3. Calamistrum short, extending over approximately one third of the metatarsus. Superior claws with eight teeth on legs 1, 2 and five on legs 3 and 4. Inferior claw with two teeth.

Abdomen Epigynum as in Fig. 136. The internal genitalia consist of a bilobed pair of vesicles and simple coiled tubes (Fig. 137).

MALE

Measurements

	Carapace		length 1.38		width 1.08	
	Abdomen		length 1.68		width 1.08	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.32	0.48	1.32	1.14	0.72	4.98
2	1.20	0.48	0.90	0.90	0.60	4.08
3	1.02	0.42	0.69	0.90	0.48	3.51
4	1.32	0.50	1.02	1.14	0.60	4.58

As in female. Palp as in Figs. 134, 135.

Types Holotype female. Fiordland. Manapouri-Doubtful Sound Track, leafmould, February 1953, R. W. Hornabrook. Allotype male. Martins Bay, leafmould, 28.i.1955, R. R. Forster (Otago Museum).

Records Fiordland. Caswell Sound, leafmould, 1.iv.1949, R.R.F. Caswell Sound, Stillwater, 11.iv.1949, R.R.F. Homer Tunnel, leafmould under *Dracophyllum*, 27.i.1946, R.R.F. Homer Tunnel, moss, 24.iv.1949, R.R.F. Homer Tunnel, leaflitter, 19.iv.1960, A. Chapman. Cleddau Canyon, leaflitter, 24.xii.1943, J. T. Salmon. Milford Sound, leaflitter, 29.i.1946, R.R.F. Cascade Creek, moss, 16.ii.1966, R.R.F. Cascade Creek, pitfall, 14.i.1971, R.R.F. Hollyford Valley, Gunn's Camp, 17.v.1960, J. Winter. Lake Gunn, wet leafmould, 26.xii.1964, C.L.W. Doubtful Sound, leaflitter, February 1953, R. W. Hornabrook. Martins Bay, leaflitter, 28.i.1955, R.R.F. Southland. Alton Burn, Tuatapere, 25.xi.1970, R.R.F., C.L.W. Stewart Is., Port William, 8.i.1956, I. Mannering.

Mahura spinosoides n.sp.

Figs. 138-139

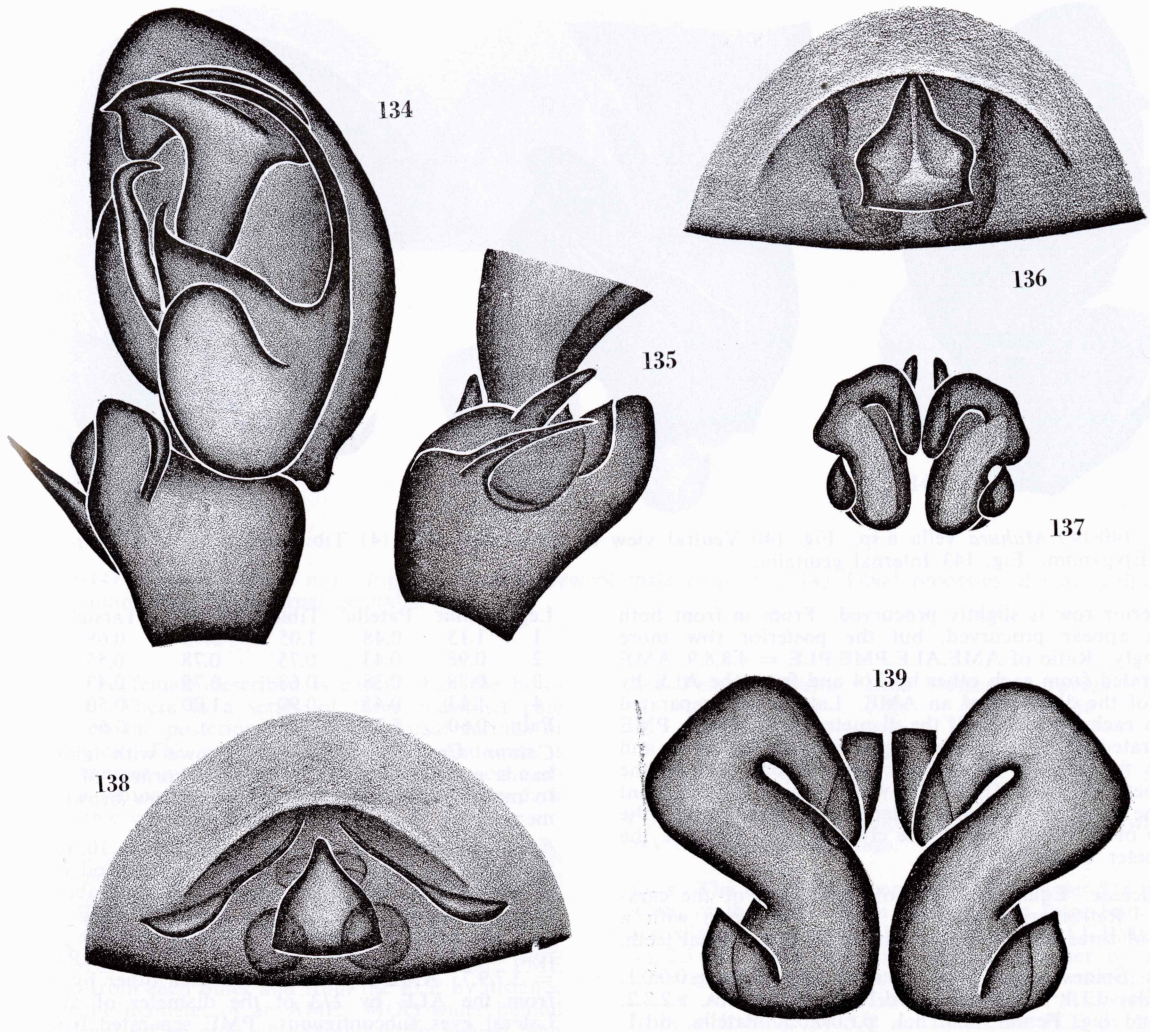
FEMALE

Measurements

	Carapace		length 1.20		width 0.80	
	Abdomen		length 1.60		width 1.10	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.85	0.40	0.70	0.55	0.45	2.95
2	0.70	0.35	0.50	0.50	0.45	2.50
3	0.65	0.35	0.45	0.50	0.35	2.30
4	0.90	0.35	0.70	0.75	0.45	3.15
Palp	0.40	0.20	0.25		0.35	1.20

Colour Carapace pale brownish cream with the lateral and posterior slopes with dark shading. The median fovea reddish brown and the radial striae conspicuously shaded with black. The eyes are on a common black patch which does not include the space between the PME. The colour of the legs is similar to that of the carapace but with less shading. The sternum with dark stippling which is darker on the posterior projection. Abdomen evenly shaded with brownish grey and with pale flecks. There is a pair of pale spots on the antero-median surface followed by several rather indistinct pale chevrons. Ventral surface slightly paler, bounded on each side by a row of pale spots and a series of three pairs of pale spots between the epigastric furrow and the spinnerets.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is procurved so that the posterior margins of the AME are behind the posterior margins of the ALE and the posterior row is procurved.



Figs. 134-137 *Mahura spinosa* n.sp. Fig. 134 Ventral view of male palp. Fig. 135 Tibial processes of male palp. Fig. 136 Epigynum. Fig. 137 Internal genitalia. Fig. 138-139 *Mahura spinosoides* n.sp. Fig. 138 Epigynum. Fig. 139 Internal genitalia.

From above the anterior row is straight and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 1.4.4.4. AME separated from each other by slightly more and from the ALE by slightly less than the diameter of an AME. Laterals narrowly separated. PME separated from each other by twice the diameter of an AME and from the PLE by a diameter of an AME. MOQ wider behind than in front in the ratio of 10.3 and wider behind than long in the ratio of 10.7. Height of the clypeus equal to twice the diameter of an AME.

Chelicerae Promargin with three teeth, the median tooth being the largest and the retromargin with two teeth situated closer to the base of the fang than the promarginal teeth.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, d,p.1.1. Trichobothria. Tibia, two rows each with 1.1.1. Tarsus, 0. Claw with six teeth.

Legs Spines. First leg. Femur, prolateral spine wanting, d.1.1.1. p.0.1. r.0. Patella, 1.1. Tibia, v.2.2.0. p,r.0. d.1.1. Metatarsus, v.2.2.3. p,r.0. Superior claws with ten teeth and inferior with two teeth. Trichobothria. First leg. Tibia, in two rows each with four. Metatarsus, 4. Tarsus, 3. Calamistrum wanting.

Abdomen Colulus rather wide at the base and rounded at the summit. The epigynum and internal genitalia are shown in Figs. 138, 139.

Type Holotype female. Fiordland. Lake Hauroko, 25.xi.1970, R. R. Forster, C. L. Wilton (Otago Museum). Paratype females, same data.

Records Lake Hauroko, 11.iii.1970, C.L.W. Wairaurahiri area, Western Southland, 28.v.1948, G. Weston.

Mahura vella n.sp.

Figs. 140-143

FEMALE

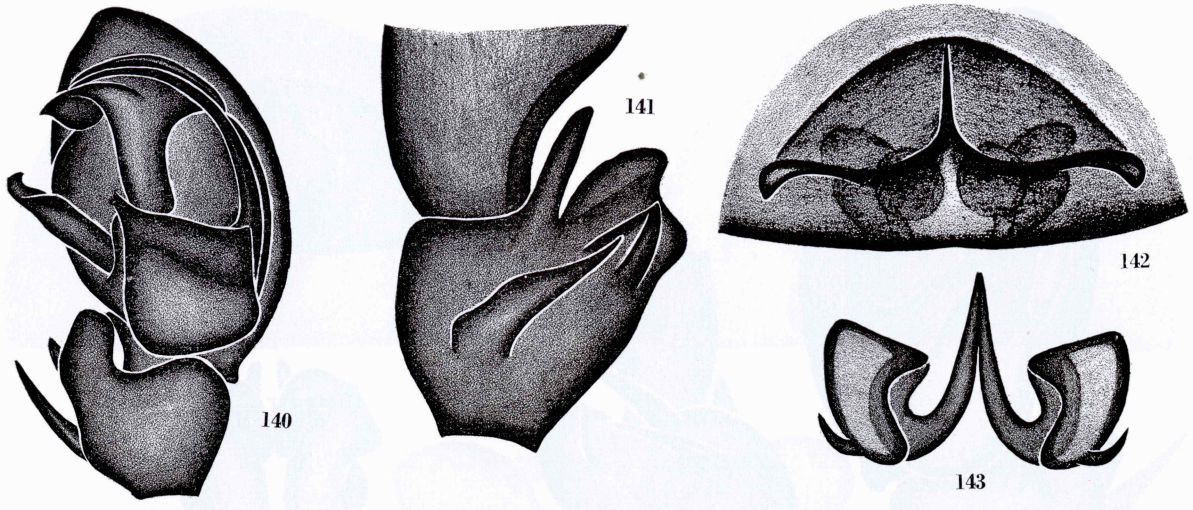
Measurements

Carapace length 1.48 width 0.96
Abdomen length 1.48 width 0.92

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.13	0.45	0.98	0.80	0.53	3.89
2	0.95	0.45	0.68	0.70	0.48	3.26
3	0.88	0.38	0.60	0.73	0.38	2.97
4	1.13	0.50	0.95	0.95	0.45	3.98
Palp	0.50	0.25	0.30		0.40	1.45

Colour Cephalothorax orange-brown. Legs yellow brown with darker bands. Abdomen pale brown with a series of darker brown bands on the dorsal surface, which form indistinct chevrons.

Eyes The eyegroup occupies 2/3 of the width of the head. From above the anterior row is straight and the



Figs. 140-143 *Mahura* vella n.sp. Fig. 140 Ventral view of male palp. Fig. 141 Tibial processes of male palp. Fig. 142 Epigynum. Fig. 143 Internal genitalia.

posterior row is slightly procurved. From in front both rows appear procurved, but the posterior row more strongly. Ratio of AME.ALE.PME.PLE = 4.8.8.9. AME separated from each other by 3/4 and from the ALE by 2/4 of the diameter of an AME. Lateral eyes separated from each other by half the diameter of an AME. PME separated from each other by a distance equal to and from the PLE by a distance equal to one half of the diameter of an AME. MOQ wider behind than in front in the ratio of 20.11 and wider behind than long in the ratio of 20.19. Height of the clypeus equal to twice the diameter of an AME.

Chelicerae Equal to 11/37 of the length of the carapace. Retromargin with two teeth. Promargin with a row of three minute teeth followed by two normal teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. d.1.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.0. p.0.1.1. d.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Trichobothria. Tibia, 1.2.2.1.1. Metatarsus and tarsus, 4. Superior claw with from nine-ten teeth. Inferior claw with two teeth. Calamistrum absent.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Five trichobothria on tibia arranged 1.2.2. Claw with seven teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 142, 143. The anterior pair of spinnerets are separated at the base and a relatively large colulus is present which is flattened and appear to be lacking hairs.

MALE

Similar to female. Palp as in Figs. 140, 141.

Type Holotype female. Nelson. Flora Valley, near Gridiron Ck., ex leafmould, 4,500 ft, 7.iv.1946, R. R. Forster. Allotype male. Balloon Hut, leaflitter, 26.i.1948, R.R.F. (Dominion Museum).

Records Nelson. Balloon Creek Valley, 2,500 ft, leaflitter, 21.ii.1946, J. T. Salmon.

Mahura takahea n.sp.

Figs. 144-147

MALE

Measurements

	Carapace	length 1.58	width 1.08			
	Abdomen	length 1.56	width 1.04			
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.13	0.48	1.05	0.93	0.68	4.27
2	0.98	0.43	0.75	0.78	0.55	3.49
3	0.88	0.38	0.63	0.75	0.43	3.07
4	1.13	0.45	0.90	1.00	0.50	3.98
Palp	0.60	0.20	0.20		0.68	1.68

Colour Carapace pale yellow brown with faint darker bands extending from the anterior corners of the head to merge at the fovea. Legs pale yellow brown. Abdomen cream, shaded with reddish brown.

Eyes The eyegroup is large and occupies 10/13 of the width of the head. PME relatively large and each eye is surrounded with black pigment. From above both rows appear straight. From in front the AME are level with the posterior margin of the ALE and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 3.7.9.7. AME separated from each other by 3/3 and from the ALE by 2/3 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 5/3 and from the PLE by 2/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.9 and wider behind than long in the ratio of 23.18. Height of the clypeus equal to 10/3 of the diameter of an AME.

Chelicerae One third of the length of carapace. Retromargin with two teeth. Promargin with five minute teeth and two normal teeth followed by a carina which extends to the base of the chelicera.

Palp Tibia with a number of small processes as shown in Fig. 145. The ventral surface is produced ventrally into a broad lobe. The median apophysis is flattened distally and cupped (Fig. 144).

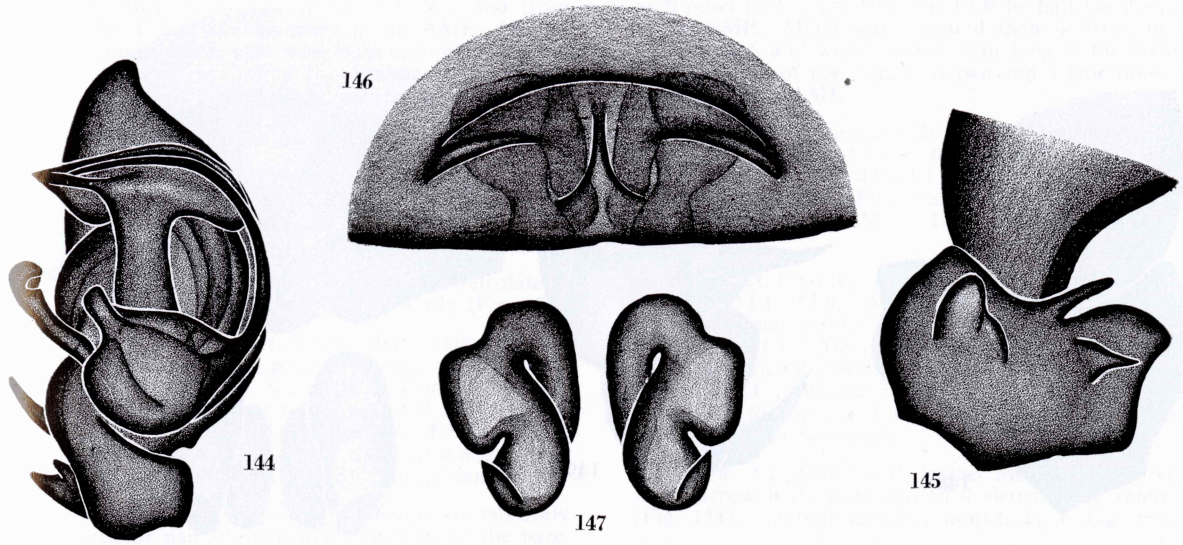
Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.0. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2 r.0.0.2. Trichobothria. Tibia, 2.2.1.1. Metatarsus, 4. Tarsus, 3. Superior claws with from nine-eleven teeth. Inferior claw with two long teeth.

Abdomen The posterior pair of spinnerets are slightly smaller than the anterior pair. A small colulus is present, clothed with short hairs.

FEMALE

Measurements

	Carapace	length 1.25	width 0.80			
	Abdomen	length 1.65	width 1.10			
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.40	0.80	0.70	0.50	3.30
2	0.75	0.40	0.60	0.60	0.45	2.80
3	0.75	0.35	0.50	0.60	0.35	2.55
4	0.95	0.40	0.80	0.85	0.45	3.45
Palp	0.45	0.20	0.25		0.40	1.30



Figs. 144-147 *Mahura takahea* n.sp. Fig. 144 Ventral view of male palp. Fig. 145 Tibial processes of male palp. Fig. 146 Epigynum. Fig. 147 Internal genitalia.

Colour The female described is darker than the holotype male. There is a series of three indistinct pale chevrons on the posterior half of the dorsal surface of the abdomen. The ventral surface of the abdomen is pale but merges into the darker lateral surfaces on each side. The femora of all the legs have incomplete dark bands visible on the ventral surfaces.

Eyes The group occupies about two thirds of the width of the head. From in front and from above both rows are procurved. The ratio of AME.ALE.PME.PLE = 2.5.4.5. AME separated from each other by a distance equal to 2/2 and from the ALE by 1/2 of the diameter of an AME. Lateral eyes are narrowly separated. PME separated from each other and from the PLE by distance equal to the diameter of an AME. MOQ wider behind than in front in the ratio of 10.6 and wider behind than long in the ratio of 10.9. Height of the clypeus is equal to 3/2 of the diameter of an AME.

Chelicerae The retromargin has two even teeth which are almost touching. The promargin has a carina and two teeth. The five minute teeth possessed by a male appear to be lacking.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, d.0.1. p.1.2. r.0. Tarsus, numerous. Trichobothria. Tibia, 1.1.1. Tarsus, 0 but with a subdistal tarsal organ. The claw has six teeth.

Legs The prolateral spine on the femur of the first leg is not present. There is no calamistrum. Although stout setae are present distally on the metatarsi of the second, third and fourth legs these are not arranged in a comb.

Abdomen The cribellum has been reduced to a colulus shaped like a truncate cone. The epigynum and internal genitalia are shown in Figs. 146, 147.

Types Holotype male and allotype female. Fiordland. Takahe Valley, 20.ii.1954, P. C. Bull (Otago Museum).

Mahura crypta n.sp.

Figs. 148-151

MALE

Measurements

Carapace	length 1.20	width 0.90
Abdomen	length 1.20	width 0.72

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.36	0.78	0.66	0.58	3.28
2	0.78	0.36	0.60	0.59	0.48	2.81
3	0.78	0.31	0.54	0.60	0.42	2.65
4	0.96	0.37	0.78	0.84	0.48	3.93

Colour The general colour is reddish brown without any conspicuous markings.

Eyes The eyegroup is compact and occupies 5/8 of the width of the head. From above and in front both rows are slightly procurved. Ratio of AME.ALE.PME.PLE = 2.5.6.6. AME separated from each other by a distance equal to, and from the ALE by half the diameter of an AME. Laterals subcontiguous. PME separated from each other by 3/2 and from the PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 15.6 and wider behind than long in the ratio of 15.13. Height of clypeus equal to two and a half times the diameter of an AME.

Chelicerae Retromargin with two teeth. Promargin with six teeth of which the distal four are small and peg-like.

Palp (Fig. 148, 149). The tibia is provided with a simple and bifid spinous process. In addition to the typical t-shaped conductor there appears to be a further translucent process rising from the base of the embolus.

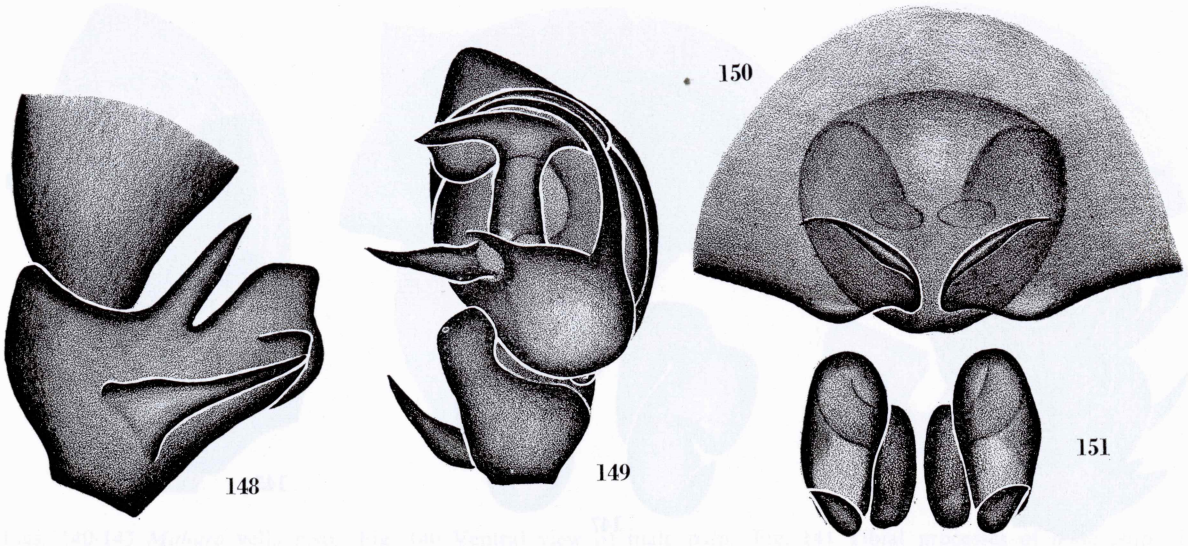
Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.0. p.0.1.1. Metatarsus, v.2.2.0. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.1.0. p.0.1.1. d.0.0.1. Metatarsus, v.1.1.1. p,r.0.1.2. Trichobothria. Tibia, 1.2.2.1. Metatarsus and tarsus, 3. The superior claws of legs with from five-eight teeth. Inferior claw with three teeth. Colulus small. Calamistrum lacking.

FEMALE

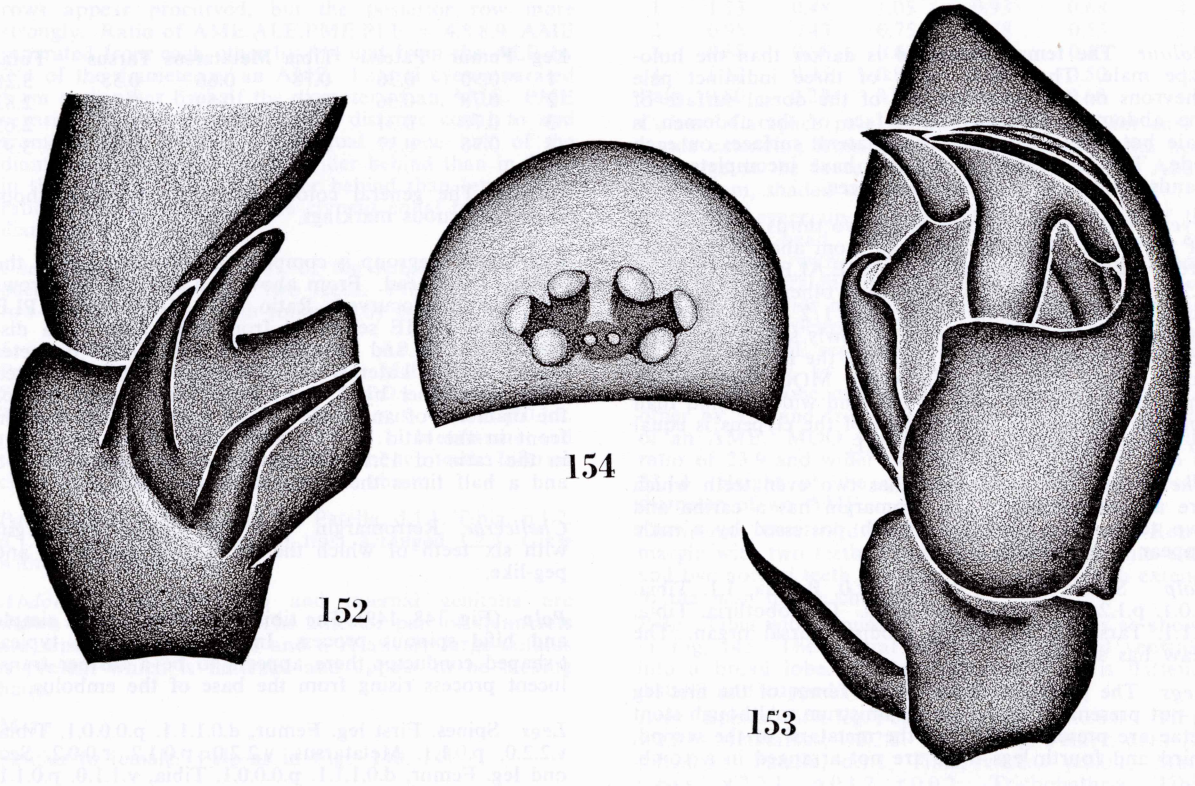
Measurements

Carapace	length 1.20	width 0.80
Abdomen	length 1.36	width 0.84

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.83	0.38	0.70	0.58	0.40	2.89
2	0.75	0.35	0.58	0.55	0.38	2.61
3	0.70	0.35	0.48	0.58	0.33	2.44
4	0.93	0.35	0.75	0.73	0.40	3.16
Palp	0.38	0.20	0.23		0.38	1.19



Figs. 148-151 *Mahura crypta* n.sp. Fig. 148 Tibia processes of male palp. Fig. 149 Ventral view of male palp. Fig. 150 Epigynum. Fig. 151 Internal genitalia.



Figs. 152-154 *Mahura musca* n.sp. Fig. 152 Tibial processes of male palp. Fig. 153 Ventral view of male palp. Fig. 154 Eyes of male, from in front.

Similar to male. Epigynum and internal genitalia as in Figs. 150, 151.

Type Holotype female. Wellington, Days Bay, Mount Ross, ex moss and lichens, 5.iv.1947, R. R. Forster (Dominion Museum).

Mahura musca n.sp.
Figs. 152-154

MALE

Measurements

Carapace	length 1.40	width 0.96
Abdomen	length 1.16	width 0.72

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.30	0.50	1.30	1.13	0.70	4.93
2	1.00	0.43	0.88	0.85	0.55	3.71
3	0.88	0.40	0.65	0.83	0.50	3.26
4	1.18	0.38	1.08	1.05	0.58	4.27

Colour Cephalothorax and legs pale yellow. Abdomen cream.

Eyes The eyegroup is compact and occupies 7/12 of the width of the head. From above both rows appear straight but from in front the anterior row appears straight and the posterior row is gently procurved. Ratio of AME.ALE.PME.PLE = 3.8.7.7. AME separated

from each other by a distance equal to 2/3 and from the ALE by 1/3 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 5/3 and from the PLE by 2/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 19.8 and wider behind than long in the ratio of 19.14. Height of the clypeus equal to twice the diameter of an AME.

Chelicerae Slightly less than one third of the length of the carapace. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Tibia with a strong bifid spine on the retrolateral surface, median apophysis swollen subdistally (Fig. 152).

Legs Clothed with slender, finely ciliate hairs. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.2.2.0. Metatarsus, v.2.2.2.2. p.0.0.1. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.1. p.0.1.1. d.0.1.0.0. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Trichobothria. Tibia, 1.2.1.1. Metatarsus, 4. Tarsus, 3. Superior claws with eight teeth, inferior claw with three long teeth. No calamistrum.

Abdomen The posterior pair of spinnerets are relatively small. Anterior pair of spinnerets separated at the base. Colulus small and clothed with short hairs.

Types Holotype male. Westland. Waiho Gorge, leafmould and moss, 26-27.i.1954, J. T. Salmon (Dominion Museum).

Mahura tarsa n.sp.

Figs. 155-156

FEMALE

Measurements

Carapace length 1.20 width 0.84
Abdomen length 1.32 width 1.08

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.84	0.36	0.72	0.62	0.48	3.02
2	0.78	0.36	0.54	0.78	0.42	2.88
3	0.66	0.30	0.48	0.66	0.36	2.46
4	0.96	0.42	0.78	0.84	0.42	3.42
Palp	0.38	0.20	0.24		0.36	1.18

Colour Cephalothorax and legs pale yellow brown with faint blackish shading. Abdomen cream, heavily shaded with black.

Eyes From above the posterior row is slightly procurved and the anterior row straight. From in front the posterior row and the anterior row appear procurved. Ratio of AME.ALE.PME.PLE = 2.6.5.6. AME separated from each other by a distance equal to the diameter of one of the AME and from the ALE by half this distance. Laterals subcontiguous. PME separated from each other by 5/2 and from the PLE by half the diameter of an AME. MOQ wider behind than in front in the ratio of 15.6 and wider behind than long in the ratio of 15.11. Height of the clypeus is two and a half times the diameter of an AME.

Chelicerae Retromargin with two teeth, promargin with five of which the first three are minute.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.0.1. Tarsus many. Five trichobothria are present on the tibia distributed 2.2.1. The claw is provided with six teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.0. p.0.1.1. d.1.0.1. Metatarsus, v.2.2.0. p,r.0.0.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v.1.1.1. p.0.1.1. Metatarsus, v.1.2.2. p.0.1.2. r.0.0.2. d.0.1.0. Trichobothria. Tibia, 2.1.2.2. Metatarsus, 1.1. Tarsus, 1.1.1. Superior claws of legs 1 and 2 provided with 12 teeth and 3 and 4 with six teeth. Inferior claws of all legs with two teeth.

Abdomen Epigynum with lateral lobes between which is a narrow plate produced to a sharp point anteriorly (Fig. 155). Internal genitalia simple, as in Fig. 156.

Type Holotype female. Taranaki. Dawson Falls, Mount Egmont, leafmould from subalpine belt, 3,600 ft, v.1954, M. P. Buchler (Otago Museum).

Records Mount Egmont, leaflitter, 21.iii.1969, R.R.F., C.L.W. Waipatiki Stream, National Park, leaflitter, 1,100 ft, 1.iv.1961, C.L.W.

Mahura southgatei n.sp.

Figs. 157-160

MALE

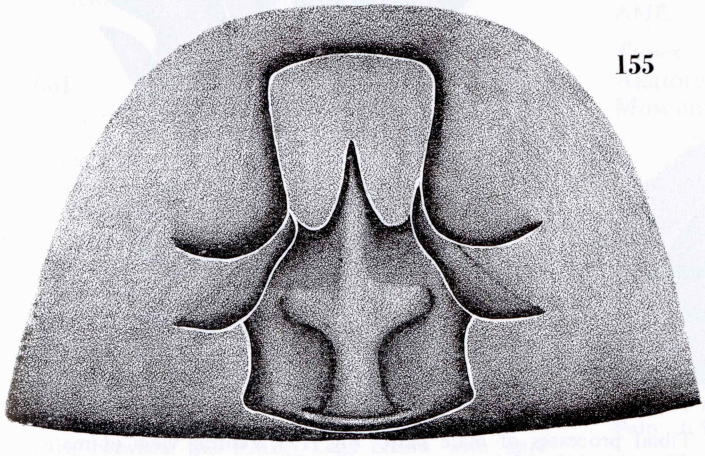
Measurements

Carapace length 1.28 width 0.96
Abdomen length 1.24 width 0.80

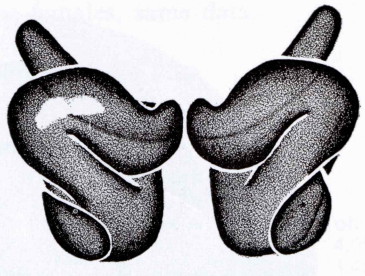
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.88	0.35	0.78	0.70	0.55	3.26
2	0.80	0.38	0.58	0.63	0.45	2.84
3	0.75	0.33	0.53	0.68	0.35	2.64
4	1.00	0.38	0.75	0.85	0.45	3.43

Colour Carapace pale yellow brown. Legs pale yellow brown. Abdomen cream shaded with dark brown which leaves the mid-dorsal and ventral surfaces pale.

Eyes The eyegroup occupies 2/3 of the width of the head. From above both rows are straight, but from in front both rows are gently procurved. Ratio of AME. ALE.PME.PLE = 2.8.8.8. AME separated from each



155



156

Figs. 155-156 *Mahura tarsa* n.sp. Fig. 155 Epigynum. Fig. 156 Internal genitalia.

other by 2/2 and from the ALE by 1/2 of the diameter of the AME. Lateral eyes contiguous. PME separated from each other by 4/2 and from the PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 10.3 and wider behind that long in the ratio of 10.7. Height of the clypeus equal to five times the diameter of an AME.

Chelicerae Length equal to 3/11 of the carapace. Retromargin with two teeth, promargin with five minute teeth followed by two normal teeth and a carina which extends to the base of the chelicera.

Palp Tibial processes as shown in Fig. 157. Median apophysis tubular and slightly sinuous (Fig. 158).

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.0. p.0.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.1. p.0.1.1. d.1.0.1. Metatarsus, v.1.2.1. p.0.1.2. r.0.0.2. Trichobothria Tibia, 1.2.2.2. Metatarsus and tarsus, 3. Superior claws with from nine-ten teeth. Inferior claw with two long teeth. No calamistrum.

Abdomen Posterior pair of spinnerets smaller than the anterior pair. Anterior pair separated at the base. Colulus small.

FEMALE

Measurements

Carapace length 1.08 width 0.76
Abdomen length 1.20 width 0.72

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.75	0.30	0.63	0.55	0.43	2.66
2	0.65	0.30	0.45	0.48	0.35	2.23
3	0.63	0.25	0.70	0.45	0.38	2.41
4	0.83	0.35	1.00	0.70	0.43	3.31
Palp	0.35	0.13	0.20		0.28	0.96

The female is similar in general structure to the male. The head region of the carapace is more clearly defined with the lateral margins parallel rather than convergent. The palp is spined as follows. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p,d.1.1. Six trichobothria present on the tibia in three pairs. Claw with seven teeth. The epigynum is characterised by a broad triangular median plate and narrow lateral flanges (Fig. 159). The internal genitalia are shown in Fig. 160.

Types Holotype male, allotype female. Westland. Lewis Pass, leaflitter, 20.v.1949, G. Southgate (Canterbury Museum).

Records Lewis Pass, 29.i.1956, R.R.F. Riordan's Bridge, Lewis Pass, 21.ix.1970, 16.viii.1966, C.L.W. Shenandoah Saddle, 1,650 ft, 16.viii.1966, C.L.W. Jackson's Creek, Maruia Springs, 16.viii.1966, C.L.W. Moana, 10.iii.1950, R.R.F. Arthurs Pass, 28.ix.1966, R.R.F., C.L.W. Bealey, 29.ix.1966, R.R.F., C.L.W. Otira River, moss, 29.v.1954, J. S. Dugdale. Lake Sumner, moss, 13.iv.1957, J. S. Dugdale. Nelson, Upper Takaka, 13.v.1953, C. Holmes.

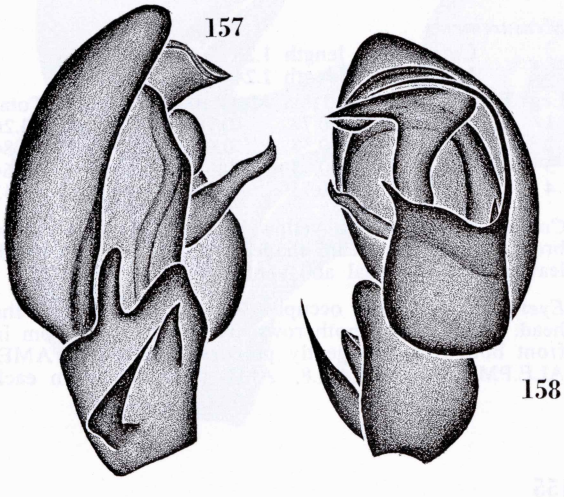
Mahura scuta n.sp.

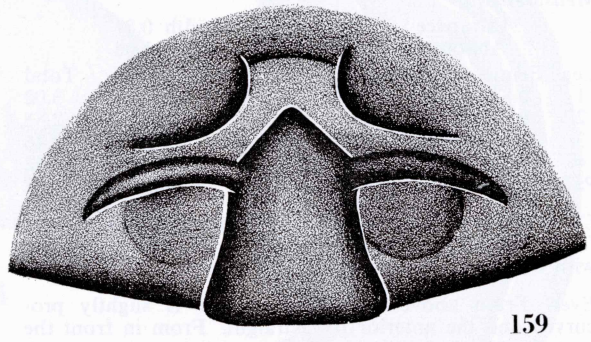
Figs. 161-162

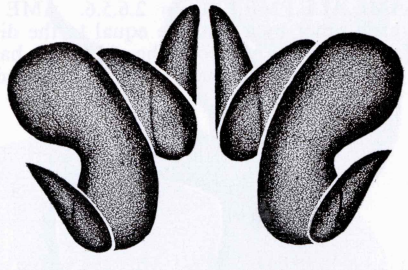
FEMALE

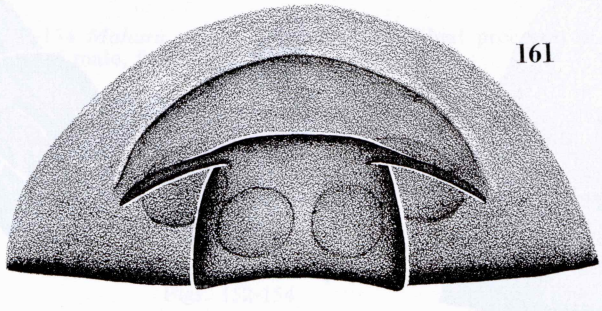
Measurements

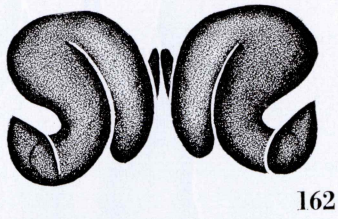
Carapace length 1.14 width 0.78
Abdomen length 1.44 width 1.02











Figs. 157-150 *Mahura southgatei* n.sp. Fig. 157 Tibial processes of male palp. Fig. 158 Ventral view of male palp. Fig. 159 Epigynum. Fig. 160 Internal genitalia. Figs. 161-162 *Mahura scuta* n.sp. Fig. 161 Epigynum. Fig. 162 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.72	0.31	0.60	0.48	0.38	2.49
2	0.66	0.30	0.44	0.42	0.36	2.18
3	0.66	0.30	0.42	0.46	0.34	2.18
4	0.80	0.36	0.62	0.46	0.37	2.81
Palp	0.36	0.22	0.24		0.32	1.13

Colour Cephalothorax and legs uniform yellow-brown. Abdomen cream with sparse black shading.

Eyes The eyegroup is compact and occupies 5/9 of the width of the head. From above both rows appear straight. From in front both rows are gently procurved. Ratio of AME.ALE.PME.PLE = 1.6.5.6. AME separated from each other by twice the diameter of an AME. AME separated from the ALE by a distance equal to the diameter of an AME. Laterals contiguous. PME separated from the PLE by a distance equal to the diameter of an AME and separated from each other by a distance equal to 4 times the diameter of an AME. MOQ wider behind than in front in the ratio of 14.4 and wider behind than long in the ratio of 14.9. Height of the clypeus equal to 5 times the diameter of an AME but this ratio reflects the small size of the AME rather than the relative height of the clypeus when compared with other species.

Chelicerae Retromargin with two teeth, promargin with five of which the distal three are small.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.1. Tarsus many. Claw with six teeth. Five trichobothria on tibia arranged 1.1.2.1.

Legs Spines. First leg. Femur, d.0.1.1.0. p.0.0.1. patella, d.1.1. Tibia, v.2.2.0. d.1.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.0. p.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.1. d.0.0.2. Trichobothria are present on all tibiae, metatarsi and tarsi in a single row of three. Superior claws of legs 1 and 2 with 11 teeth, 3 and 4 with seven teeth. Inferior claw appears to be smooth. The calamistrum consists of six hairs and extends down one third of the segment.

Abdomen The median plate of the epigynum is well developed and is shown in Fig. 161. Cribellum small, divided.

Type Holotype female. Canterbury. Lake Taylor, leafmould, iv.1952, R. R. Forster.

Records Arthurs Pass, 2.xi.1969, C.L.W. Arthurs Pass, 9.xii.1949, 12.ix.1949, R.R.F. Arthurs Pass, moss, April 1955, R. L. Pilgrim. Rough Creek, Arthurs Pass, moss, 28.iii.1954, J. S. Dugdale. Cass, July 1949, R.R.F. Otira, leaflitter, 18.x.1953, J. S. Dugdale. Broken River, 21.vi.1954, R.R.F. Lake Sumner, moss, 13.iv.1952, R.R.F. Lake Taylor, leaflitter, April 1952, R.R.F.

Mahura rufula n.sp.

Figs. 163-166

FEMALE

Measurements

Carapace	length 1.35	width 0.95	
Abdomen	length 1.30	width 0.95	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.00	0.45	0.85	0.70	0.50	3.50
2	0.90	0.45	0.65	0.60	0.45	3.05
3	0.80	0.40	0.50	0.70	0.40	2.80
4	1.05	0.50	0.85	0.90	0.50	3.80
Palp	0.45	0.25	0.25		0.45	1.40

Colour Carapace rather pale cream but heavily shaded on the head, posterior slope, upper lateral surfaces and margins. Eyes on a black patch which does not include the space between the PME. Legs cream with dark bands which are most conspicuous on the ventral surfaces of the femora. The distal halves of the coxae are shaded black and also the sternum and mouth parts. The abdomen is brownish grey with pale flecks. There is an indistinct pattern of chevrons on the mid-dorsal and posterior surfaces. Both the mid-dorsal and ventral surfaces have a reddish tinge.

Eyes The group occupies 7/12 of the width of the head. From in front the anterior row is procurved so that the posterior margins of the AME are behind those of the ALE and the posterior row is procurved. From above the anterior row is slightly recurved and the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 2.5.5.5. AME separated from each other by 1/2 their diameter and from the ALE by slightly less than that distance. Laterals narrowly separated. PME separated from each other by the diameter of an AME and from PLE by slightly less than that distance. MOQ wider behind than in front in the ratio of 12.5 and wider behind than long in the ratio of 12.11. Height of the clypeus equal to twice the diameter of an AME.

Palp Spination and trichobothrial pattern typical. Claw with seven teeth.

Legs Femoral spines rather long. Prolateral spine on the femur of the first pair of legs wanting. Spines. First leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. (small). Tibia, v.2.2.0. p,r.0.0. d.1.1. (small). Metatarsus, v.2.2.0. p.1 median, 1 distal. r.0.1 distal. Trichobothria. Tibia, pro-row, 5, retro-row, 5. Metatarsus, 5. Tarsus, 4. Superior claws with nine teeth and inferior claw with one tooth. Calamistrum lacking.

Abdomen Colulus relatively large and notched behind. The epigynum and internal genitalia are shown in Figs. 163, 164.

MALE

Measurements

Carapace	length 1.60	width 1.30	
Abdomen	length 1.55	width 1.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.37	0.50	1.35	1.17	0.75	5.15
2	1.15	0.50	0.92	0.90	0.55	4.02
3	1.00	0.45	0.70	0.87	0.51	3.52
4	1.30	0.52	1.17	1.20	0.57	4.76
Palp	0.62	0.25	0.25		0.70	1.82

Similar to the female. The bulb and the tibial processes of the palp are shown in Figs. 165, 166.

Eyes The group occupies 3/4 of the width of the head. Ratio of AME.ALE.PME.PLE = 4.7.7.7. The AME are separated from each other by a distance equal to 2/4 and from the ALE by 1/4 of the diameter of an AME. The PME are separated from each other by 3/4 and from the PLE by 2/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 17.10 and is longer than wide in the ratio of 18.17. Height of the clypeus is equal to 15.4 of the diameter of an AME.

Types Holotype female, allotype male. Otago. Akatore Creek, 16.iv.1966, C. L. Wilton (Otago Museum). Paratype females, same data.

Mahura rubella n.sp.

Figs. 167-168

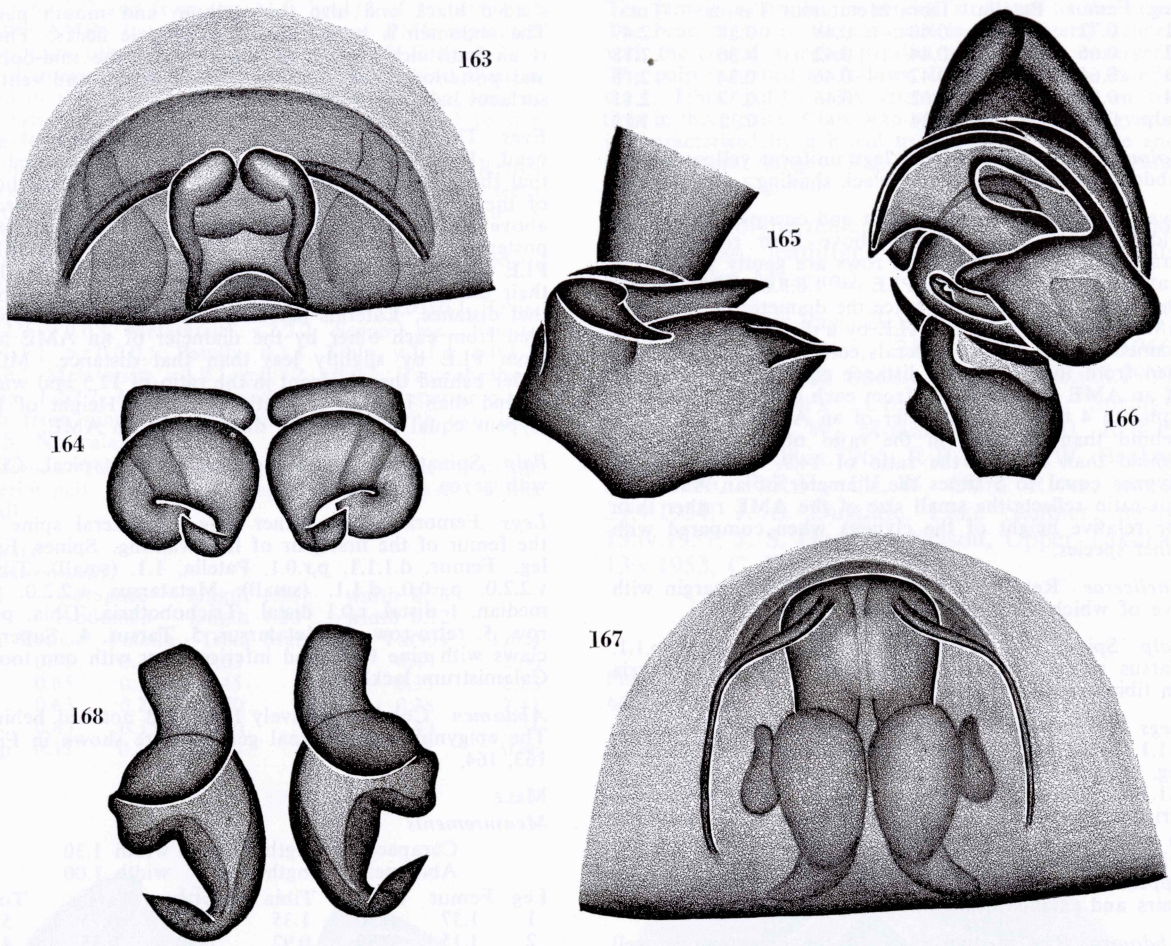
FEMALE

Measurements

Carapace	length 1.40	width 1.00	
Abdomen	length 1.50	width 1.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.10	0.45	1.00	0.90	0.60	4.05
2	0.95	0.45	0.75	0.75	0.50	3.40
3	0.90	0.45	0.60	0.80	0.45	3.20
4	1.10	0.50	0.90	1.05	0.60	4.15
Palp	0.50	0.25	0.35		0.45	1.55

Colour Carapace pale cream with dark shading on the upper lateral slopes, the posterior slope and the lateral



Figs. 163-166 *Mahura rufula* n.sp. Fig. 163 Epigynum. Fig. 164 Internal genitalia. Fig. 165 Tibial processes of male palp. Fig. 166 Ventral view of male palp. Fig. 167-168 *Mahura rubella* n.sp. Fig. 167 Epigynum. Fig. 168 Internal genitalia.

margins. Eyes on a black patch which does not include the space between the PME. Legs pale with dark bands. The sternum, maxillae, labium and coxae shaded with black. The abdomen is brownish grey with a median longitudinal band which has a reddish tinge. The ventral surface is also reddish.

Eyes The group occupies 7/13 of the width of the head. From in front the anterior row and the posterior row are typically procurved. From above the anterior row is slightly recurved and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 2.5.5.5. AME separated from each other by a distance equal to their diameter and from the ALE by half that distance. Laterals narrowly separated. PME separated from each other by 3/2 and from the PLE by 2/2 of the diameter of an AME. MOQ wider behind than in front in the ratio of 13.6 and wider behind than long in the ratio of 13.12. Height of the clypeus is equal to 5/2 of the diameter of an AME.

Legs Similar to those of *M. rufula*. No calamistrum.

Abdomen The colulus has a broad base which is as wide as the diameter of an anterior spinneret and the summit has a deep and narrow notch. The epigynum and internal genitalia are shown in Figs. 167, 168.

Type Holotype female. Stewart Island. Fern Gully, 20.i.1970, D. Cresswell (Otago Museum).

Mahura bainhamensis n.sp.

Figs. 169-170

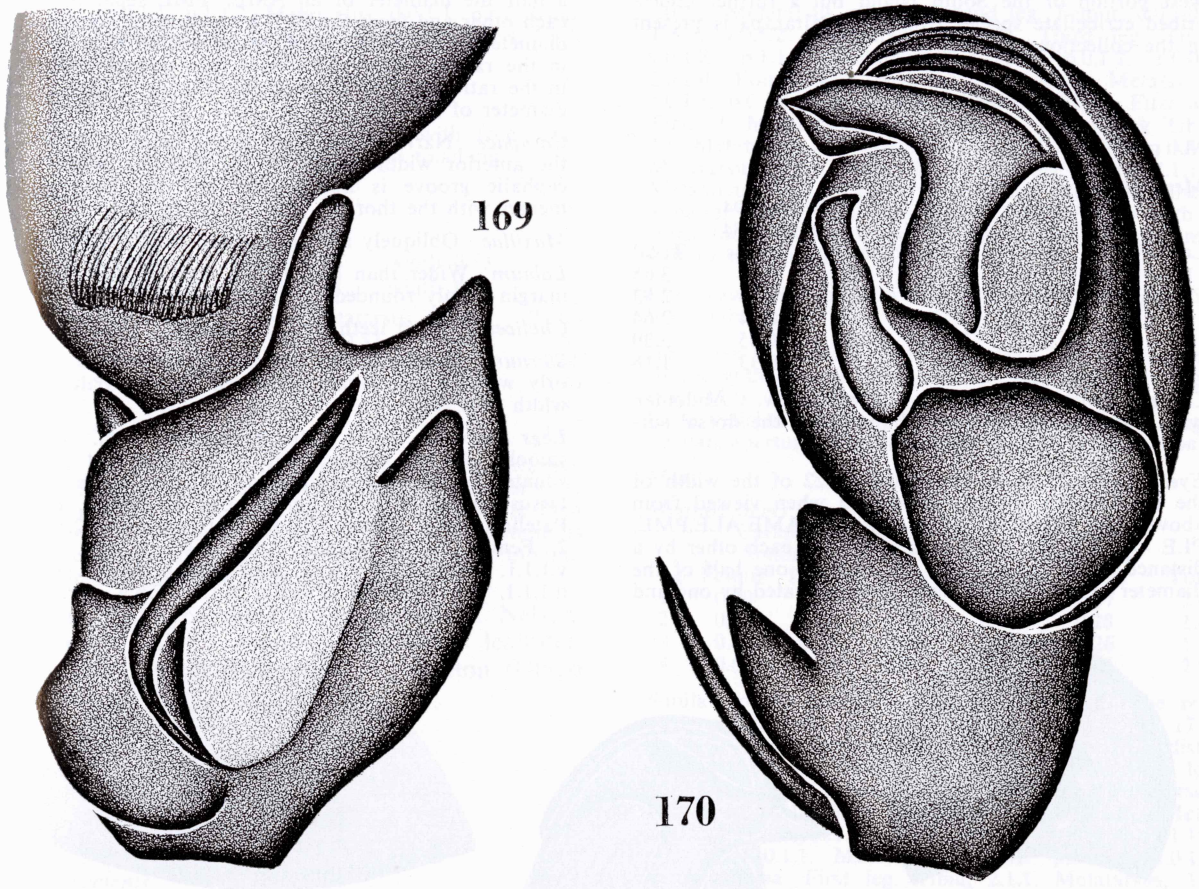
MALE

Measurements

	Carapace		length 1.30		width 1.00	
	Abdomen		length 1.20		width 0.80	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.35	0.85	0.75	0.55	3.40
2	0.85	0.40	0.65	0.65	0.50	3.05
3	0.75	0.35	0.55	0.65	0.35	2.65
4	0.95	0.40	0.85	0.90	0.40	3.50
Palp	0.50	0.20	0.25		0.55	1.50

Colour The cephalothorax and appendages very pale cream. The lateral eyes and the AME are on a common black patch and the PME are each on separate black spots the anterior margins of which each touch the common black area. The dorsal surface of the abdomen is shaded black. On the anterior portion are three pairs of irregular pale spots which are followed by several pale chevrons. The ventral surface is pale with slight shading medially.

Eyes The group occupies 2/3 of the width of the head. From in front the anterior row is procurved so that the posterior margins of the small AME are behind the posterior margins of the ALE and the posterior row is procurved. From above both rows are very slightly recurved. Ratio of AME.ALE.PME.PLE = 2.4.4.4. AME separated from each other by half their diameter and separated from the ALE by slightly less than that



Figs. 169-170 *Mahura bainhamensis* n.sp. Fig. 169 Tibial processes of male palp and comb on the base of the cymbium. Fig. 170 Ventral view of male palp.

distance. Lateral eyes narrowly separated. PME separated from each other by a diameter of an AME and from the PLE by half that distance. MOQ wider behind than in front in the ratio of 10.5 and is wider behind than long in the ratio of 10.9. Height of the clypeus equal to 7/2 of the diameter of an AME.

Palp At the base of the retromargin of the cymbium is a row of curved setae resembling a calamistrum (Fig. 169). The tibial processes and the bulb are shown in Fig. 170.

Legs Spines. First leg. Femur, prolateral spine wanting, d.1.1.1. p,r.0.1. Tibia, v.2.2.0. p.0.1. r.0. d.1.0. Metatarsus, v.2.2.2. p,r.0. Second leg. Femur, d.1.1.1. p,r.0.1. Tibia, p.d.1.1. r.0. Metatarsus, v.2.2. and subwhorl of 5, p.1. r.0. Calamistrum wanting. Trichobothria. First leg. Tibia, in two rows each with 4. Metatarsus and tarsus, 3. Tarsal organ distal to the trichobothria. Superior claws with nine teeth and the inferior claw with one tooth.

Abdomen Colulus broad at the base with a rounded summit. Anterior spinnerets separated from each other by a distance equal to 2/3 of the diameter of an anterior spinneret.

Type Holotype male. Nelson, four miles south of Bainham, 9.iii.1967, C. L. Wilton (Otago Museum).

Porotaka n.gen.

Small (1.5-3mm in body length) spiders, both cribellate and ecribellate. Eyegroup compact with both rows definitely procurved from in front. AME minute. Remaining eyes subequal. Sternum shield shaped, as long as wide or slightly longer than wide. Labium notched at the base, wider than long. Chelicerae with two teeth on the retromargin and from two-five on the promargin. Legs 4123. Plumose hairs lacking. Spination weak but spines present on all legs. Femora with mid-dorsal row of spines only. Tibia of the first pair of legs lacking the distal pair of ventral spines. Tibiae each with one basal dorsal spine. Metatarsal distal whorl of spines on the first pair of legs reduced to two spines. Trichobothria few but in double row on tibiae and a single row on metatarsi and tarsi. Tarsal organ subdistal. Superior claws similar and strongly pectinate. Inferior claw with a single or without teeth. Calamistrum when present proximal. Claw tufts, scopulae and tenent hairs lacking. Female palp with trichobothria in a double row on the tibia, but absent from the tarsus. Claw strongly pectinate. Tibia of male palp with retrolateral processes but without the spinous process characteristic of *Mahura*. Embolus spiniform, curving around the bulb from the retromargin. Conductor prominent, T-shaped. Median apophysis well developed but not hooked. Epigynum simple with a small plate on the posterior margin. Internal genitalia with spherical receptacula and clearly defined tubular ducts. Cribellum when present small, with divided spinning field. Colulus small, setose.

Type species *Porotaka detrita* n,sp.

The two species described below, one cribellate and the other ecribellate, are undoubtedly related but if further species were known they would probably be placed into separate genera. *Porotaka* is closely related to *Mahura* and is separated from it mainly by the form of the receptacula and ducts of the internal genitalia and the simple epigynum. The male palp also lacks the sharp retrolateral process on the tibia typical for *Mahura*. These spiders are at present recorded from the north-

west portion of the South Island but a further undescribed ecribellate species from the Wairarapa is present in the collections studied.

Porotaka detrita n.sp.

Figs. 171-175

MALE

Measurements

	Carapace		length 1.34		width 0.94	
	Abdomen		length 1.23		width 0.84	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.94	0.32	0.92	0.83	0.64	3.65
2	0.83	0.31	0.64	0.62	0.53	2.93
3	0.74	0.31	0.53	0.62	0.44	2.64
4	0.84	0.33	0.84	0.83	0.55	3.39
Palp	0.44	0.20	0.21		0.33	1.18

Colour Carapace and legs straw yellow. Abdomen with a broad reddish brown band down the dorsal surface. Ventral surface reddish brown.

Eyes Compact group occupying 17/22 of the width of the head. Both strongly procurved when viewed from above or in front (Fig. 171). Ratio of AME.ALE.PME. PLE = 2.8.10.10. AME separated from each other by a distance equal to and from the ALE by one half of the diameter of an AME. Lateral eyes separated by one and a half the diameter of an AME. PME separated from each other and from the PLE by a distance equal to the diameter of an AME. MOQ wider behind than in front in the ratio of 22.6 and longer than wide in the front in the ratio of 19.6. Clypeus three times as high as the diameter of an AME.

Carapace Narrowing sharply in the head region where the anterior width is 4/9 of the thoracic width. The cephalic groove is not distinct and the head region merges with the thorax.

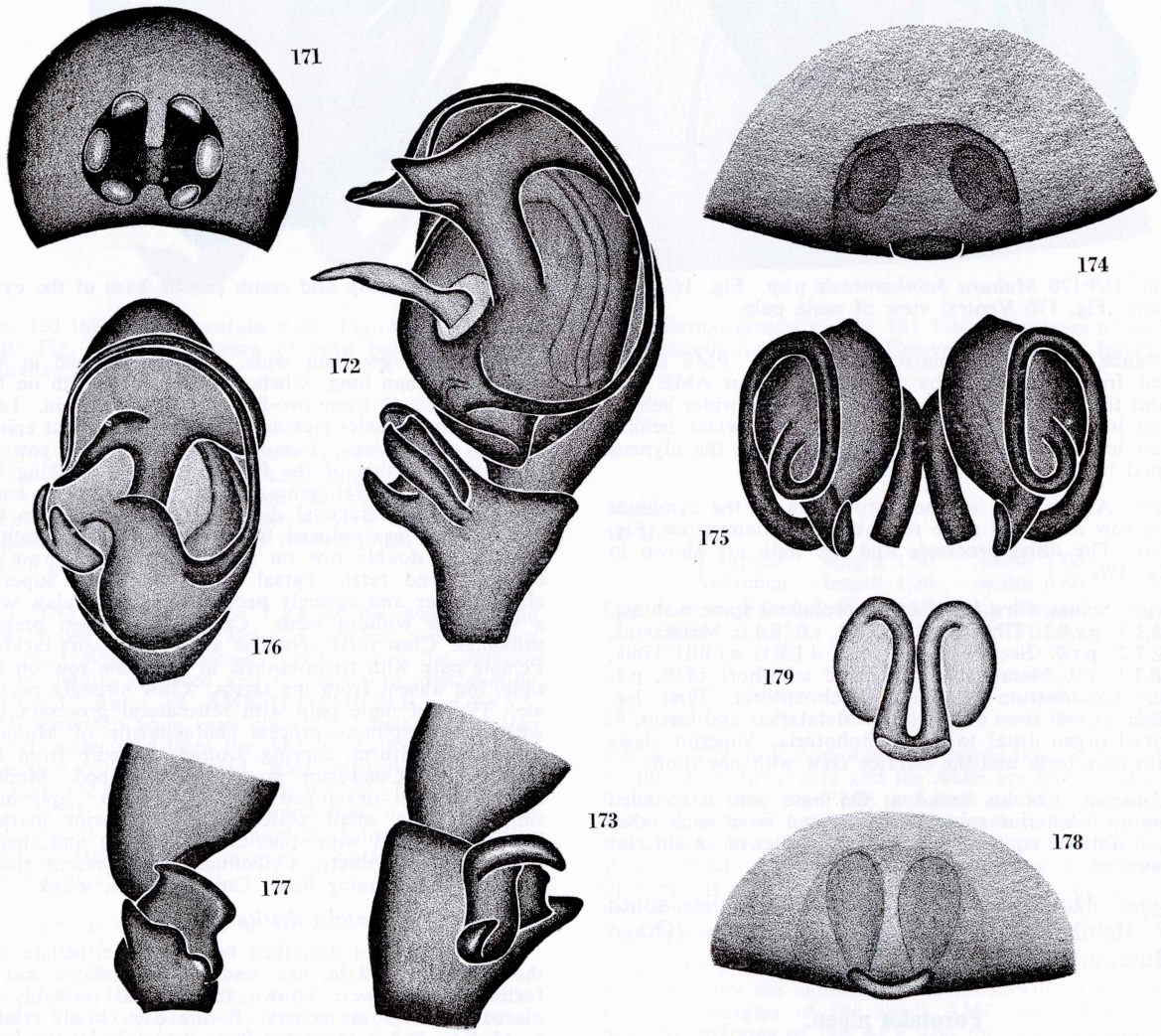
Maxillae Obliquely rectangular and slightly convergent.

Labium Wider than long in the ratio of 9.5. Anterior margin evenly rounded, notches absent.

Chelicerae Two teeth on each margin.

Sternum Scutiform. As wide as long, pointed posteriorly where coxae 4 are separated by one half of the width of a coxa.

Legs Superior claws with seven-eight teeth. Inferior smooth. Tarsal organ subdistal on the first leg but situated at about three-quarters of the length of the tarsus on other legs. Spines. Leg 1. Femur, d.1.1.1. Patellae, d.0.1. Tibia, v.1.1.0. Metatarsus, v.1.2.1. Leg 2. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1.0. p.0.0.1. v.1.1.1. Metatarsus, v.1.2.2. p,r.1. distal. Leg 3. Femur, d.1.1.1. p.1 subdistal. Patella, d.1.1. Tibia, p,r.1.0.1.1.



Figs. 171-175 *Porotaka detrita* n.sp. Fig. 171 Eyes of female from in front. Fig. 173 Ventral view of male palp. Fig. 173 Tibial processes of male palp. Fig. 174 Epigynum. Fig 175 Internal genitalia. Figs. 176-179 *Porotaka florae* n.sp. Fig. 176 Ventral view of male palp. Fig. 177 Tibial processes of male palp. Fig. 178 Epigynum. Fig. 179 Internal genitalia.

Leg 4. Femur, d.1.1.1. p.1 distal. Patella, d.1.1. Tibia, d.1.1.0. p,r.0.1.1. v.1.1.2. Metatarsus, d.0.1.1. p,r.2 distal. v.0.2.1. Trichobothria. Tibia, 1.2.1.1.1. Metatarsus, 1.1.1. Tarsus, 1.1.

Palp As in Figs. 172, 173.

Abdomen The colulus is very small with from two-three hairs. Anterior spinnerets almost touching.

FEMALE

Measurements

	Carapace	length 1.92		width 0.73		
	Abdomen	length 1.23		width 0.93		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.73	0.34	0.53	0.52	0.41	2.53
2	0.52	0.23	0.41	0.43	0.41	2.00
3	0.52	0.22	0.41	0.43	0.41	1.99
4	0.71	0.34	0.64	0.64	0.52	2.85
Palp	0.42	0.21	0.22		0.32	1.17

Similar to the male in most characters. The carapace is much narrower and does not narrow anteriorly so that the width of the head region is slightly more than one half of the width of the thorax. The sternum is also relatively narrower. The epigynum and internal genitalia are shown in Figs. 174, 175.

Types Holotype male, allotype female. Nelson. Karamea Bluff summit, 1,420 ft, leaflitter, 29.ix.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Porotaka florae n.sp.

Figs. 176-179

FEMALE

Measurements

	Carapace	length 0.78		width 0.54		
	Abdomen	length 0.78		width 0.54		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.54	0.29	0.42	0.30	0.30	1.85
2	0.46	0.24	0.30	0.29	0.26	1.55
3	0.42	0.20	0.28	0.30	0.24	1.44
4	0.56	0.24	0.42	0.42	0.26	1.90
Palp	0.24	0.16	0.12		0.24	0.76

Colour Cephalothorax yellow brown with faint dark shading. Legs uniform orange brown. Abdomen cream with dark shading forming indistinct bands on the posterior half of the dorsal surface.

Eyes The eyegroup is compact and occupies one half of the width of the head. From above both rows appear straight. In front the anterior row appears straight but the posterior row is gently procurved. Ratio of AME. ALE.PME.PLE = 1.4.4.4. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Laterals contiguous. PME separated from each other by three times and from the PLE by twice the diameter of an AME. Height of the clypeus equal to three times the diameter of an AME. MOQ wider behind that in front in the ratio of 11.3 and wider behind than long in the ratio of 11.7.

Sternum Longer than wide in the ratio of 9.7. Anterior margin straight, lateral margins evenly curved. Coxae 4 separated from each other by a distance equal the width of a coxa.

Maxillae Convergent. Lateral margins straight and parallel. Anterior margin rounded. Twice as long as wide.

Labium Evenly rounded. Twice as wide as long.

Palp Spines. Femur and patella, d.0.0.1. Tibia, p.1. Tarsus many. Three trichobothria on tibia arranged 2.1. Tarsal claw with four minute teeth.

Legs 4123. Spines. First leg. Femur, d.0.1.0.0.0. Tibia, v.0.2.2. Metatarsus, v.1.2.1. Second leg. Femur, d.0.1.0.0. Tibia, v.0.1.2. Metatarsus. v.0.1.0. Third leg. Tibia, v.0.1.2. p.1.1.0. Metatarsus, v.0.0.2. p.0.1.2. r.0.0.2. d.0.1.0. Fourth leg.* Tibia, v.1.1.2. p,r.0.0.1. Metatarsus, v.0.1.1. p.0.1.2. r.0.0.2. d.0.1.0. Trichobothria. First leg. Tibia, 1. Metatarsus and tarsus, 1.1. Second leg Tibia, 2.1. Metatarsus and tarsus, 1.1. Third leg. Tibia, 1.1.1. Metatarsus, 1.1. Tarsus, 1. Fourth leg. Tibia, 2.1.1.1. Metatarsus, 1.1. Tarsus, 1. Tarsal organ subdistal. Superior claws with nine teeth. Inferior claw with a single tooth. Calamistrum of seven hairs along proximal half of metatarsus.

Chelicerae Retromargin with two teeth, promargin with five teeth.

Abdomen Cribellum small, divided. The epigynum is simple with a small oval plate on the posterior margin (Fig. 178). The internal genitalia consists of a pair of large vesicles which open posteriorly through a single median aperture (Fig. 179).

MALE

Measurements

	Carapace	length 0.90		width 0.66		
	Abdomen	length 0.90		width 0.66		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.60	0.24	0.48	0.38	0.37	2.07
2	0.48	0.24	0.36	0.31	0.28	1.67
3	0.42	0.22	0.26	0.30	0.26	1.46
4	0.60	0.24	0.42	0.43	0.31	2.00

Similar to the female in general characters. The processes on the tibia of the palp are simple (Figs. 176, 177). A single broad spinous process is present and the distal lobe is short and obtuse. Legs 1423. Spines. First leg. Metatarsus, v.0.2.2. Second leg. Tibia, v.0.1.0. Metatarsus, v.1.1.2. p,r.0.0.1. Third leg. Tibia, v.0.0.2. p,r.0.0.1. Metatarsus, v.0.0.1. p.0.1.2. r.0.0.2. Fourth leg. Tibia, v.1.1.2. p,r.1.1.0. d.0.1.1. Metatarsus, v.0.0.1. p,r.0.1.2. d.0.1.1. Trichobothria. First leg. Tibia, 2.1.1. Metatarsus, 1.1. Tarsus, 1. Second leg. Tibia and metatarsus, 1.1. Tarsus, 1. Third leg. Tibia, 1. Metatarsus and tarsus, 1.1. Fourth leg. Tibia, 2.1.1. Metatarsus and tarsus, 1.1.

Types Holotype male, allotype female. Nelson. Leslie Valley Track, leafmould from beech forest, 23.i.1948, R. R. Forster (Dominion Museum).

Tuapoka n.gen.

Minute (1.5-2mm in body length) cribellate spiders. The eyegroup occupies approximately 3/5 of the width of the head. Both rows straight or only slightly procurved. AME very small. Remaining eyes sub-equal. Sternum scutiform, longer than wide. Labium much wider than long and notched at the base. Chelicerae vertical, with boss. Retromargin with one-two and promargin with three-five teeth. Legs 4123, clothed with ciliate hairs. Strongly spined on all legs. Femora with no more than the two basal spines of the mid-dorsal row sometimes reduced to one. The distal ventral spines of the tibia of the first pair of legs wanting. Distal whorl on the metatarsus of the first pair of legs reduced to one or two spines. All tibiae with one dorsal spine only, situated basally. Trichobothria few, in a double row on the tibiae and a single row on metatarsi and tarsi. Superior claws similar and strongly pectinate. Inferior claw smooth or with a single tooth. Claw tufts and tenent hairs absent. Calamistrum proximal, with from seven-eight hairs. Epigynum with a large median cavity. Internal genitalia tubular without distinct spherical receptacula. Anterior pair of spinnerets distinctly separated. Cribellum much wider than long. Spinning fields divided. Male palp with strong retrolateral tibial processes. Embolus spiniform, stout, evenly curved. Conductor in form of a strong curved plate originating from near the base of the embolus and not modified distally. Median apophysis well developed, hooked apically.

Type species *Tuapoka ovalis* n.sp.

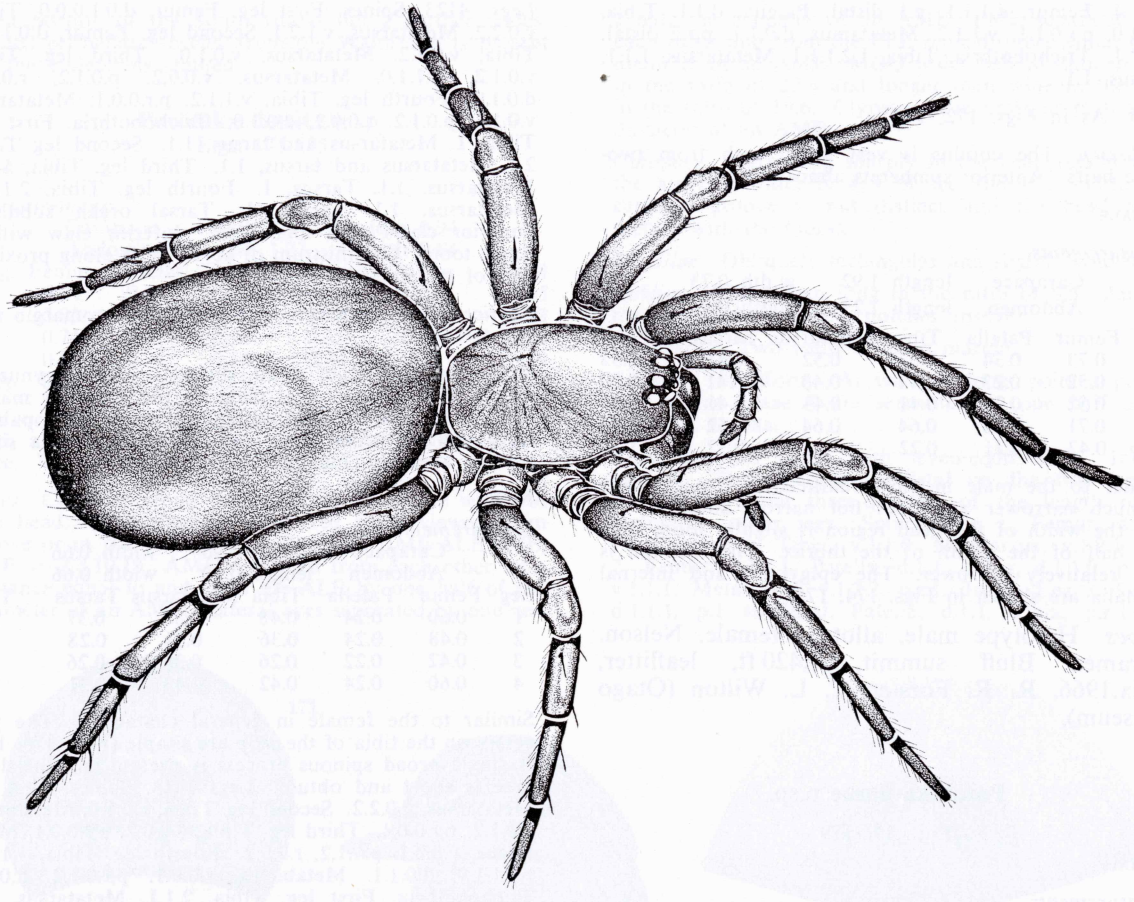


Fig. 184 *Tuapoka ovalis* n.sp. female.

These small spiders live in the litter and moss on the forest floor. *Tuapoka* is related to *Ahua* from which it has been separated mainly on the form of the female epigynum and the male palp. The epigyna are quite different and the conductor of the male palp is distally complex in *Ahua*.

Tuapoka ovalis n.sp.

Figs. 185-188

FEMALE

Measurements

Carapace	length 0.70		width 0.48	
Abdomen	length 0.90		width 0.66	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.48	0.20	0.31	0.29	0.24	1.52
2	0.42	0.20	0.25	0.25	0.25	1.38
3	0.36	0.19	0.24	0.24	0.22	1.25
4	0.52	0.22	0.31	0.36	0.25	1.66
Palp	0.22	0.12	0.13		0.23	0.70

Colour Cephalothorax and legs straw yellow. Abdomen cream.

Eyes Eyegroup compact, occupying 3/5 of the width of the head. From above both rows are straight. From in front the anterior row is straight but the posterior is gently procurved. Ratio of AME.ALE.PME.PLE = 1.4.4.5. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by three times, and from the PLE by a distance equal to the diameter of an AME. MOQ wider behind than in front in the ratio of 11.3 and wider behind than long in the ratio of 11.7. Height of the clypeus equal to twice the diameter of an AME.

Sternum Scutiform. Longer than wide in the ratio of 7.6. Anterior margin gently curved, as are the lateral margins. Coxae 4 are separated from each other by a distance equal to the width of a coxa.

Maxillae Slightly convergent. Lateral margins straight and parallel, anterior margin rounded. Longer than wide in the ratio of 6.5.

Labium Evenly rounded, twice as wide as long.

Chelicerae Retromargin with two teeth, promargin with five.

Palp Spines. Femur, d.0.0.1.0. Tibia, p.1.0. Tarsus many. There is a single pair of trichobothria on the tibia.

Legs Spines. First leg. Femur, d.0.1.0.0. Tibia, v.2.2.0. d.1.0.0. Metatarsus, v.2.2.0. p.0.0.1. Second leg. Patella, d.1.0. Tibia, v.0.1.0. d.1.0.0. Metatarsus, v.1.1.0. p.0.1.0. Third leg. Femur, d.0.1.0.0. Patella, d.1.1. Tibia, v.0.1.1. p,r.0.1.0. d.1.0.0. Metatarsus, v.0.0.1. p.0.0.2. r.0.1.2. Fourth leg. Femur, d.0.1.0.0. Patella, d.0.1. Tibia, v.0.1.2. p.0.0.1. r.0.1.1. d.1.0.0. Metatarsus, v.0.0.1. p.0.1.2. r.0.0.2. d.1.0.1. Trichobothria. First leg. Tibia, 2.1.1. Metatarsus, 1. Tarsus, 1. Second leg. Tibia, 1.2. Metatarsus and tarsus, 1.1. Third leg. Tibia, 1.2.1. Metatarsus and tarsus, 1.1. Fourth leg. Tibia, 2.1.1. Metatarsus and tarsus, 1.1. Calamistrum consists of seven hairs which occupies the proximal half of the segment. Tarsal organ on all tarsi at 2/3. Superior claws with nine teeth, inferior claw with a single tooth.

Abdomen Epigynum conspicuous, consisting of a large oval opening with a small lip in the posterior margin (Fig. 188). Internal genitalia simple and tubular (Fig. 187).

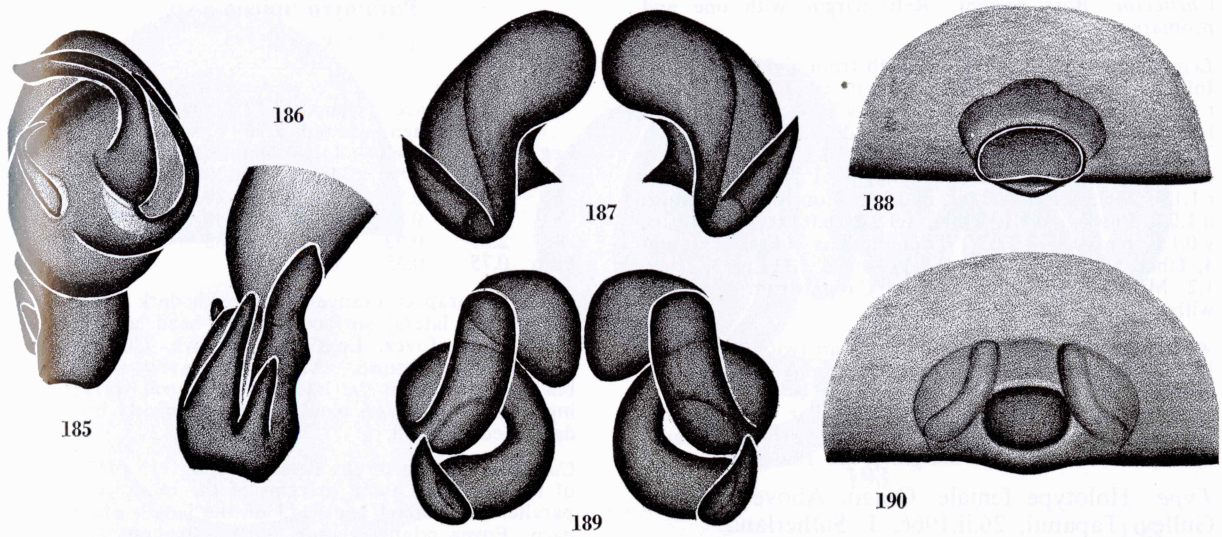


Fig. 185-188 *Tuapoka ovalis* n.sp. Fig. 185 Ventral view of male palp. Fig. 186 Tibial processes of male palp. Fig. 187 Internal genitalia. Fig. 188 Epigynum. Figs. 189-190 *Tuapoka cavata* n.sp. Fig. 189 Internal genitalia. Fig. 190 Epigynum.

MALE

Measurements

	Carapace		length 0.72		width 0.54	
	Abdomen		length 0.78		width 0.48	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.48	0.24	0.41	0.31	0.31	1.75
2	0.43	0.18	0.31	0.26	0.26	1.45
3	0.36	0.19	0.24	0.30	0.24	1.33
4	0.50	0.24	0.37	0.42	0.29	1.82
Palp	0.30	0.11	0.12		0.24	0.77

Similar to the female in most characters, differing mainly in the number and distribution of the spines and trichobothria of the legs. Spines. First leg. Femur, d.0.1.0.0. Tibia, v.0.2.0. Metatarsus, v.0.2.1. p.0.0.1. Second leg. Tibia, v.0.1.0. Metatarsus, v.0.1.0. Third leg. Femur, d.0.1.0. Patella, d.1.0. Tibia, v.0.1.1. p.1.1.0. r,d.0.1.0. Metatarsus, v.0.0.1. p.0.1.2. r.0.0.2. d.0.1.0. Fourth leg. Femur, d.0.1.1.0. Tibia, v.1.1.1. p,r.0.1.1. d.0.1.0. Metatarsus, v.0.2.1. p,r.0.1.2. d.0.1.0. Trichobothria. First leg. Tibia, 2.1. Metatarsus, 1.1. Tarsus, 1. Second leg. Tibia, 2.1. Metatarsus and tarsus, 1. Third leg. Tibia, Metatarsus and tarsus, 1.1. Fourth leg. Tibia, 2.1. Metatarsus and tarsus, 1.1. The palp is illustrated in Figs. 185-186.

Types Holotype female, allotype male. Fiordland. Lake Te Au, from moss on forest floor and tree trunks, 12-24.i.1953, R. R. Forster (Canterbury Museum).

Records South Island. Numerous specimens from type locality. Manapouri, 1.xii.1966, C.L.W. Lake Hankerson, leaflitter, 23.ii.1953, G. W. Ramsay. Avalanche Creek Track, Lower Hollyford, 12.i.1971, R.R.F. Gertrude Cirque, moss on forest floor, 25.xii.1944, J. T. Salmon. Cascade Creek, Eglinton Valley, moss, 10.ii.1955, R.R.F. Same locality, 16.ii.1966, R.R.F. Haast Pass, 1,850 ft, moss, 16.iii.1966, R.R.F. Makarora, 15.iii.1966, R.R.F. Camerons Flat, Makarora, 13.iii.1966, R.R.F. Five miles west of Otira, 30.ix.1966, R.R.F., C.L.W. Riordan's Bridge, Lewis Pass, 12.ix.1970, C.L.W. Anticrow River, moss, 15.x.1952, J. S. Dugdale. Kiwi Valley, 14.ix.1949, R.R.F. Cass, leaflitter, 14.vii.1949, R.R.F. Reservoir Bush, Cass, 4.iii.1954, J. S. Dugdale. Arthurs Pass, 2.xi.1969, C.L.W. Rough Creek, Arthurs Pass, 28.iii.1954, J. S. Dugdale. Lake Sumner, moss, 13.iv.1952, J. S. Dugdale. South Terrace, Karamea, 20.i.1950, R.R.F. Balloon Saddle, Nelson, 3,500 ft, moss, 21.ii.1946, J. T. Salmon. Mt Arthur Track, moss, 3,600 ft, 21.i.1948, R.R.F. Leslie Valley, 3,000 ft, moss, 28.i.1948, J. T. Salmon. Flora Saddle, 3,200 ft, moss, 20.i.1948, R.R.F. Four miles south of Bainham, 4.iii.1967, C.L.W. North Island. Mt Ngamoko Track, Waikaremoana, 2,000 ft, 11.xii.1946, R.R.F. Raetihi, 23.xii.1948, R.R.F. Mt Moehau, Summit, Coromandel, leaflitter, 17.i.1952, T. E. Woodward. Summit, Mt Te Aroha, 7.x.1966, K. A. J. Wise, Kapiti Island, 13.xii.1958, J. Kikkawa.

Tuapoka cavata n.sp.

Figs. 189-190

FEMALE

Measurements

	Carapace		length 0.85		width 0.62	
	Abdomen		length 0.96		width 0.72	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.59	0.27	0.43	0.36	0.28	1.93
2	0.48	0.25	0.32	0.30	0.23	1.58
3	0.45	0.19	0.27	0.27	0.25	1.43
4	0.57	0.27	0.41	0.39	0.30	1.94
Palp	0.25	0.16	0.16		0.21	0.78

Colour Legs pale yellow. Carapace with black shading along the lateral margins. Abdomen heavily shaded with black. Indefinite transverse bands along the posterior half of the dorsal surface.

Eyes The eyegroup occupies 8/13 of the width of the head. From in front both rows of eyes are slightly procurved. The eyes are surrounded with black pigment. Ratio of AME.ALE.PME.PLE = 1.3.3.3. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by twice and from the PLE by one and a half times the diameter of an AME. MOQ wider behind than in front in the ratio of 8.3 and twice as long as wide in front.

Sternum Scutiform, longer than wide in the ratio of 13.11. Posterior projection broadly rounded, separating coxae 4 by a distance equal to the width of a coxa.

Chelicerae Boss present. Retromargin with one and promargin with three teeth.

Legs Superior claws similar, with from eight-nine teeth. Inferior claw smooth. Spines. First leg. Femur, d.1.1.1. r.1 subdistal. Patella, d.1.1. Tibia, v.2.2.0. r.0.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.1.1.0. Patella, d.1.1. Tibia, v.1.2.0. p.0.0.1. Metatarsus, v.1.2.1. p.0.1.2. r.0.0.2. Third leg. Femur, d.0.1.1. Patella, d.1.1. Tibia, v.0.0.1.0. r.1.1.0. Metatarsus, v.0.0.1. p.0.0.2. Fourth leg. Femur, d.1.0.0. Patella, d.1.1. Tibia, v.1.2.2. p.0.1.0. Metatarsus, v.0.1.1. p,r.0.0.2. d.0.0.1. Trichobothria. Legs, 1, 2 and 4, Tibia, 1.2.1. Metatarsus, 1.1.1. Tarsus, 1.1. Leg 3, Tibia, 1.2. Metatarsus and tarsus, 1.1. Calamistrum proximal, with eight hairs.

Abdomen The cribellum is more than twice as wide as long. Posterior margin notched. Spinning field divided. Anterior pair of spinnerets separated by 3/5 of the width of a spinneret. The epigynum is similar to *ovalis* but the opening is distinctly in front of the furrow and lacks the lip on the posterior margin (Figs. 189, 190).

Type Holotype female. Otago. Above Whiskey Gulley, Tapanui, 26.ii.1966, J. Sutherland.

Records Stewart Is., leafliiter, 21.xi.1946, R.R.F. Stewart Is., Garden Mound, 20.xi.1946, R.R.F. Horseshoe Bay, 21.xi.1946, R.R.F. Catlins near Puketira Rd, 31.vii.1966, R.R.F., C.L.W. Tautuku, 10.i.1967, J. Sutherland. Five miles east of Lawrence, Waipori Rd, 10.x.1966, C.L.W.

This species is readily separated from *ovalis* by the pigmented carapace and abdomen.

Distribution—Stewart Island and the southern east coast of the South Island.

Paramyro n.gen.

Medium sized (4.5-5.5mm in body length) ecribellate spiders. The eyegroup is compact and occupies little more than one half of the width of the head. AME small remaining eyes large, subequal. The ALE and the posterior eyes are separated from each other and are arranged in a circle around the AME which are situated well back from the ALE (Fig. 191). Labium notched at the base and wider than long. Chelicerae with lateral boss. Retromargin with two teeth, promargin with from two-nine. Legs 4123. Strongly spined. Femur of the first pair of legs with prolateral spine. Spination of the femora d.1.1.1. p,r.0.1. Ventral surface of the tibia of the first pair of legs with distal spines. The distal whorl of the metatarsus of the first pair of legs with the median ventral spine missing, usually only two spines present. Dorsal spines on the tibiae are reduced to bristles on the first and second pairs of legs and recumbent on the third and fourth. Trichobothria in a double row on tibiae and a single row on metatarsi and tarsi. Tarsal organ subdistal. Superior claws strongly pectinate, similar. Inferior claw with two teeth. Female palp with double row of trichobothria on the tibia single row on metatarsus but none on the tarsus. Claw pectinate. Epigynum simple with a ridge but no spines. Internal genitalia with small receptacula and strong convoluted ducts. Colulus small, setose. Tracheal spiracle near base of spinnerets. Male not known.

Type species *Paramyro apicus* n.sp.

The unusual arrangement of the eyes is very similar to that found in *Myro* and other genera of the Myroninae but the tracheal system of the specimen examined seems to consist of four simple tubes. The placing of this genus must remain doubtful until males are found. In the meantime we have associated it with the *Orepukia* group of genera.

Paramyro apicus n.sp.

Figs. 191-193

FEMALE

Measurements

Carapace length 2.52 width 1.64
Abdomen length 2.96 width 1.68

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.63	0.88	1.35	1.23	0.80	5.99
2	1.55	0.83	1.15	1.20	0.75	5.48
3	1.55	0.83	1.10	1.38	0.70	5.56
4	2.05	0.93	1.55	1.88	0.95	7.36
Palp	0.75	0.35	0.43		0.75	2.28

Colour Carapace orange brown with dark brown shading on the lateral surfaces of the head and radiating out from the fovea. Legs orange brown. Chelicerae and sternum dark brown. Abdomen heavily shaded with blackish brown on the lateral and ventral surface leaving a pale mid-dorsal band broken anteriorly by a short dark median band.

Carapace Width of the head equal to 3/5 of the width of the thorax. Lateral margins of the head straight and parallel and extend back 1/3 of the length of the carapace. Fovea relatively long and conspicuous.

Eyes Eye region black. The eyegroup is compact and occupies 3/5 of the width of the head. From above the anterior row is straight and the posterior row is slightly procurved. From in front both rows are strongly procurved, with the AME placed at a level between the ALE and PME. Ratio of AME.ALE.PME.PLE = 5.14.12.16. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes separated by a distance equal to 7/5 of the diameter of an AME. PME separated from each other by 11/5 and from the PLE by 9/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 35.15 and wider behind than long in the ratio of 35.29. Height of the clypeus equal to the diameter of an AME.

Sternum Longer than wide in the ratio of 13.11. The anterior margin is curved from the margins of the labium and merges with the lateral margins which are also evenly curved. The posterior projection is sharp and separates coxae 4 by a distance equal to one half of the width of a coxa.

Maxillae Longer than wide in the ratio of 10.7. The outer margins are gently curved and merge with the anterior margin.

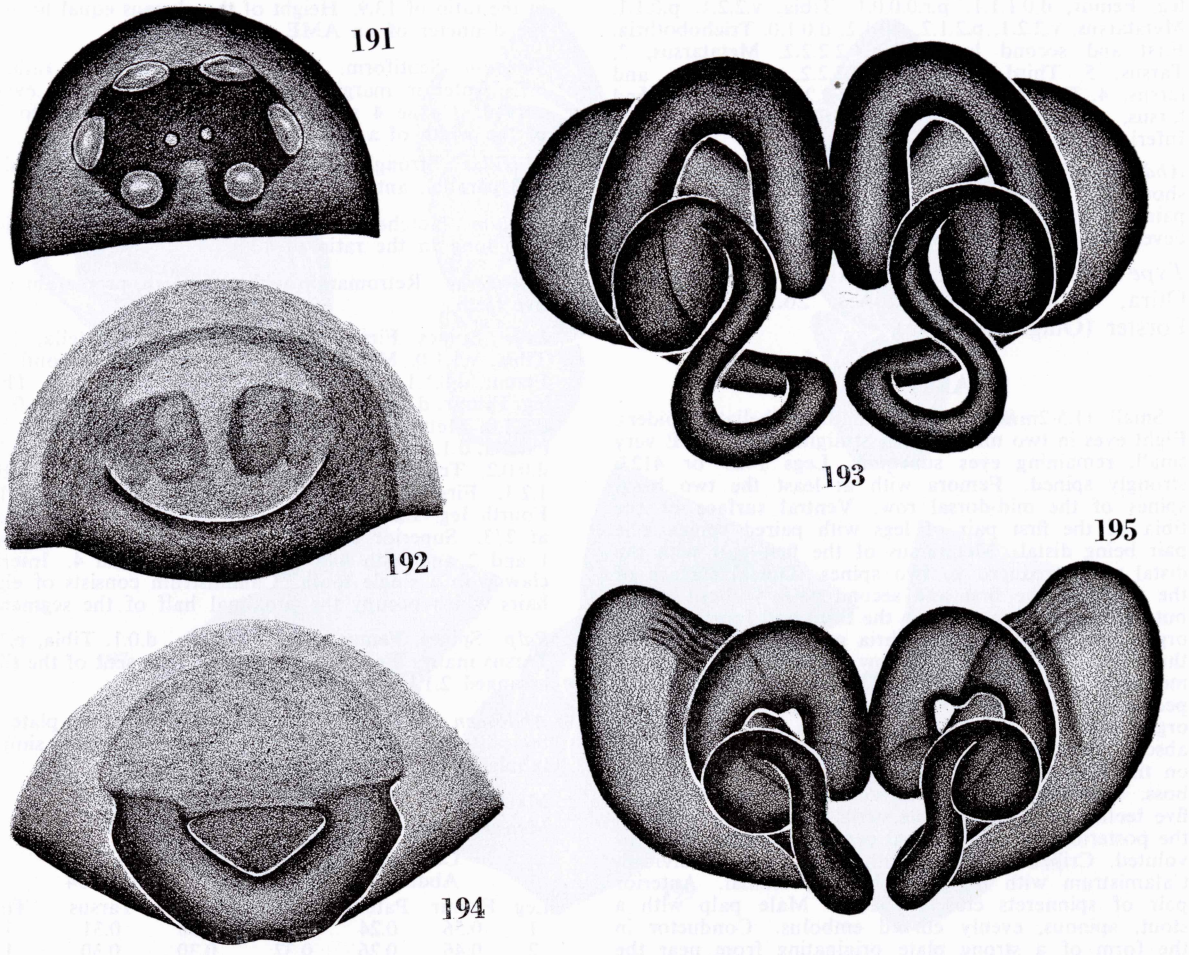
Labium Notched at the base. Lateral margins straight and convergent. Anterior margin straight. Wider than long in the ratio of 7.5.

Chelicerae Length of the chelicerae equal to one third of the length of the carapace. Retromargin with two teeth. Promargin with seven minute contiguous teeth distally, followed behind by two normal teeth and a low carina which extends back to the base of the chelicera.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.2. Patella, d.1.1. Tibia, p.1.2. d.0.1. Tibia with nine trichobothria arranged 2.2.1.2.2. Claw with six teeth.

Legs Clothed with ciliate hairs. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.2.2.1. Metatarsus, v.2.2.0. p.1.1.1. r,0.0.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p.2.1.1 Metatarsus, v.2.2.1. p.2.1.2. r.0.1.1. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tarsus, v.1.2.2. p.2.1.1. r,d.1.1.1. Metatarsus, v.2.2.1. p,r.2.1.2. d.1.2.1. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.2.2. d.1.0.1. Trichobothria. First and second legs. Tibia, 1.2.2.2.1. Metatarsus and tarsus, 5. Third leg. Tibia, 1.2.2.1.1. Metatarsus and tarsus, 5. Fourth leg. Tibia, 2.2.2.2.2.1.1. Metatarsus and tarsus, 5. Tarsal organ subdistal. Superior claws with eight-nine teeth. Inferior claw with two long teeth.

Abdomen The epigynum and internal genitalia are as in Figs. 191-192. The anterior and posterior pair of spinnerets are subequal. Colulus small.



Figs. 191-193 *Paramyro apicus* n.sp. Fig. 191 Eyes of female, from in front. Fig. 192 Epigynum. Fig. 193 Internal genitalia. Figs. 194-195 *Paramyro parapicus* n.sp. Fig. 194 Epigynum. Fig. 195 Internal genitalia.

Type Holotype female. Fiordland, Lake Monk, 4,300 ft, 18.i.1960, M. A. Chapman (Otago Museum).

Paramyro parapicus

Figs. 194-195

FEMALE

Measurements

	Carapace	length 2.16		width 1.58		
	Abdomen	length 2.40		width 1.48		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.48	0.73	1.20	1.13	0.75	5.29
2	1.43	0.70	1.05	1.10	0.70	4.98
3	1.38	0.70	1.00	1.23	0.65	4.96
4	1.75	0.73	1.33	1.58	0.83	6.22
Palp	0.65	0.33	0.40		0.60	1.98

Colour Carapace, legs and sternum shaded with dark brown. Abdomen cream with heavy blackish brown, broken shading on the lateral and ventral surfaces. A dark band extends down one third of the mid-dorsal surface of the abdomen leaving a pale area lateral to, and posterior to, the band.

Carapace The width of the head region is equal to one half of the width of the thorax. Lateral margins of the head are divergent and merge with the thorax. Fovea narrow but distinct.

Eyes Eye area black. The eyes are relatively large and the group occupies 4/5 of the width of the head. From above the anterior row is straight and the posterior row is procurved. From in front the AME are seen to be situated at the level between the ALE and PLE with both anterior and posterior row strongly procurved. Ratio of AME.ALE.PME.PLE = 7.11.16.14. AME separated from each other by a distance equal to 4/7 and from the ALE by 7/7 of the diameter of an AME. Lateral eyes separated by 3/7 of the diameter of an AME. PME separated from each other by 7/7 and from the PLE by 8/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 39.18 and wider behind than long in the ratio of 39.35.

Sternum As long as wide. Anterior margin straight. Lateral margins evenly curved. Posterior projection short and sharp, separating coxae 4 by a distance equal to one fifth of the width of a coxa.

Maxillae Longer than wide in the ratio of 4.3. Inner and outer margins gently curved. Anterior margin broad and straight.

Labium Wider than long in the ratio of 7.5. Notched at the base. Lateral margins straight and strongly convergent. Anterior margin straight.

Chelicerae One third of the length of the carapace. Both pro- and retromargins with two teeth of which the distal is the larger. A carina is present.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.d.1.1. Tibia with six trichobothria arranged in three pairs. Claw with four teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.2.2.1. p.0.1.1. Metatarsus, v.2.2.0. p.0.1.2. r.0.0.2. Second

leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.2.2.1. p.0.1.1. Metatarsus, v.2.2.1. p.2.1.2. r.0.1.2. d.0.1.0. Trichobothria. First and second legs. Tibia, 2.2.2.2. Metatarsus, 3. Tarsus, 5. Third leg. Tibia, 2.2.2.2. Metatarsus and tarsus, 4. Fourth leg. Tibia, 2.2.2.2.2.1. Metatarsus and tarsus, 4. Superior claws with from eight-nine teeth. Inferior claw with two long teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 194, 195. The anterior and posterior pairs of spinnerets are subequal. The colulus is well developed and clothed with hairs.

Type Holotype female. Westland. Kelly's range, Otira, 4,000 ft, under stones, 26.i.1956, R. R. Forster (Otago Museum).

Ahua n.gen.

Small (1.5-2mm in body length) cribellate spiders. Eight eyes in two more or less straight rows. AME very small, remaining eyes subequal. Legs 1423 or 4123, strongly spined. Femora with at least the two basal spines of the mid-dorsal row. Ventral surface of the tibia of the first pair of legs with paired spines, one pair being distal. Metatarsus of the first pair with the distal whorl reduced to two spines. Dorsal surface of the tibiae of the first and second pairs without spines but typical spines present on the third and fourth. Tarsal organ distal to the trichobothria on the legs. Trichobothria few but long. Double row on tibia, single row on metatarsi and tarsi. Superior claws similar, strongly pectinate. Inferior claw with a single tooth. Tarsal organ subdistal. Scopulae, claw tufts and tenent hairs absent. Female palp with a double row of trichobothria on the tibia. Claw strongly pectinate. Chelicerae with boss. Retromargin with two, promargin with from three-five teeth. Epigynum simple, with a triangular plate on the posterior margin. Internal genitalia tubular and convoluted. Cribellum broad with spinning field divided. Calamistrum with from 5-7 hairs, proximal. Anterior pair of spinnerets closely spaced. Male palp with a stout, spinous, evenly curved embolus. Conductor in the form of a strong plate originating from near the base of the embolus. Median apophysis well developed, hooked apically.

Type species *Ahua vulgaris* n.sp.

These small spiders have been found in the Canterbury region of the South Island and off Stewart Is., where they live amongst the litter on the forest floor. Their habits are not known. We have concluded, mainly on the form of the male palp, that the genus shows affinity with the *Orepukia-Mahura* complex.

Ahua vulgaris n.sp.

Figs. 198-199, 208-209

FEMALE

Measurements

	Carapace		length 0.66		width 0.54	
	Abdomen		length 0.90		width 0.60	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.60	0.30	0.48	0.37	0.34	2.09
2	0.52	0.29	0.36	0.32	0.30	1.79
3	0.47	0.24	0.25	0.31	0.24	1.51
4	0.60	0.30	0.48	0.48	0.30	2.16
Palp	0.30	0.12	0.14		0.28	0.84

Colour Cephalothorax and legs pale straw brown. Abdomen cream with irregular black shading.

Eyes From in front the anterior row is straight and the posterior row is gently procerved. Ratio of AME.ALE. PME.PLE = 1.5.5.5. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by three times and from the PLE by twice the diameter of an AME. MOQ wider behind than in front in the ratio of 13.3 and wider behind than long in the ratio of 13.9. Height of the clypeus equal to twice the diameter of an AME.

Sternum Scutiform. Longer than wide in the ratio of 8.7. Anterior margin straight, lateral margins evenly curved. Coxae 4 separated by a distance equal to 2/3 of the width of a coxa.

Maxillae Strongly convergent. Lateral margins straight and parallel, anterior margin evenly rounded.

Labium Notched at the base, evenly rounded. Wider than long in the ratio of 13.9.

Chelicerae Retromargin with two teeth, promargin with five teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. Patella, d.0.1. Tibia, v.1.1.0. Metatarsus, v.1.1.1. p,r.0.0.1. Second leg. Femur, d.0.1.1.0. Tibia, v.2.2.0. Metatarsus, v.2.2.2. Third leg. Femur, d.0.0.0.2. Patella, d.0.1. Tibia, v.0.1.2. p,r.0.1.0. d.1.1.0. Metatarsus, v.0.0.1. p,r.0.1.1. d.0.0.2. Fourth leg. Patella, d.1.1. Tibia, v.1.1.2. p.0.1.0. Metatarsus, v,p,r.0.1.1. d.0.0.2. Trichobothria. Metatarsus and tarsus, 1.1. Tibia, 1.2.1. First leg. Second leg. 1.1.1.1. Third leg. 2.1.1. Fourth leg. 1.2.1. Tarsal organ present on each tarsus at 2/3. Superior claws with seven-eight teeth on legs 1 and 2 and with five claws of legs 3 and 4. Interior claw with a single tooth. Calamistrum consists of eight hairs which occupy the proximal half of the segment.

Palp Spines. Femur, d.0.1.0. Patella, d.0.1. Tibia, p.1.1. Tarsus many. Four trichobothria are present of the tibia arranged 2.1.1. Claw with five teeth.

Abdomen Epigynum simple with a triangular plate on the posterior surface (Fig. 208). Internal genitalia simple, tubular (Fig. 209).

MALE

Measurements

	Carapace		length 0.72		width 0.54	
	Abdomen		length 0.78		width 0.54	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.56	0.24	0.48	0.36	0.31	1.96
2	0.46	0.26	0.32	0.30	0.30	1.64
3	0.42	0.20	0.24	0.29	0.24	1.39
4	0.55	0.24	0.42	0.42	0.29	1.92

Generally paler than the female. Similar in most characters. The legs are not as heavily spined as the female and the trichobothria are distributed differently.

Legs Spines. First leg. Tibia, v.2.2.0. Metatarsus, v.1.2.2. p.0.0.1. Second leg. Femur, d.0.1.0.0. Tibia, v.1.1.0. d.1.0.0. Metatarsus, v.0.1.1. Third leg. Femur, d.0.1.0.0. Patella, d.0.1. Tibia, v.0.1.2. p,r.0.1.0. Metatarsus, v.0.0.1. p.1.1.2. p.0.1.2. r.0.0.2. d.0.0.1. Fourth leg. Femur, d.0.1.0.1. Patella, d.0.1. Tibia, v.1.1.2. p.0.1.2. r.0.1.0. Metatarsus, v,d.0.1.1. p.0.1.2. r.0.0.2. Trichobothria. Tibia, 1.2.1.1. Metatarsus, 1.1.1. Tarsus, 1.1. The palp is shown in Figs. 198, 199.

Types Holotype female, allotype male. Canterbury. Hoods Bush, Malvern Hills, ex moss, 3.v.1953, R. R. Forster (Canterbury Museum).

Records Canterbury. Lake Ida, leaflitter from beech forest, July 1957, R. L. C. Pilgrim. Kakahu, leaflitter, 30.iv.1950, R.R.F.

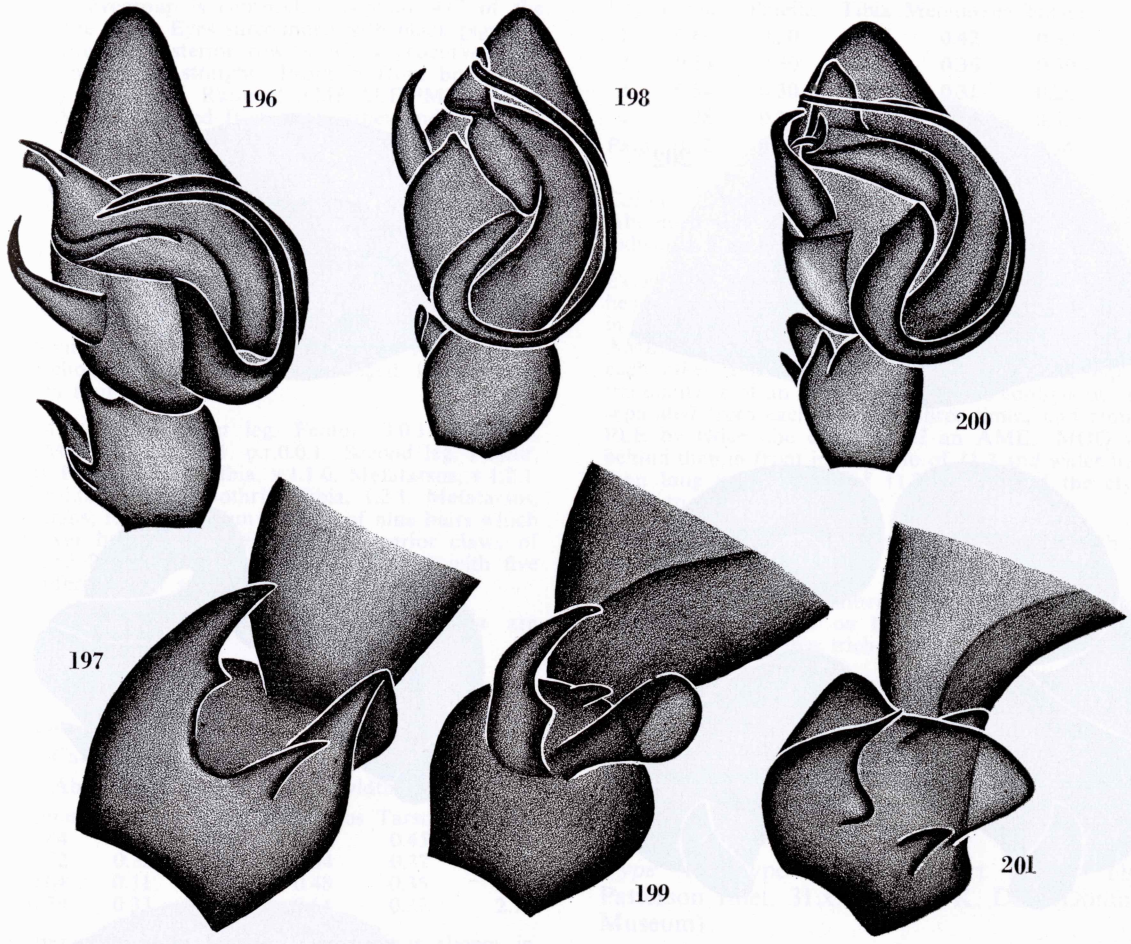
Ahua kaituna n.sp.

Figs. 200-203

FEMALE

Measurements

	Carapace		length 0.90		width 0.66	
	Abdomen		length 1.20		width 0.84	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.72	0.31	0.54	0.48	0.36	2.41
2	0.60	0.30	0.42	0.42	0.30	2.04
3	0.54	0.30	0.36	0.30	0.30	1.80
4	0.72	0.32	0.60	0.42	0.33	2.40
Palp	0.24	0.12	0.18		0.24	0.78



Figs. 196-197 *Ahua dentata* n.sp. Fig. 196 Ventral view of male palp. Fig. 197 Tibial processes of male palp. Fig. 198-199 *Ahua vulgaris* n.sp. Fig. 198 Ventral view of male palp. Fig. 199 Tibial processes of male palp. Figs. 200-201 *Ahua kaituna* n.sp. Fig. 200 Ventral view of male palp. Fig. 201 Tibial processes of male palp.

Colour Carapace pale yellow brown with faint black shading down the posterolateral surface of the head region and fainter markings on the thorax. Legs uniform yellow brown. Abdomen cream with scattered black reticulate markings.

Eyes The eyegroup is compact and occupies 4/7 of the width of the head. From above both rows appear straight. From in front the anterior row is slightly procurved and the posterior row more strongly procurved. Ratio of AME.ALE.PME.PLE = 2.5.5.4. AME separated from each other by a distance equal to 3/2 of the diameter of an AME. AME, ALE and PLE subcontiguous. PME separated from each other by 4/3 and from the PLE by 2/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 14.7 and wider behind than long in the ratio of 14.9. Height of the clypeus equal to twice the diameter of an AME.

Chelicerae Retromargin with two teeth, promargin with five.

Palp Spines. Femur, d.0.1.0.0. Patella, d.1.1. Tibia, p.1.0. Tarsus many. Tibia with three trichobothria arranged 2.1. Claw with three teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. Tibia, v.2.2.0. Metatarsus, v.2,2.0. Second leg. Femur. d.0.1.1.0. Tibia, v.1.1.0. Metatarsus, v.1.1.1. p,r.0.0.1. Third leg. Femur, d.0.1.0. Patella, d.0.1. Tibia, v.0.1.2. p,r.0.1.0. Metatarsus, v.0.0.1. p,r.0.1.1. d.0.0.2. Fourth leg. Femur. d.0.1.0.0. Patella, d.1.1. Tibia, v.1.1.2. p,r.0.1.0. d.1.0.0. Metatarsus, v,p.0.1.1. r.0.0.1. d.0.0.2. Trichobothria. Tibia, 1.2.1. Metatarsus, 1.1.1. Tarsus, 1.1. Superior claws with eight teeth, inferior claw with single tooth.

Types Holotype female, allotype male. Canterbury. Head of Kaituna Valley, leafmould, 28.ix.1952, R. R. Forster (Otago Museum).

Record Canterbury. Head of Kaituna Valley, leafmould, 28.ix.1952, R.R.F. Pigeon Bay, July 1957, R. L. Pilgrim.

Ahua dentata n.sp.

Figs. 196-197, 204-205

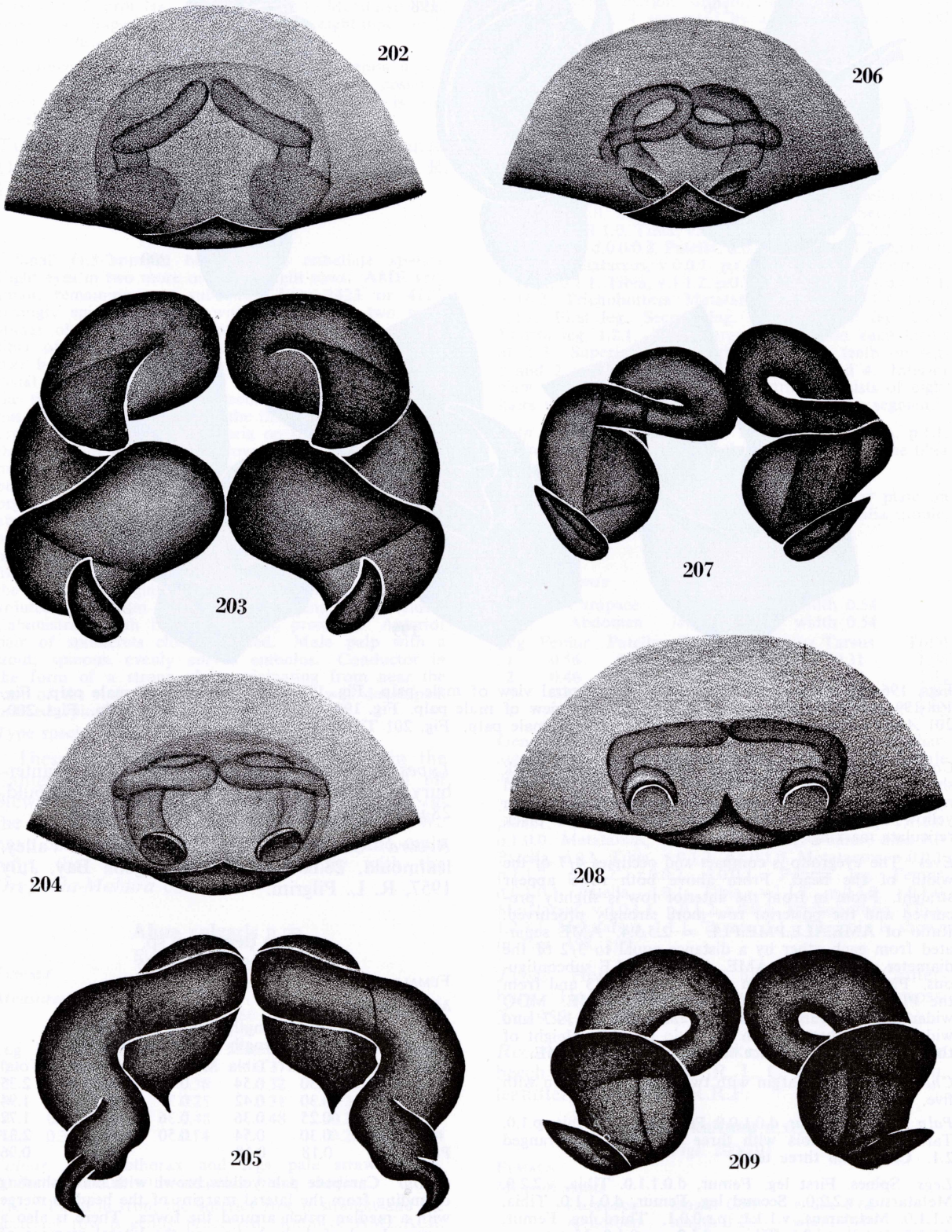
FEMALE

Measurements

Carapace	length 0.96	width 0.66	
Abdomen	length 1.32	width 0.96	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.72	0.30	0.54	0.48	0.31	2.35
2	0.54	0.30	0.42	0.37	0.31	1.94
3	0.49	0.25	0.36	0.36	0.26	1.72
4	0.66	0.30	0.54	0.50	0.31	2.31
Palp	0.30	0.18	0.18		0.30	0.96

Colour Carapace pale yellow brown with black shading extending from the lateral margins of the head to merge with a median patch around the fovea. There is also a narrow band of dark shading on the lateral margins of the thoracic region. Sternum with a prominent median longitudinal band and three patches along each margin. Legs orange brown with dark patches. Abdomen heavily shaded with black leaving the pale cream ground colour to appear as mottling.



Figs. 202-203 *Ahua kaituna* n.sp. Fig. 202 Epigynum. Fig. 203 Internal genitalia. Figs. 204-205 *Ahua dentata* n.sp. Fig. 204 Epigynum. Fig. 205 Internal genitalia. Figs. 206-207 *Ahua insula* n.sp. Fig. 206 Epigynum. Fig. 207 Internal genitalia. Figs. 208-209 *Ahua vulgaris* n.sp. Fig. 208 Epigynum. Fig. 209 Internal genitalia.

Eyes The eyegroup is compact, occupying 4/7 of the width of the head. Eyes surrounded with black pigment. From above the posterior row is gently procurved and the anterior row is straight. From in front both rows are gently procurved. Ratio of AME.ALE.PME.PLE = 1.5.4.4. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 4 times, and from the PLE by a distance equal to, the diameter of an AME. MOQ wider behind than in front in the ratio of 12.3 and wider behind than long in the ratio of 12.8.

Chelicerae Retromargin with 4 teeth. Promargin with five teeth of which the fourth is strong.

Palp Spines. Femur, d.0.0.1.1. Tibia, p.1.0. Tarsus many. Four trichobothria on the tibia arranged 1.2.1. Tarsal claw with four teeth.

Legs 1423. Spines. First leg. Femur, d.0.1.1.0. Tibia, v.2.2.0. Metatarsus. v.2.2.1. p,r.0.0.1. Second leg. Femur, d.0.1.1.0. Patella, d.1.1. Tibia, v.1.1.0. Metatarsus, v.1.2.1. p.0.1.1. r,d.0.0.1. Trichobothria. Tibia, 1.2.1. Metatarsus, 1.1.1. Tarsus, 1. Calamistrum consists of nine hairs which extend over half of the metatarsus. Superior claws of legs 1 and 2 with seven teeth, legs 3 and 4 with five teeth. Inferior claw smooth.

Abdomen The epigynum and internal genitalia are shown in Figs. 204, 205.

MALE

Measurements

Carapace	length 1.02		width 0.66	
Abdomen	length 1.02		width 0.66	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.84	0.36	0.84	0.66	0.45	3.16
2	0.72	0.32	0.54	0.54	0.37	2.50
3	0.64	0.31	0.40	0.48	0.36	2.21
4	0.79	0.33	0.62	0.64	0.37	2.77

Most characters as in female. The palp is shown in Figs. 196, 197. Leg formula 4123. Spines. First leg. Femur, d.0.1.1.0. Patella, d.0.1. Tibia, v.2.2.2. Metatarsus, v.2.2.1. p,r.0.0.1. Second leg. Femur, d.0.1.1.0. Patella, d.0.1. Tibia, v.1.1.1. p.0.1.0. Metatarsus, v.2.2.1. p.0.1.1. r,d.0.0.1. Trichobothria. Tibia, 1.2.1. Metatarsus, 1.1.1. Tarsus, 1.1.

Types Holotype female, allotype male. Canterbury. Okuku Pass, ex leafmould, 25.iv.1950, R. R. Forster (Canterbury Museum).

Records Kowai Bush, 18.v.1952, J. S. Dugdale. Okuku Pass, leafmould, 30.iii.1952, J. S. Dugdale. Okuku Pass, moss, 6.iv.1952, J. S. Dugdale. Okuku Pass, moss, 21.v.1956, R.R.F. Lewis Pass, 29.i.1956, R.R.F. Broken River, moss, 21.vi.1951, R.R.F. Kakahu, ex leafmould, 30.iv.1950, R.R.F. Cass, 10.vii.1949, R.R.F. Ribbonwood Ck, Cass, 2,500 ft, 27.v.1954, J. S. Dugdale. Ashley Gorge, leafmould, 16.x.1949, R.R.F. Mt Grey, moss, 27.iii.1957, R.R.F. Middle Bush, Mt Sugarbowl, Cass, 4.i.1950, A. C. McFarlane. Lake Janet, leafmould, 1.viii.1949, R.R.F. Kaka Hill, near Lake Coleridge, 13.ii.1960, P. M. Johns.

Ahua insula n.sp.

Figs. 206-207

FEMALE

Measurements

Carapace	length 0.72	width 0.54	
Abdomen	length 0.90	width 0.66	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.66	0.30	0.54	0.42	0.30	2.22
2	0.54	0.30	0.42	0.36	0.30	1.92
3	0.54	0.30	0.31	0.31	0.26	1.72
4	0.78	0.24	0.54	0.48	0.32	2.36
Palp	0.32	0.19	0.19		0.34	1.04

Colour Cephalothorax dark brown, legs paler brown. Abdomen with blackish shading which forms a series of indistinct transverse bands down the dorsal surface.

Eyes The eyegroup occupies 5/7 of the width of the head. From above both rows appear straight but from in front both rows appear gently procurved. Ratio of AME.ALE.PME.PLE = 1.4.4.5. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes contiguous. PME separated from each other by three times, and from the PLE by twice, the diameter of an AME. MOQ wider behind than in front in the ratio of 11.3 and wider behind than long in the ratio of 11.7. Height of the clypeus equal to twice the diameter of an AME.

Chelicerae Retromargin with two, promargin with three teeth.

Palp Apart from a number of small spines on the tarsus there are two spines on the prolateral surface of the tibia. Tibia with two trichobothria in a single row.

Legs Spines. First leg. Tibia, v.2.2.0. p.0.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.0. Tibia, v.1.1.0. p.0.2.0. Metatarsus, v.1.2.1. p.0.1.1. r.0.0.1. d.0.0.1. Trichobothria. Tibia, 1.1. Metatarsus, 1.1.1. Tarsus, 1. Superior claws with six, inferior claws with two teeth.

Abdomen The cribellum is narrow and divided. The epigynum is typical (Figs. 206, 207).

Type Holotype female Stewart Island. Thule, Patterson Inlet, 31.x.1948, R. K. Dell (Dominion Museum).

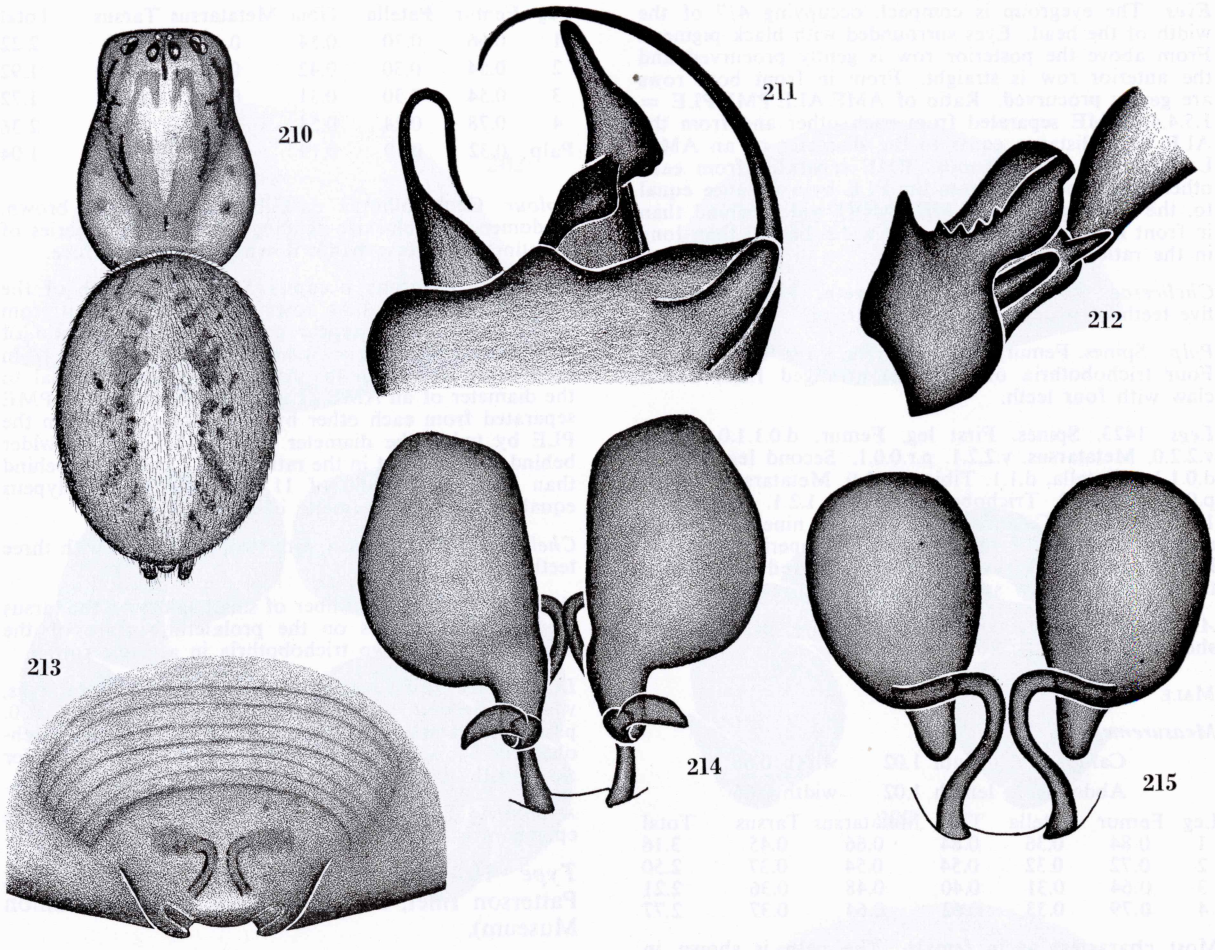
Record Codfish Island, Sealers Bay, under *Phormium*, 8.xi.1948, R. K. Dell.

Tararua n.gen.

Medium sized (body length 4-5mm) arboreal spiders, both cribellate and ecribellate. Similar in appearance to *Neoramia* but smaller and paler in colouration. The tibial processes of the male palp are more complex but the epigynum is simple with the lateral spines weakly developed. The internal genitalia is basically receptaculate as in *Neoramia* but the ducts are longer. Prolateral spine present on the femur of the first pair of legs. Full complement of femoral spines usually present on the third pair of legs but basal dorso-lateral spines often wanting on other legs. Tibia of the first pair of legs with paired ventral spines one pair being situated distally. Dorsal spines are present on the dorsal surface of the third and fourth pairs but reduced to bristles on the first and second pairs. The metatarsus of the first pair with a distal whorl of five spines. Tarsal organ distal to trichobothria on the legs. Palpal tarsus without trichobothria.

Type species *Habronestes celeripes* Urquhart.

These active spiders are usually beaten from low shrubs in forest or alpine scrub. Although some species may make a small snare it is thought that they are primarily active hunters. Some species appear to be cribellate but others with a reduced calamistrum may not have a functional cribellum. In some species both cribellum and calamistrum are definitely lacking.



Figs. 210-215 *Tararua celeripes* (Urquhart). Fig. 210 Dorsal view of body of female. Fig. 211 Distal portion of palpal bulb. Fig. 212 Tibial processes of male palp. Fig. 213 Epigynum. Fig. 214 Dorsal view of internal genitalia. Fig. 215 Ventral view of internal genitalia.

Tararua celeripes (Urquhart) 1891

1891 *Habronestes celeripes,* Urquhart. Trans. N. Zeal. Inst. 23:132.

1892 *Habronestes celeripes,* Urquhart. Trans. N. Zeal. Inst. 24: 225.

1904 *Habronestes celeripes,* Hutton. Index Faun. N. Zeal. Lond.: 240.

1942 *Storena celeripes,* Roewer. Katalog der Aran. Bremen 1: 362.

1946 *Storena celeripes,* Parrott. Rec. Cant. Mus. 5(2): 68.

1958 *Storena celeripes,* Bonnet. Bibliographia Araneorum 2(4): 4175.

Figs. 210-215

FEMALE

Measurements

	Carapace	length 2.00		width 1.27		
	Abdomen	length 2.00		width 1.33		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.33	0.50	1.10	1.17	0.70	4.80
2	1.23	0.50	0.93	1.03	0.63	4.32
3	1.17	0.50	0.87	1.00	0.60	4.14
4	1.33	0.53	1.07	1.23	0.60	4.76
Palp	0.50	0.30	0.33		0.60	1.73

Colour Fig. 210 shows a preserved specimen. The palest areas are white and apart from the dark markings shown the rest is yellow. In life the mid dorsal area of the head is pale with white hairs, the lateral surfaces of the thorax pale yellow with dark markings and the rest of the carapace dark with the eyes on black spots. On the abdomen the pale folium is bright green, flanked on each side by several spots formed by white hairs set in black bands. White hairs form a ring which encloses a dark area on the mid anterior surface. This ring is followed by a prominent chevron also formed by white hairs which is the anterior border of the bright green folium. There is a sprinkling of white hairs on the lateral surfaces of the abdomen. The legs are pale yellow green with dark bands.

Carapace The profile forms a regular curve from petiolus to the PME with the highest point being just anterior to the fovea which is longitudinal and of moderate length and depth. The head is three-quarters the width of the thorax.

Eyes The group occupies about 7/10 of the width of the head. From in front the anterior row is slightly procurved and from above the posterior row is procurved. Ratio of AME. ALE.PME.PLE = 3.5.6.7. AME separated from each other and from the ALE by a distance equal to 4/3 of the diameter of an AME. Laterals separated by 2/3 of the diameter of an AME. PME separated from each other by 5/3 and from the PLE by 9/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 17.10 and as wide behind as long. Height of the clypeus equal to 7/3 of the diameter of an AME.

Sternum Longer than wide in the ratio of 52.48. Broadly scutiform. A blunt posterior projection separates the posterior coxae by 5/6 of the diameter of a coxa.

Maxillae Inclined slightly over the labium. Longer than wide in the ratio of 25.17 and longer than the labium in the ratio of 25.15.

Labium Wider than long in the ratio of 16.15. There are small notches at the base and it is emarginate distally.

Chelicerae Length 5/12 of the carapace. A prominent boss is present. There are two teeth on the retromargin, three, of which the median is the largest, on the promargin and a carina which extends to the base.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1. p.1 basal and 1.1 distal. r.1 distal. Numerous spines on the tarsus. Trichobothria. Tibia, two rows each with three. Claw with 12 teeth.

Legs Spines. First leg. Femur, a prolateral spine is present, d.1.1.1. p,r.0.1. Patella, d.1.1. Tibia, v.0.2.2. p.1.1.1. r.0.1.1. d.1.1. Metatarsus. v.2.2 and a subwhorl of 5, p,r. 1 median. Second leg. Femur, d.1.1.1. p,r.0.1. Patella, d.1.1. Tibia, v.1.2.2. p,r.0.1.1. d.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.2 median. r.1 median. Third leg. Femur, d.1.1.1. p.1.1. r.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r,d.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1.2. r.1.1. Fourth leg. Femur, d.1.1.1. p,r.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r,d.1.1. Metatarsus v.3.2. and a subwhorl of 5, p.1.1. r.1 calamistrum 1. The p,r.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r,d.1.1. Metatarsus, v.3.2 and a subwhorl of 5, p.1.1. r.1 calamistrum 1. The calamistrum is composed of six setae and occupies about one quarter of the length of the metatarsus. Trichobothria. First leg. Tibia, a pro-row 1.1.1.1 on the basal third, a retro-row 1.1.1.1 extending to beyond the midpoint. Metatarsus, 1.1.1. Tarsus, 1.1.1.1. The distal trichobothrium is situated at 38/55 of the length of the tarsus and the tarsal organ at 45/55. Second leg. Tibia, p.1.1. r.1.1.1.1. Metatarsus, 3. Tarsus, 4. Third and fourth legs. Tibia, p.1.1.1.1. r.1.1.1.1. Metatarsus and tarsus, 4. Superior claws of a first leg with 14 teeth and 11 on the claw of a fourth leg.

Abdomen Surfaces well covered with hair of various lengths. The cribellum is divided but the spinning field, if any, is very small. The epigynum and internal genitalia are shown in Figs. 213, 215.

MALE

Measurements

	Carapace	length 2.13		width 1.43		
	Abdomen	length 2.17		width 1.27		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	0.60	2.23	2.17	0.83	7.93
2	1.93	0.63	1.67	1.73	0.80	6.76
3	1.67	0.60	1.40	1.60	0.70	5.97
4	1.93	0.60	1.60	1.87	0.73	6.73
Palp	0.60	0.30	0.30		0.70	1.90

Colour Resembles the female.

Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is slightly procurved. Ratio of AME.ALE.PME.PLE = 3.4.6.7. AME separated from each other and from the ALE by a distance equal to 4/3 of the diameter of an AME. Laterals separated by 2/3 of the diameter of an AME. PME separated from each other by 5/3 and from the PLE by 7/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 17.10 and as wide behind as long. Height of the clypeus is equal to 10/3 of the diameter of an AME.

Palp The tibial processes and the bulb are shown in Figs. 211, 212.

Legs 1243. Spination resembles that of the female. No calamistrum.

Abdomen The cribellum is represented by a relatively large conical colulus.

Types Mount Egmont, Urquhart. Male and female types lost.

Records Taranaki, Mt Egmont, above Stratford House, 3,500 ft, 23.iii.1969, R.R.F., C.L.W., beaten from shrubs.

Tararua clara n.sp.

Figs. 216-219

FEMALE

Measurements

	Carapace	length 2.04		width 1.32		
	Abdomen	length 2.28		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.20	0.54	1.08	1.08	0.66	4.56
2	1.20	0.54	0.96	0.96	0.54	4.20
3	1.08	0.54	0.84	0.96	0.54	3.96
4	1.26	0.54	1.08	1.20	0.66	4.74
Palp	0.54	0.30	0.36		0.60	1.80

Colour The head region of the carapace is shaded with blackish brown while the thoracic region is pale yellow brown. Legs pale yellow with small scattered brown patches. Abdomen grey with a pale median band flanked with black shading.

Eyes The eyegroup occupies 11/16 of the width of the head. From above the posterior row is straight and the anterior row is gently recurved. From in front the anterior row is straight and the posterior row gently procurved. Ratio of AME.ALE.PME.PLE = 5.6.8.11. AME separated from each other by 3/5 and from the ALE by 5/5 of the diameter of an AME. Laterals separated from each other by 2/5 of the diameter of an AME. PME separated from each other by 9/5 and from the PLE by 11/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 25.13 and wider behind than long in the ratio of 25.21. Height of the clypeus equal to 3/5 of the diameter of an AME.

Chelicerae Lateral bosses present as ridges. Retromargin with two, promargin with three teeth.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.0. Tibia, p.1.2. d.1.2. Tarsus, p.2.1.1. r.1.1.1. Six trichobothria present on the tibia arranged 1.2.2.1. Tarsal claw with ten teeth.

Legs The calamistrum consists of a short row of five hairs on the proximal surface of the metatarsus. Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.2. Tibia, v.0.2.2. p.1.1.1. r.0.0.1. Metatarsus, v.2.1.1. p,r.0.1.1. d.0.0.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p,r.0.1.1. Metatarsus, v.2.2.2. p,r.0.1.1. d.0.0.2. Trichobothria. First leg. Tibia, 2. Metatarsus, 3. Tarsus, 0. Second leg. Tibia, 1.1.2. Metatarsus, 4. Tarsus, 3. Third leg. Tibia, 2.2.1. Metatarsus and Tarsus, 3. Fourth leg. Tibia, 2.1.1. Metatarsus, 4. Tarsus, 3. Tarsal organ at 3/4 of the length of the tarsi. Superior claws with 12, inferior claw with a single tooth.

Abdomen The cribellum is small, sub-triangular in shape. The epigynum and internal genitalia are shown in Figs. 218, 219.

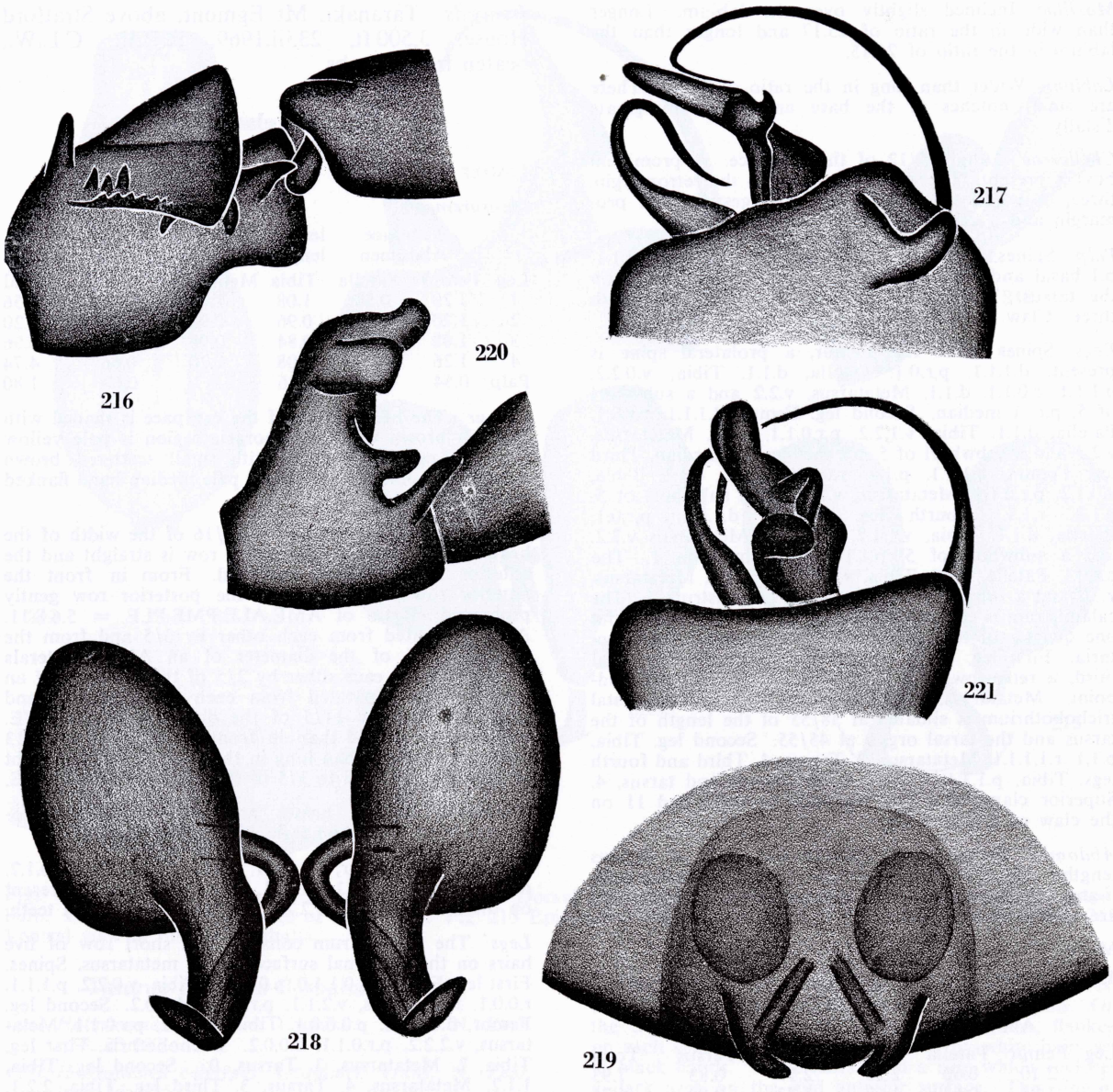
MALE

Measurements

	Carapace	length 2.00		width 1.38		
	Abdomen	length 2.00		width 1.52		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.25	0.63	2.10	2.15	0.88	8.01
2	2.05	0.58	1.60	1.63	0.83	6.69
3	1.58	0.63	1.25	1.63	0.75	5.84
4	1.93	0.60	1.55	1.80	0.73	6.61
Palp	0.76	0.24	0.24		0.72	1.96

The single male specimen collected from the same locality as the female specimens appears to be conspecific but differs in a number of characters, apart from in size.

Eyes Ratio of AME.ALE.PME.PLE = 6.9.11.10. AME separated from each other by a distance equal to 8/6 and from the ALE by a distance equal to 6/6 of the



Figs. 216-219 *Tararua clara* n.sp. Fig. 216 Tibial processes of male palp. Fig. 217 Dorsal portion of palpal bulb. Fig. 218 Internal genitalia. Fig. 219 Epigynum. Figs. 220-221 *Tararua diversa* n.sp. Fig. 220 Tibial processes of male palp. Fig. 221 Distal portion of palpal bulb.

diameter of an AME. Lateral eyes contiguous. PME separated from each other by 10/6 and from the PLE by 14/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 32.20 and longer than wide behind in the ratio of 33.32. Height of the clypeus equal to 10/6 of the diameter of an AME.

Palp The prolateral surface of the tibia is produced into a strong process which is provided with numerous small teeth (Fig. 216). The bulb is shown in Fig. 217.

Legs Relatively longer than in the female. Spines. First leg. Femur, d.0.1.1.1. p.0.1.0.1. r.0.0.0.1. Tibia, v.2.2.2. p,r.1.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Second leg. Femur, d.0.1.1.1. p.0.0.1.2. r.0.0.1.1. Tibia, v.2.2.2. p,r.0.1.1. d.0.1.0. Metatarsus, v.2.2.1. p,r.0.1.2. Trichobothria. First and second legs. Tibia, 1.2.1.1. Metatarsus, 3. Tarsus, 4. Third and fourth legs. Tibia, 2.2.1.1.1.1. Metatarsus and tarsus, 4. Superior claws with from 9-11 teeth. Inferior claw with two teeth on legs 1 and 2 and a single tooth on legs 3 and 4.

Types Holotype female, Wellington. Tararua Ranges, below Field's Hut, moss and lichen, 1.xii.1952, B. A. Holloway. Allotype male, same data, 4.xii.1952, (Dominion Museum).

Records Same data as types. Tararua Ranges, foliage, 4.xii.1952, B. A. Holloway. Akatarawa, 21.i.1948, J. T. Salmon.

Tararua diversa n.sp.

Figs. 220-221

MALE

Measurements

Carapace	length 2.60	width 1.80	
Abdomen	length 2.60	width 1.75	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.90	0.88	3.02	3.02	1.13	10.95
2	2.39	0.82	2.14	2.33	1.01	8.69
3	2.08	0.76	1.64	2.02	0.76	7.26
4	2.27	0.69	1.89	2.21	0.88	7.94
Palp	0.76	0.40	0.32		0.96	2.44

Colour The head region and the median surface of the thoracic region is dark reddish-brown. The margins of the thoracic region are paler. Chelicera dark, almost black. Legs orange brown. The abdomen is yellow brown with darker shading on the lateral surfaces. There are a pair of large brown patches on the mid-dorsal surface followed behind by two or three indistinct dark chevrons. Sternum yellow brown with dark brown shading along the margins.

Eyes The eyegroup occupies 11/15 of the width of the head. Lateral eyes on a low tubercle. From above both rows appear straight but from in front the anterior row appears straight but the posterior row is slightly procurved. The ratio of AME.ALE.PME.PLE = 11.13.14.15. AME separated from each other by a distance equal to 8/11 and from the ALE by 9/11 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 15/11 and from the PLE by 10/11 of the diameter of an AME. MOQ wider behind than in front in the ratio of 43.30 and wider behind than long in the ratio of 43.40. Height of the clypeus is equal to 8/11 of the diameter of an AME.

Chelicerae Equal to 5/13 of the length of the carapace. Retromargin with a single tooth. Promargin with three teeth and a carina which extends to the base of the chelicerea.

Palp Tibia with a very strong prolateral process which is distally roughened (Fig. 220). Bulb as in Fig. 221.

Legs Clothed with numerous long, slender and smooth hairs and further smaller serrate and plumose hairs. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Tibia, v.1.1.2. p.1.1.1. r.0.1.1. Metatarsus, v.2.2.1. p.0.1.2. Second leg. Femur, d.0.1.1.1. p.0.1.0.1. r.0.0.0.1. Tibia, v.1.2.2. p,r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. d.0.1.0. Trichobothria. Tibia, 2.2.1.1. Metatarsus and tarsus, 4. Superior claws with from 14-16 teeth. Inferior claw with two teeth. Calamistrum lacking.

Abdomen The posterior pair of spinnerets are more slender than the anterior pair but approximately equal in length. The cribellum is small and pointed posteriorly. The spinning area is small and may be non-functional.

Type Holotype male. Nelson. Salisbury Opening, Mt Arthur Tableland, 23.i.1948, R. R. Forster (Dominion Museum).

Tararua foordi n.sp.

Figs. 222-223

FEMALE

Measurements

	Carapace	length 1.56		width 1.08		
	Abdomen	length 2.28		width 1.68		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.26	0.54	1.08	0.96	0.66	4.50
2	1.20	0.48	0.84	0.84	0.60	3.96
3	1.08	0.48	0.72	0.84	0.48	3.60
4	1.20	0.48	0.90	0.96	0.54	4.08
Palp	0.48	0.24	0.30		0.48	1.50

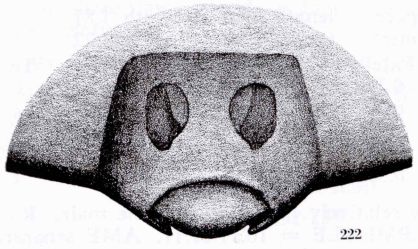
Colour Head region dark reddish brown, thoracic region paler yellow brown. Legs pale yellow with blackish bands. Abdomen grey with two longitudinal dark bands down the median surface.

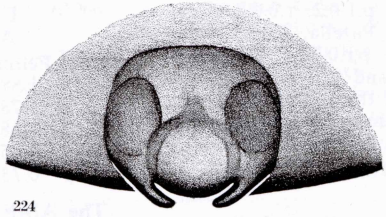
Eyes The eyegroup occupies 5/7 of the width of the head. From above the anterior row is slightly recurved and the posterior row gently procurved. From in front the anterior row is straight and the posterior row strongly procurved. Ratio of AME.ALE.PME.PLE = 4.9.7.9. AME separated from each other and from the ALE by a distance equal to 5/4 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 9/4 and from the PLE by 10/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.13 and wider behind than long in the ratio of 23.22. Height of the clypeus equal to 7/4 of the diameter of an AME.

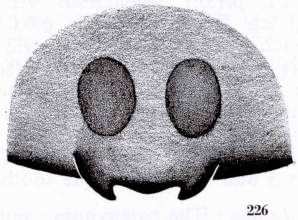
Chelicerae Retromargin with two, promargin with three teeth.

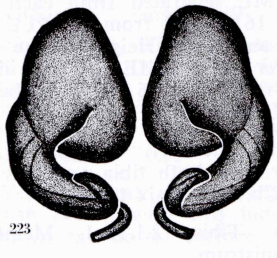
Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.0.1. Tarsus many. Six trichobothria present on the tibia arranged in three pairs. Claw with 12 teeth.

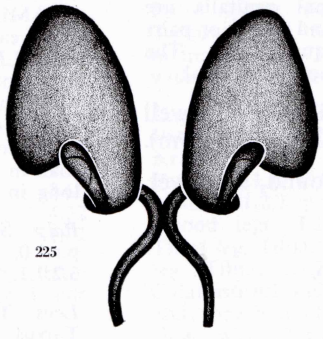
Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Patella, d.1.1. Tibia, v.0.2.2. p.1.1.1. r.1.0.1. Metatarsus, v.2.2.2. p,r.0.1.2. d.0.0.1. Second leg. Femur, d.0.1.0.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p.0.1.1. r.0.0.1. d.1.0.0. Metatarsus, v.2.2.1. p,r.0.1.2. d.0.0.1. Trichobothria. Tibia, 1.2.1.1.1. Metatarsus and tarsus, 4. Calamistrum well developed, extending down slightly more than half of the segment. Superior claws with from 16-17 teeth, inferior claw with two teeth.

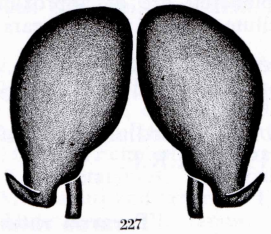

222


224


226


223


225


227

Figs. 222-223 *Tararua foordi* n.sp. Fig. 222 Epigynum. Fig. 223 Internal genitalia. Figs. 224-225 *Tararua aroha* n.sp. Fig. 224 Epigynum. Fig. 225 Internal genitalia. Figs. 226-227 *Tararua versuta* n.sp. Fig. 226 Epigynum. Fig. 227 Internal genitalia.

Abdomen Cribellum small and divided. Spinnerets short. The epigynum and internal genitalia are shown in Figs. 222, 223.

Types Holotype female, paratype female. Makiio Stream, Desert Road, leafmould, 17.xii.1950, M. R. Foord (Otago Museum).

Tararua versuta n.sp.

Figs. 226-227

FEMALE

Measurements

Carapace	length 2.34		width 1.48	
Abdomen	length 2.00		width 1.60	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.33	0.60	1.08	1.18	0.70	4.89
2	1.25	0.58	0.95	1.05	0.65	4.48
3	1.20	0.55	0.85	1.00	0.60	4.20
4	1.40	0.60	1.08	1.28	0.65	5.01
Palp	0.58	0.30	0.38		0.63	1.89

Colour Head and median surface of the thorax bright orange-brown, remaining surface of the thorax cream. Chelicerae reddish brown. Legs yellow-brown. Abdomen yellow brown with a few faint markings on the dorsal surface.

Eyes The eyegroup occupies 2/3 of the width of the head. From above both rows are straight but from in front the anterior row is straight and the posterior row is strongly procurved. Ratio of AME.ALE.PME.PLE = 7.9.10.15. AME separated from each other by a distance equal to 7/7 and from the ALE by 9/7 of the diameter of an AME. Lateral eyes separated by a distance equal to 5/7 of the diameter of an AME. PME separated from each other by 15/7 and from the PLE by 19/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 35.21 and longer than wide behind in the ratio of 37.35. Height of clypeus equal to twice the diameter of an AME.

Chelicerae Length equal to 11/29 of carapace. Retromargin with two teeth. Promargin with three teeth, of which the median is largest. A carina is present.

Palp Spines. Femur, d.0.1.1.1. Tibia, p.1.2. d.1.0. Six trichobothria are present on the tibia arranged in three pairs. Tarsal organ distal. Claw with ten teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.0.2.2. p.1.0.1. Metatarsus, v.2.2.1. p.1.0.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.0.1. Tibia, v.0.1.2. p.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Trichobothria. Tibia, 1.2.2.1.1. Metatarsus and tarsus, 3. There are a few hairs on the metatarsus of the fourth leg which could be the vestiges of a calamistrum but a true calamistrum is not present. Superior claws with from 15-16 teeth. Inferior claws of legs 1 and 2 with two teeth, legs 3 and 4 with a single tooth.

Abdomen The epigynum and internal genitalia are shown in Figs. 226, 227. The anterior and posterior pairs of spinnerets are of approximately equal length. The cribellum is small and appears to be non functional.

Type Holotype female. Fiordland. Caswell Sound, 15.iv.1949, R. R. Forster (Otago Museum).

Records Fiordland. Thompson Sound, sea level, 14.i.1958, R.R.F.

Tararua ratuma n.sp.

Figs. 228-231

MALE

Measurements

Carapace	length 1.84	width 1.40
Abdomen	length 1.76	width 1.21

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.88	0.63	1.78	1.70	0.70	6.69
2	1.75	0.63	1.50	1.43	0.75	6.06
3	1.55	0.55	1.20	1.25	0.60	5.15
4	1.63	0.55	1.38	1.45	0.65	5.66
Palp	0.80	0.24	0.20		0.68	1.92

Colour Head and median surface of the thorax dark orange brown. Margins of the thorax paler yellow brown. Legs yellow with dark bands. Abdomen pale on the mid-dorsal surface and the ventral surfaces but lateral surfaces and an area in front of the spinnerets and behind the epigastric groove on the ventral surface heavily pigmented with black.

Eyes The eyegroup occupies 9/11 of the width of the head. From above the anterior row is straight and the posterior row is slightly procurved. From in front the anterior row is straight and the posterior row is more strongly procurved. Ratio of AME.ALE.PME.PLE = 7.10.10.12. AME separated from each other by a distance equal to 8/7 and from the ALE by 9/7 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 13/7 and from the PLE by 15/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 33.22 and wider behind than long in the ratio of 33.32. Height of the clypeus equal to 12/7 of the diameter of an AME.

Chelicerae Length equal to 4/9 of the length of the carapace. Retromargin with two teeth. Promargin with three teeth of which the distal is the smallest and the proximal is fused to the carina which extends to the base of the chelicera.

Palp As in Figs. 230, 231. The tibial processes are relatively small.

Legs 2314. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.0.0.2. p.0.1.1. r.0.1.1. d.1.1.0. Metatarsus, v.2.2.1. p,r.0.1.2. d.1.0.1. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.0.0.2. p,r.0.1.1. d.1.1.0. Metatarsus, v.2.2.1. p,r.0.1.2. d.0.1.0. Trichobothria. Tibia, 1.1.2.1.1.1. Metatarsus and tarsus, 3. Superior claws with from 11-12 teeth. Inferior claw with a single tooth. Calamistrum absent.

Abdomen The anterior pair of spinnerets are slightly longer than the posterior pair The colulus is wide, four times as wide as long.

FEMALE

Measurements

Carapace	length 2.40		width 1.81	
Abdomen	length 2.60		width 2.22	

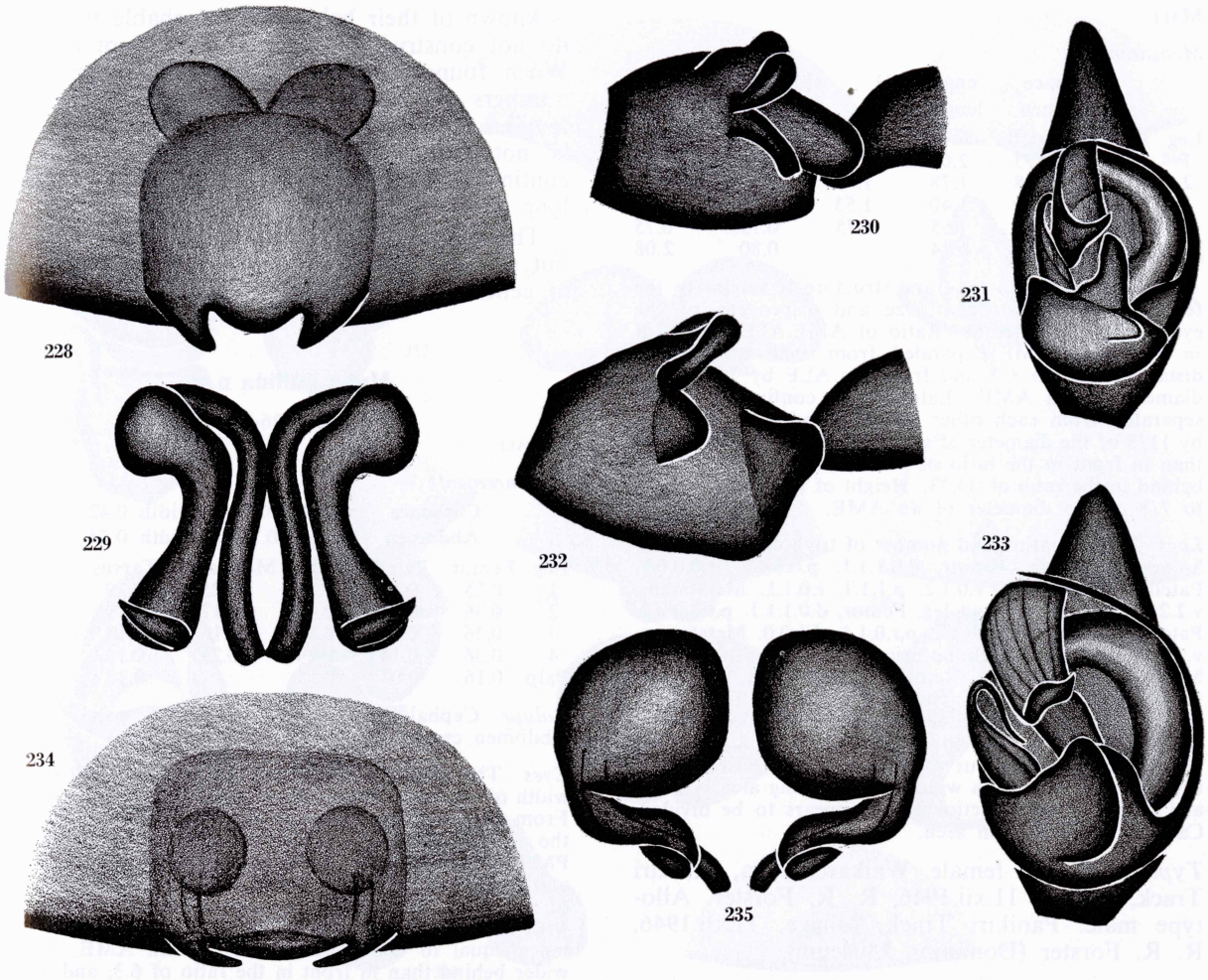
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.88	0.75	1.53	1.65	0.98	6.79
2	1.78	0.70	1.30	1.50	0.75	6.03
3	1.68	0.70	1.25	1.45	0.70	5.78
4	2.05	0.75	1.65	1.95	0.83	7.23
Palp	0.73	0.33	0.45		0.83	2.34

The AME are relatively larger than in the male. Ratio of AME.ALE.PME.PLE = 10.11.11.11. AME separated from each other by a distance equal to 6/10 and from the ALE by 9/10 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by a distance equal to 16/10 and from the PLE by 10/10 of the diameter of an AME. Height of the clypeus is equal to the diameter of an AME. MOQ wider behind than in front in the ratio of 38.26 and wider behind than long in the ratio of 38.29.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia. p,r.1.0. Trichobothria on both tibia and tarsus. Tibia, 3.2.1.1. Tarsus, 4. Claw with six teeth.

Legs Trichobothria. Tibia, 2.1.1.1.1. Metatarsus, 5. Tarsus, 7. No calamistrum.

Abdomen The epigynum and internal genitalia are shown in Figs. 228, 229. The anterior and posterior pairs of spinnerets are equal in length but the posterior



Figs. 228-231 *Tararua ratuma* n.sp. Fig. 228 Epigynum. Fig. 229 Internal genitalia. Fig. 230 Tibial processes of male palp. Fig. 231 Ventral view of male palp.
Fig. 232-235 *Tararua puna* n.sp. Fig. 232 Tibial processes of male palp. Fig. 233 Ventral view of male palp. Fig. 234 Epigynum. Fig. 235 Internal genitalia.

pair are more slender. The cribellum is rectangular in outline, three times as wide as long, and does not appear to be functional.

Types Holotype male. Canterbury. Arthurs Pass, near Bealey, 4.xii.1955, B. J. Marples. Allotype female. Cass, November 1951, R. L. Pilgrim (Otago Museum).

Tararua puna n.sp.

Figs. 232-235

FEMALE

Measurements

Carapace	length 1.80	width 1.20	
Abdomen	length 2.40	width 1.80	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.26	0.54	1.14	1.14	0.66	4.74
2	1.20	0.48	0.96	0.94	0.56	4.14
3	1.08	0.48	0.78	0.84	0.48	3.66
4	1.26	0.48	1.02	1.08	0.48	4.32
Palp	0.48	0.30	0.35		0.49	1.62

Colour Cephalothorax and legs reddish brown. Abdomen reddish brown with two indistinct darker bands running down the dorsal surface.

Eyes The eyegroup occupies almost the entire width of the head. Both from above and in front the anterior row appears straight and the posterior row is gently procurved. Ratio of AME.ALE.PME.PLE = 6.9.7.8. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 11/6 and from the PLE by 10/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 25.18 and wider behind than long in the ratio of 25.22. Height of the clypeus equal to 11/6 of the diameter of an AME.

Chelicerae Retromargin with two, promargin with three teeth.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. p,r.1.2. Tarsus p.3.2.2. Six trichobothria on the tibia arranged in three pairs. Tarsal organ sub-distal and small. Claw with 12 small teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.0.2.2. p,r.1.1.1. Metatarsus, v.2.2.2. p,r.0.1.1. d.0.0.1. Second leg. Femur, d.0.1.1.0. p.0.0.0.1. Patella, d.1.1. Tibia, v.0.2.2. p.0.0.1. r.0.1.1. d.1.0.0. Metatarsus, v.1.2.2. p,r.0.1.2. d.0.0.1. Trichobothria. First and second legs. Tibia, 1.1.2.1. Metatarsus, 3. Tarsus, 4. Third leg. Tibia, 2.2.2.2. Metatarsus and tarsus, 3. Fourth leg. Tibia, 1.1.2.1.2.1. Metatarsus, 1.1. tarsus, 1.1.1. Calamistrum well developed, extending over approximately one half of the length of the metatarsus. Superior claws with 12 teeth, inferior claw with two teeth.

Abdomen The cribellum is small and divided. The epigynum and internal genitalia are shown in Figs. 234, 235.

MALE

Measurements

	Carapace		length 2.31		width 1.46	
	Abdomen		length 2.31		width 1.40	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.13	0.73	2.05	1.93	0.93	7.77
2	2.00	0.68	1.78	1.75	0.83	7.04
3	1.80	0.60	1.40	1.53	0.70	6.03
4	2.00	0.60	1.65	1.75	0.75	6.75
Palp	0.72	0.32	0.24		0.80	2.08

The general appearance and structure is similar to the female. The proportional size and disposition of the eyes is slightly different. Ratio of AME.ALE.PME.PLE = 8.13.9.14. AME separated from each other by a distance equal to 8/8 and from the ALE by 7/8 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 15/8 and from the PLE by 11/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 33.24 and longer than wide behind in the ratio of 34.33. Height of the clypeus equal to 7/8 of the diameter of an AME.

Legs The spination and number of trichobothria differs. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.0.1. Tibia, v.0.1.2. p.1.1.1. r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.2. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.1.1. d.1.0.0. Metatarsus, v.2.2.1. p,r.1.1.2. Trichobothria. First leg. Tibia, 1.1.2. Metatarsus, 4. Tarsus, 6. Remaining legs. Tibia, 1.2.1.1.1.1. Metatarsus and tarsus, 4. Superior claws with from 11-12 teeth. Inferior claw with three teeth. The palp is shown in Figs. 232, 233. The conductor is large and the distal portion is membraneous and cupped. The cribellum is broad, twice as long as wide. The spinning area is small and probably non-functional but appears to be divided. Calamistrum not been seen.

Type Holotype female. Waikaremoana, Panikiri Track, foliage, 11.xii.1946, R. R. Forster. Allotype male. Panikiri Track, foliage, 11.xii.1946, R. R. Forster (Dominion Museum).

Records Waikari-iti, on foliage, 14.xii.1946, R.R.F. Panikiri Track, Waikaremoana, on foliage, 11.xii.1946, R.R.F.

Huka n.gen.

Minute (body length 1-1.5mm) cribellate spiders. Usually lacking pigment. Eyes in two, more or less straight, rows. AME very small. Remaining eyes subequal. PME well separated. Legs 4123, few or no spines on the first two pairs of legs. Femora of the third and fourth pairs of legs with one basal spine. There are no dorsal tibial spines.

Trichobothria few but long. Double row on the tibiae and only one or two in a single row on the metatarsi and tarsi Tarsal organ subdistal. Superior claws similar and strongly pectinate. Inferior claw smooth or with few teeth. Scopulae, claw tufts, and tenent hairs lacking. Chelicerae with boss. Retromargin with two and promargin with from two-five teeth. Female palp with a double row of trichobothria on the tibia. Claw smooth. Internal genitalia simple; receptaculate. Cribellum well developed, broad, usually three times as wide as long. Spinning fields divided. Calamistrum consisting of from 5-6 hairs on the proximal half of the metatarsus. Male palp with strong, usually spinous embolus, slightly curved. Median apophysis well developed, digitate. Conductor consisting of a translucent membraneous structure supporting the distal portion of the embolus.

Type species *Huka pallida* n.sp.

These minute unpigmented spiders live amongst moss and detritus on the forest floor. They are usually collected from Berlese samples and little is known of their habits. It is probable that they do not construct snares but this is not certain. When found they are usually present in large numbers but males are rarely found. Mature females have been collected in all seasons but it is not known whether the breeding cycle is continuous of whether the spiders are relatively long lived.

The relationships of this genus are not clear but we have associated it with the *Oramia* group of genera.

Huka pallida n.sp.

Figs. 236-239

FEMALE

Measurements

	Carapace		length 0.60		width 0.42	
	Abdomen		length 0.78		width 0.54	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.38	0.14	0.28	0.25	0.19	1.25
2	0.36	0.12	0.17	0.17	0.19	1.01
3	0.36	0.12	0.14	0.16	0.18	0.96
4	0.36	0.14	0.24	0.25	0.19	1.19
Palp	0.16	0.07	0.10		0.18	0.50

Colour Cephalothorax and appendages pale yellow. Abdomen cream.

Eyes The eyegroup is compact and occupies half of the width of the head. From above both rows appear straight. From in front the posterior row appears straight but the anterior is slightly procurved. Ratio of AME.ALE. PME.PLE = 1.2.2.2. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes contiguous. PME contiguous with the PLE and separated from each other by a distance equal to twice the diameter of an AME. MOQ wider behind than in front in the ratio of 6.3, and wider behind than long in the ratio of 6.5. Height of clypeus equal to three times the diameter of an AME.

Sternum Scutiform. Anterior margin straight, lateral margins evenly curved. Wider than long in the ratio of 7.6. Coxae 4 separated by a distance equal to the width of a coxa.

Maxillae Convergent. Lateral margins straight, anterior margin evenly rounded. Twice as long as wide.

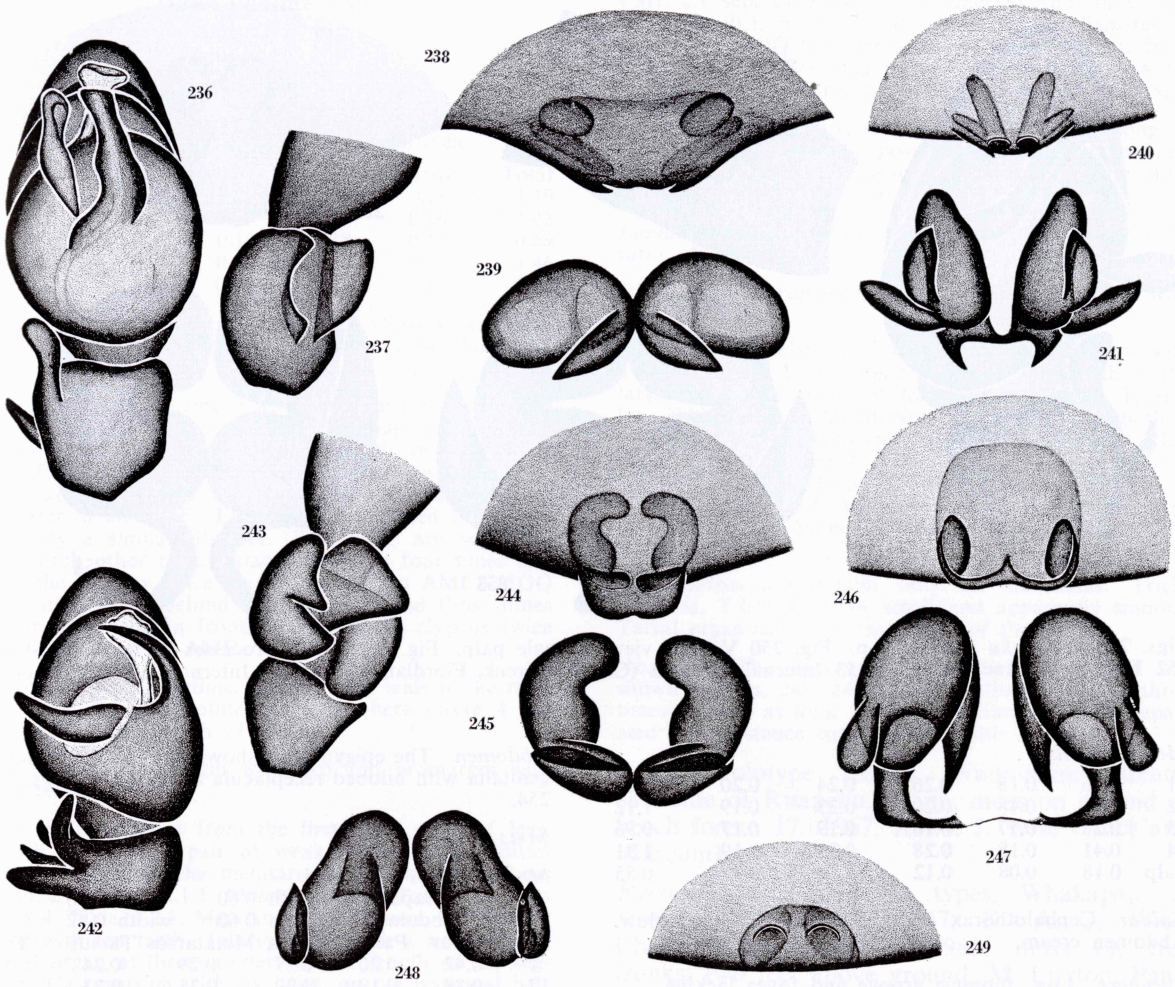
Labium Evenly rounded, twice as wide as long.

Chelicerae Short, vertical, with boss. Retromargin with two teeth. Promargin with three teeth of which the proximal is large and apically bifid.

Palp Apart from numerous spines on the tarsus the only spines are two on the prolateral surface of the tibia. There are three trichobothria on the tibia arranged 2.1. The claw is provided with seven small teeth.

Legs Spines are present only on the third and fourth pairs of legs. Third leg. Femur, d.0.1.0.0. Patella, d.0.1. Tibia, v.0.0.1. p,r.0.1.0. Metatarsus, v,p,r.0.0.1. Fourth leg. Femur, d.0.1.0.0. Patella, d.0.1. Tibia, v.0.1.2. r.0.1.1. Metatarsus, v,p.r.0.0.1. d. 0.1.0. Trichobothria. First three pair of legs. Tibia, 2.1.1. Metatarsus and tarsus, 1.1. Fourth leg. Tibia, 2.2.1. Metatarsus, 1.1. Tarsus, 1. Calamistrum of six hairs occupies half of the length of the metatarsus. Superior claws provided with seven teeth, inferior claw with one tooth. Tarsal organ present on all tarsi at 2/3 of the length of the segment.

Abdomen The epigynum is provided with a pair of curved spines on the posterior margin (Fig. 238). The internal genitalia are simple (Fig. 239). The cribellum is small and divided.



Figs. 236-239 *Huka pallida* n.sp. Fig. 236 Ventral view of male palp. Fig. 237 Tibial processes of male palp. Fig. 238 Epigynum. Fig. 239 Internal genitalia. Figs. 240-243 *Huka alba* n.sp. Fig. 240 Epigynum. Fig. 241 Internal genitalia. Fig. 242 Ventral view of male palp. Fig. 243 Tibial processes of male palp. Figs. 244-245 *Huka lobata* n.sp. Fig. 244 Epigynum. Fig. 245 Internal genitalia. Figs. 246-247 *Huka silvatica* n.sp. Fig. 246 Epigynum. Fig. 247 Internal genitalia. Figs. 248-249 *Huka minima* n.sp. Fig. 248 Internal genitalia. Fig. 249 Epigynum.

MALE

Measurements

	Carapace	length 0.54		width 0.42		
	Abdomen	length 0.60		width 0.42		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.42	0.18	0.31	0.29	0.25	1.45
2	0.37	0.16	0.24	0.24	0.24	1.25
3	0.36	0.16	0.19	0.23	0.22	1.15
4	0.42	0.19	0.30	0.30	0.24	1.45
Palp	0.19	0.08	0.12		0.42	0.64

Similar in most characters to the female. The palp is as shown in Figs. 236, 237.

Types Holotype female, allotype male. Fiordland. Lake Te Au, moss on forest floor and tree trunks, January 1953, R. R. Forster (Otago Museum).

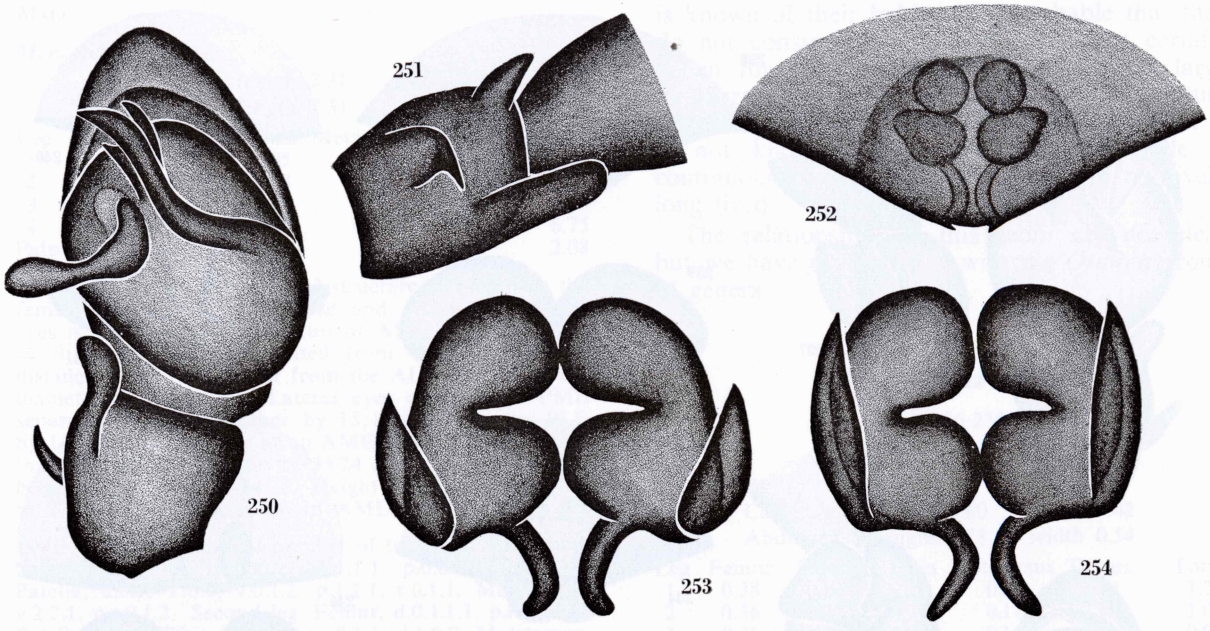
Records South Island: Numerous specimens collected with types. Eglinton Valley, leafmould from forest floor, 26.i.1966, K. R. Rennell. Milford Sound, leafmould, 20.i.1946, R.R.F. Lake Mahinapu, from moss—liverwort association in *Rimu-Quintinnia* forest, February 1951, W. C. Clark. Lake Paringa, 27.ix.1966, R.R.F., C.L.W. Five miles west of Otira, 29.ix.1966, R.R.F., C.L.W. Monowai, moss on forest floor, 15.i.1971, R.R.F. Alton Burn, Tuatapere, Southland, 25.xi.1970, R.R.F., C.L.W. Shenandoah Saddle, 1,650 ft, Lewis Pass, 16.viii.1966, C.L.W. Lake Taylor, Canterbury, leafmould, 14.iv.1952, R.R.F. Leslie Valley Track, Nelson, 3,000 ft, 28.i.1948, J. T. Salmon. Upper Takaka, 7.v.1953, C. Holmes. Cameron Flat, Makarora, leaflitter, March 1966, R.R.F. North Island: Mt Holdsworth, near Motor Camp, 3.viii.1966, C.L.W. Lake Waikare-iti, leafmould, 14.xii.1946, R.R.F. Mt Ngamoko, Waikaremoana, 3,000 ft, leafmould, 13.xii.1946, R.R.F. Waihohonu Stream, east side of Ruapehu, moss, 17.i.1967, K. A. J. Wise. Whakapapanui Stream, 158 M, 18.i.1967, leaflitter, K. A. J. Wise. North end of Desert Rd, leaflitter, 10.i.1967, R.R.F. Chateau Tongariro, moss on tree trunks, 12.v.1965, M. Luxton.

Huka minuta n.sp.

Figs. 250-254

FEMALE

Carapace	length 0.60	width 0.43
Abdomen	length 0.66	width 0.48



Figs. 250-254 *Huka minuta* n.sp. Fig. 250 Ventral view of male palp. Fig. 251 Tibial processes of male palp. Fig. 252 Epigynum (Raetihi). Fig. 253 Internal genitalia (Cascade Creek, Fiordland). Fig. 254 Internal genitalia (Raetihi).

Measurements

1	0.36	0.18	0.26	0.24	0.20	1.25
2	0.31	0.18	0.20	0.23	0.19	1.12
3	0.28	0.17	0.16	0.19	0.17	0.96
4	0.41	0.18	0.28	0.25	0.19	1.31
Palp	0.18	0.08	0.12		0.17	0.55

Colour Cephalothorax and appendages pale yellow. Abdomen cream.

Carapace Low, thoracic groove and fovea lacking.

Eyes The eyegroup occupies one half of the width of the head. From above both rows appear straight. From in front the anterior row appears straight and the posterior slightly procurved. Ratio of AME.ALE.PME.PLE = 1.2.2.2. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Laterals subcontiguous. PME separated from the PLE by a distance equal to the diameter of an AME and from each other by a distance equal to four times the diameter of an AME. MOQ wider behind than in front in the ratio of 8.3 and wider behind than long in the ratio of 8.5. Height of the clypeus equal to twice the diameter of an AME.

Sternum Anterior margin straight, lateral margins evenly curved. Coxae 4 are separated by a distance equal to the width of a coxa.

Maxillae Convergent. Lateral margins sub-parallel, anterior margin rounded. Twice as long as wide.

Chelicerae Retromargin with two teeth, promargin with five teeth of which the fourth is the largest.

Palp There are no spines but a few bristles are present on the tibia and tarsi. Three trichobothria on the tibia arranged 2.1. The tarsal claw is provided with four teeth.

Legs Spines. Third leg. Femur, d.0.1.0.0. Tibia, v.0.0.2. p,r.0.1.0. d.1.0.0. Metatarsus, v,p,r.0.0.1. Fourth leg. Tibia, v.0.1.1. r.0.1.0. Metatarsus, v,p,r.0.0.1. Trichobothria. Tibia, 2.1.1. Metatarsus and tarsus, 1.1. Calamistrum consists of six hairs on proximal half of the metatarsus. Superior claws with eight teeth, inferior claw with a single tooth.

Abdomen The epigynum is shown in Fig. 252. Internal genitalia with bilobed receptacula as shown in Figs. 253, 254.

MALE

Measurements

Carapace length 0.60 width 0.46
Abdomen length 0.60 width 0.42

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.42	0.20	0.37	0.29	0.24	1.52
2	0.38	0.19	0.29	0.25	0.23	1.34
3	0.35	0.18	0.19	0.25	0.19	1.16
4	0.48	0.23	0.36	0.36	0.24	1.67

Similar to female. Spines. First leg. Tibia, v.0.2.0. Metatarsus, v.0.2.0. Second leg. Femur, d.0.1.0.0. Tibia, v.0.1.0. Metatarsus, v.0.1.1. Third leg. Femur, d.0.1.1.0. Patella, d.0.1. Tibia, v.0.1.2. p,r.0.1.0. Metatarsus, v,p,r.0.1.1. Fourth leg. Femur, d.1.0.0.0.0. Tibia, v.0.1.2. r.1.1.0. Metatarsus, v.0.1.1. p.0.1.2. r.0.0.2. d.0.1.0. The male palp is illustrated in Figs. 250, 251.

Types Holotype female, allotype male. Raetihi, leaflitter, 23.xii.1948, R. R. Forster (Otago Museum).

Records North Island. Same data as types. Ohakune, north road, leaflitter, 5.i.1965, B. A. Holloway. South Island. Fiordland. Homer, 3,000 ft, moss, 9.ii.1955, R.R.F. Homer, 16.ii.1966, R.R.F. Cascade Creek, Eglinton Valley, moss, 6.iii.1966, R.R.F. Cascade Creek, 13.ii.1955, R.R.F. Manapouri, 23.i.1951, R.R.F.

This species is close to *pallida* but is readily separated by the form of the male palp and the female epigynum. The distribution of this species is most unusual for a cryptozoic spider, being found in both Fiordland and the central North Island districts but apparently not in between. With the extensive sampling of forest floor fauna it is probable that this distribution is real and not the result of inadequate sampling of the intervening areas.

Huka minima n.sp.

Figs. 248-249

FEMALE

Measurements

Carapace	length 0.50		width 0.39	
Abdomen	length 0.81		width 0.48	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.37	0.16	0.27	0.21	0.18	1.19
2	0.30	0.14	0.23	0.19	0.16	1.02
3	0.27	0.12	0.18	0.18	0.14	0.89
4	0.39	0.39	0.25	0.27	0.16	1.46
Palp	0.18	0.09	0.09		0.14	0.50

Colour Cephalothorax and legs pale straw yellow. The abdomen is however heavily coloured with black pigment.

Eyes The eyes are ringed with black. From above both rows are almost straight. The eyegroup occupies two thirds of the width of the head. The ratio of AME.ALE. PME.PLE = 1.5.4.5. The AME are separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes separated from each other by a similar distance. The PME are separated from each other by a distance equal to four times and from the PLE by twice the diameter of an AME. MOQ four times wider behind than in front and three times longer than wide in front. Width of the clypeus twice the diameter of an AME.

Sternum Oval in outline. Longer than wide in the ratio of 20.17. Broadly pointed behind where coxae 4 are separated by the width of a coxa.

Chelicerae Retromargin with two and promargin with three teeth.

Legs Spines absent from the first three pairs of legs. Fourth leg with a pair of weak spines on the distal ventral surface of the metatarsus. Trichobothria. Legs 1 and 2. Tibia, 1.2.1.1. Metatarsus, 1.1. Tarsus 1. Legs 3 and 4. Tibia, 1.2.1. Metatarsus, 1.1. Tarsus, 1. Superior claws with ten teeth. Inferior claw with a single tooth. Tarsal organ at three-quarters of the length of the segment. Calamistrum with six hairs, on the proximal half of the metatarsus.

Palp Spines on tarsus. Claw smooth. Three trichobothria in a double row on the tibia.

Abdomen The epigynum and internal genitalia are shown in Figs. 248, 249. The cribellum is broad, three times as wide as long. Anterior pair of spinnerets widely spaced.

Type Holotype female. North Island. Taumarunui, Owanga, 22.vi.1967, C. L. Wilton (Otago Museum).

Huka alba n.sp.

Figs. 240-243

FEMALE

Measurements

Carapace	length 0.57		width 0.39	
Abdomen	length 0.63		width 0.42	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.32	0.14	0.19	0.19	0.19	1.03
2	0.31	0.14	0.18	0.19	0.18	1.00
3	0.28	0.12	0.14	0.18	0.18	0.90
4	0.36	0.16	0.27	0.27	0.18	1.24
Palp	0.18	0.16	0.11		0.14	0.52

Colour Without pigment. Cephalothorax and legs straw yellow. Abdomen cream.

Eyes Both rows more or less straight. Ratio of AME. ALE.PME.PLE = 1.4.4.4. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. The PME are separated from each other by four times and from the PLE by a distance equal to the diameter of an AME. MOQ four times as wide behind as in front and three times as long as wide in front. The width of the clypeus is three times the diameter of an AME.

Sternum Almost oval in outline. Wider than long in the ratio of 12.11. The posterior projection is broadly rounded, separating coxae 4 by a distance slightly more than the diameter of a coxa.

Labium Notched at the base. Wider than long in the ratio of 3.2.

Chelicerae Retromargin with two and promargin with three teeth.

Legs Superior claws with nine teeth. Inferior claw with a single tooth. Tarsal organ at 3/4 of the length of the tarsi. First three pairs of legs without spines. Fourth leg. Tibia, v.0.1.0. Metatarsus, d,v.0.0.1. Trichobothria long. Few on metatarsi and tarsi. Leg 1. Tibia, 1.1.2.1.1. Metatarsus, 1.1. Leg 2. Tibia, 1.2.1.1. Metatarsus, 1.1. Tarsus, 1. Leg 3. Tibia, 1. Metatarsus, 1.1. Tarsus, 1. Leg 4. Tibia, 1.2.2.1. Metatarsus and tarsus, 1. Calamistrum with five hairs on the proximal half of the metatarsus.

Palp Spines are present only on the tarsus. Trichobothria. Tibia, 2. Claw small and apparently smooth. Tarsal organ at 2/3 of the length of the tarsus.

Abdomen The epigynum and internal genitalia are shown in Figs. 240, 241. The cribellum is broad, three times as wide as long. Anterior spinnerets widely separated by a distance equal to the width of the base.

Types Holotype female. Waihohonu Stream, east side of Ruapehu, 945m., moss on ground in beech forest, 17.i.1967, K. A. J. Wise (Auckland Museum).

Records Same data as types. Whakapapa-nui Stream, leaflitter, 18.i.1967, K. A. J. Wise. Chateau Tongariro, 12.v.1965, moss on tree trunks, two feet above ground, M. Luxton. Panikiri Bluff, Waikaremoana, leaflitter, 11.xii.1946, R.R.F. A damaged male which probably is of this species has been examined and the palp illustrated (Figs. 236, 237).

Huka lobata n.sp.

Figs. 244-245

FEMALE

Measurements

Carapace	length 0.75		width 0.61	
Abdomen	length 1.04		width 0.62	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.59	0.25	0.41	0.34	0.27	1.86
2	0.48	0.23	0.36	0.34	0.25	1.46
3	0.46	0.19	0.30	0.28	0.19	1.42
4	0.61	0.27	0.43	0.41	0.27	1.99
Palp	0.30	0.12	0.13		0.21	0.76

Colour Cephalothorax and legs pale straw yellow, abdomen cream.

Eyes From above anterior row straight and posterior row gently procurved. Ratio of AME.ALE.PME.PLE = 2.4.3.4. AME separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by two and a half and from the PLE by a distance equal to the diameter of an AME. MOQ wider behind than in front in the ratio of 11.6 and longer than wide in the front in the ratio of 8.6.

Sternum Longer than wide in the ratio of 7.6. Broadly obtuse behind where the coxae are separated by a distance equal to the width of a coxa.

Chelicerae Two teeth on each margin.

Legs Spines absent from leg 1. Second leg. Femur, d.1.0.0. Tibia, v.0.1.0. Metatarsus, v.0.2.1. Third leg. Femur, d.1.0.0. Tibia, v.0.1.2. Metatarsus, v.0.1.1. d.0.0.1. Fourth leg. Femur, d.1.1.0. Tibia, v.1.1.2. p.0.1.0. r.0.1.1. Metatarsus, v,p,r.0.1.1. Trichobothria. Legs 1 and 2. Tibia, 1.2.1.1. Metatarsus and tarsus, 2. Legs 3 and 4. Tibia, 1.2.1. Metarsus and tarsus, 2. Superior claws with ten teeth. Inferior claw smooth. Tarsal organ at three-quarters of the length of the tarsus. Calamistrum proximal, with six hairs.

Abdomen Epigynum and internal genitalia as shown in Figs. 244, 245. Anterior pair of spinnerets widely separate. Cribellum three times as wide as long, notched on the mid-posterior surface. Spinning field small, divided.

Type Holotype female. Wairarapa, Mangareia, 28.vii.1947, C. L. Wilton (Otago Museum).

Records Mangareia, 5.i.1947, C.L.W. West Taupo, 4.xi.1953, R. K. Dell. Brothers Is., Cook Strait, near bird nests, 12.v.1956, G. W. Ramsay. Waihohonu Stream, east side of Ruapehu, 17.i.1967, K. A. J. Wise. White Is., Ohauroa, leaflitter, 6.xii.1966, K. A. J. Wise.

Oramiella n.gen.

Similar to *Neoramia* in most characteristics but with some trichobothria distal to the tarsal organ on the legs. Type species *Oramiella wisei* n.sp.

This relatively small spider seems to be a northern derivative of *Neoramia*. The male palp suggest that it may be an outlier of the *fiordensis* group which otherwise is typically southern in distribution.

Oramiella wisei n.sp.

Figs. 255-256

MALE

Measurements

Carapace	length 2.4	width 1.6
Abdomen	length 2.0	width 1.4

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.0	0.8	2.0	2.2	1.0	8.2
2	2.0	0.7	1.6	1.7	0.8	6.8
3	1.8	0.6	1.1	1.5	0.7	5.7
4	1.9	0.8	1.6	1.7	0.7	6.8
Palp	0.9	0.35	0.35		0.8	2.4

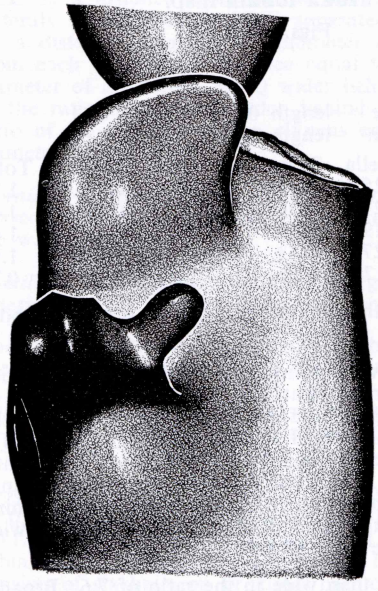
Colour Head region yellowish brown with a slight orange tinge especially near the front margins. There are dark veinlike markings which become very broad posteriorly. The thoracic region is very pale except for a longitudinal band of cephalic colouring which extends down the steep posterior slope to the petiolus. Chelicerae dark brown. Legs pale, tinged with orange and with dark bands. Sternum pale, almost white, with very pale olive margins. Maxillae and labium pale brown with white apices. On the mid-anterior dorsal surface of the abdomen is a pale area which also forms the extremities of a St. Andrew's cross. This area is bordered on each side by a rather heavy black band. Outside of these bands and extending posteriorly are paler ares which are liberally flecked with black. The rest of the dorsal and lateral surfaces more or less dark. The ventral surface of the abdomen is pale with a dark area on each side near, but not touching, the mid-lateral margins.

Carapace The width of the head is three-quarters of the width of the thorax. There are a few long hairs scattered over the head and only short hairs on the thorax where they are confined chiefly to the lateral angles of the steep hind slope and along the lateral margins.

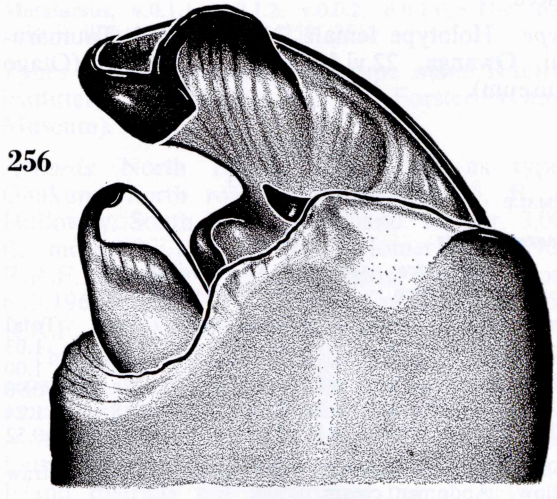
Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is very slightly procurved and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 9.12.11.11. AME separated from each other by a distance equal to 9/9 and from the ALE by 10/9 of the diameter of an AME. Laterals separated by 5/9 of the diameter of an AME. PME separated from each other by 12/9 and from the PLE by 17/9 of the diameter of an AME. MOQ wider behind that in front in the ratio of 33.27 and longer than wide behind in the ratio of 40.33. Height of the clypeus equal to 15/9 of the diameter of an AME.

Sternum Longer than wide in the ratio of 45.35. Scutiform. Posterior projection separates the posterior coxae by half the diameter of a coxa.

Maxillae Inclined slightly over labium, twice as long as wide and longer than the labium in the ratio of 36.19.



255



256

Figs. 255-256 *Oramiella wisei* n.sp. Fig. 255 Tibial processes of male palp. Fig. 256 Distal portion of palpal bulb.

Labium As long as its greatest width, notched at the base and with the distal margin emarginate.

Chelicerae Length 9/20 of the carapace. Promargin of the groove with three teeth, the median being the largest, and the retromargin with two well separated small teeth. A basal carina terminated distally as the first tooth of the three on the promargin.

Palp The tibial processes and the distal portion of the bulb are shown in Figs. 255-256.

Legs Spines. First leg. Femur, a prolateral spine is present, d.1.1.1. p,r.0.1. Tibia, v.0.2.2. p.1.1.1. r.0.1.1. Metatarsus, v.2 and a subwhorl of 5, p,r.1 median. Second leg. Femur, d.1.1.1. p.1.1. r.0.1. Tibia, v.1.2.2. p,r.0.1.1. Metatarsus, same as the first leg. Third leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.0.2.2. p,r.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1.1. Fourth leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.1.2.2. p,r.1.1. Metatarsus, 2.2 and a subwhorl of 5, p.1.1. r.1 calamistrum 1. Calamistrum a single row occupying one-third of the length of the segment. Trichobothria in two rows on the tibiae. Metatarsi and tarsi, 4. The tarsal organ is situated between the fourth and fifth trichobothria from the base of the tarsus. Superior claws with 11 teeth and inferior claw two.

Abdomen There is a divided functional cribellum.

Type Holotype male. North Auckland. Moss on tree. Sample 294. North of Maungaturoto, 9.vii.1967, K. A. J. Wise (Auckland Museum).

Oramia Forster 1964

1899 *Amaurobius* (in part), Simon. Zool. Jahrb. Syst. 12: 433.

1909 *Amaurobius* (in part), Hogg. Subantarctic Is. N. Zeal. 1: 159.

1917 *Ixeuticus* (in part), Dalmas. Ann. Soc. Ent. France. 86: 334.

1964 *Oramia*, Forster. Pacific. Ins. Mon. 7: 59.

These large (body length 8-15mm) cribellate spiders are separated from those placed in *Neoramia* mainly on genitalic characters. The embolus is flattened and twisted rather than simply spiniform. The ducts leading from the receptacula are longer and more closely resemble those found in *Tararua*. The ducts open anteriorly on the epigynum which is provided with a pair of small spines. The habits of these spiders are quite different from *Neoramia*. Most of the species recorded live in the spray-zone on shingle beaches where they construct small snares amongst the stones. They appear to feed mainly on amphipods and kelp flies. The egg sac, a large spherical white sac, is placed within the snare.

Type species *Amaurobius rubrioides* Hogg 1909.

Oramia rubrioides (Hogg) 1909

1909 *Amaurobius rubrioides*, Hogg. Subantarct. Is. of N. Zeal. 1: 159.

1909 *Badumna scylla*, Hogg. Subantarct. Is. of N. Zeal. 1: 160.

1917 *Ixeuticus rubrioides*, Dalmas. Ann. Soc. ent. Fr. 86: 334.

1930 *Ixeuticus rubrioides*, Berland. C.R. Soc. biogeogr. 30: 92.

1931 *Ixeuticus rubrioides*, Berland. Rec. Cant. Mus. 3: 357, 359.

1931 *Badumna scylla*, Berland. Rec. Cant. Mus. 3: 357.

1934 *Ixeuticus rubrioides*. Berland. Publ. Soc. biogéogr. 4: 169.

1946 *Ixeuticus rubrioides*, Parrott. Rec. Cant. Mus. 5.59.

1954 *Ixeuticus rubrioides*. Roewer. Katalog der Aran 2: 1369.

1955 *Ixeuticus rubrioides*, Forster. Rec. Dom. Mus. 2: 172.

1955 *Badumna scylla*, Bonnet. Bibliogr. Aran. 2(1): 841.

1957 *Ixeuticus rubrioides*, Bonnet. Bibliogr. Aran. 2(3): 2322.

1959 *Ixeuticus rubrioides*, Marples. Trans. Roy. Soc. N. Zeal. 87: 333.

1964 *Oramia rubrioides*, Forster. Pacific Insects Monogr. 7: 59.

1967 *Oramia rubrioides*. Lehtinen. Ann. Zool. Fenn. 4:254.

Figs. 257-260

FEMALE

Measurements

Carapace	length 7.14		width 4.71		
Abdomen	length 9.64		width 6.79		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.29	2.36	5.00	5.00	2.21	19.86
2	5.07	2.29	4.43	4.64	2.14	18.57
3	4.64	2.14	3.64	4.00	1.71	16.13
4	5.29	2.21	4.43	4.71	2.14	18.64
Palp	2.43	1.07	1.64		2.14	7.28

Colour Head region of carapace reddish brown becoming darker anteriorly and laterally and the thoracic region reddish yellow. Chelicerae very dark reddish brown with the bosses lighter in shade. Legs brownish yellow shading to red at the distal margins of the segments and with dark bands on the femora, where it is confined to the ventral and lateral surfaces. Sternum yellowish brown becoming dark brown at the margins. Maxillary lobes and labium dark brown with white apices. Abdomen pale brownish grey. On the mid-dorsal surface are two short longitudinal dark bands one on each side of the muscle-spot area which are followed by rather obscure chevrons. Elsewhere the surface is with dark flecks. The ventral surface is paler with indications of two dark bands directed posteriorly from the epigastric furrow.

Carapace The width of the head is about 7/8 of the greatest width.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight by the lower margins of the eyes and from above the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 10.14.13.15. AME separated from each other by a distance equal to 15/10 and from the ALE by 24/10 of the diameter of an AME. Lateral eyes separated by half the diameter of an AME. PME separated from each by 22/10 and from the PLE by 25/10 of the diameter of an AME. MOQ wider behind than in front in the ratio of 46.35 and longer than wide behind in the ratio of 53.46. Height of clypeus 25/10 the diameter of an AME.

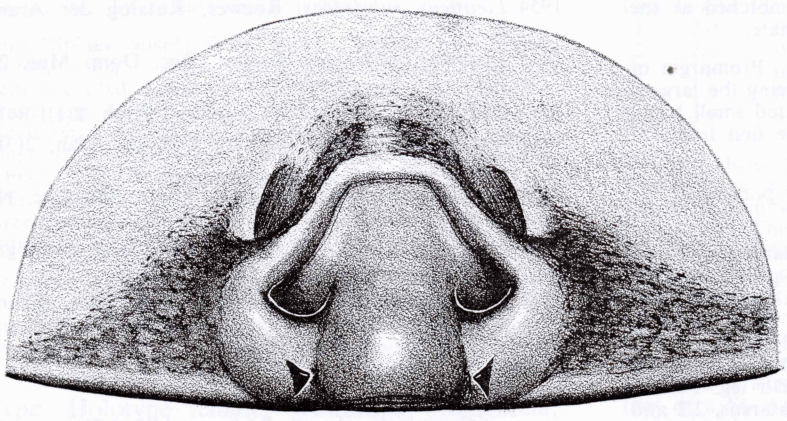
Sternum Longer than wide in the ratio of 10.7. Anterior margins straight and lateral margins sinuate. The posterior projection separates the posterior coxae by half the diameter of a coxa.

Maxillae Longer than their greatest width in the ratio of 11.6 and longer than the labium in the ratio of 11.7. Inclined slightly over the labium.

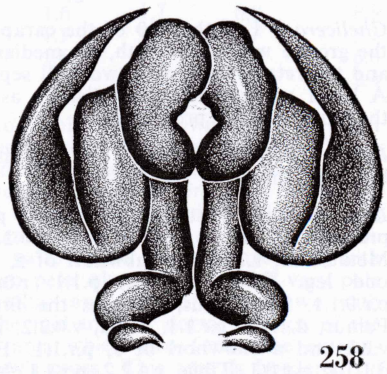
Labium Longer than wide in the ratio of 7.5, notched at the base and widest just above the notches but reducing to almost half the width distally.

Chelicerae Viewed laterally longer than wide in the ratio of 45.37. Two teeth on retromargin, three on promargin. Teeth on the promargin typical but the teeth on the retromargin are even in size and relatively well separated.

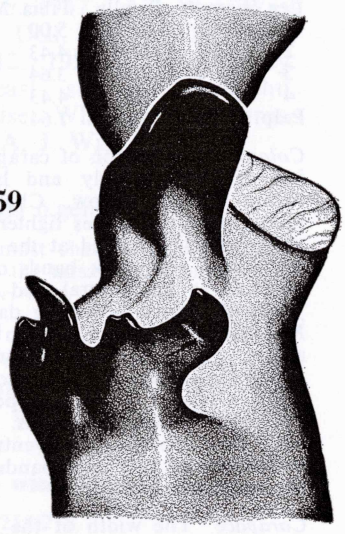
Palp Spines. Femur, d.1.1.1 on the distal half. Patella, d.1.1. Tibia and tarsus with numerous spines and bristles. There are two rows of trichobothria on the tibia, a pro-



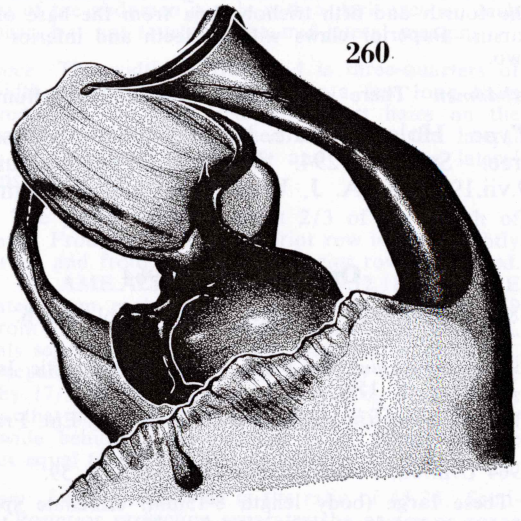
257



258



259



260

Figs. 257-260 *Oramia rubrioides* (Hogg). Fig. 257 Epigynum. Fig. 258 Internal genitalia. Fig. 259 Tibial processes of male palp. Fig. 260 Distal portion of male bulb.

row of six and a retro-row of five. The tarsal claw has about ten teeth.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.1.1. Patella, d.1.2 (bristles). Tibia, v.0.2.2. p,r.0. Metatarsus, v.2.2 and a subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.1. p,r.1.1. Patella, d.1.2 (bristles). Tibia, v.2.2.2. p.0.1.1. r.0. Metatarsus, v.2.2 and a subwhorl of 5, p.1 (median). r.0. Metatarsus, v.2.2 and a subwhorl of 5, p.1 (median) r.0. Third leg. Femur, d.1.1.1. p,r.1.1. Patella, d.1.1 (bristles). Tibia, v.2.2.2. p,r.0.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1.2. r.1.1. Tarsus, v.1.1 (distal). Fourth leg. Femur, d.1.1.1. p.1.1. r.0.1. Tibia, v.2.2.2. p,r.0.1.1. r.0. Metatarsus, v.3.2 and a subwhorl of 5, p.1.2. r.1. calamistrum. 1. Tarsus, v.1.2 (distal). Trichobothria. Tibia, a pro-row of 1.2.1.1 situated on the basal quarter and a retro-row of 7 extending to the midpoint. Metatarsus, 7. Tarsus, 8. Tarsal organ subdistal. Superior claws o fthe anterior pairs of legs have about 13 teeth. Posterior pairs with 10 teeth. Interior claw of all legs with two teeth. The calamistrum occupies slightly less than a third of the length of the segment.

Abdomen The epigynum and internal genitalia are shown in Figs. 257, 258.

MALE

Measurements

Carapace	length 6.5	width 4.4
Abdomen	length 7.0	width 4.4

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.2	2.4	6.7	6.9	2.6	24.8
2	5.7	2.3	5.4	5.4	2.1	20.9
3	4.9	2.0	4.2	4.7	1.9	17.7
4	5.5	2.2	4.8	5.2	2.1	19.8
Palp	2.6	0.9	1.2		2.1	6.8

Colour Resembles the female.

Eyes From in front the anterior row is very slightly procurved. Ratio of AME.ALE.PME.PLE = 7.10.9.11. AME separated from each by a distance equal to 10/7 and from the PLE by 12/7 of the diameter of an AME. Lateral eyes separated from each other by 4/7 of the diameter of an AME. PME separated from each other by 15/7 and from the PLE by 20/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 33.24 and longer than wide behind in the ratio of 35.33. Height of clypeus equal to 15/7 of the diameter of an AME.

Palp Tibial processes and the distal portion of the bulb are shown in Figs. 259, 260. There are two rows of trichobothria, each with five, on the dorsal surface of the tibia.

Legs The spination and claws resemble those of the female.

Types *Amaurobius rubrioides* Hogg, Snares Is., immature male, *Badumna scylla* Hogg, Snares Is.,

November 1907, H. B. Kirk. Female (Otago Museum).

Records Snares Is., under log, 28.i.1961, I. Mannering. Snares Is., under debris, 28.i.1961, I. Mannering. Snares Is., under *Olearia* logs, 1-10.i.1967, P. M. Johns. Station Pt, Snares Is., base of *Poa astoni*, 16.i.1967, P. M. Johns. Penguin Ck, Snares Is., *Olearia* at night, 2.ii.1967, P. M. Johns. Station Pt, Snares Is., *Olearia* at night, 6.ii.1967, P. M. Johns.

Oramia chathamensis (Simon) 1899

1899 *Amaurobius chathamensis*, Simon. Zool. Jahrb. Syst. 12(4): 433.

1903 *Amaurobius chathamensis*, Simon. Hist. Nat. Ar. 2: 976.

1905 *Amaurobius chathamensis*, Simon. Zool. Jahrb. Syst. 21: 416.

1904 *Amaurobius chathamensis*, Hutton. Index Faun. N. Zeal.: 238.

1917 *Ixeuticus chathamensis*, Dalmas. Ann. Soc. ent. Fr. 86: 334.

1925 *Ixeuticus chathamensis*, Berland. Rec. Cant. Mus. 2: 296.

1930 *Ixeuticus chathamensis*, Berland. C.R. Soc. biogéogr. 30: 91, 92.

1946 *Ixeuticus chathamensis*, Parrott, Rec. Cant. Mus. 5. 58.

1954 *Ixeuticus chathamensis*, Roewer (lapsus). Kat. der Aran. 2: 1368.

1957 *Ixeuticus chathamensis*, Bonnet. Bibliogr. Aran. 2(3): 2321.

1959 *Ixeuticus chathamensis*, Marples. Trans. Roy. Soc. N. Zeal. 87: 335.

1964 *Oramia chathamensis*, Forster. Pacific Insects Monogr. 7: 60.

1967 *Oramia chathamensis*, Lehtinen. Ann. Zool. Fenn. 4: 255.

Figs. 261-264

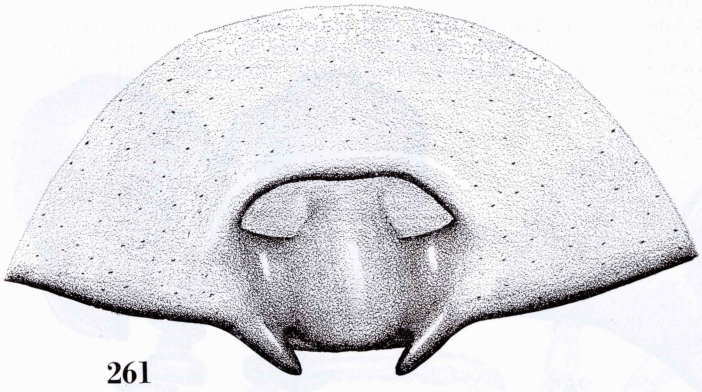
MALE

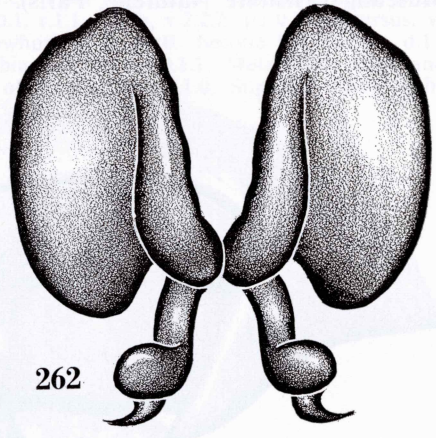
Measurements

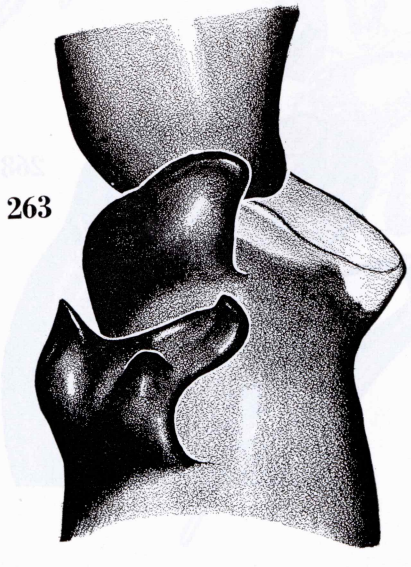
Carapace length 5.20 width 3.20
Abdomen length 3.60 width 2.40

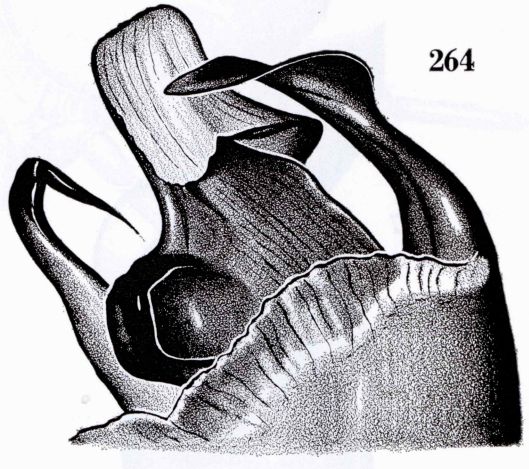
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.68	1.52	4.00	4.13	1.76	15.09
2	3.36	1.40	3.19	3.19	1.56	12.70
3	3.19	1.20	2.40	2.79	1.21	10.79
4	3.39	1.40	2.88	3.19	1.29	12.15
Palp	1.60	0.56	0.48		1.14	4.08

Colour Typical with the carapace reddish brown, darkening in front around the eyes.









Figs. 261-264 *Oramia chathamensis* (Simon). Fig. 261 Epigynum. Fig. 262 Internal genitalia. Fig. 263 Tibial processes of male palp. Fig. 264 Distal portion of male bulb.

Eyes The eyegroup occupies 2/3 of the width of the head. From above the anterior row is straight and the posterior row is gently procurved. Ratio of AME.ALE. PME.PLE = 3.5.4.5. AME separated from each other by 4/3 and from the ALE by 6/3 of the diameter of an AME. Lateral eyes subcontiguous, being separated from each other by a distance slightly less than the diameter of an AME. PME separated from each other by 7/4 and from the PLE by 9/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 15.10 and wider behind than long in the ratio of 15.13.

Chelicerae Two teeth on the retromargin and three on the promargin.

Legs Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.2. Tibia, v.0.2.2. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.1.0.1. Tibia, v.0.2.2. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Trichobothria. Tibia, 1.2.1. Metatarsus, 4. Tarsus, 6. The calamistrum occupies the proximal third of the fourth metatarsus.

Palp As in Figs. 263, 264.

Abdomen The cribellum is small and divided.

FEMALE

Similar to the male in most characters. The epigynum and internal genitalia are illustrated in Figs. 261, 262.

Types Holotype female. Chatham Islands (Museum d'Histoire Naturelle, Paris).

Records Kaiangaroa, 24.xii.1923 (det. Berland). Wangamanoa Hill, bush, 700 ft, 28.i.1924 (det. Berland). Okawa, in kelp bed at high water mark, 28.i.1954, E. W. Dawson. Kaiangaroa, 28.i.1954, R.R.F. South East Is., 2-3.ii.1954, E. W. Dawson. South East Is., 2.ii.1954, R.R.F. Wharekauri, 14.xii.1923, G. Archey. Plateau Bush, Owenga, 3.i.1924, G. Archey.

According to the data with specimens collected by Archey, these spiders were found living inland away from the beach. One of us (R.R.F.) after extensive collecting in the Chatham Islands recorded them only from the area immediately above high tide level.

Oramia marplesi Forster 1964

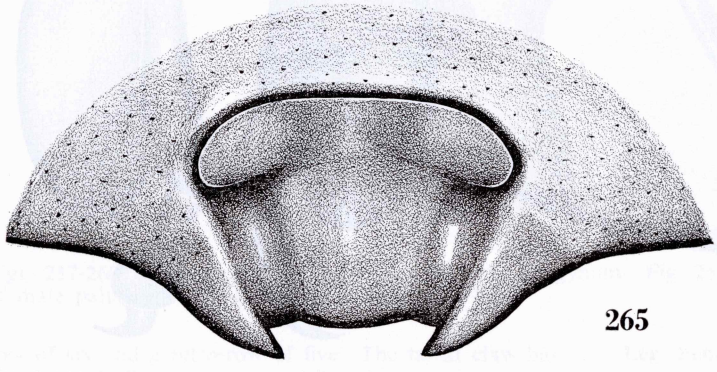
1964 *Oramia marplesi*, Forster. Pacific Insect Monograph. 7: 63.

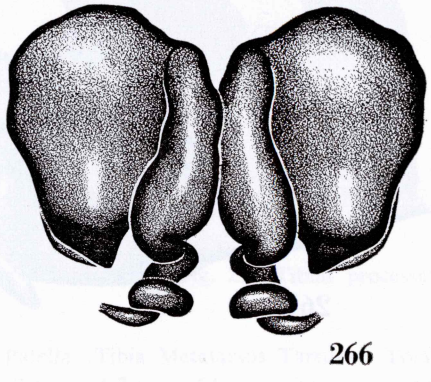
FEMALE

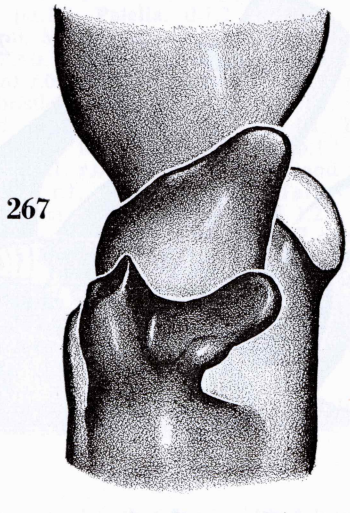
Measurements

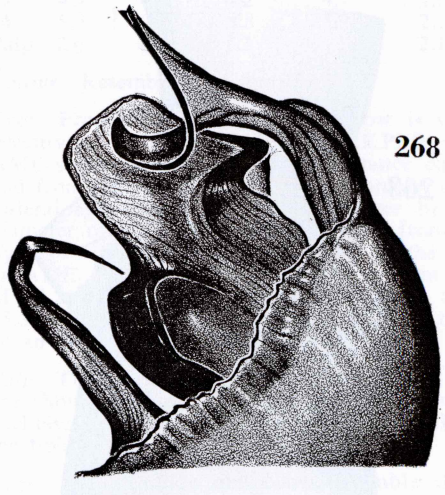
Carapace length 4.04 width 3.08
Abdomen length 5.28 width 3.52

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.64	1.32	2.64	2.64	1.32	10.56
2	2.28	1.15	2.21	1.99	0.96	8.59
3	2.43	0.96	1.76	2.03	0.92	8.10
4	2.91	1.12	2.64	2.43	1.08	10.18
Palp	1.15	0.44	0.88		1.21	3.64









Figs. 265-268 *Oramia marplesi* Forster. Fig. 265 Epigynum. Fig. 266 Internal genitalia. Fig. 267 Tibial processes of male palp. Fig. 268 Distal portion of male bulb.

Colour Carapace orange-brown, darkening to reddish brown anteriorly. Abdomen dark-brown with paler areas on the anterior dorsal surface, expanding into a chevron about midway, followed behind by two more rather indistinct chevrons. Legs and palp yellowish brown with a few darker patches. Chelicerae reddish brown.

Eyes Ratio of AME.ALE.PME.PLE = 6.10.10.9. AME separated from each other and from the ALE by 10/6 of the diameter of an AME. Lateral eyes separated by 3/6 of the diameter of an AME. PME separated from each other by 11/6 and from the PLE by 15/6 of the diameter of an AME. MOQ wider behind than in front and longer than wide in the front in the ratio of 29.22. Width of the clypeus equal to 2.5 times the diameter of an AME.

Chelicerae Retromargin with two small teeth, three stronger teeth on promargin. A prominent ridge extends back from the proximal tooth on the promargin to the base of the chelicera. There is a thick scopula behind promargin.

Maxillae Longer than wide in ratio of 5.3, slightly convergent.

Labium As long as wide. Lateral margins evenly curved so that width at half-way is equal to 5/3 of the proximal and distal widths. Anterior margin straight with a row of long black hairs.

Sternum Scutiform, longer than wide in the ratio of 10.7. Terminated sharply posteriorly between coxae 4.

Abdomen Closely clothed with fine hairs, longer on the outer anterior dorsal surface. Cribellum small, division indistinct. Epigynum and internal genitalia as in Figs. 256, 266.

MALE

Measurements

	Carapace	length 4.5		width 3.3		
	Abdomen	length 4.5		width 2.7		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.5	1.8	5.0	4.9	1.9	18.1
2	3.6	1.5	3.4	3.5	1.4	13.4
3	3.2	1.4	2.6	2.8	1.3	11.3
4	3.5	1.5	3.1	3.4	1.4	12.9
Palp	1.8	0.7	0.7		1.7	4.9

Colour Similar to the female.

Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is straight across the centres of the eyes and from above the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 5.8.7.9. AME separated from each other by a distance equal to 7/5 and from the ALE by 8/5 of the diameter of an AME. Laterals are separated by 3/5 of the diameter of an AME. PME separated from each other by 10/5 and from the PLE by 13/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 24.17 and as long as wide behind. Height of the clypeus 9/5 the diameter of an AME.

Palp The tibial processes and the distal portion of the bulb are as shown in Figs. 267, 268.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.1.1. Tibia, v.2.2.2. p,r.0. Metatarsus, v.2.1 and a subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.0.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1.1.0. r.0.1.0. Superior claws with 12 teeth

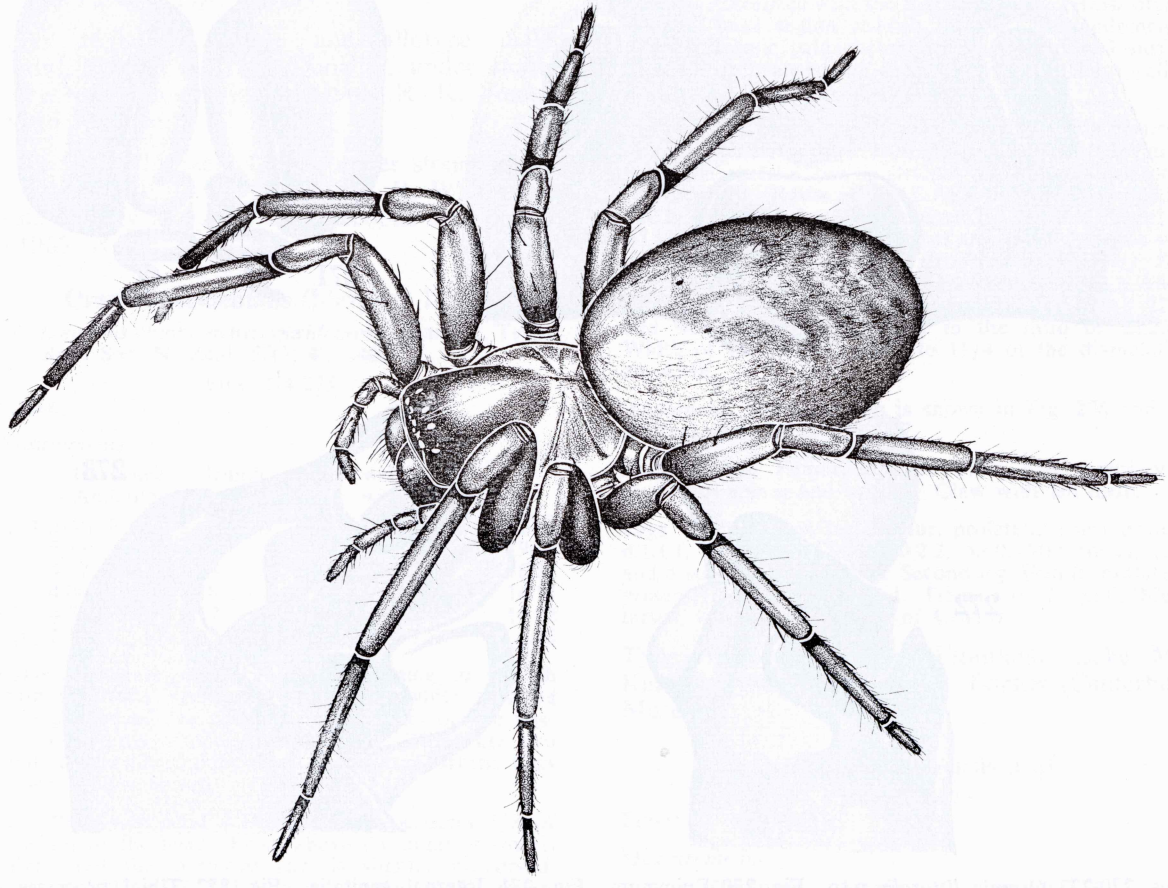


Fig. 269 *Oramia littoralis* n.sp. female.

Types Holotype female. Auckland Is. Port Ross, 2.i.1963, K. A. J. Wise. Allotype male. Auckland Is. Ranui Cove, Port Ross, 8.xi.1954, E. S. Gourlay (Dominion Museum, Wellington).

Records Auckland Is., Crozier Pt, ex sedge, 28.xi.1962, J. L. Gressitt. Crozier Pt, 30.xii.1962, 28.xii.1962, J. L. Gressitt. Tucker Pt, under rocks, 19.i.1963, J. L. Gressitt.

Oramia littoralis n.sp.

Figs. 269-273

Measurements
FEMALE

	Carapace		length 5.7		width 3.6	
	Abdomen		length 7.0		width 5.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.1	1.9	3.9	3.9	1.9	15.7
2	3.6	1.7	3.2	3.3	1.5	13.3
3	3.3	1.5	2.7	2.9	1.3	11.7
4	3.6	1.7	3.3	3.5	1.5	13.6
Palp	1.7	0.8	1.1		1.2	4.8

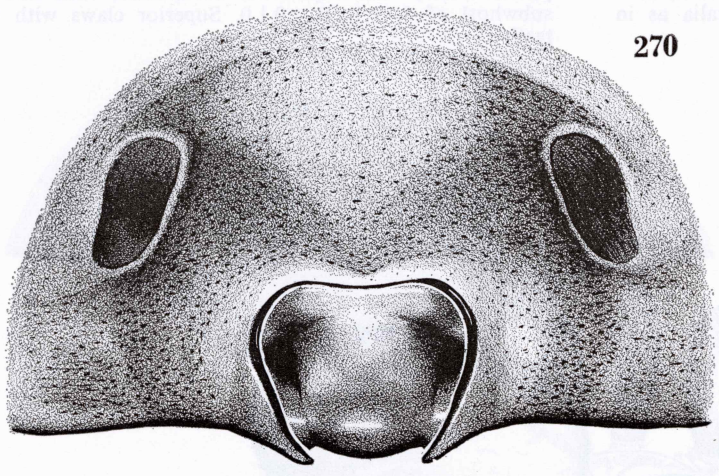
Colour Head region of the carapace reddish brown becoming darker anteriorly and the thoracic region pale orange. Chelicerae dark reddish brown with the bosses paler. Sternum yellowish becoming brown and darkening at the margins. Abdomen brownish grey with an obscure pattern. Anteriorly there is a median dark band which terminates at the first pair of muscle spots and then a series of obscure pale chevrons. The ventral surface is pale and is bordered laterally by a paler band on each side.

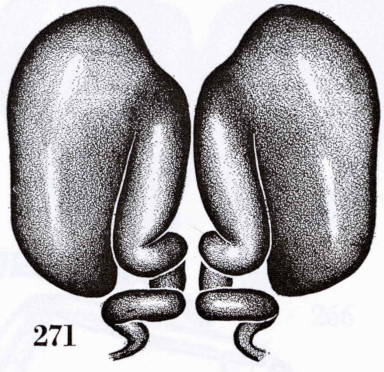
Eyes The group occupies 9/14 of the width of the head. From in front the anterior row is straight and from above the posterior row is procurved. The ratio of AME. ALE.PME.PLE = 6.9.8.9. AME separated from each other and from the ALE by a distance equal to 9/6 of the diameter of an AME. Laterals separated by half the diameter of an AME. PME separated from each other by 10/6 and from the PLE by 15/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 26.21 and wider behind than long in the ratio of 26.25. Height of the clypeus equal to twice the diameter of an AME.

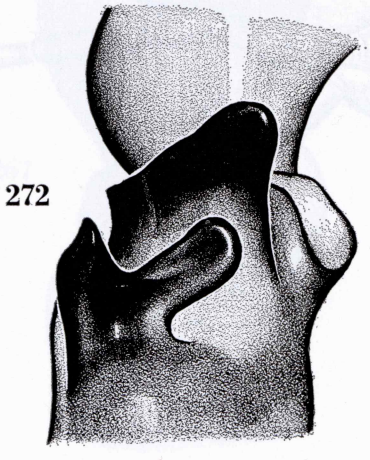
Chelicerae Viewed laterally the length is 2.0mm and the width 1.6mm.

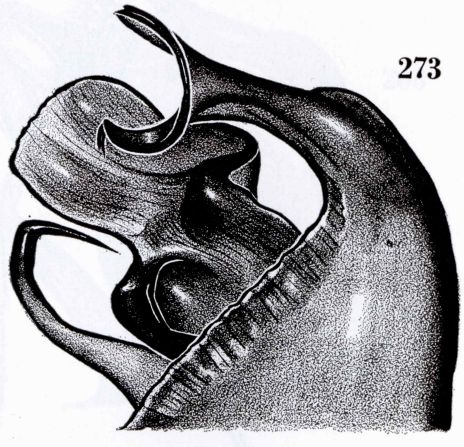
Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia and tarsus with numerous spines and bristles. Trichobothria. Tibia, pro-row 1.1.1.1.1 extending to about 3/4 length and a retro-row 1.1.1.1.1 reaching not quite as far. Claw with from 10 to 11 teeth.

Legs Femoral spines rather bristle-like and spines on the anterior legs short. First leg. Femur, prolateral spine present, d.1.1.1. p.1.1. r.0.1. Tibia, v.0.0.2. p,r.0. Metatarsus, v.2.2 and a subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.0.1.2. p,r.0. Metatarsus, v.2.2 and a subwhorl of 5, p,r.0. Trichobothria. Tibia,









Figs. 270-273 *Oramia littoralis* n.sp. Fig. 270 Epigynum. Fig. 271 Internal genitalia. Fig. 272 Tibial processes of male pulp. Fig. 273 Distal portion of male bulb.

pro-row, 5 situated basally, retro-row, 6 extending beyond the midpoint. Metatarsus, 4 on distal half. Tarsus, 8. On the anterior legs the superior tarsal claws have 12 to 14 and the posterior pairs 10 to 12 teeth. Two teeth on the inferior claws.

Abdomen The epigynum and internal genitalia are as shown in Figs. 270, 271. The cribellum has a sclerotized posterior margin and the two spinning fields are well separated.

MALE

Measurements

	Carapace		length 5.7		width 4.0	
	Abdomen		length 5.5		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.6	2.2	6.4	6.8	2.0	23.0
2	4.7	1.9	4.5	4.8	1.7	17.6
3	3.9	1.8	3.4	3.7	1.5	14.3
4	4.3	1.7	3.8	4.3	1.5	15.6
Palp	2.2	0.9	0.9		1.7	5.7

In most respects the male resembles the female.

Eyes The group occupies slightly less than 2/3 of the width of the head. From in front the anterior row is straight by the upper margins of the eyes and from above the posterior row is procurved. Ratio of AME. ALE.PME.PLE = 7.9.8.9. AME separated from each other by a distance equal to 8/7 and from the ALE by 9/7 of the diameter of an AME. Lateral eyes separated by 2/7 of the diameter of an AME. PME separated from each other by 11/7 and from the PLE by 15/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 27.22 and wider behind than long in the ratio of 27.26. Height of the clypeus 12/7 of the diameter of an AME.

Palp The tibial processes and the distal portion of the bulb are shown in Figs. 272, 273.

Types Holotype female and allotype male. Second Beach, St Clair, Dunedin, under stones above high tide mark, 9.vii.1966, R. R. Forster (Otago Museum).

Records Bull Creek, Otago, under stones above high tide mark, 14.v.1967, C.L.W., R. W. Hutton. Same locality as types, with cocoons and young, 4.i.1966, R.R.F.

Oramia occidentalis (Marples) 1959

1959 *Ixeuticus chathamensis occidentalis,* Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 340.

Figs. 274-275

FEMALE

Measurements

	Carapace		length 6.20		width 4.42	
	Abdomen		length 7.50		width 5.28	
Leg	Femur	Patella and Tibia		Metatarsus	Tarsus	Total
1	5.11	7.11		5.06	1.83	19.11
2	4.67	5.94		4.00	1.61	16.22
3	4.06	5.28		3.44	1.39	14.17
4	4.72	6.17		4.39	1.44	16.72
Palp	2.17	2.22			1.89	6.28

Colour Carapace orange brown darkening to reddish brown anteriorly. Abdomen dark with white mottling and a pattern of five pairs of dark patches on the posterior two-thirds of the dorsal surface. There are two broad dark bands running down the ventral surface. Legs uniform yellow brown.

Eyes Relatively small. The eyegroup occupies 5/8 of the width of the head. From above the anterior row is straight and the posterior row is slightly procurved. Ratio of AME.ALE.PME.PLE = 5.5.5.6. AME separated from each other by 6/5 and from the ALE by 8/5 of the diameter of an AME. Laterals subcontiguous. PME separated from each other by 10/5 and from the PLE by 12/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 20.16 and wider behind than long in the ratio of 20.19.

Chelicerae Two teeth on retromargin and three on promargin.

Abdomen The epigynum is shown in Fig. 274 and the internal genitalia in Fig. 275.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.0. p.0.1. r.0. Tibia, v.0.0.2. p,r.0. Metatarsus, v.2.2 (staggered) and a subwhorl of 3. Second leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.0.2.2. p,r.0. Metatarsus, v.2.2 and a subwhorl of 5, p,r.0.

Types Holotype female, paratype female. Whero Is., Foveaux Strait, B. J. Marples (Otago Museum).

Oramia mackerrowi (Marples) 1959

1959 *Ixeuticus rubrioides mackerrowi,* Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 341.

Figs. 276-277

FEMALE

Measurements

	Carapace		length 5.22		width 4.00	
	Abdomen		length 6.11		width 4.89	
Leg	Femur	Patella and Tibia		Metatarsus	Tarsus	Total
1	4.39	5.83		3.72	1.83	15.77
2	3.83	5.11		3.28	1.56	13.78
3	3.50	4.11		2.89	1.22	11.72
4	3.67	4.50		3.44	1.50	13.11
Palp	1.78	1.94			1.56	5.28

Colour Carapace with the thoracic region yellow orange and the head region reddish brown. The abdomen is grey with four pale chevrons along the dorsal surface with a faint pale streak anterior to them. Legs yellow brown. Chelicerae reddish brown.

Eyes From above the anterior row is slightly recurved and the posterior row is slightly procurved. From in front the anterior row is straight and the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 4.6.5.6. AME separated from each other by 9/4 and from the ALE by 10/4 of the diameter of an AME. Laterals subcontiguous. PME separated from each other by 12/4 and from the PLE by 16/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 22.17 and wider behind than long in the ratio of 22.20. Width of the clypeus equal to 11/4 of the diameter of an AME.

Abdomen The epigynum is shown in Fig. 276 and the internal genitalia in Fig. 277.

Palp Spines. Femur, d.1.1.1. Tibia and tarsus with numerous spines and bristles. Claw with ten teeth.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.0. Tibia, v.0.2.2. p,r.0. Metatarsus, v.2.2 and a subwhorl of 3, p,r.0. Second leg. Femur, prolateral present, d.1.1.1. p.0.1. r.1.1. Tibia, v.0.2.2. p,r.0. Metatarsus, v.2.2 of a subwhorl of 5, p,r.0.

Type Holotype female. Fiordland. Lake McKerrow, January 1955, R. R. Forster (Canterbury Museum).

Oramia solanderensis n.sp.

Figs. 278-279

FEMALE

Measurements

	Carapace	length 6.12	width 3.73
	Abdomen	length 7.65	width 4.76

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.93	2.04	4.93	4.93	2.21	19.04
2	4.25	1.87	3.40	3.57	1.70	14.79
3	4.08	1.53	3.23	3.40	1.70	13.94
4	4.59	1.87	3.74	4.08	1.70	15.98
Palp	2.04	0.68	1.36		1.53	5.61

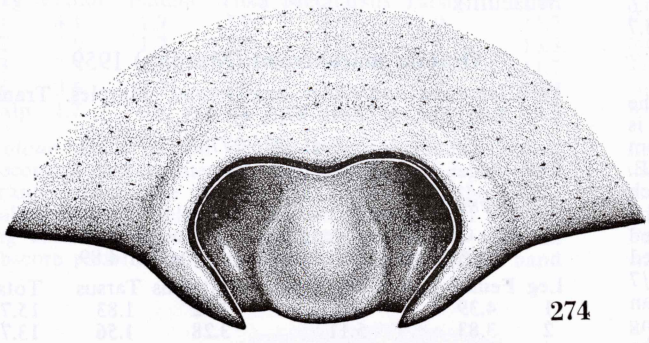
Colour Head region dark reddish brown, thoracic region yellow brown. Abdomen mottled brown with a prominent pale patch in the form of an inverted V on the median surface followed by a series of smaller chevrons.

Eyes From above the anterior row is straight and the posterior row is gently procurved. Ratio of AME.ALE. PME.PLE = 5.6.5.6. AME separated from each other by 7/5 and from the ALE by 8/5 of the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 10/5 and from the PLE by 13/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 20.17 and wider behind than long in the ratio of 20.18.

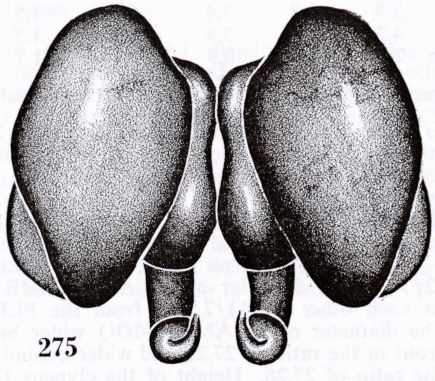
Chelicerae Two teeth on retromargin, three on promargin.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.0. p.0.1. r.0. Tibia, v.0.0.2. p,r.0. Metatarsus, v.2.2 and a subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, 1 (bristle) 1.2. p,r.0. Metatarsus, v.2.2. and a subwhorl of 5. p,r.0.

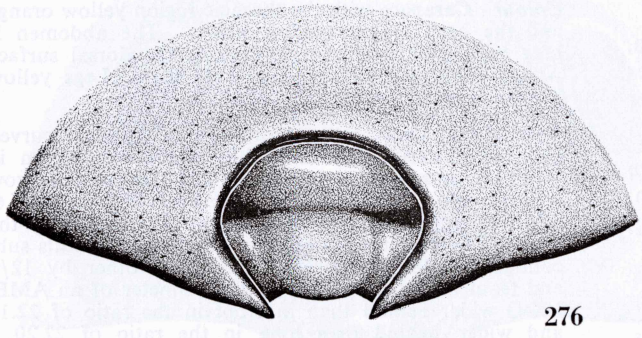
Abdomen The epigynum is shown in Fig. 278 and the internal genitalia in Fig. 279. The median lobe of the epigynum is well developed but extends only half way leaving a broad oval posterior opening. The posterior pair of spines are short and fused to the margin.



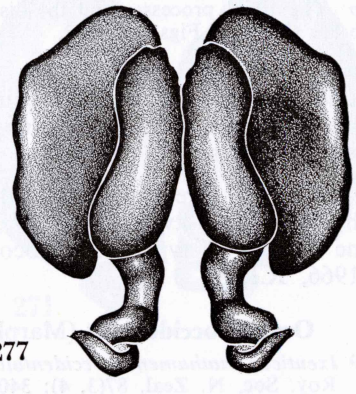
274



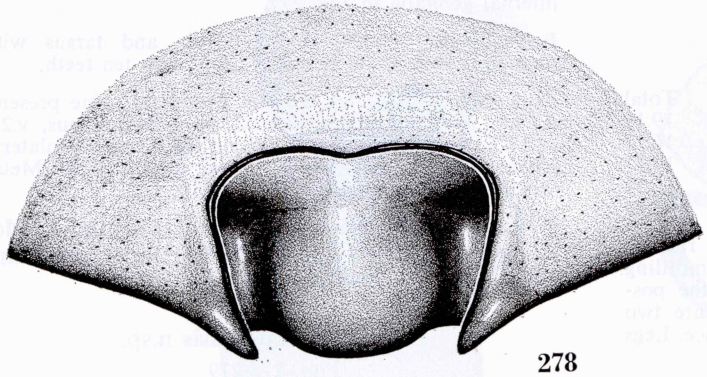
275



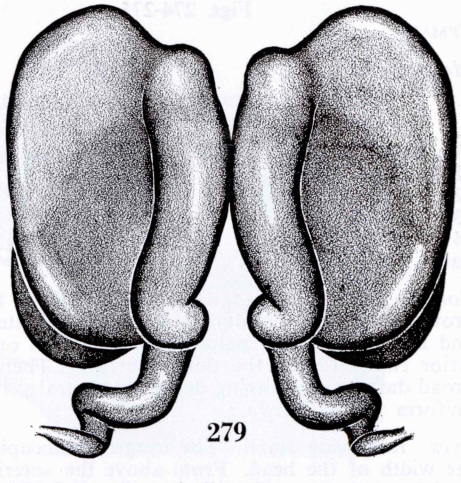
276



277



278



279

Figs. 274-275 *Oramia occidentalis* (Marples). Fig. 274 Epigynum. Fig. 275 Internal genitalia. Figs. 276-277 *Oramia mackerrowi* n.sp. Fig. 276 Epigynum. Fig. 277 Internal genitalia. Figs. 278-279 *Oramia solanderensis* n.sp. Fig. 278 Epigynum. Fig. 279 Internal genitalia.

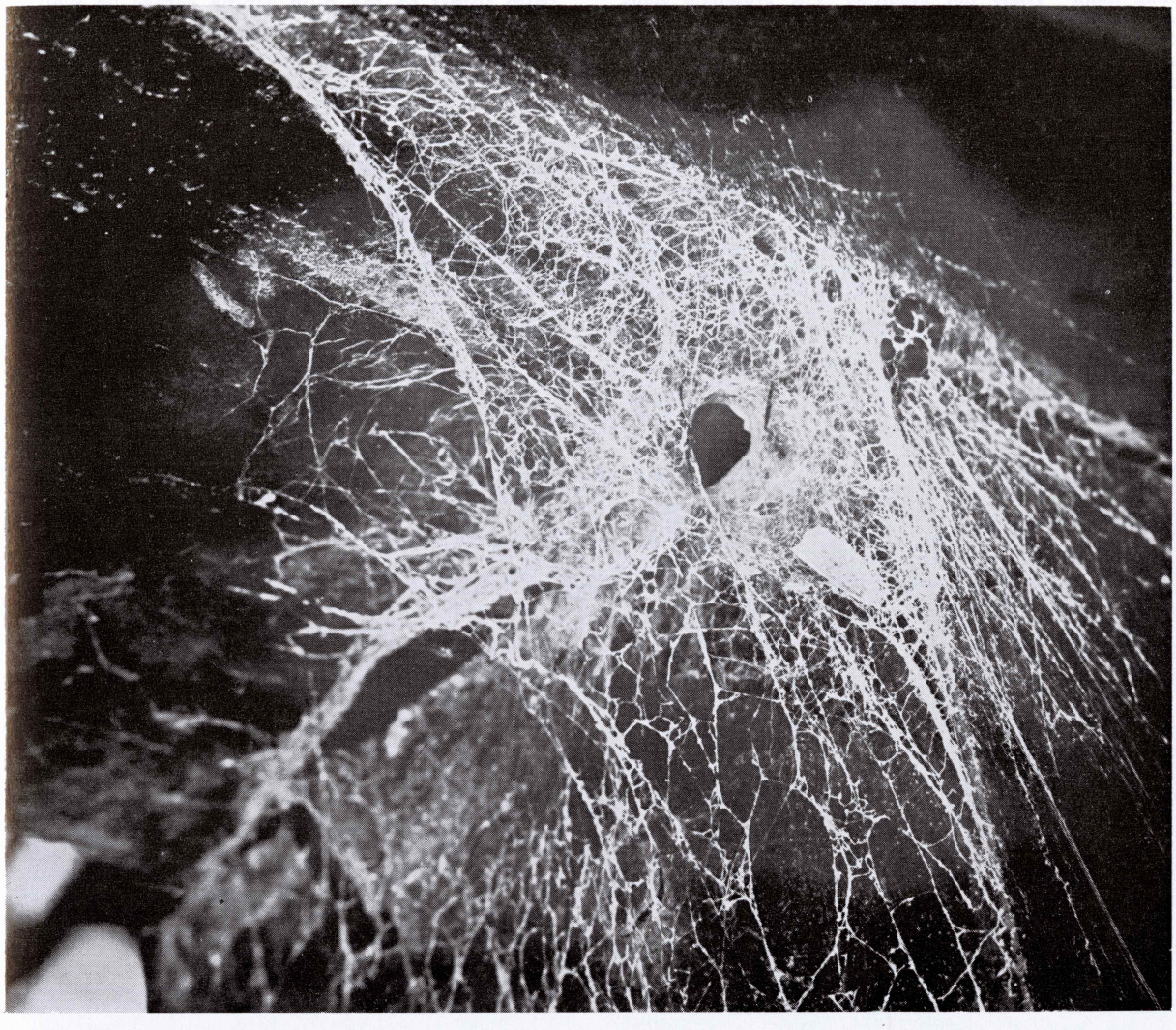


Fig. 280 Web of *Neoramia otagoa* n.sp.

Types Holotype female and paratype females. Solander Island, Foveaux Strait, 20.v.1956, R. K. Dell (Dominion Museum).

Neoramia n.gen.

Usually large (body length 5-14mm) cribellate spiders. Head region broad and obtuse, heavily pigmented with dark brown anteriorly. Abdomen often with a St. Andrews cross on the dorsal surface. Eight eyes in two rows, occupying about two-thirds of the width of the head. Anterior row usually straight and the posterior row gently procurved. AME only slightly smaller than remaining eyes which are subequal. Labium longer than wide and notched at the base. Chelicerae stout, with lateral boss and two teeth on the retromargin and three on the promargin. Tibia of the male palp with two or three strong processes on the distal retrolateral surface and a distal plate. Embolus spiniform. Conductor as a stout flattened articulated plate. Median apophysis well developed, weakly sclerotized and hooked apically. Internal genitalia large and receptaculate. External ducts short.

Trochantera not notched. Legs well clothed with long hairs. Hairs not plumose. The prolateral spine on the first pair of legs is present. Full complement of femoral spines often present but reductions occur especially on the first and fourth pairs (*N. koha* n.sp. has an additional spine in the anterior dorsolateral row). All tibiae without dorsal spines. Tibia of the first pair with paired ventral spines, one pair distally situated. Metatarsus of the first pair with a distal whorl of five spines, in some species reduced to three. Tarsal organ distal to trichobothria on legs. Legs without combs and scopulae. Palpal tarsus without trichobothria.

Type species *Amaurobius charybdis* Hogg 1910.

These common spiders occupy most habitats from forest to the high alpine screes as well as scrubland. They are not however found in grassland where there are no rocks or woody plants to provide a retreat. In the South Island they are often found in gardens and could well be transported about. The snare is usually a formless sheet built out from a retreat and seems to lack the laddered structure seen in many dictynoids. The eggsac is basically spherical but when constructed on a substrate it is lenticular, covered with a loose cover of silk.



Fig. 281 *Neoramia otagoa* n.sp. with eggsac.



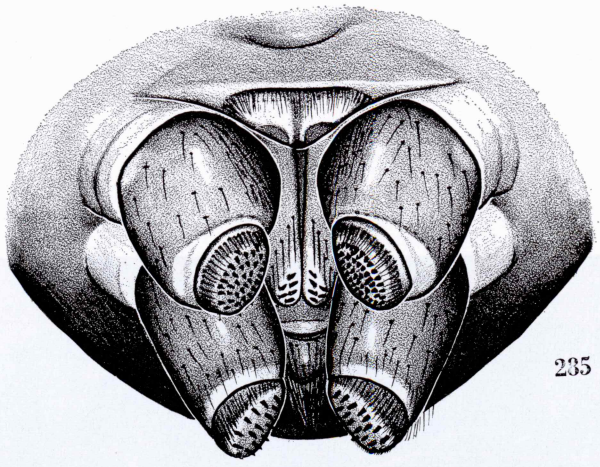
Figs. 282-284 *Neoramia nana* n.sp. Mating sequences. Fig. 282 Contact posture prior to mating.



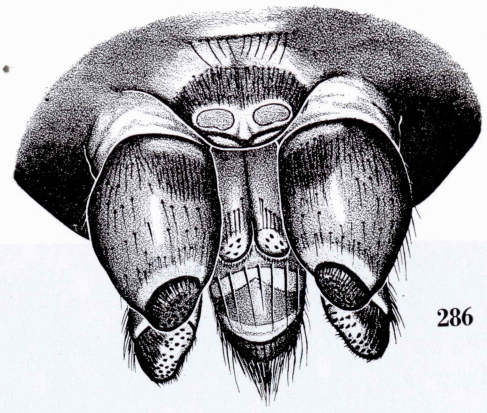
Fig. 283 Male manoeuvering the inert female into mating position.



Fig. 284 Mating position. Sternum to sternum with the spiders facing opposite directions.

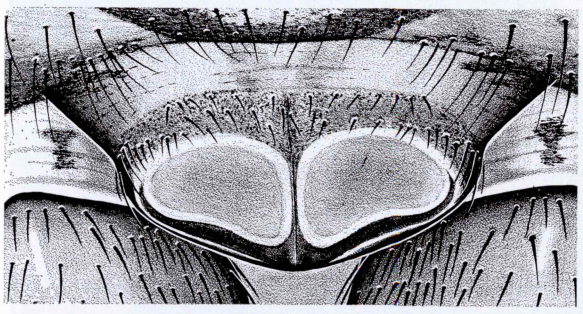


235

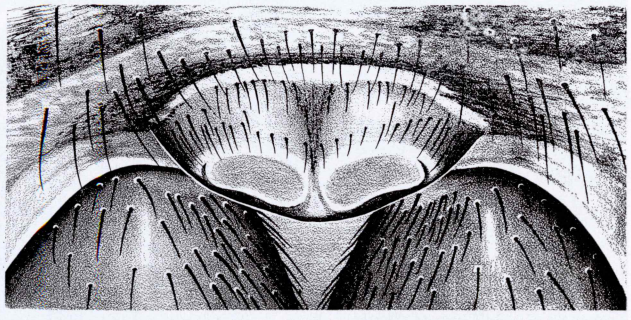


286

Fig. 285 Spinnerets and cribellum of *Neoramia hoggi* (Forster) female. Fig. 286 Spinnerets and cribellum of *Oramia littoralis* n.sp.

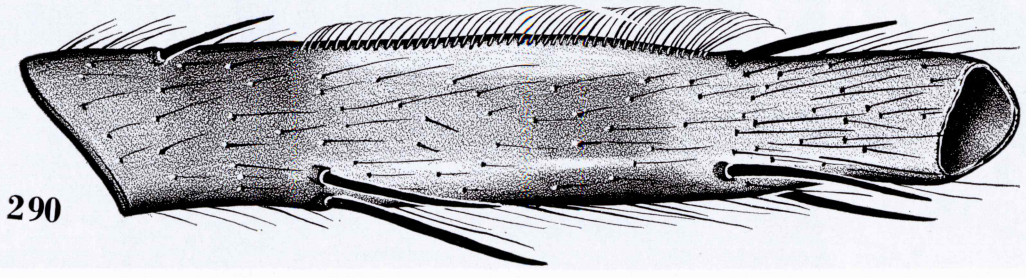


288

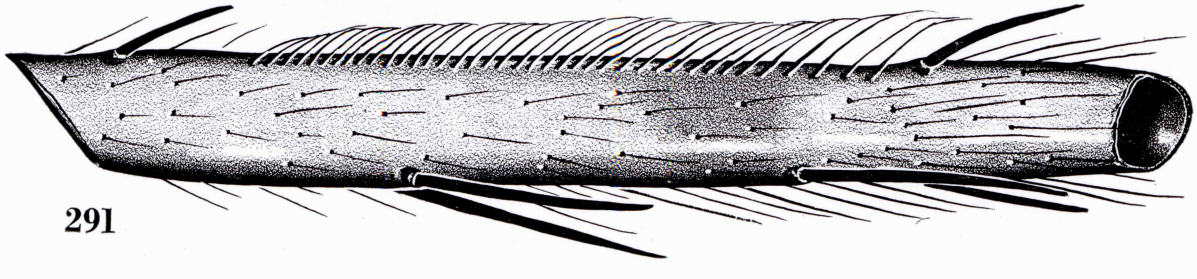


289

Figs. 288-289 Cribellum of *Neoramia nana* n.sp. Fig. 288 Female. Fig. 289 Male.



290



291

Fig. 290-291 Calamistrum of *Neoramia nana* n.sp. Fig. 290 Female. Fig. 291 Male.

Neoramia charybdis (Hogg) 1910

1910 *Amaurobius charybdis*, Hogg. Trans. N. Zeal. Inst. 42: 273.

1917 *Ixeuticus charybdis*, Dalmas. Ann. Soc. Ent. France 86: 334.

1946 *Ixeuticus charybdis*, Parrott. Rec. Cant. Mus. 5(2): 58.

1954 *Ixeuticus charybdis*, Roewer. Katalog der Aran. Bremen 2: 1368.

1957 *Ixeuticus charybdis*, Bonnet. Bibliographia Araneorum 2(3): 2321.

1959 *Ixeuticus charybdis*, Marples. Trans. Roy. Soc. N. Zeal. 57: 338.

1964 *Oramia charybdis*, Forster. Pacific Ins. Mon. 7: 65.

1967 *Oramia charybdis*, Lehtinen. Ann. Zool. Fenn. 4: 225.

Figs. 292-295, 325

MALE

Measurements

	Carapace		length 6.1		width 3.9	
	Abdomen		length 6.1		width 3.4	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.7	2.2	6.5	6.5	2.4	23.3
2	4.9	2.0	4.9	4.9	2.0	18.7
3	4.3	1.8	3.7	3.9	1.6	15.3
4	4.6	1.8	4.2	4.4	1.9	16.9
Palp	2.2	0.8	0.8		1.8	5.6

Colour Thoracic region of the carapace orange yellow with the head region reddish orange becoming darker anteriorly. Chelicerae dark reddish brown with the boss paler. Legs yellow brown with some darker banding specially on the posterior pairs. Sternum yellow brown becoming darker at margins. Maxillae and labium reddish brown with white distal margins. Abdomen rather dark greyish brown. On the basal dorsal surface and within a pale area is a dark median band followed by a pale chevron which forms the typical St. Andrew's cross pattern. The ventral surface is rather pale but darkens slightly posteriorly and is bordered on each side with a row of paler spots.

Carapace The width of the head is 0.71 of the widest part of the carapace.

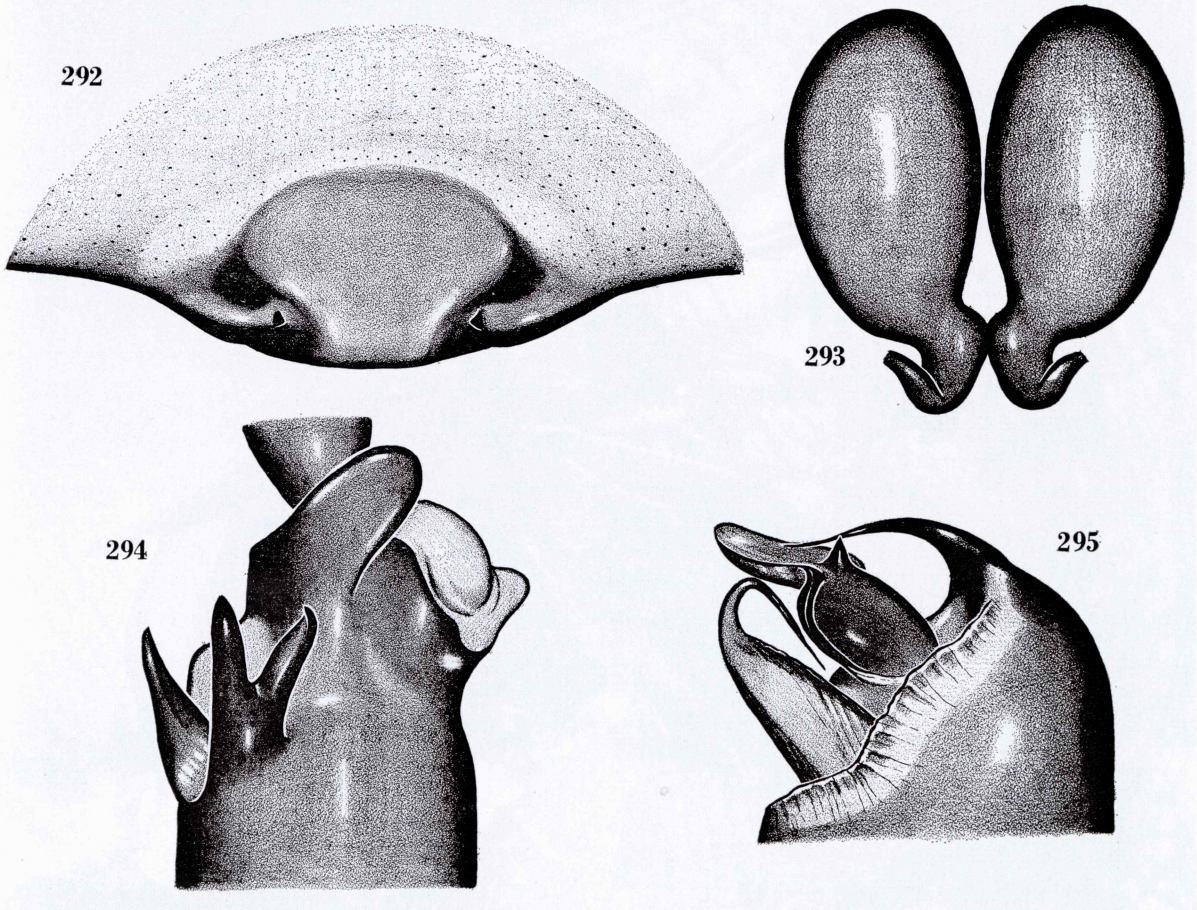
Eyes The group occupies 2/3 the width of the head. From in front the anterior row is straight and from above the posterior row is procurved. Ratio of AME. ALE.PME.PLE = 7.8.8.8. AME separated from each other by a distance equal 8/7 and from the ALE by 11/7 of the diameter of an AME. Lateral eyes separated by 2/7 of the diameter of an AME. PME separated from each other by a distance equal to 10/7 and from the PLE by 17/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 26.22 and longer than wide behind in the ratio of 30.26. Height of the clypeus equal to 11/7 of the diameter of an AME.

Sternum Longer than wide in the ratio of 40.28.

Maxillae Inclined slightly over labium. Longer than its greatest width in the ratio of 26.14.

Labium Longer than wide in the ratio of 15.11 and shorter than a maxillary lobe in the ratio of 15.26.

Chelicerae Viewed laterally longer than wide in the ratio of 43.25. Two teeth on retromargin. Three on promargin.



Figs. 292-295 *Neoramia charybdis* (Hogg). Fig. 292 Epigynum. Fig. 293 Internal genitalia. Fig. 294 Tibial processes of male palp. Fig. 295 Distal portion of male bulb.

Palp Distal portion of the bulb and tibial processes shown in Figs. 294-295.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1.1. r.1.1. Metatarsus, v.2.2. p.1 median r.1 median and distal subwhorl of 5. Second leg. Femur, d.1.1.1. p.1.1.1.1. r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2. p.1.2. r.1 median and distal subwhorl of 5. Third leg, Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2. p.1.2. r.1.1 and distal subwhorl of 5. Fourth leg. Femur, d.1.1.1. p.1.1. r.0.1. Tibia, typical. Metatarsus, v.2.2. p.1.2. r.1 calamistrum 1 and distal subwhorl of 5. Calamistrum occupies 23/61 of segment. Superior claws with 11 teeth and inferior claw with two.

FEMALE

Measurements

Carapace length 5.8 width 4.3
Abdomen length 6.4 width 3.7

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.5	2.1	4.4	4.3	1.9	17.2
2	4.3	1.9	3.9	3.6	1.7	15.4
3	3.9	1.7	3.0	3.1	1.4	13.1
4	4.3	1.8	3.6	3.6	1.6	14.9
Palp	1.8	0.9	1.2		1.7	5.6

Colour Similar to male.

Carapace The width of the head is 0.75 of the widest part of the carapace. The profile is shown in Fig. 325.

Eyes The group occupies about 5/8 the width of the head. From in front the anterior row is straight and from above the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 9.10.9.10. AME separated from each other by a distance equal to 7/8 and from the ALE by 12/8 of the diameter of an AME. Lateral eyes separated by 1/8 of the diameter of an AME. PME separated from each other by a distance equal to 10/8 and from the PLE by 18/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 28.23 and longer than wide behind in the ratio of 30/28. Height of the clypeus is equal to 10/8 of the diameter of an AME.

Palp Spines and claw typical. Trichobothria. Tibia, pro-row 1.1.1.1.1, retro-row 1.1.1.1.1. Tarsus, 0.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p.0.1. r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2. p.1 median r.1 median and distal subwhorl of 5. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2. p.1.1. r.1 median, and a distal subwhorl of 5. Calamistrum occupies 33/94 of the segment. Trichobothria. First leg. Tibia, pro-row of 5 confined to basal quarter, retro-row of 7 reaching to the midpoint. Metatarsus, 7. Tarsus, 8.

Abdomen The epigynum and internal genitalia are shown in Figs. 292, 293.

Types Holotype male. *Amaurobius charybdis* Hogg, Stewart Is. (Otago Museum).

Records Stewart Is., 25.xi.1965, T. Bruce. Stewart Is., 25.iv.1962, W. T. Poppelwell. Stewart



Fig. 296 *Neoramia janus* (Bryant) female.

Is., 31.i.1961, J. Kikkawa. Stewart Is., January 1952, O. Allan. Oban, 23.ii.1972, C.L.W. Golden Bay, 15.xi.1961, R.R.F. Golden Bay, 30.x.1960, R. G. Ordish. Halfmoon Bay, 10.ii.1948, O. Allan. Akers Point, 24.xi.1946, R.R.F. Thief Point, Port Adventure, 21.i.1955, R. K. Dell, B. A. Holloway. Small Craft Retreat, 23.i.1955, R. K. Dell. Port Pegasus, slopes of Magog, 21.i.1961, I. Mannering. Easy Cove, 26.i.1955, R. K. Dell, B. A. Holloway. Masons Bay, 14.iii.1949, O. Allan. Solomon Is., 25.i.1955, R. K. Dell, B. A. Holloway. Big South Cape Is., 24.i.1955, R. K. Dell, B. A. Holloway. Southland. Orepuki, 9.v.1949, R.R.F. Waimeamea Rd, Orepuki, 26.xi.1970, R.R.F., C.L.W. Longwood Range, 1.ix.1948, 25.xi.1948, J. H. Sorensen. Pahia, 25.v.1947, R. Kennedy. Rowallan, 25.x.1970, R.R.F., C.L.W. Campbell Is. Numerous records restricted to the area about the ruins of the early sheep station building at Tucker Cove.

Neoramia janus (Bryant) 1935

1935 *Ixeuticus janus,* Bryant. Rec. Cant. Mus. 4(2): 72.
1946 *Ixeuticus janus,* Parrott. Rec. Cant. Mus. 5(2): 58.
1954 *Ixeuticus jenus,* Roewer. Katalog der Aran. Brussels 2: 1369.
1957 *Ixeuticus janus,* Bonnet. Bibl. Aran. 2(3): 2321.

Figs. 296-300

FEMALE

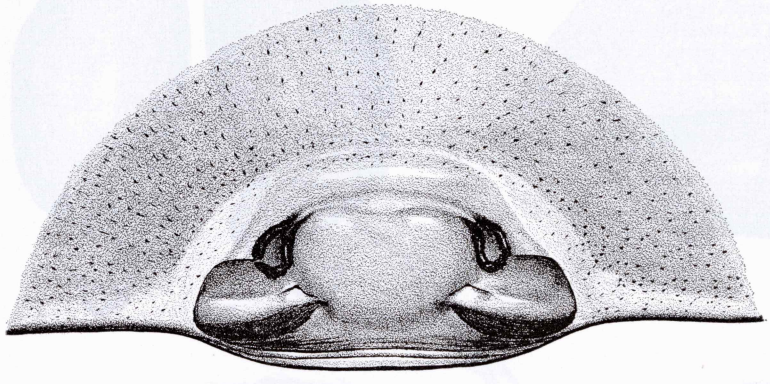
Measurements

Carapace • length 3.2 width 2.2
Abdomen length 5.0 width 3.6

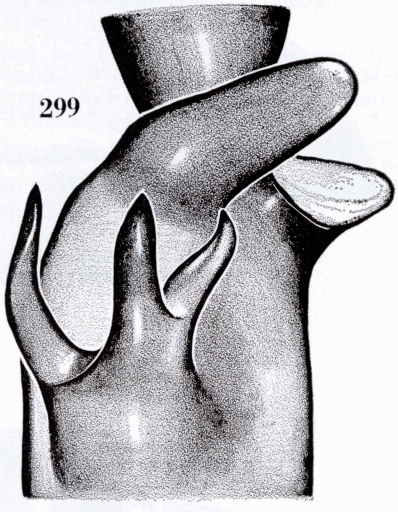
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.2	1.0	2.0	2.0	1.1	8.3
2	2.1	0.9	1.75	1.7	0.9	7.35
3	1.9	0.9	1.45	1.6	0.8	6.65
4	2.2	1.0	1.9	1.95	0.9	7.85
Palp	0.9	0.4	0.6		0.9	2.8

Colour (Fig. 296). Carapace pale yellow shading to orange brown anteriorly. Chelicerae orange brown. Legs pale yellow tinged with orange and with dark bandings. Sternum pale yellowish brown with brown margins. Maxillae and labium brownish orange with white on distal margins. The abdomen very pale with the pattern faint. The ventral surface pale.

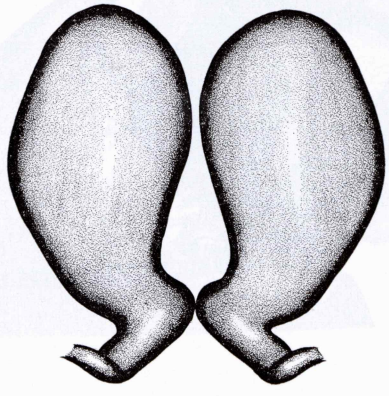
Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is slightly procurved and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 4.6.5.6. AME separated from each other by a distance equal to 6/4 and from the ALE by 5/4 of the diameter of an AME. Lateral eyes separated by 3/4 of the diameter of an AME. PME separated from each other by 6/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.14 and longer than wide behind in the ratio of 19.16. The height of the clypeus is equal to 7/4 of the diameter of an AME.



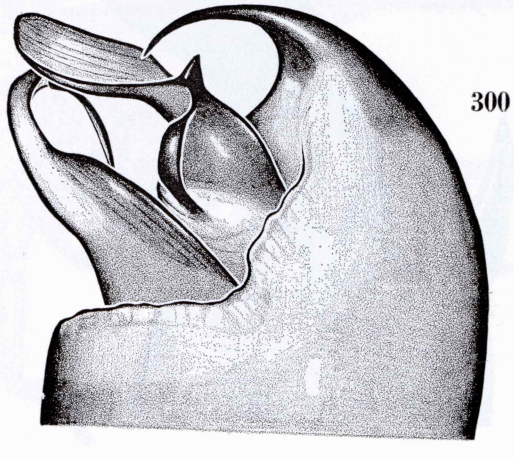
297



299



298



300

Figs. 297-300 *Neoramia janus* (Bryant). Fig. 297 Epigynum. Fig. 298 Internal genitalia. Fig. 299 Tibial processes of male palp. Fig. 300 Distal portion of male bulb.

Chelicerae Viewed laterally longer than wide in the ratio of 36.25. The two teeth on the retromargin subcontiguous.

Palp Claw with ten teeth.

Legs Spines. First leg. Typical prolateral spine present d.1.1.0. p.0.1. r.0. Tibia, v.0.2.2. p.1.0. r.0. Metatarsus, v.2.2. p.1 median r.0 and a distal subwhorl of 3. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2. p.1 median. r.1 median and a distal subwhorl of 5. There are seven trichobothria on the tarsus of the first pair of legs.

Abdomen The epigynum and internal genitalia are shown in Figs. 297, 298.

MALE

Measurements

Carapace length 3.85 width 2.6
Abdomen length 3.85 width 2.6

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.8	1.5	4.2	4.1	1.75	15.35
2	3.4	1.4	3.2	3.2	1.4	12.6
3	3.0	1.2	2.6	2.7	1.1	10.6
4	3.3	1.3	3.2	3.3	1.3	12.4
Palp	1.3	0.4	0.5		1.5	3.7

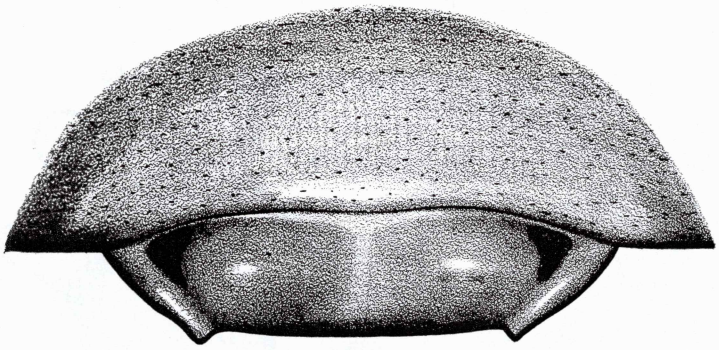
Colour Similar to the female.

Eyes The group occupies slightly more than 2/3 of the width of the head. From in front the anterior row is straight and from above the posterior row is procurved. The ratio of AME.ALE.PME.PLE = 6.8.7.7. AME separated from each other and from the ALE by a distance equal the diameter of an AME. Lateral eyes separated by 2/6 of the diameter of an AME. PME separated from each other by 7/6 and from the PLE by 11/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 21.18 and longer than wide behind in the ratio of 23.21. Height of the clypeus equal to 8/6 of the diameter of an AME.

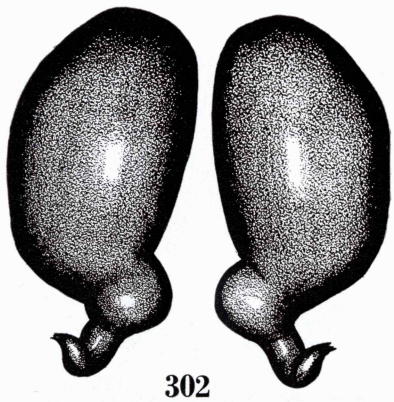
Chelicerae Viewed laterally longer than wide in the ratio of 42.30.

Palp The distal portion of the bulb and the tibial processes are shown in Figs. 299, 300.

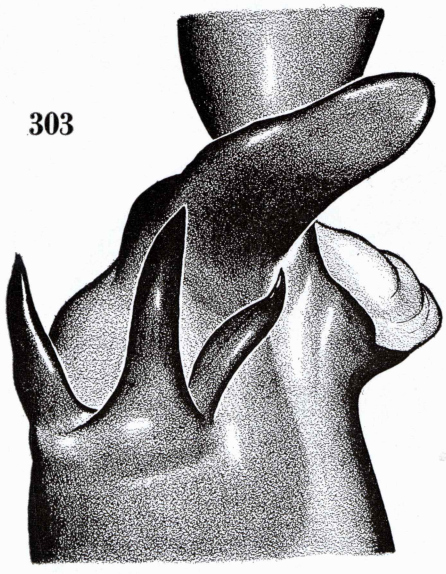
Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p.1.1. r.1.0. Tibia, v.1.2.2. p.1.0. r.0. Metatarsus, v.2.2, no lateral spines, distal subwhorl of 5. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2. p.1 median. r.1 median, distal subwhorl of 5. The calamistrum occupies 27/88 of the length of the segment.



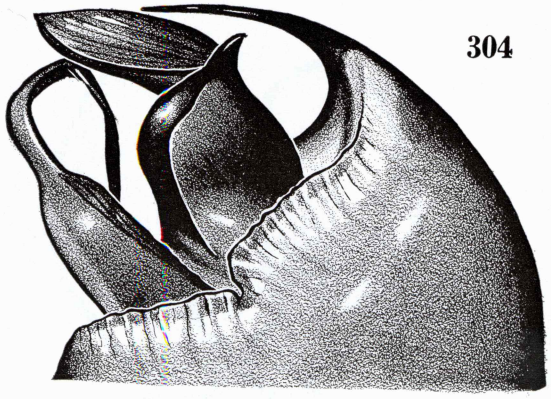
301



302



303



304

Figs. 301-304 *Neoramia setosa* (Bryant). Fig. 301 Epigynum. Fig. 302 Internal genitalia. Fig. 303 Tibial processes of male palp. Fig. 304 Distal portion of male bulb.

Types Holotype female. Canterbury. Upper Hororata River, 21.i.1922, G. Archey (Canterbury Museum). Allotype male. Canterbury. Hood's Bush, Malvern Hills, 3.v.1953, R. R. Forster (Canterbury Museum).

Records Canterbury. Hood's Bush, Malvern Hills, 3.v.1953, R.R.F. Mt Peel, 4,400 ft, under stones, 25.i.1948, R.R.F. Lake Rubicon, 19.xi.-1950, R.R.F. Cooper's Creek, October 1953, R.R.F. Upper Waimate Valley, 25.viii.1952, J. S. Dugdale. Fog Peak, Porter's Pass, 4,000 ft, 19.xii.1945, R.R.F. Hayman's Gorge, Waimate River, 29.vi.1952, J. S. Dugdale. Hanging Rock, 21.v.1955, B. J. Marples. Mt Pleasant, 15.viii.1952, J. S. Dugdale. Okuku Pass, April 1952, R.R.F. Chalk Hill, 4.iv.1951, R.R.F. Kowai Bush, May 1952, R.R.F. Ribbonwood Creek, Cass, 21.v.1954, J. S. Dugdale. Oaro Stream, 1.vi.1952, J. S. Dugdale. Porter's Pass, 29.ix.1966, R.R.F. (Female figured).

Neoramia setosa (Bryant) 1935

1935 *Ixeuticus setosus,* Bryant. Rec. Cant. Mus. 4(2): 73.

1954 *Ixeuticus setosus,* Roewer. Katalog der Aran. 2(b): 1369.

1957 *Ixeuticus setosus,* Bonnet. Bibl. Aran. 2(3): 2322.

1959 *Ixeuticus charybdis* (in part), Marples. Trans. Roy. Soc. N. Zeal. 87 (3 and 4): 338.

Figs. 301-304

FEMALE

Measurements

Carapace	length 5.8	width 3.7
Abdomen	length 5.1	width 3.6

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.1	1.9	3.7	3.9	1.8	15.4
2	3.8	1.8	3.4	3.4	1.5	13.9
3	3.6	1.6	2.6	2.9	1.2	11.9
4	4.0	1.7	3.45	3.5	1.4	14.05
Palp	1.6	0.7	1.1		1.6	5.0

Colour Thoracic region of the carapace pale yellow gradually shaded to brown on the mid-dorsal surface of the head and becoming much darker anteriorly and laterally. Dark veinlike markings on the head. Chelicerae dark reddish brown with lateral condyles paler. Legs pale yellow shaded with pale orange brown and with dark bandings on all legs. Sternum pale yellow becoming brown at the margins. Maxillae and labium dark orange brown and white at distal margins. Abdomen very dark except for the pattern area in which the anterior median black band is extremely faint. The ventral surface dark, clearly separated from the lateral surfaces by a pale band on each side. Two longitudinal rows of five spots on the mid ventral surface.

Eyes The group occupies 2/3 the width of the head. From in front the anterior row slightly procurved and from above the posterior row procurved. Ratio of AME. ALE.PME.PLE = 6.9.8.9. AME separated from each other by a distance equal to 7/6 and from the ALE by 11/6 of the diameter of an AME. Lateral eyes separated by 3/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 26.19 and longer than wide behind in the ratio of 30.26. Height of clypeus equal to 12/6 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 37.25. The two teeth on retromargin rather closely spaced.

Legs Spines. First leg. Femur, typical prolateral spine present. d.1.1.1. p,r.0.1. Tibia, v.1.2.2. p.1.1. r.0.1. Metatarsus, v.2.2. p,1 median. r.1 median, distal subwhorl of 5. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, same as the first leg. The calamistrum occupies 29/94 of the segment. Tarsus of the first pair of legs with 7 trichobothria. Superior claws with 12 teeth, inferior claw with two teeth.

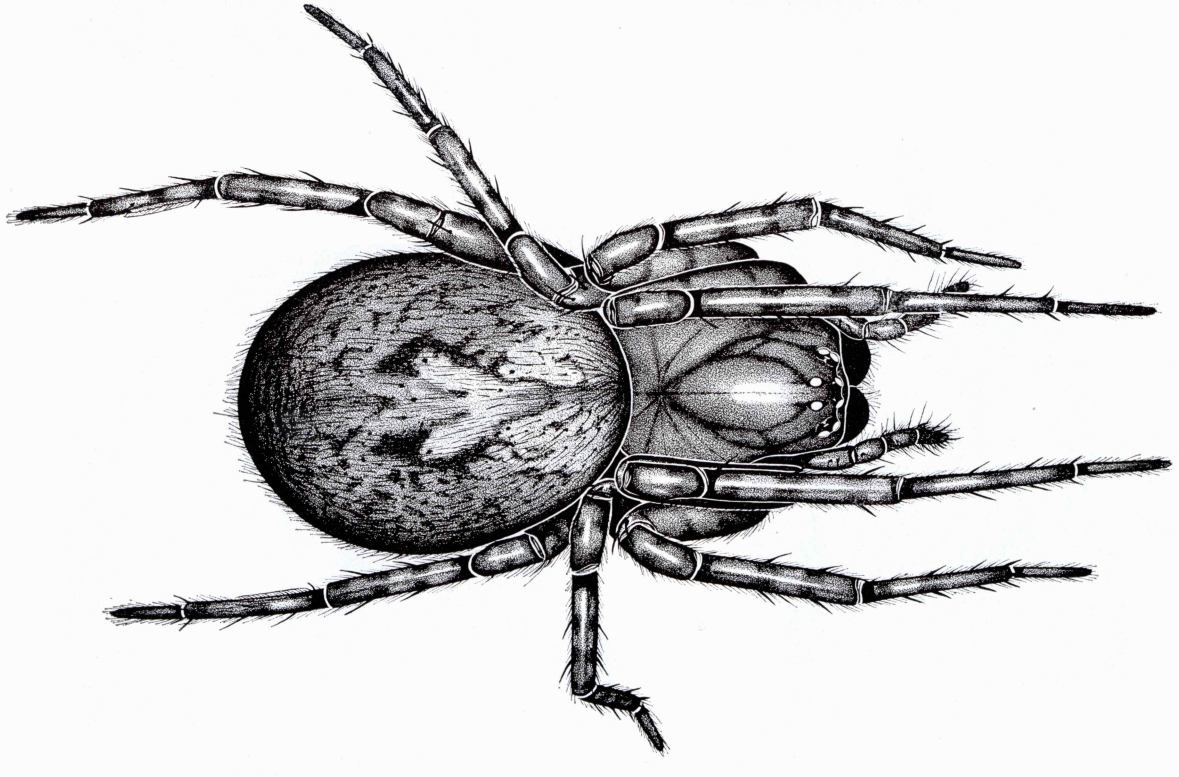


Fig. 305 *Neoramia oroua* n.sp. female.

Palp Spines. Femur, d.1.1.1. Patella, 1.1. Tibia, d.1.1. p.1 basal 1.1 distal. r.2 distal. Trichobothria. Tibia, pro-row of 4, retro-row longer of 5.

Abdomen The epigynum and internal genitalia are shown in Figs. 301, 302.

MALE

Measurements

	Carapace		length 4.9		width 3.2	
	Abdomen		length 4.8		width 3.1	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.6	1.8	5.1	5.1	2.1	18.7
2	4.1	1.6	4.0	4.0	1.7	15.4
3	3.7	1.4	3.0	3.2	1.4	12.7
4	4.0	1.5	3.8	3.9	1.5	14.7
Palp	1.6	0.6	0.6		1.5	4.3

Resembles the female in most respects.

Eyes The group occupies about 5/9 of the width of the head. From in front the anterior row is very slightly procurved. Ratio of AME.ALE.PME.PLE = 8.10.10.10. AME separated from each other by a distance equal to 9/8 and from the ALE by 12/8 of the diameter of an AME. Laterals separated by 3/8 of the diameter of an AME. PME separated from each other by 13/8 and from the PLE by 20/8 of the diameter of an AME. MOQ wider behind than wide in front in the ratio of 33.25 and longer than wide behind in the ratio of 38.33. Height of clypeus equal to 17/8 of the diameter of an AME.

Palp The tibial processes and the distal portion of bulb are shown in Figs. 303, 304.

Types Holotype female. Canterbury. Port Hills, Kaituna, 23.v.1929, G. A. H. Helson (Canterbury Museum). Allotype male. Canterbury. Kaituna Valley, Banks Peninsula, 13.iv.1967, R. R. Forster, C. L. Wilton (Otago Museum). Female described and figured same data as allotype male.

Records Canterbury. Okuti Valley, Banks Pen., 7.xii.1950, R.R.F.

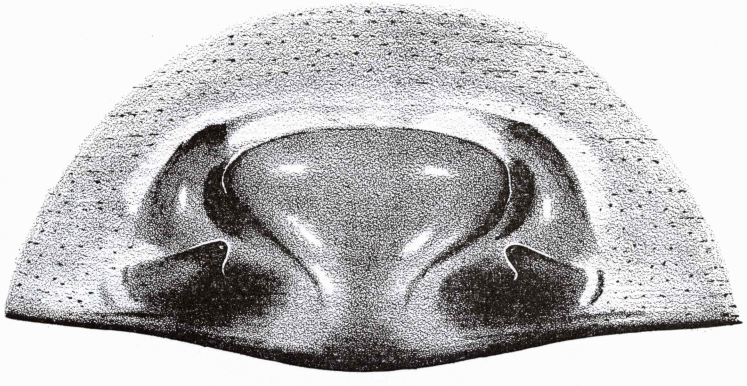
Neoramia oroua n.sp.

Figs. 305-309

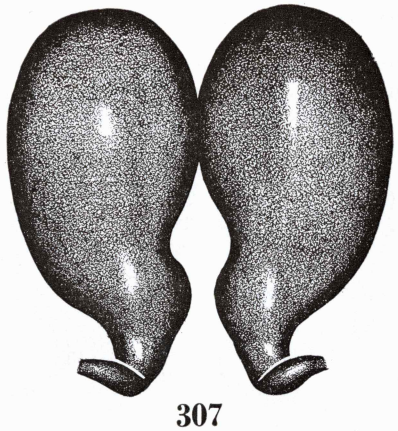
FEMALE

Measurements

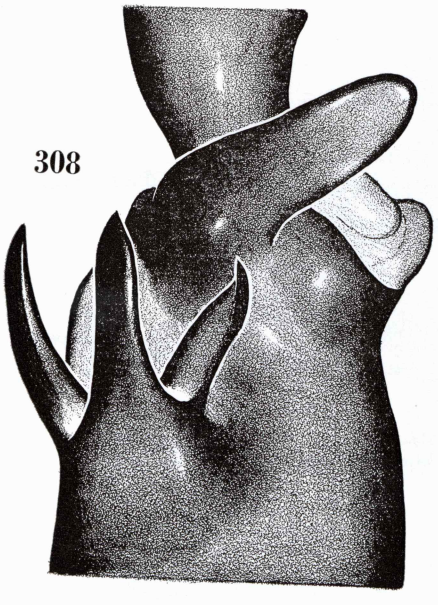
Carapace	length 4.3	width 2.9
Abdomen	length 5.9	width 4.6



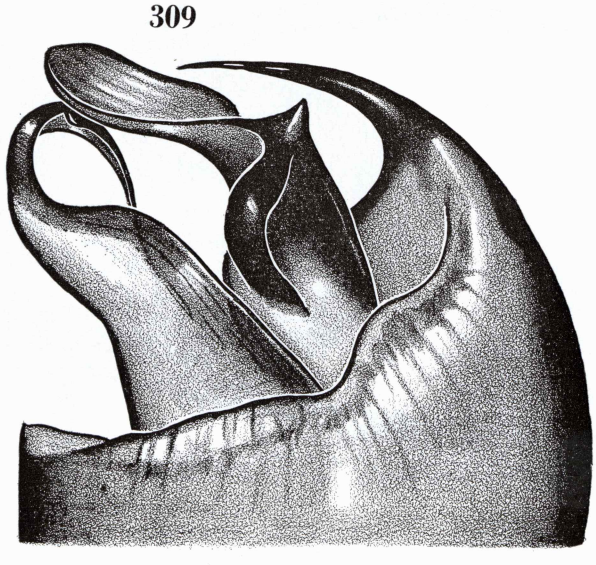
306



307



308



309

Figs. 306-309 *Neoramia oroua* n.sp. Fig. 306 Epigynum. Fig. 307 Internal genitalia. Fig. 308 Tibial processes of male palp. Fig. 309 Distal portion of male bulb.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.3	1.45	3.0	3.1	1.5	12.35
2	3.1	1.3	2.6	2.6	1.2	10.8
3	2.7	1.25	2.05	2.2	1.05	9.25
4	3.0	1.3	2.5	2.6	1.2	10.6
Palp	1.15	0.55	0.8		1.3	3.8

Colour Thoracic region of the carapace pale orange yellow and the cephalic region pale brownish orange becoming darker at the anterior and lateral margins. Veinlike markings present. Chelicerae dark orange brown with the lateral condyles only slightly paler. Legs brownish yellow with dark bandings. Sternum pale yellow becoming brown at the anterior and lateral margins. Maxillae and labium dark orange brown with white distal margins. Abdomen pale greyish brown with scattered brown flecks which become more numerous on the posterior and posterolateral slopes. On the anterior slope there is a median grey band which is followed by the "cross" pattern. On the live spider short white hairs make the cross more conspicuous than in preserved specimens. There is a rather short dark band on each side of the "cross". The ventral surface is pale without any pattern.

Eyes The group occupies 7/10 of the width of the head. From in front the anterior row is straight and from above the posterior row procurved. The ratio of AME. ALE.PME.PLE = 6.8.8.8. AME separated from each other and from the ALE by a distance equal to 7/6 of the diameter of an AME. Lateral eyes separated by 1/6 of the diameter of an AME. PME separated from each other by 9/6 and from the PLE by 12/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 25.19 and wider behind than long in the ratio of 25.24. Height of the clypeus equal to 10/6 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 52.33.

Legs Spines. First leg. Femur, typical prolateral spine present. d.1.1.1. p.0.1. r.1.1. Tibia, v.0.2.2. p.1.1. r.0.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1. r.1. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.0.2.2. p,r.1.1. Metatarsus, same as the first leg. The calamistrum occupies 0.46 of the length of the metatarsus.

Palp Spines. Femur, d.1.1.1. Patella, 1.1. Tibia, d.1.1. p.1.2. r,v.1 distal. Trichobothria. Tibia, double row of 5.

Abdomen The epigynum and internal genitalia are shown in Figs. 306, 307.

MALE

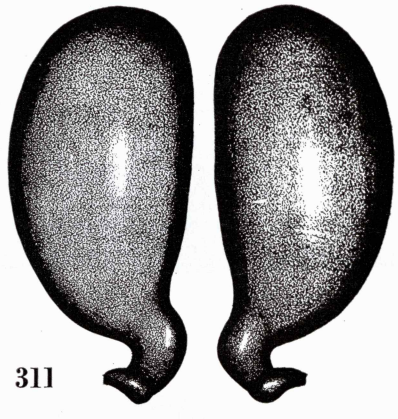
Measurements

Carapace length 4.5 width 3.1
Abdomen length 4.6 width 2.6

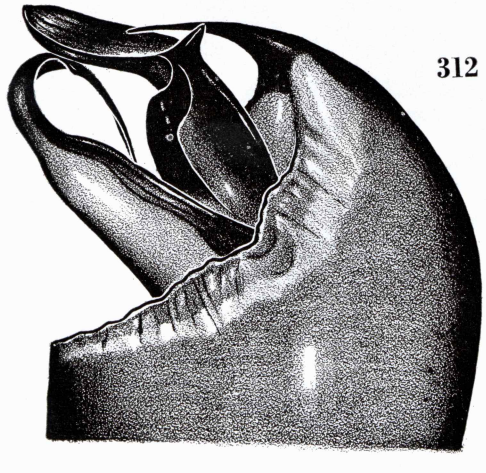
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.4	1.7	4.7	4.7	1.8	17.3
2	3.8	1.5	3.7	3.7	1.5	14.2
3	3.35	1.35	2.7	2.95	1.2	11.55
4	3.7	1.45	3.15	3.3	1.2	12.8
Palp	1.5	0.55	0.55		1.5	4.1



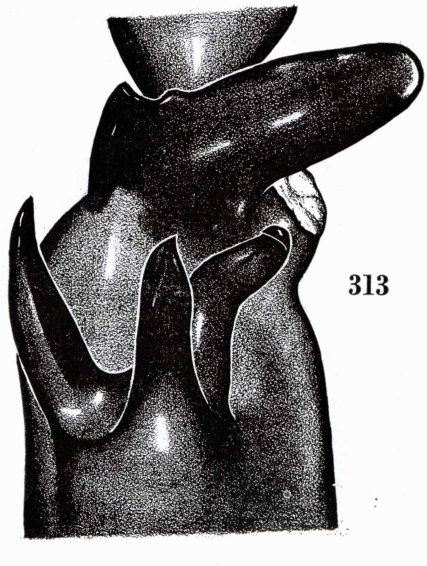
310



311



312



313

Figs. 310-313 *Neoramia montana* n.sp. Fig. 310 Epigynum. Fig. 311 Internal genitalia. Fig. 312 Distal portion of male bulb. Fig. 313 Tibial processes of male palp.

Colour In general resembles the female.

Eyes The group occupies 7/10 of the width of the head. From in front the anterior row is slightly procurved and from above the posterior row is slightly more procurved than that of the female. Ratio of AME.ALE.PME.PLE = 6.7.7.7. AME separated from each other by a distance equal to their diameter and from the ALE by 8/6 of the diameter of an AME. Lateral eyes separated by 2/6 of the diameter of an AME. PME separated from each other by 8/6 and from the PLE by 13/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 22.18 and longer than wide behind in the ratio of 23.22. Height of clypeus equal to 10/6 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 52.36.

Palp The tibial processes and the distal portion of the bulb are shown in Figs. 308, 309.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p.0.1. r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1. r.1. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, same as the first leg. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1.2. r.0. The calamistrum occupies 0.29 of the length of the metatarsus. Eight trichobothria on the tarsus of the first leg.

Types Holotype female. Wellington. Kitchener Park, Feilding, 19.i.1966, R. R. Forster. Allotype male. Turakina, 1943, R. R. Forster (Otago Museum).

Records Bushy Park, Wanganui, 19.iii.1969, C.L.W.

Neoramia childi n.sp.

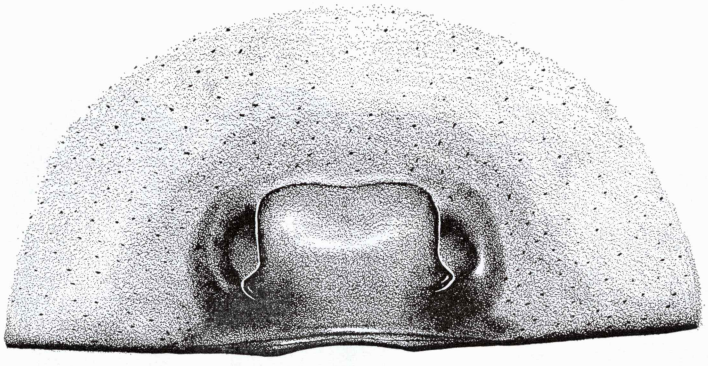
Figs. 314-317

FEMALE

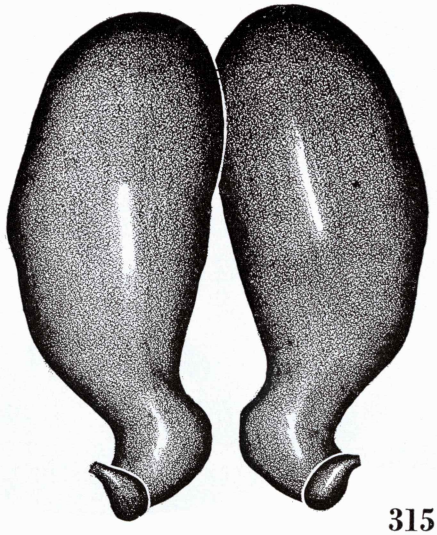
Measurements

Carapace length 6.0 width 3.9
Abdomen length 7.7 width 5.2

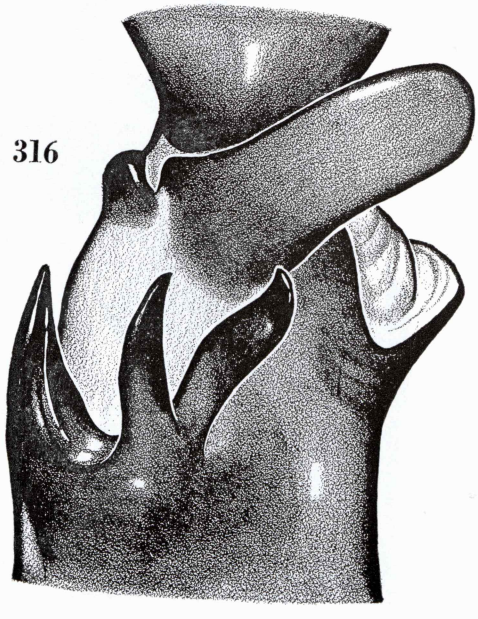
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.0	2.0	3.7	3.7	1.7	15.1
2	3.8	1.9	3.4	3.3	1.4	13.8
3	3.6	1.7	2.9	3.0	1.3	12.5
4	4.05	1.9	3.4	3.5	1.5	14.35
Palp	1.75	0.85	1.1		1.7	5.4



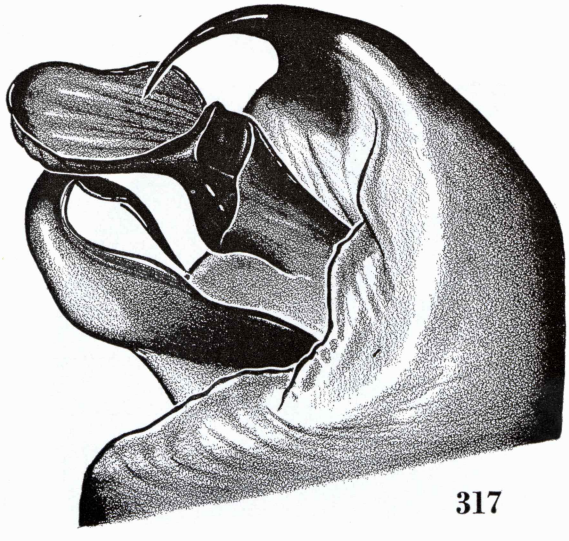
314



315



316



317

Figs. 314-317 *Neoramia childi* n.sp. Fig. 314 Epigynum. Fig. 315 Internal genitalia. Fig. 316 Tibial processes of male palp. Fig. 317 Distal portion of male bulb.

Colour Thoracic region of the carapace pale yellowish orange with the head shading to dark reddish brown anteriorly. Chelicerae very dark reddish brown with the lateral condyles paler. Legs yellowish brown without banding. Sternum yellowish brown becoming brown at the margins. Maxillae and labium orange brown with white distal margins. Abdomen dark yellowish brown without any definite pattern but slightly paler in the cross area where the four muscle spots are rather conspicuously pale. The ventral surface is of the same general colour and is separated from the lateral surfaces by a thin white band on each side. In the area between the epigastric furrow and the spinnerets is a sequence of six pairs of small white spots.

Eyes The group occupies 5/8 of the width of the head. From in front anterior row straight and from above posterior row procurved. Ratio of AME.ALE.PME.PLE = 6.9.7.7. AME separated from each other by a distance equal to 8/6 and from the ALE by 14/6 of the diameter of an AME. Lateral eyes separated by 4/6 of the diameter of an AME. PME separated from each other by 13/6 and from the PLE by 21/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 27.20 and longer than wide behind in the ratio of 28.27. Height of clypeus equal to 14/6 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 78.52.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1. p.0.1. r.1.1. Tibia, v.0.2.2. p,r.0. Metatarsus, v.2.2 and a distal subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p,r.1 median. The calamistrum occupies 0.35 of the length of the segment. Trichobothria. First leg. Tibia, pro-row of 5 and a retro-row of 6. Metatarsus and tarsus, 7.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1. p.1.2. r.2 distal. Trichobothria. Tibia, pro-row 1.1.1.1.1, retro-row 1.2.1.1.1.1. Claw with ten teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 314, 315.

MALE

Measurements

Carapace length 6.5 width 4.1
Abdomen length 5.8 width 3.9

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.0	2.4	5.2	5.4	2.2	20.2
2	4.8	2.2	4.6	4.7	1.9	18.2
3	4.5	2.0	3.7	4.1	1.6	15.9
4	4.8	2.0	4.3	4.7	1.8	17.6
Palp	2.1	0.9	0.8		2.0	5.8

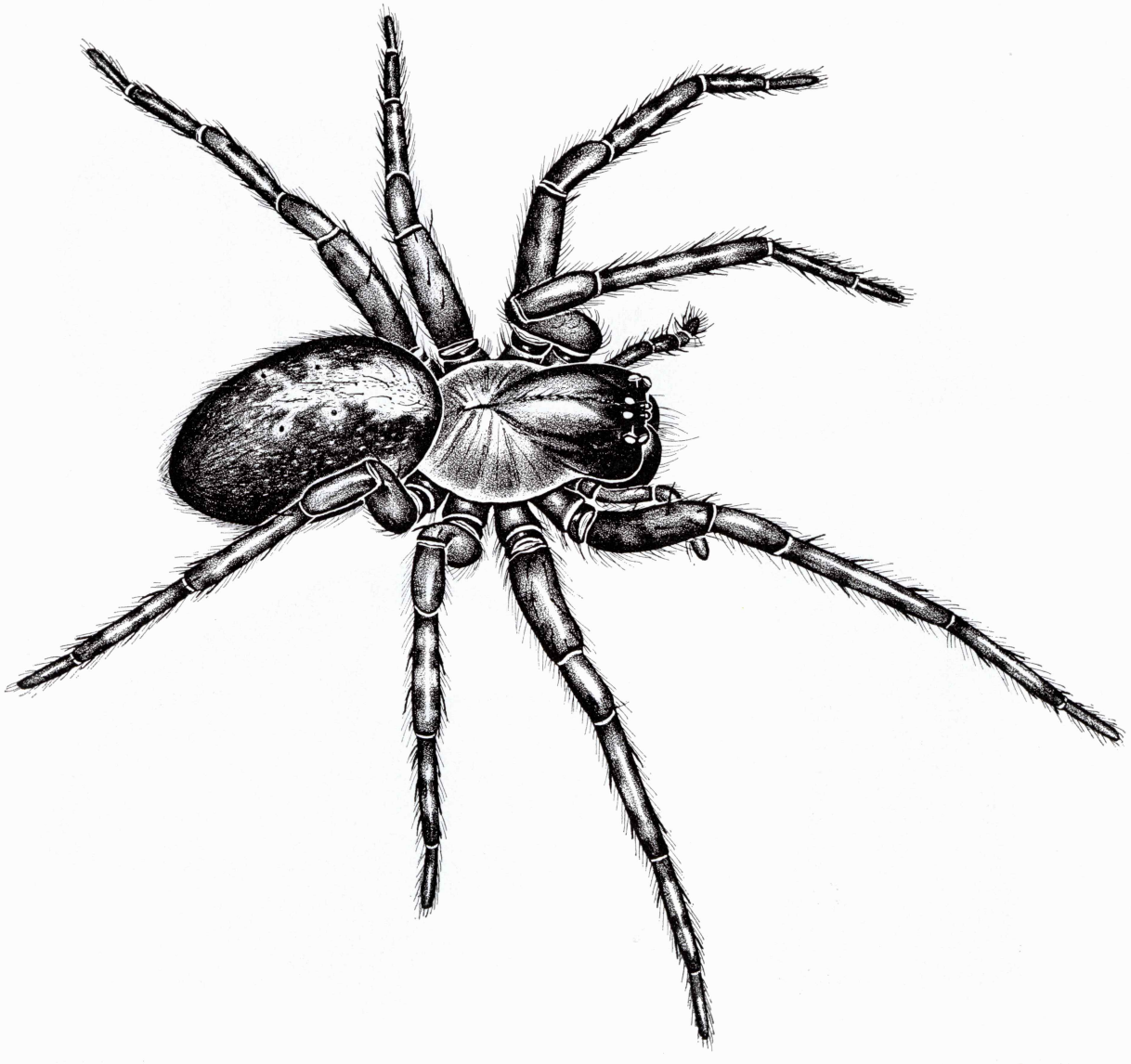


Fig. 318 *Neoramia mamoea* n.sp. female.

In general appearance resembles the female.

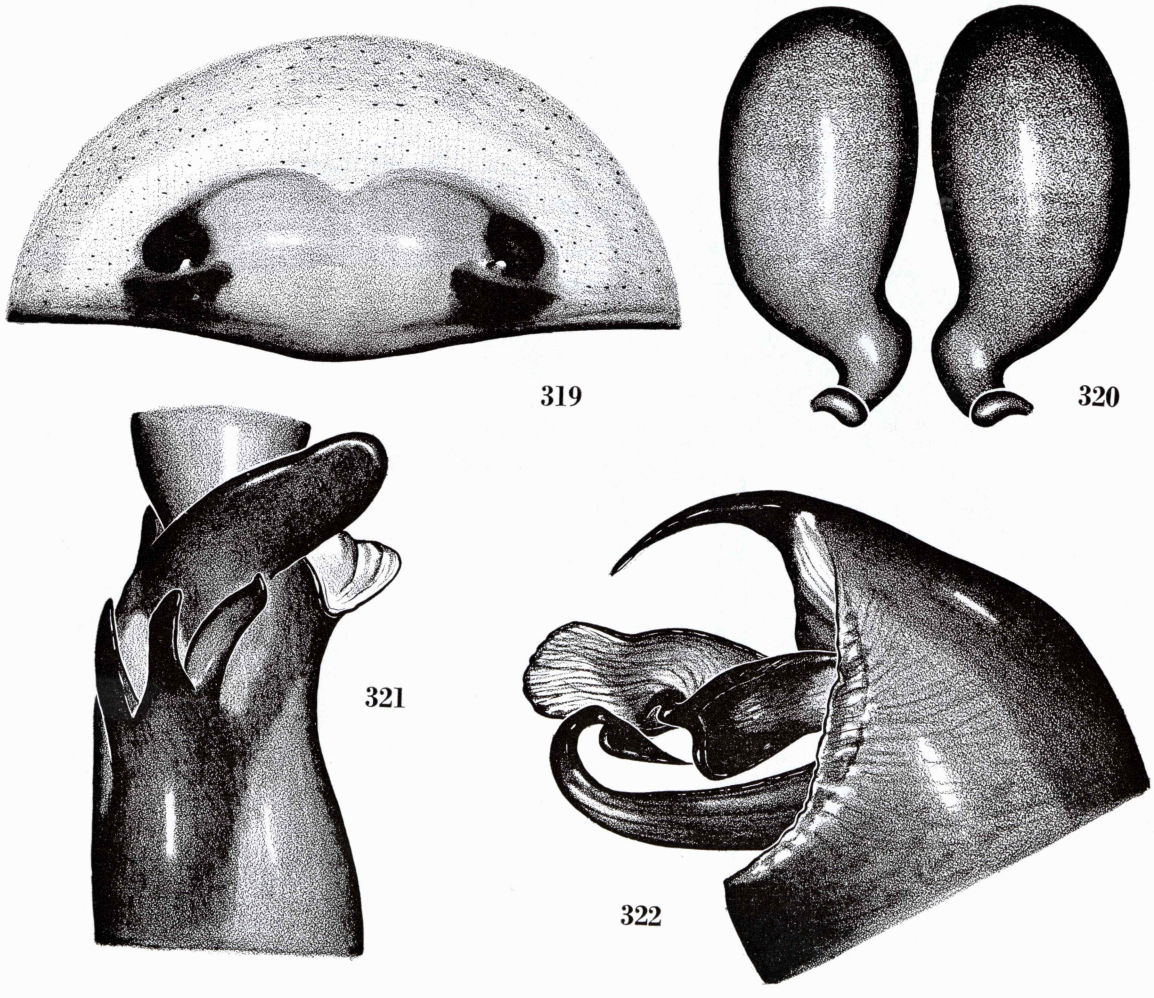
Eyes The group occupies 13/20 of the width of the head. From in front the anterior row is very slightly procurved. Ratio of AME.ALE.PME.PLE = 7.9.8.9. AME separated from each other by a distance equal to 10/7 and from the ALE by 16/7 of the diameter of an AME. Laterals separated by 4/7 of the diameter of an AME. PME separated from each other by 14/7 and from the PLE by 26/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 10.8 and longer than wide behind in the ratio of 11.10. Height of the clypeus equal to 15/7 of the diameter of an AME.

Palp Trichobothria. Tibia, dorsal surface with a row of 5 and retrolateral surface with one near the base of the median finger of the process and a row of 5. The tibial processes and the distal portion of the bulb are shown in Figs. 316, 317.

Legs The calamistrum is not as regular as that of the female and appears to become in places a double row, especially the distal part. The tarsus of the first leg has a row of eight trichobothria.

Types Holotype female. Otago. Rock and Pillar Range, 21.ii.1954, B. J. Marples. Allotype male. Otago. Pitfall trap N.5, Rock and Pillar Rge, one mile south of Summit Rock ski hut, 4,500 ft, cushion veg., 30.iii.1969, J. Child (Otago Museum).

Records Same data as the holotype, one female. Rock and Pillar Rge, 4,500 ft, under rock, 16.xi.1968, J. Child, same locality, 29.iv.1969, J. Child. Mt Kyeburn, ca. 5,200 ft, 12.iv.1970, D. R. Forster. The following is a record of the specimens examined from pitfall traps set by Dr J. Child on the Rock and Pillar Range during 1968-1969. N.1. Lug Crk, matagouri scrub, 800 ft, 18.xii.1968, 3 males. N.3. 1 mile south of Summit Rock, ski hut, 4,500 ft, edge of bog, 1.xii.1968, 1 female; 18.i.1969, 1 immature; 28.ii.1969, 2 males and 1 immature; 30.iii.1969, 1 male; 29.iv.1969, 1 female and 3 immature. N.4. 1 mile south of Summit Rock, ski hut, 4,500 ft, herbfield, 17.xi.1968, 4 immature; 18.xii.1968, 1 immature; 18.i.1969, 2 immature; 28.ii.1969, 1 male and 3 immature; 30.iii.1969, 1 female and 3 immature; 29.iv.1969, 2 females. N.5. 1 mile south of Summit Rock, ski hut, 4,500 ft, cushion vegetation, 28.ix.1968, 10 males and 6 immature; 1.xii.1968, 1 female and 1 immature; 18.i.1969, 1 male and 4 immature; 30.iii.1969, 2 males, 1 female and 4 immature; 29.iv.1969, 3 females. N.6. Half mile north of Summit Rock, Geogr. Stn, 4,500 ft, cushion vegetation, 18.xii.1968, 1 female;



Figs. 319-322 *Neoramia mamoea* n.sp. Fig. 319 Epigynum. Fig. 320 Internal genitalia. Fig. 321 Tibial processes of male palp. Fig. 322 Distal portion of male bulb.

18.i.1969, 3 males and 3 immature; 28.ii.1969, 7 males, 1 female and 1 immature; 30.iii.1969, 4 males; 29.iv.1969, 2 females and 1 immature.

Neoramia mamoea n.sp.

Figs. 318-322

FEMALE

Measurements

	Carapace		length 6.6		width 4.4	
	Abdomen		length 6.6		width 4.1	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.1	2.2	4.85	4.75	2.3	19.20
2	4.9	2.0	4.25	4.2	1.9	17.25
3	4.35	2.0	3.35	3.6	1.6	14.90
4	4.65	2.0	3.9	4.0	1.7	16.25
Palp	2.2	1.0	1.3		1.9	6.40

Colour Carapace pale yellow with a faint orange tinge becoming brownish orange anteriorly. Chelicerae dark reddish brown with the bosses paler. Legs pale yellow tinged with orange and with dark bands. On the anterior dorsal surface there is a pale area which terminates just behind the muscle spots with a pale chevron. The rest of the dorsal and lateral surfaces are dark brown (Fig. 318). The ventral surface of the abdomen pale brown with the lateral surfaces clearly defined.

Eyes The group occupies about 5/8 of the width of the head. From in front the anterior row slightly procurved and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 5.6.5.6. AME separated from each other by a distance equal to 6/5 and from the ALE by 10/5 of the diameter of an AME. Laterals separated by 2/5 of the diameter of an AME. PME separated from each other by 9/5 and from the PLE by 15/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 19.16 and longer than wide behind in the ratio of 21.19. The height of the clypeus is equal to twice the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 30.24.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, p.1.3. d.1 basal, r.1.1. Tarsus with numerous long spines. Trichobothria. Tibia, two rows of five but the pro-row is shorter than the retro-row.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1.1. r.0.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1 median. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.0.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.0. r.1 median. Trichobothria. First leg. Tibia, a pro-row of 5 on the basal quarter and a retro-row of 6 extending to the mid point. Metatarsus and tarsus, 8. Fourth leg. Tibia, a pro-row of 5 on the basal quarter and a retro-row of 8 extending to the mid point. Metatarsus, 6. Tarsus, 7. Superior slaws of the first leg with 11 teeth and fourth leg with 10.

Abdomen The epigynum and internal genitalia are as shown in Figs. 319, 320.

MALE

Measurements

	Carapace		length 6.5		width 4.3	
	Abdomen		length 6.2		width 4.3	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.1	2.4	6.7	6.6	2.5	24.3
2	5.7	2.3	5.6	5.5	2.2	21.3
3	5.0	2.0	4.2	4.5	1.8	17.5
4	5.4	2.1	4.7	5.0	2.0	19.2
Palp	2.3	0.9	1.0		2.1	6.3

Eyes Viewed from in front the anterior row is very slightly pro-curved. Ratio of AME.ALE.PME.PLE = 9.12.10.12. AME separated from each other by a distance equal to 8/9 and from the ALE by 13/9 of the diameter of an AME. Laterals separated by 2/9 of the diameter of an AME. PME separated from each other by 14/9 and from the PLE by 21/9 of the diameter of an AME. MOQ wider behind than in front in the ratio of 34.26 and longer than wide behind in the ratio of 36.34. Height of clypeus equal to 15/9 of the diameter of an AME.

Palp The tibial processes and the distal portion of the bulb are shown in Figs. 321, 322.

Type Holotype female. Fiordland. Mt Irene, 4,700 ft, 27-29.i.1953, B. Wisely. Allotype male. Fiordland. Te Au, near South Arm of Lake Te Anau, 12-24.i.1953, R. R. Forster (Canterbury Museum).

Records A male and a female, same data as allotype.

Neoramia finschi (L. Koch) 1872

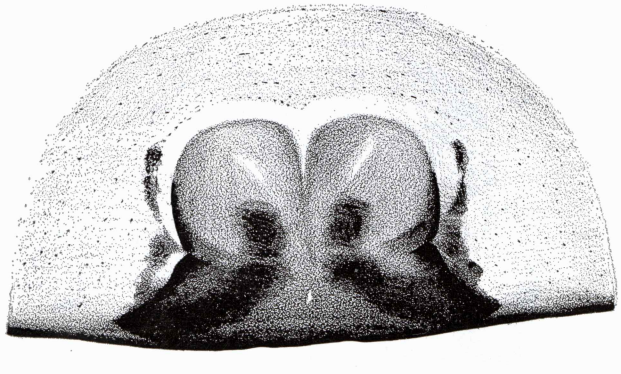
1872 *Amaurobius finschii,* L. Koch. Die Arachn. Austral. Nurnberg: 339.

1892 *Amaurobius finschii,* Urquhart. Trans. N. Zeal. Inst. 24: 222.

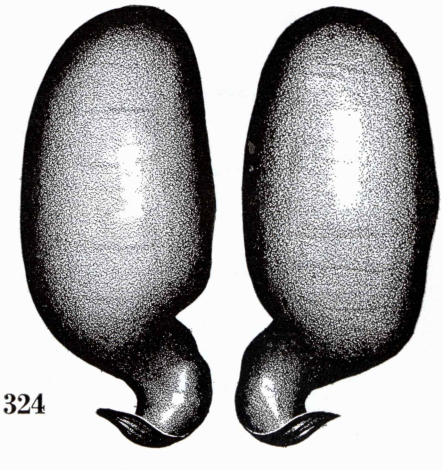
1904 *Amaurobius finschii,* Hutton. Index Faunae N. Zeal: 238.

1917 *Ixeuticus finschi,* Dalmas. Ann. Soc. Ent. France 86: 333.

1927 *Ixeuticus finschi,* Myers. N. Zeal. Journ. Sci. Tech. 9: 132, 134.



323



324

Figs. 323-324 *Neoramia finschi* (L. Koch). Fig. 323 Epigynum. Fig. 324 Internal genitalia.

1954 *Ixeuticus finschi,* Roewer. Katalog der Aran. Bremen 2: 1368.

1957 *Ixeuticus finschi,* Bonnet. Bibl. Aran. 2(3): 2321.

Figs. 323-324

FEMALE

Measurements

	Carapace		length 6.6		width 4.6	
	Abdomen		length 7.5		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.0	2.5	4.7	4.7	2.2	19.1
2	4.8	2.3	4.2	4.1	1.8	17.2
3	4.4	2.1	3.4	3.6	1.5	15.0
4	4.7	2.2	3.8	4.0	1.7	16.4
Palp	2.2	1.0	1.3		1.9	6.4

Colour Thoracic region of the carapace cream tinged with orange and the head gradually darkening through brownish red to almost black anteriorly. Dark veinlike markings are present between the fovea and eyes. Chelicerae very dark with lateral condyles brownish red. Legs cream, tinged with orange and with dark bands. Sternum brownish yellow becoming darker at the margins except the posterior projection which is paler, this pale area tapers forward a short distance. The maxillae and labium are dark reddish brown with white tips. The anterior surface of the abdomen is covered with a pale area which tapers posteriorly to disappear just beyond the midpoint. Lateral and posterior surfaces dark. Ventral surface pale, separated from the lateral surfaces on each side by a band of confluent white spots.

Eyes The group occupies 2/3 of the width of the head. From in front the anterior row slightly procurved and the posterior row procurved. From above the anterior row straight and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 10.12.9.11. AME separated from each other by a distance equal to their diameter and from the ALE by 17/10 of the diameter of an AME. Laterals separated by 4/10 of the diameter of an AME. PME separated from each other by 14/10 and from the PLE by 26/10 of the diameter of an AME. MOQ wider behind than in front in the ratio of 32.30 and longer than wide behind in the ratio of 39.32. Height of clypeus equal to 17/10 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1.2. r.0.1. Tarsus with numerous spines. Trichobothria. Tibia, two rows of 5. Tarsus, 0. Claw with seven teeth.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2 and subwhorl of 5, p,r.1 median. The spination of the other legs is typical. Trichobothria. First leg. Tibia, pro-row 1.1.2.1.1 on basal quarter, retro-row 1.1.1.1.1.1 on basal half. Metatarsus, 6. Tarsus, 7. The metatarsus of leg 3 and tarsus of leg 4, with 8. Superior claws with seven teeth, inferior claws one.

Abdomen The epigynum and internal genitalia are shown in Figs. 323-324.

Types L. Koch described the male from Auckland (not seen). Plesiotype female. Ngapuhi Rd, Remuera, Auckland, Winter 1970, M. P. Buchler (Otago Museum).

Neoramia matua n.sp.

Figs. 327-330

FEMALE

Measurements

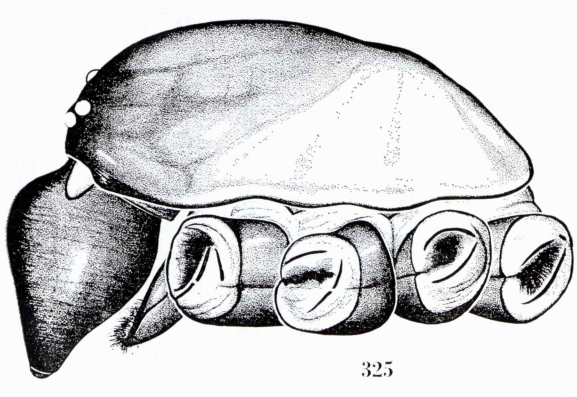
	Carapace		length 4.3		width 2.9	
	Abdomen		length 4.3		width 2.8	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.8	1.2	2.6	2.5	1.25	10.35
2	2.7	1.3	2.2	2.2	1.2	9.5
3	2.4	1.25	1.8	1.85	0.9	8.2
4	2.8	1.3	2.3	2.3	0.8	9.5
Palp	1.25	0.55	0.75		1.2	3.75

Colour Carapace pale creamy orange, shading to dark orange brown anteriorly. Two dark veinlike lines diverge from a common origin, one on each side, towards the lateral eyes where they merge into the darker anterior region. Chelicerae very dark orange brown with the lateral condyles conspicuously paler. Legs with olive banding which on the femora are confined to the ventral surfaces. Sternum pale shading to brown at margins. Maxillae and labium orange brown with white distal margins. Abdomen with typical pattern well defined. The dark flecks are rather spaced on the anterior and antero-lateral surfaces giving these regions a somewhat paler appearance than that of the posterior surfaces. The ventral surface dark with four longitudinal pale bands.

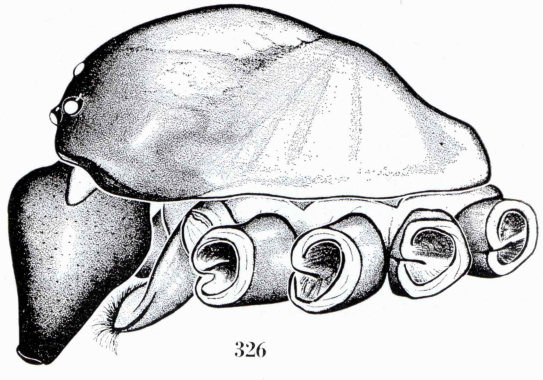
Eyes The group occupies about 5/8 of the width of the head. From in front the anterior row is slightly procurved and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 4.8.6.7. AME separated from each other by a distance equal to 8/4 and from the ALE by 12/4 of the diameter of an AME. Lateral eyes separated by 3/4 of the diameter of an AME. PME separated from each other by 11/4 and from the PLE by 15/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.16 and longer than wide behind in the ratio of 24.23. Height of clypeus equal to 12/4 of the diameter of an AME.

Chelicerae Viewed laterally, longer than wide in the ratio of 50-38.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p.0.1. r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1 Metatarsus, v.2.2. p,r.0.1. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2. p.1.1. r.0.1 and distal subwhorl of 5. Superior claws with 12 teeth and inferior claw with three teeth. Trichobothria.



325



326

Figs. 325-326 Carapace. Fig. 325 *Neoramia charybdis* (Hogg). Fig. 326 *Neoramia matua* n.sp.

First leg. Tibia, a pro-row of 5 on the basal quarter and a retro-row of 6 extending to the midpoint. Metatarsus and tarsus, 8. Fourth leg. Tibia, a pro-row of 5 on the basal quarter and a retro-row of 8 extending to the midpoint. Metatarsus, 6. Tarsus, 7.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1. p.1.1.1. r.1 distal. Tarsus with numerous spines. Trichobothria. Tibia, a pro-row of 4 and a retro-row of 5. Claw small with about ten teeth.

Abdomen The epigynum and internal genitalia are as in Figs. 327-328.

MALE

Measurements

	Carapace		length 3.8		width 2.6	
	Abdomen		length 4.5		width 2.6	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.6	1.5	4.0	4.0	1.7	14.8
2	3.1	1.4	3.1	3.2	1.4	12.2
3	3.0	1.2	2.5	2.8	1.2	10.7
4	3.4	1.3	3.1	3.2	1.3	12.3
Palp	1.0	0.5	0.5		1.4	3.4

Colour Generally resembles the female.

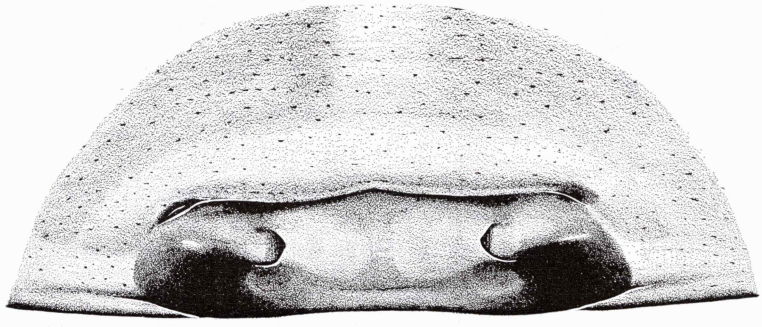
Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is straight by the upper margins. Ratio of AME.ALE.PME.PLE = 7.10.9.10. AME separated from each other by a distance equal to 8/7 and from the ALE by 12/7 of the diameter of an AME. Laterals separated by 3/7 of the diameter of an AME. PME separated from each other by 12/7 and from the PLE by 21/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 30.22 and longer than wide behind in the ratio of 33.30. Height of clypeus equal to 15/7 of the diameter of an AME.

Palp Trichobothria. Tibia, on the dorsal surface there is a row of four beginning near the base and extending to a point near where the dorsal finger of the tibial process is attached. The retrolateral surface with four, one near the base of the median finger and three in a row beginning at the base of the segment and extending to a point at the base of the tibial process mid-way between the median and dorsal fingers of the process. Tibial processes and the distal portion of the bulb are shown in Figs. 329, 330.

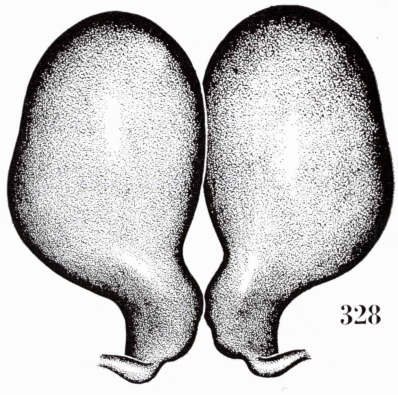
Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p.0.1. r.1.0. Tibia, v.2.2.2. p.1.1.1. r.0.0.1. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1 median. Second leg and third leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.0.1.1. Metatarsus v.2.2 and a subwhorl of 5, p.1.2. r.1 median.

Types Holotype female. Otago. Plant Reserve, near Balclutha, 21.iv.1966, R. R. Forster. Allotype male. Otago. Bull Creek, 27.iii.1970, C. L. Wilton (Otago Museum).

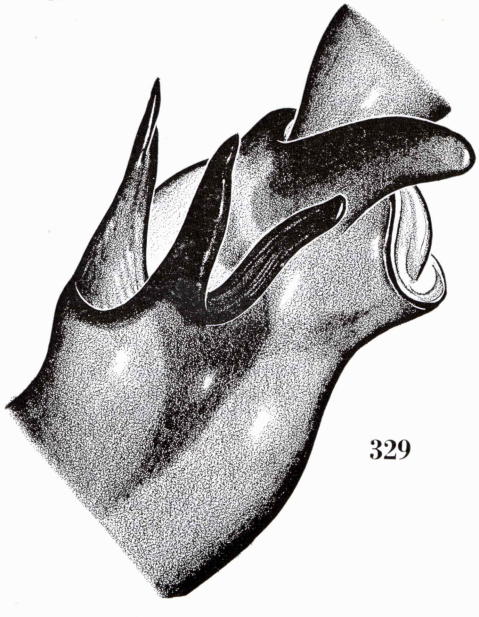
Records Otago. Allans Beach, 28.viii.1966, R.R.F. Smaills Beach, 4.iv.1961, W. T. Poppelwell. Wickliff Bay, 24.x.1961, W. T. Poppelwell.



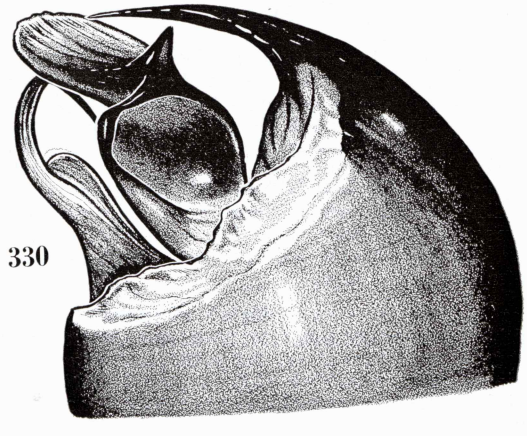
327



328



329



330

Figs. 327-330 *Neoramia matua* n.sp. Fig. 327 Epigynum. Fig. 328 Internal genitalia. Fig. 329 Tibial processes of male palp. Fig. 330 Distal portion of male bulb.

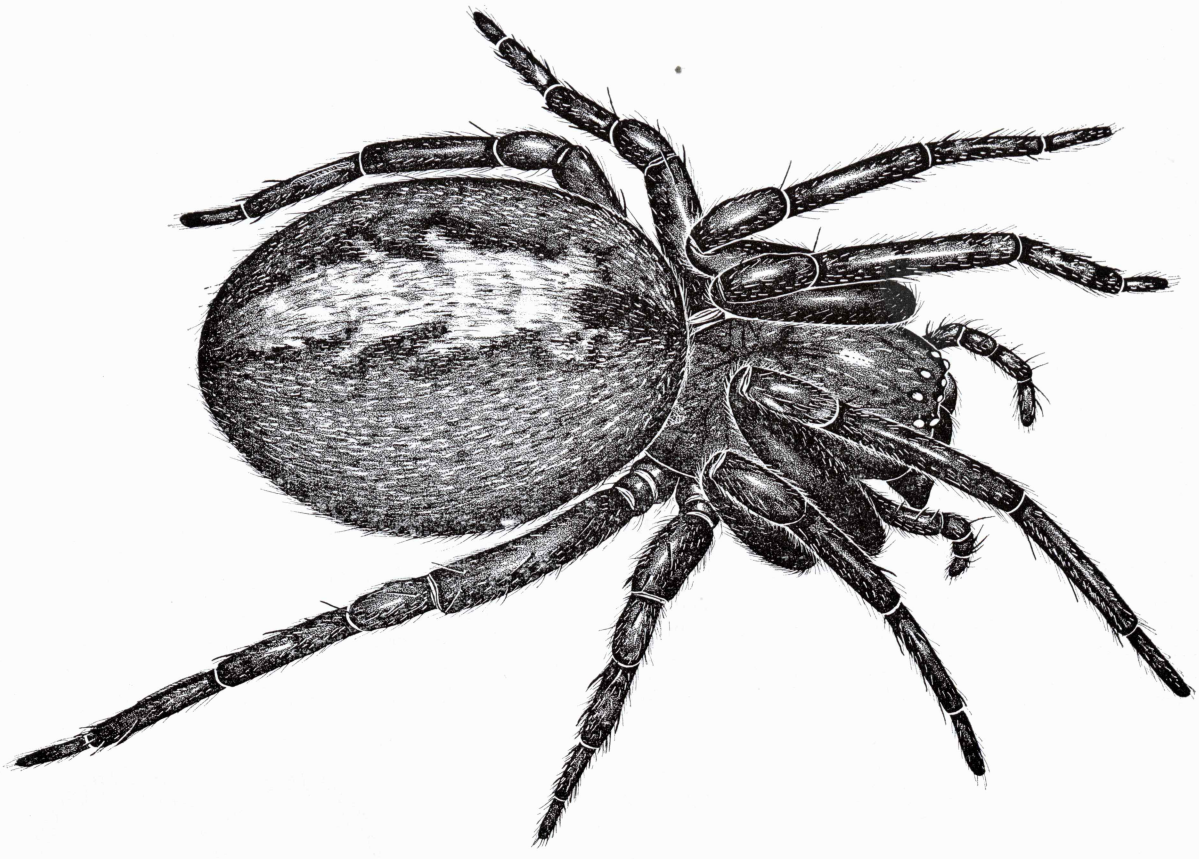


Fig. 331 *Neoramia matua* n.sp. female.

Neoramia raua n.sp.

Figs. 331-333

FEMALE

Measurements

	Carapace		length 2.15		width 1.15	
	Abdomen		length 3.15		width 2.41	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.50	0.80	1.40	1.45	0.78	5.93
2	1.45	0.63	1.18	1.18	0.68	5.12
3	1.25	0.58	0.90	0.98	0.55	4.26
4	1.48	0.68	1.15	1.18	0.55	5.04
Palp	0.68	0.33	0.43		0.63	2.07

Colour (Fig. 331). Carapace pale orange with the whole surface stippled with black. Vein-like markings are present on the cephalic region. Chelicerae orange brown with the lateral condyles slightly paler. Legs yellowish brown with dark bandings. Sternum pale yellow mesially but stippled with black towards posterior and lateral margins. Maxillae and labium pale orange brown with the distal margins white. Short white hairs are evident on most of the surface of the live animal but the longer hairs are pale brown and are not conspicuous. The ventral surface is pale.

Eyes The group occupies slightly more than 2/3 of the width of the head. From in front the anterior row is procurved and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 3.5.4.5. AME separated from each other and from the ALE by a distance equal to 4/3 of the diameter of an AME. Lateral eyes separated by 1/3 of the diameter of an AME. PME separated from each other by 5/3 and from the PLE by 7/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 13.10 and longer than wide behind in the ratio of 14.13. Height of clypeus equal to 5/3 of the diameter of an AME.

Chelicerae Viewed laterally, longer than wide in the ratio of 27.19.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.0.1. Tibia, v.1.1.2. p.1. r.0. v.2.2 and distal subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.0.2.2. p.1.1. r.0. Metatarsus, v.2.2 and a distal subwhorl of 5, p,r.1. The calamistrum occupies 0.42 of the length of the segment. Trichobothria. Tarsus of the first leg with a row of 5, the distal one situated at a point which is 0.75 of the length of the segment measured from the base. Superior claws with 13-16 teeth, the pectination reaching to almost the tip. Inferior claw with three teeth.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1. p.1.2. r.0.2 (bristles). Tarsus with numerous spines.

Abdomen The epigynum and internal genitalia are shown in Figs. 332, 333.

Type Holotype female. Canterbury. Porter's Pass, 29.ix.1966, R. R. Forster (Otago Museum).

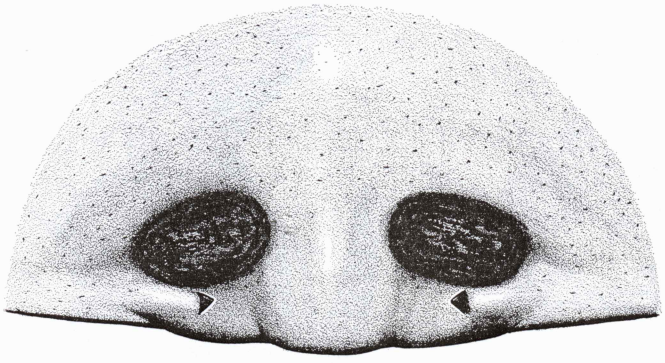
Neoramia nana n.sp.

Figs. 334-337

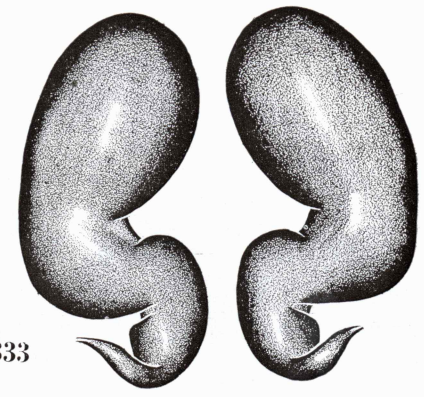
FEMALE

Measurements

	Carapace		length 3.9		width 2.5	
	Abdomen		length 4.6		width 3.1	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.75	1.3	2.3	2.3	1.2	9.85
2	2.45	1.1	1.9	1.95	1.05	8.45
3	2.2	1.1	1.65	1.85	0.9	7.7
4	2.55	1.25	2.0	2.1	1.0	8.9
Palp	1.1	0.5	0.7		1.1	3.4



332



333

Fig. 332-333 *Neoramia raua* n.sp. Fig. 332 Epigynum. Fig. 333 Internal genitalia.

Colour The thoracic region of the carapace pale cream and the head region orange brown becoming darker anteriorly with dark vein-like markings. Chelicerae very dark orange brown with the lateral condyles much paler. Legs yellowish brown with darker bandings. Sternum pale yellow with brown margins. Maxillae and labium orange brown with white distal margins. The median dark band on the abdomen anterior to the St. Andrew's cross pattern is very faint and the dark flecks on the anterior and antero-lateral surfaces quite widely spaced giving those regions a pale appearance and making the dark bands on each side of the pattern very distinct. The ventral surface is pale.

Eyes The group occupies about 2/3 of the width of the head. Viewed from in front the anterior row is straight and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 5.7.7.7. AME separated from each other by a distance equal to 6/5 and from the ALE by 7/5 of the diameter of an AME. Lateral eyes separated by 3/5 of the diameter of an AME. PME separated from each other by 8/5 and from the PLE by 12/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 22.16 and longer than wide behind in ratio of 24.22. Height of clypeus equal to 8/5 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 26.17. The two teeth of the retromargin of the cheliceral groove rather widely spaced.

Palp Claw with 11 teeth.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.0.1. Tibia, v.1.2.2. p.1.1. r.0.1. Metatarsus, v.2.2. p.1 median. r.1 median and a distal subwhorl of 5. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2. p.1.1. r.0.1 and a distal subwhorl of 5. The calamistrum occupies 30/84 of the length of the metatarsus. Trichobothria. First leg. Tibia, two rows situated basally, the pro-row with four and the retro-row with five. Metatarsus, a single row of six. Tarsus, a single row of seven. The superior claws of a first leg with 13 or 14 teeth. Inferior claw with two teeth. Superior claws of fourth leg with seven to 9 teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 334, 335.

MALE

Measurements

	Carapace		length 3.4		width 2.4	
	Abdomen		length 3.8		width 2.4	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.3	1.3	3.5	3.5	1.5	13.1
2	3.0	1.2	2.7	2.75	1.3	10.95
3	2.6	1.1	2.1	2.3	0.9	9.0
4	2.85	1.1	2.6	2.8	1.1	10.45
Palp	1.2	0.55	0.4		1.1	3.25

Colour Resembles the female.

Eyes The group occupies 7/10 of the width of the head. From in front the anterior row is straight and from above the posterior row is procurved. Ratio of AME. ALE.PME.PLE = 5.7.6.6. AME separated from each other by a distance equal to 6/5 of the diameter of an AME and from the ALE by a similar distance. Lateral eyes separated by 2/5 of the diameter of an AME. PME separated from each other by 8/5 and from the PLE by 11/5 of the diameter of an AME. MOQ wider behind than in front in the ratio 20.16 and longer than wide behind in the ratio of 21.20. Height of clypeus equal to 8/5 of the diameter of an AME.

Palp The distal portion of the bulb and the tibial processes are shown in Figs. 236, 237.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p.0.1. r.1.1. Tibia, v.2.2.2. p.1.1.1. r.0.1. Metatarsus, v.2.2. p.1 median, r.1 median, distal subwhorl of 5. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2. p.1.1. r.0.1 and distal subwhorl of 5. The calamistrum occupies 8/25 of the length of the metatarsus. Superior claws of the first pair of legs with 12 teeth and the inferior claw with two teeth. Superior tarsal claws of the fourth pair with eight teeth.

Types Holotype female. Otago. Fraser's Gully, Dunedin, 13.v.1967, C. L. Wilton, R. W. Hutton. Allotype male. Otago. Leith Saddle, pitfall trap, 17.iii.1967, R. R. Forster (Otago Museum).

Records Otago. Dunedin, June 1953, Cairnhill St, Dunedin, 30.iii.1956, B. J. Marples. Whare Flat, 18.iv.1958. Waitati Valley, 30.iv.1966, C.L.W. Leith Saddle, pitfall traps, 8.vi.1967, 22.iv.1967, 24.ix.1967, R.R.F.

Neoramia marama n.sp.

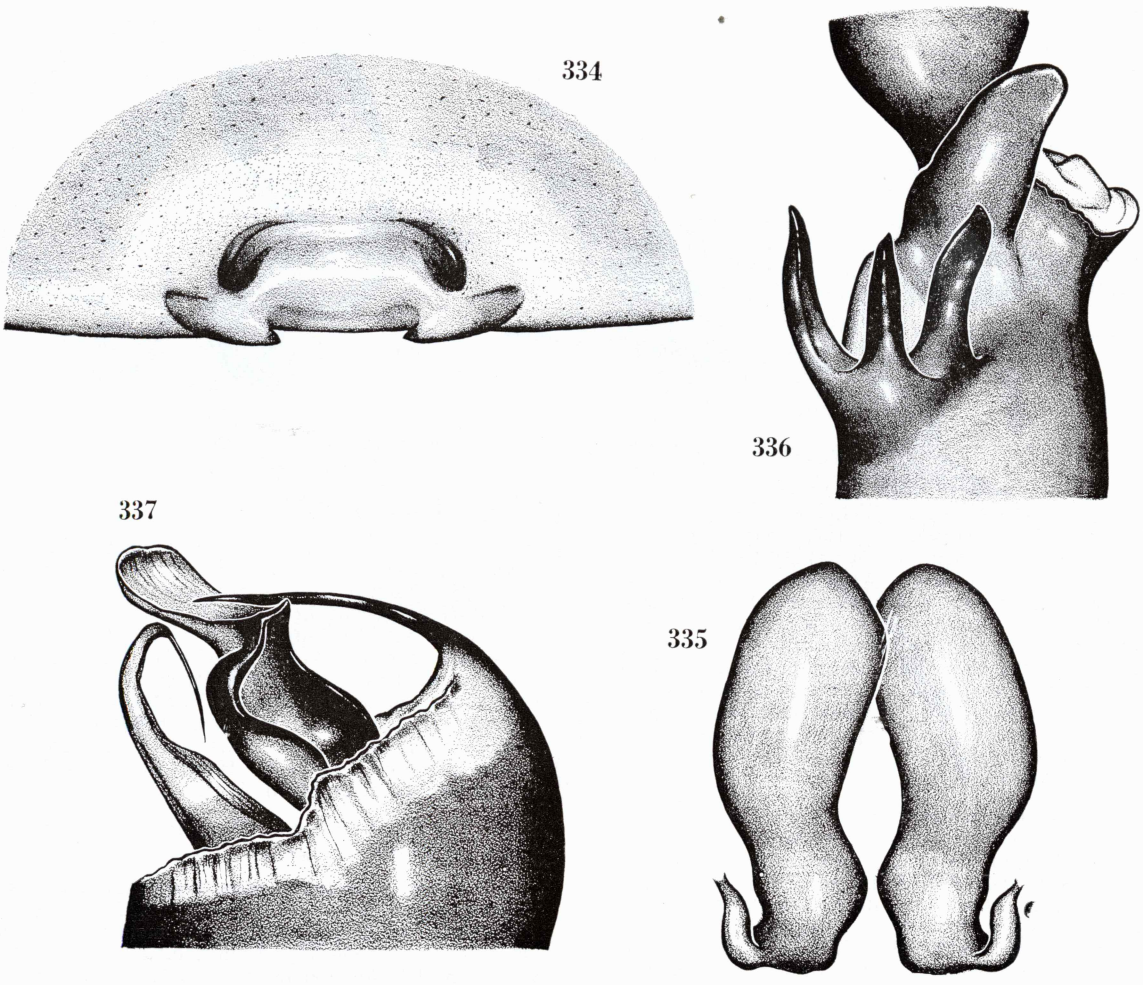
Figs. 338-339

FEMALE

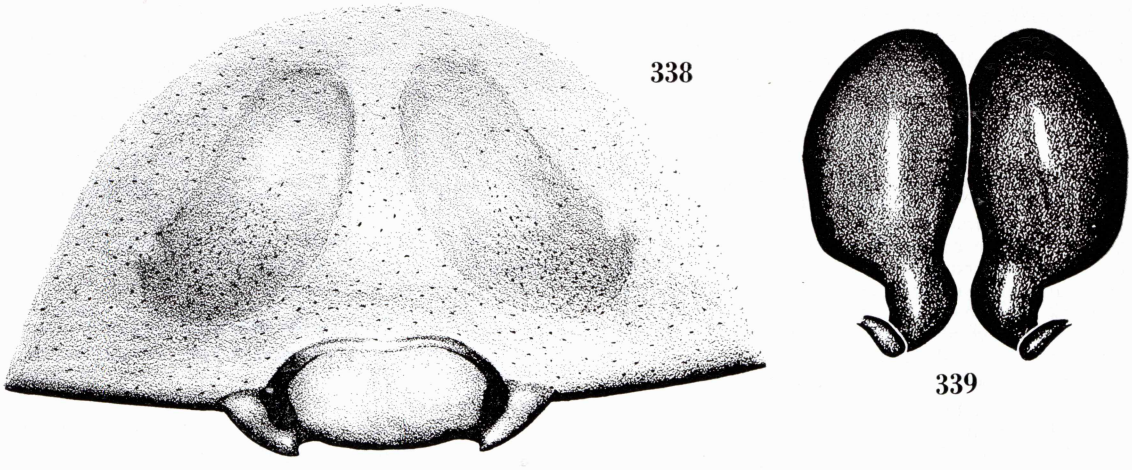
Measurements

	Carapace		length 4.3		width 2.8	
	Abdomen		length 4.7		width 3.2	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.05	1.3	2.6	2.9	1.3	11.15
2	2.8	1.3	2.3	2.4	1.2	10.0
3	2.5	1.2	1.8	2.1	0.9	8.5
4	3.0	1.3	2.4	2.4	1.0	10.1
Palp	1.2	0.6	0.8		1.2	3.8

Colour Carapace pale yellowish orange shading to reddish orange anteriorly. Chelicerae reddish brown with the lateral condyles slightly paler. Legs pale yellow with dark bandings which are more distinct on the ventral



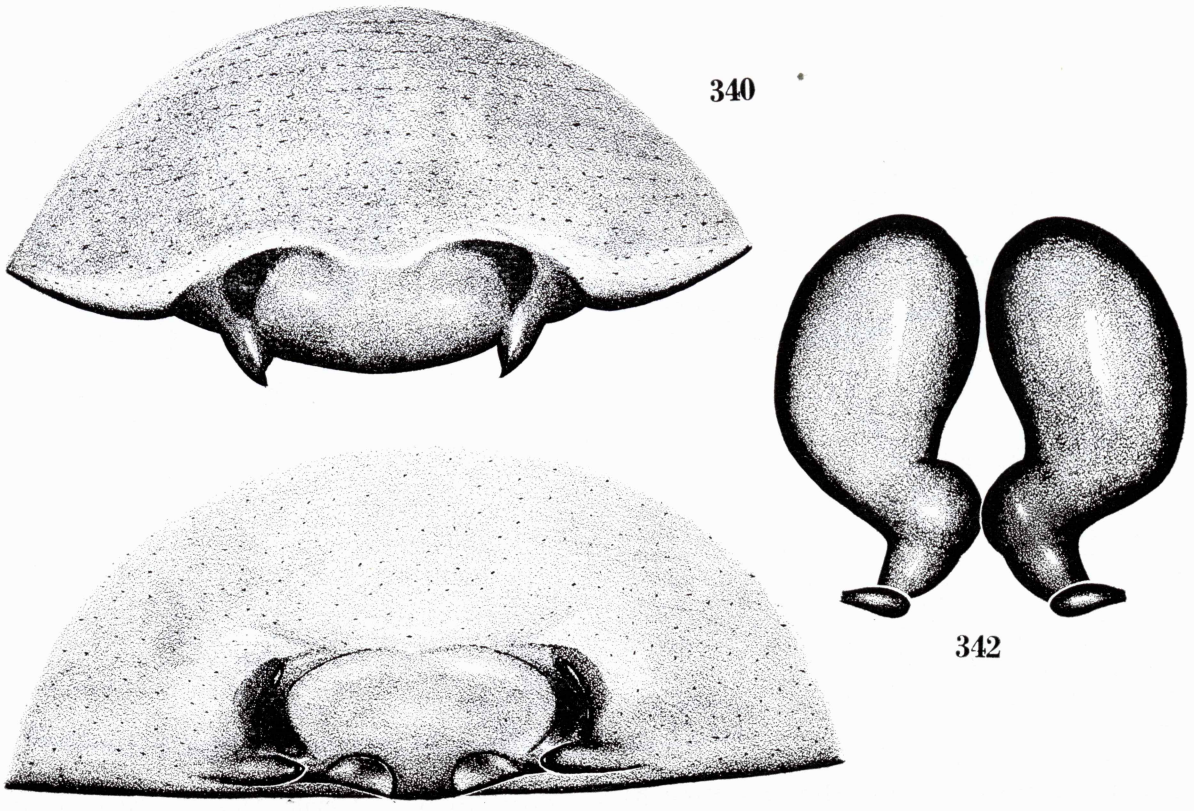
Figs. 334-337 *Neoramia nana* n.sp. Fig. 334 Epigynum. Fig. 335 Internal genitalia. Fig. 336 Tibial processes of male palp. Fig. 337 Distal portion of male bulb.



Figs. 338-339 *Neoramia marama* n.sp. Fig. 338 Epigynum. Fig. 339 Internal genitalia.

surfaces. Sternum pale yellow with the anterior and lateral margins brown. Maxillae and labium orange brown with white distal margins. Anterior surface of the abdomen pale creamy brown with a grey median band followed by the "cross" pattern. Confined to the median dorsal surface are two irregularly shaped dark brown bands, one on each side of the "cross" pattern, which are bisected obliquely by the posterior "legs" of the cross. The pale surfaces of the abdomen gradually shade to dark brown on the posterior and posterolateral slopes. Ventral surface pale without pattern.

Eyes The group occupies 2/3 of the width of the head. From in front the anterior row is slightly procurved and from above the posterior procurved. Ratio of AME. ALE.PME.PLE = 5.7.6.7. AME separated from each



Figs. 340-342 *Neoramia minuta* n.sp. Fig. 340 Epigynum, ventral view. Fig. 431 Epigynum, from behind. Fig. 342 Internal genitalia.

other by a distance equal to 6/5 and from the ALE by 8/5 of the diameter of an AME. Lateral eyes are separated by 2/5 of the diameter of an AME. PME separated from each other by 7/5 and from the PLE by 13/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 19.17 and longer than wide behind in the ratio of 21.19. Height of clypeus equal to twice the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 48.33.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.0.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1. r.1. Second leg. Femur, d.1.1.1. p,r. 1.1. Tibia, v.2.2.0. p,r.1.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1.1. r.0.1. The calamistrum occupies 0.26 of the length of the metatarsus.

Palp Spines. Femur, d.1.1.1. Patella, 1.1. Tibia, d.1.1. p.1.2. r.1 distal.

Abdomen The epigynum and internal genitalia are shown in Figs. 338, 339.

Type Holotype female. Marlborough. North side of the mouth of the Conway River, 12.v.1955, R. R. Forster (Canterbury Museum).

Neoramia minuta n.sp.

Figs. 340-342

FEMALE

Measurements

Carapace	length 2.9	width 2.0
Abdomen	length 3.5	width 2.3

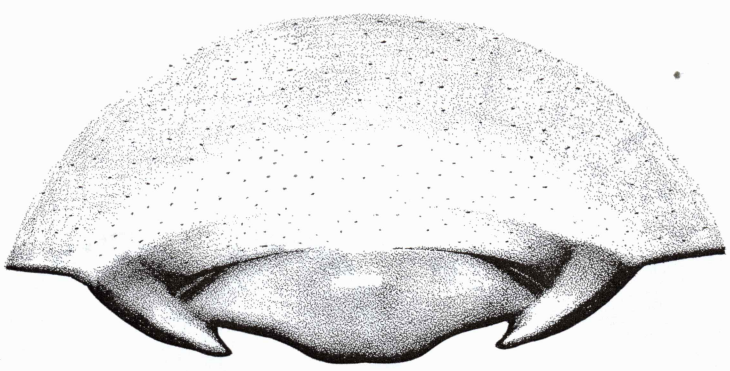
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.5	1.1	2.4	2.3	1.2	9.5
2	2.4	1.0	2.0	2.0	1.1	8.5
3	2.1	0.9	1.6	1.6	0.9	7.1
4	2.4	1.0	2.0	1.9	0.9	8.2
Palp	1.0	0.5	0.6		1.0	3.1

Colour Thoracic region of the carapace pale yellowish orange and cephalic region orange brown. Chelicerae orange brown. Legs pale yellowish orange with dark bandings. Sternum pale yellow shading to yellowish brown at the margins. Maxillae and labium orange brown with white distal margins. Abdomen with the typical pattern. The dark bands extending posteriorly from each side of the "cross" are discernible as well as several rather indistinct chevrons. The long hairs are golden brown and confined to the fore part but the whole surface is well covered with shorter hairs of the same colour. The ventral surface is pale and darkens towards the lateral margins on each side but the pale bordering bands are not very conspicuous.

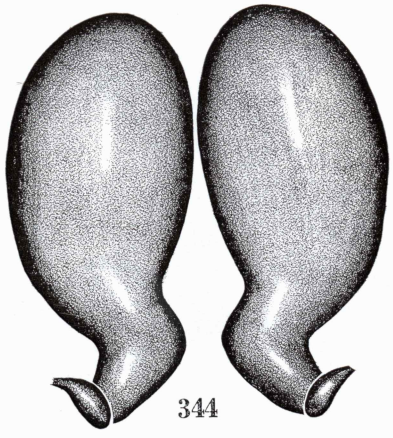
Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is slightly procurved and from above the posterior row procurved. Ratio of AME.ALE.PME.PLE = 10.15.14.15. AME separated from each other and from the ALE by a distance equal to 14/10 of the diameter of an AME. Lateral eyes separated by a distance equal to the radius of an AME. PME separated from each other by 18/10 and from the PLE by 25/10 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.17 and wider behind than long in the ratio of 23.22. Height of clypeus equal to 15/10 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 31.24.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.0.1. Tibia, v.0.1.1. p.1.1. r.0.1. Meta-



343



344

Figs. 343-344 *Neoramia hokina* n.sp. Fig. 343 Epigynum. Fig. 334 Internal genitalia.

tarsus, v.2.2 and a distal subwhorl of 5, p.1 median, r.1 median. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.0.2.2. p,r.1.1. Metatarsus, v. same as the first leg. p.1 median, r.0. The calamistrum occupies 7/24 of the length of the segment. Tarsus of the first leg has a row of six trichobothria and the tarsus of a fourth leg has a row of five. There are 13 teeth on the superior claws of the first leg and nine on the fourth leg.

Abdomen The epigynum and internal genitalia are shown in Figs. 340-342.

Type Holotype female. Westland. Fox Glacier, 1.ix.1951, M. Warren (Otago Museum). Paratype female. Same data as holotype.

Neoramia hokina n.sp.

Figs. 343-344

FEMALE

Measurements

Carapace length 6.4 width 4.2
Abdomen length 7.4 width 5.2

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.7	2.2	4.2	4.2	2.0	17.3
2	4.4	2.2	3.75	3.75	1.8	15.9
3	4.0	2.0	3.1	3.3	1.6	14.0
4	4.3	2.1	3.7	3.7	1.6	15.4
Palp	2.0	0.9	1.3		1.9	6.1

Colour Thoracic region of the carapace pale yellow with a slight orange tinge and the cephalic region reddish brown becoming much darker towards the anterior and lateral margins. Chelicerae very dark reddish brown with the lateral condyles only slightly paler. Legs pale brownish yellow, tinged with orange and with pale brown banding. Sternum brownish yellow shading to brown at the anterior and lateral margins. The posterior part is paler than the rest of the sternum. Maxillae and labium reddish brown with white distal margins. Anterior surface of the abdomen pale yellowish brown shading to brown on the posterior and postero-lateral surfaces. Ventral surface rather pale and separated from the lateral surfaces on each side by pale bands.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight and from above the posterior row procurved. Ratio of AME.ALE. PME.PLE = 4.5.5.5. AME separated from each other by a distance equal to 7/4 and from the ALE by 10/4 of the diameter of an AME. Lateral eyes separated by 3/4 of the diameter of an AME. PME separated from each other by 10/4 and from the PLE by 15/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 20.15 and as long as wide behind. Height of clypeus equal to 10/4 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 75.60.

Legs Spines. First leg. Femur, typical prolateral spine present. d.1.1.1. p.0.1. r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1. r.1. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p,r,d.1. The calamistrum occupies 0.30 of the length of the segment.

Abdomen The epigynum and the internal genitalia are shown in Figs. 343, 344.

Type Holotype female. Stewart Island. Hokinui Island, S.W. Stewart Is., 28.i.1955, R. K. Dell and B. A. Holloway (Dominion Museum).

Neoramia allanae n.sp.

Figs. 345-347

FEMALE

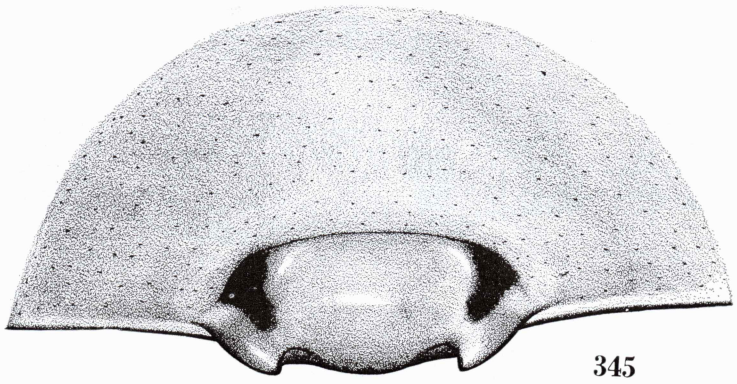
Measurements

Carapace length 4.6 width 3.1
Abdomen length 6.4 width 4.5

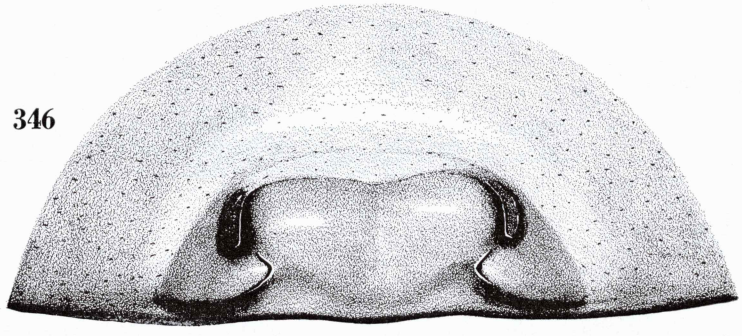
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.5	1.6	3.3	3.2	1.5	13.1
2	3.25	1.45	2.85	2.8	1.45	11.8
3	2.9	1.3	2.2	2.4	1.4	10.2
4	3.1	1.4	2.7	2.8	1.3	11.3
Palp	1.4	0.7	0.85		1.4	4.35

Colour Carapace pale yellowish orange darkening to reddish orange anteriorly and with slight veinlike markings. Chelicerae dark brownish orange with the lateral condyles slightly paler. Legs yellowish orange with dark bandings. Sternum creamy brown becoming darker at the margins. Maxillae and labium brownish orange with white distal margins. Abdomen pale brown with widely spaced dark brown flecks except in the vicinity of the "cross" pattern where the lateral bands on each side of this pattern and for a short distance posterior to it are strongly marked. Posterior slope also quite dark. Ventral surface pale, sparsely flecked with dark brown and not clearly defined from the adjacent lateral surfaces.

Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is straight and from above the posterior row procurved. Ratio of AME. ALE.PME.PLE = 4.5.5.5. AME separated from each other by a distance equal of 5/4 and from the ALE by 6/4 of the diameter of an AME. Lateral eyes separated by the radius of an AME. PME separated from each other by 6/4 and from the PLE by 10/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.13 and longer than wide behind in the ratio of 17.16. The height of the clypeus is equal to 6/4 of the diameter of an AME.



345



346



347

Figs. 345-347 *Neoramia allanae* n.sp. Fig. 345 Epigynum. Fig. 346 Epigynum from behind. Fig. 347 Internal genitalia.

Chelicerae Viewed laterally longer than wide in the ratio of 50.38. The two teeth on the retromargin of the furrow rather close together.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.0.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1 median, r.1 median. Second leg. Femur, d.1.1.1. p.1.1. r.1.0. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1.1. r.0.1. Calamistrum occupies 0.29 of the length of the segment. Superior claws of the first pair of legs with 13 teeth and the inferior claw with two teeth. The tarsi of the first and fourth pairs of legs each with a row of seven trichobothria.

Abdomen The epigynum and the internal genitalia are shown in Figs. 345-347.

Type Holotype female. Stewart Island, 6.vii.1947, O. Allan (Otago Museum).

Neoramia otagoa n.sp.

Figs. 348-354

FEMALE

Measurements

Carapace	length 6.8	width 4.6	
Abdomen	length 7.5	width 5.3	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.0	2.4	4.8	4.7	2.2	19.1
2	4.8	2.3	4.2	4.1	2.0	17.4
3	4.3	2.0	3.4	3.6	1.4	14.7
4	4.7	2.2	4.0	4.1	1.7	16.7
Palp	2.3	1.0	1.4		2.1	6.8

Colour Thoracic region of the carapace yellowish orange. Head region reddish becoming darker anteriorly, with obscure vein-like markings. Chelicerae very dark reddish brown and although the bosses are paler they are darker than is usual. Legs yellowish orange with dark bands. Abdomen typically patterned, with distinct red muscle spots. Ventral surface without pattern and clearly separated from the lateral surfaces by a row of pale spots on each side.

Carapace Viewed laterally it is moderately elevated and reaches its highest point about midway between the medium fovea and the PME. The width of the head is 10/13 of the greatest width of the carapace.

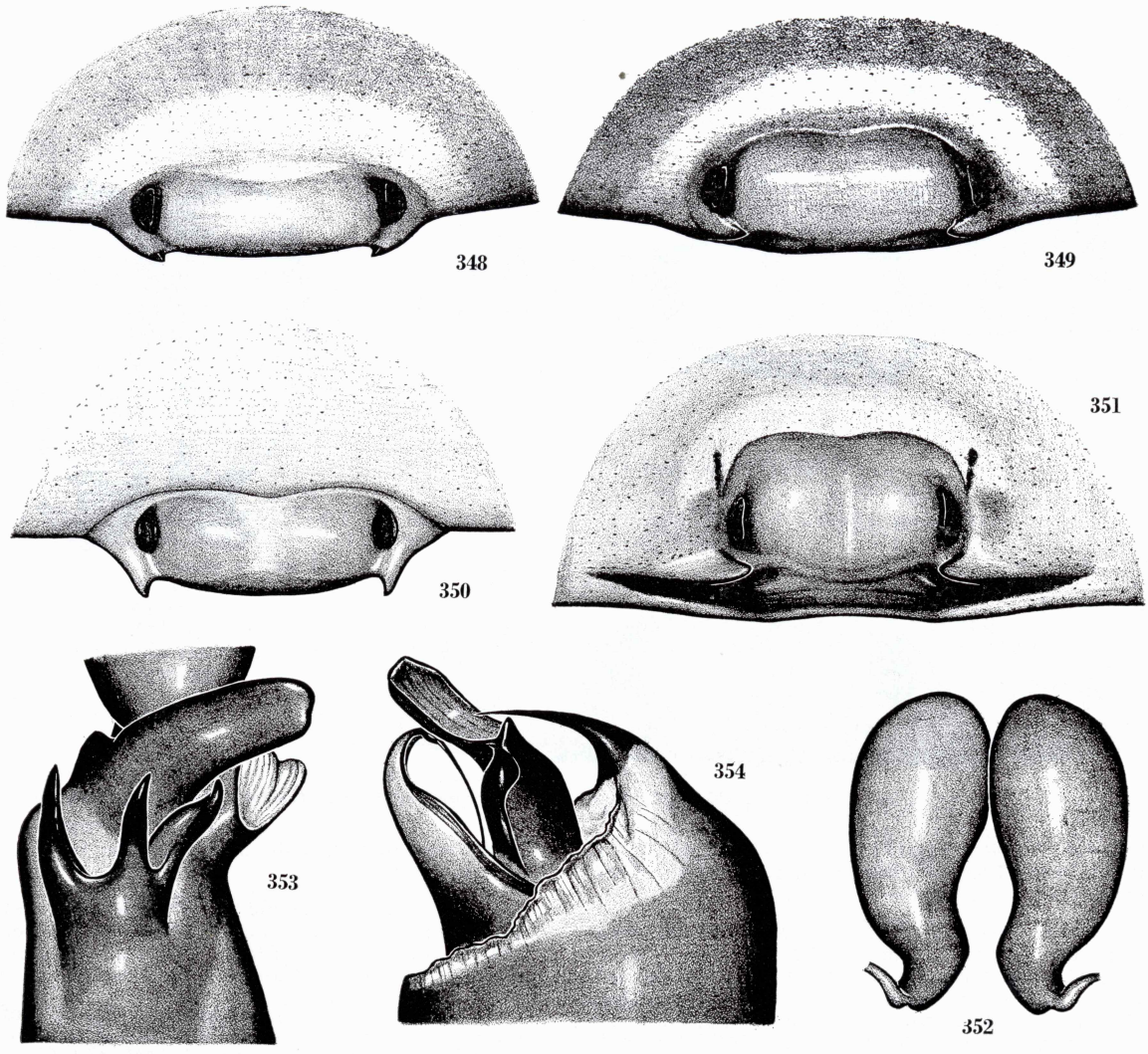
Eyes The group occupies slightly less than 2/3 of the width of the head. From in front the anterior row is very slightly procurved. Ratio of AME.ALE.PME.PLE = 7.9.8.8. AME separated from each other by a distance equal to 8/7 and from the ALE by 15/7 of the diameter of an AME. Laterals separated from each other by 4/7 of the diameter of an AME. PME separated from each other by 16/7 and from the PLE by 22/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 32.22 and wider behind than long in the ratio of 32.31. Height of clypeus equal to 15/7 of the diameter of an AME.

Chelicerae Viewed laterally, longer than wide in the ratio of 32.22. The two teeth on the retromargin of the groove are almost contiguous and very uneven in size. The tooth which is further from the base of the fang is by far the larger and is almost as large as the biggest tooth on the promargin.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1. p.1 basal 1.1 distal. r.1 distal. Tarsus with numerous spines. Trichobothria. Tibia, pro-row 1.1.1.1.1.1, retro-row 1.2.1.1.1.1.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1.1. r.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1 median. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus v.2.2 and subwhorl of 5, p,r.1 median. Trichobothria. First leg. Tibia, pro-row 1.1.1.1. on the basal quarter, retro-row 1.1.1.1.1.1 extending to the midpoint. Metatarsus, 7. Tarsus, 9. Superior claws of a first leg with 13 teeth. Inferior claw with three teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 348-352.



Figs. 348-354 *Neoramia otagoa* n.sp. Fig. 348 Epigynum, Dunedin. Fig. 349 Epigynum, Dunedin, from behind. Fig. 350 Epigynum, Bull Creek, South Otago. Fig. 351 Epigynum, Bull Creek, from behind. Fig. 352 Internal genitalia. Fig. 353 Tibial processes of male palp. Fig. 354 Distal portion of male bulb.

MALE

Measurements

Carapace	length 6.0	width 4.0	
Abdomen	length 5.7	width 4.0	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.8	2.15	5.2	5.3	2.45	19.90
2	4.5	2.05	4.55	4.55	2.0	17.65
3	4.3	1.85	3.55	3.8	1.6	15.1
4	4.4	1.85	4.1	4.4	1.8	16.55
Palp	2.2	0.8	0.8		2.05	5.85

Colour Generally resembles the female.

Eyes From in front the anterior row is straight. Ratio of AME.ALE.PME.PLE = 5.6.6.6. AME separated from each other by a distance equal to 5/5 and from the ALE by 8/5 of the diameter of an AME. Laterals separated from each other by 2/5 of the diameter of an AME. PME separated from each other by 7/5 and from the PLE by 14/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 19.15 and as wide behind as long. Height of clypeus twice the diameter of an AME.

Palp The tibial processes and the distal portion of the bulb are shown in Figs. 353, 354.

Types Holotype female. Otago. St Clair, Dunedin, 27.xii.1965, R. R. Forster. Allotype male. Same locality, 10.iv.1966, R. R. Forster (Otago Museum).

Records Otago. Dunedin, 20.xi.1967, January 1966, December 1966, November 1962, 24.xii.1957, R.R.F. Forbury Head, 4.iv.1961, W. T. Poppelwell. Dunedin, 25.iii.1966, T. Bruce. Saddle Hill, 14.ii.1968, R.R.F., C.L.W. Ross Creek, 19.xii.1965, 17.ix.1966, R.R.F. Swampy Saddle, 12.ix.1948, B. J. Marples. Bethunes Gully, 4.x.1961, W. T. Poppelwell. Port Chalmers, 1,000 ft above Deborah Bay, 13.v.1967, R. W. Hutton, C.L.W. Portobello, 10.xi.1957, T. R. Beatson. Mt. Watkin, 24.xii.1955, B. J. Marples.

Neoramia fiordensis n.sp.

Figs. 355-359

MALE

Measurements

Carapace	length 3.57	width 2.30
Abdomen	length 2.21	width 3.91



Fig. 355 *Neoramia fiordensis* n.sp. female.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.57	1.36	3.74	3.40	1.53	13.60
2	2.55	1.02	2.89	2.72	1.19	10.37
3	2.38	0.85	2.04	2.55	1.02	8.84
4	3.06	1.02	2.89	2.72	1.19	10.88
Palp	1.19	0.34	0.51		1.36	3.40

Colour (Fig. 355). Thoracic region of the carapace pale brown and the head region dark reddish brown. Abdomen pale, with black shading which leaves a pale area on the mid-dorsal surface.

Eyes From above the anterior row is straight and the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 3.6.5.5. AME separated from each other and from the ALE by a distance equal to the width of an AME. Lateral eyes subcontiguous. PME separated from each other by 4/3 and from the PLE by 6/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 14.9, and wider behind than long in the ratio of 14.13. Width of the clypeus equal to 5/3 of the diameter of an AME.

Chelicerae Typical with two teeth on the retromargin and three on the promargin. There is a carina extending down the ventral surface from the proximal promarginal tooth.

Palp As in Figs. 358, 359.

FEMALE

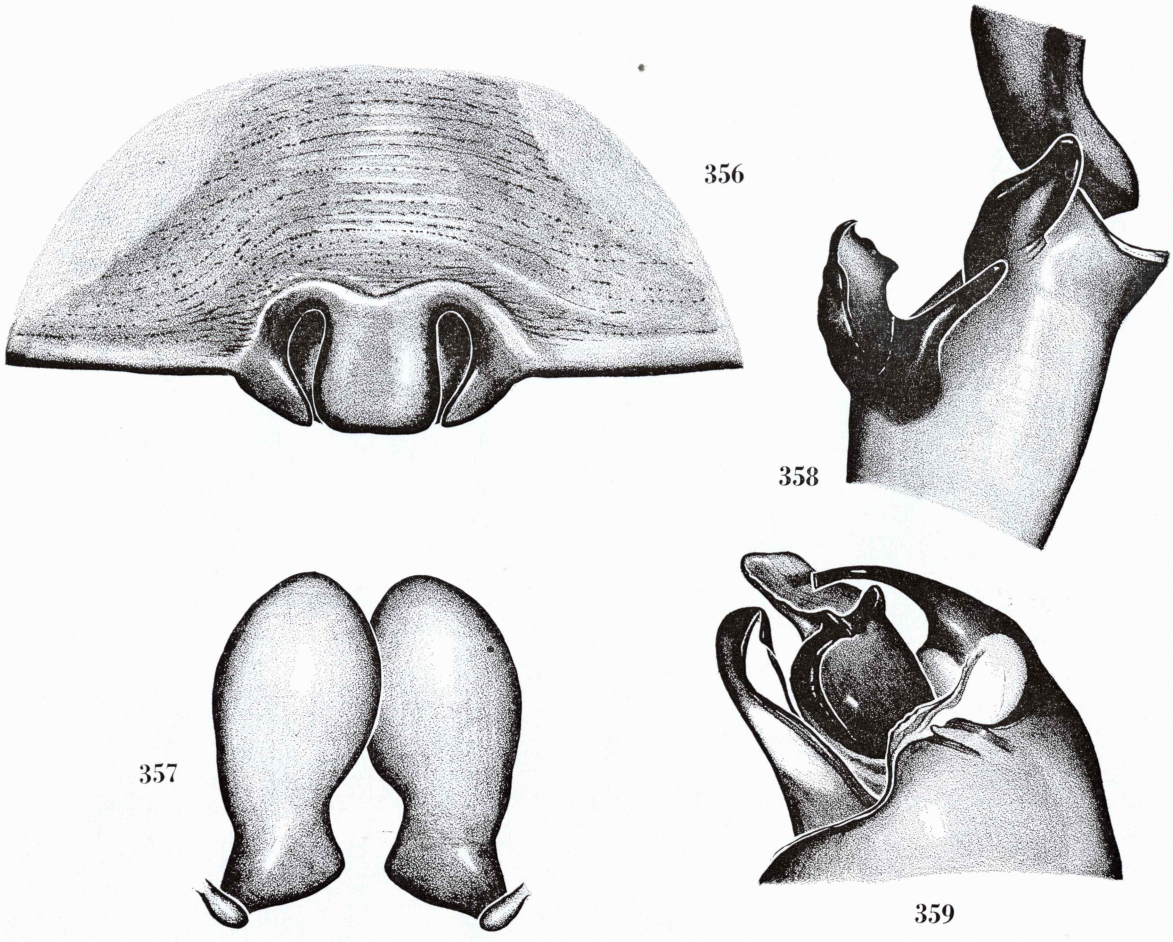
Measurements

Carapace length 3.74 width 2.72
Abdomen length 4.93 width 3.40

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.21	1.02	2.38	2.04	1.02	8.67
2	1.87	0.85	1.70	1.87	0.85	7.14
3	2.04	0.85	1.36	1.36	0.85	6.46
4	2.21	0.68	2.04	2.04	1.02	7.99
Palp	1.87	0.34	0.68		1.19	4.08

Similar in most characters to the female. The spacing of the eyes varies slightly. The ratio of AME.ALE.PME.PLE = 3.5.4.5. AME separated from each other by 4/3 and from the ALE by 5/3 of the diameter of an AME. PME separated from each other by 5/3 and from the PLE by 8/3 of the diameter of an AME. Epigynum and internal genitalia as in Figs. 356, 357. The posterior spinous processes are well developed and extend back to enclose a median lobe. Cribellum small and divided.

Types Holotype male. Fiordland. Cleddau Cirque, 21.i.1946, R. R. Forster. Allotype female. Fiordland. Homer Tunnel, under stones, 28.i.1943, J. T. Salmon (Dominion Museum).



Figs. 356-359 *Neoramia fiordensis* n.sp. Fig. 356 Epigynum. Fig. 357 Internal genitalia. Fig. 358 Tibial processes of male palp. Fig. 359 Distal portion of male bulb.

Records Fiordland. Homer Tunnel, under logs, 3,000 ft, 26.xii.1943, J. T. Salmon. Homer Saddle, under stones, 20.i.1948, R.R.F. Anita Bay, 28.i.1946, R.R.F. Lake Howden, under logs, 23.i.1946, R.R.F. Cascade Creek, 15.ii.1966, R.R.F.

Neoramia komata n.sp.

Figs. 360-363

FEMALE

Measurements

	Carapace		length 4.5		width 3.0	
	Abdomen		length 4.6		width 3.2	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.4	1.25	3.1	3.2	1.45	12.4
2	3.1	1.3	2.55	2.7	1.2	10.85
3	2.75	1.25	2.0	2.3	1.0	9.3
4	3.15	1.3	2.55	2.7	1.1	10.8
Palp	1.4	0.6	0.85		1.2	4.05

Colour Thoracic region of the carapace yellowish orange and the head region reddish orange becoming darker anteriorly. Chelicerae dark reddish brown with the lateral condyles slightly paler. Legs yellowish orange with prominent dark bandings. Starnum pale yellow with brown anterior and lateral margins. Maxillae and labium orange brown with white distal margins. Abdomen dark brown with very little pattern apart from the "cross". The ventral surface is separated from the darker lateral surfaces by a pale band on each side.

Eyes The group occupies about 2/3 of the width of the head. From in front the upper margins of the eyes of the anterior row are in a straight line and from above the posterior row is procurved. Ratio of AME.ALE. PME.PLE = 5.8.7.8. AME separated from each other by a distance equal to 8/5 and from the ALE by 11/5 of the diameter of an AME. Lateral eyes separated by 2/5 of the diameter of an AME. PME separated from each other by 10/5 and from the PLE by 15/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 24.18 and wider behind than long in the ratio of 24.22. Height of clypeus equal to 14/5 of the diameter of an AME.

Chelicerae Viewed laterally longer than wide in the ratio of 50-35.

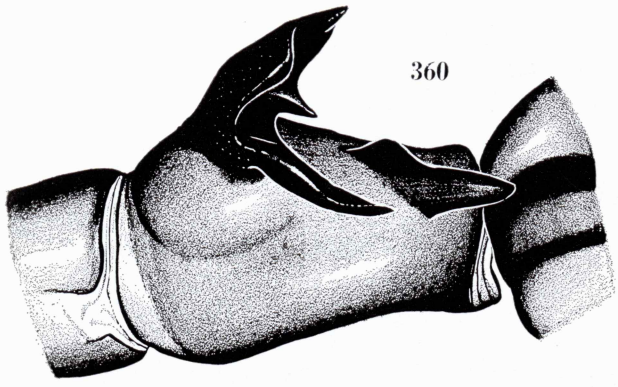
Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.1.1. Tiba, v.2.2.2. p.1.1.r.0.1. Metatarsus, v.2.2.1. p,r.1.2. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2.1. p.2.2. r.1.2. The calamistrum occupies 0.35 of the length of the metatarsus.

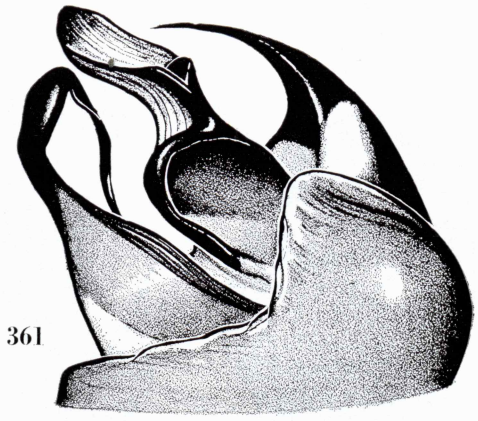
Abdomen The epigynum and the internal genitalia are shown in Figs. 362, 363.

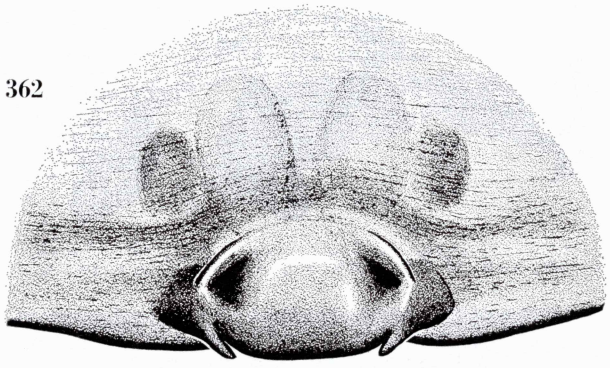
MALE

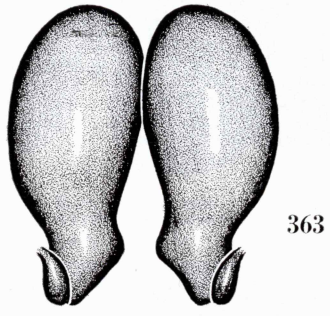
Measurements

	Carapace		length 3.60		width 2.30	
	Abdomen		length 3.80		width 2.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.30	1.20	3.40	3.45	1.35	12.70
2	2.90	1.10	2.65	2.70	1.25	10.60
3	2.55	1.10	1.90	2.25	0.90	8.70
4	2.90	1.20	2.45	2.75	1.20	10.50
Palp	1.35	0.45	0.50		1.25	3.55









Figs. 360-363 *Neoramia komata* n.sp. Fig. 360 Tibial processes of male palp. Fig. 361 Distal portion of male bulb. Fig. 362 Epigynum. Fig. 363 Internal genitalia.

Eyes The ratio of AME.ALE.PME.PLE = 5.7.7.7. AME separated from each other and from the ALE by a distance equal to their diameter. PME separated from each other by 7/5 and from the PLE by 10/5 of the diameter of an AME. MOQ is wider behind than in front in the ratio of 21.15 and wider behind than long in the ratio of 21.19. Height of clypeus equal to 7/5 of the diameter of an AME.

Palp The bulb and the tibial processes are shown in Figs. 360-361.

Types Holotype female. Fiordland. Thompson Sound, tops above upper camp, 3,200 ft, 21.i.1958, R. R. Forster. Allotype male. Fiordland. Flats at head of Falls Creek, c. 3,000 ft, Eglinton, 8.11.1972, K. Mason (Otago Museum).

Records Fiordland. Thompson Sound, upper camp, 2,800 ft, under logs, 22.i.1958, R.R.F.

Neoramia margaretae n.sp.

Figs. 364-367

FEMALE

Measurements

	Carapace	length 4.50		width 3.00		
	Abdomen	length 5.50		width 3.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.20	1.40	2.80	2.90	1.30	11.60
2	2.80	1.30	2.30	2.40	1.00	9.80
3	2.50	1.20	1.70	2.00	0.90	8.30
4	2.90	1.30	2.30	2.60	1.00	10.10
Palp	1.40	0.60	0.80		1.30	4.10

Colour Thoracic area pale yellowish orange. Head brown becoming reddish brown anteriorly and with broad dark veinlike markings. Legs with dark bands. Posterior projection of the sternum shaded dark. Abdomen dark with a well defined cross pattern.

Eyes The group occupies about 2/3 of the width of the head. From in front the anterior row is straight. Ratio of AME.ALE.PME.PLE = 6.9.8.9. AME separated from each other by a distance equal of 7/6 and from the ALE by 10/6 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 9/6 and from the PLE by 19/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 25.19 and longer than wide behind in the ratio of 28.25. Height of clypeus equal to 15/6 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, d.1.1. p.1.1.1. r.0.1. Trichobothria. Tibia, pro-row 1.1.1.1, retro-row 1.1.1.1.1. Tarsus, 0. Claw with from eight to nine teeth.

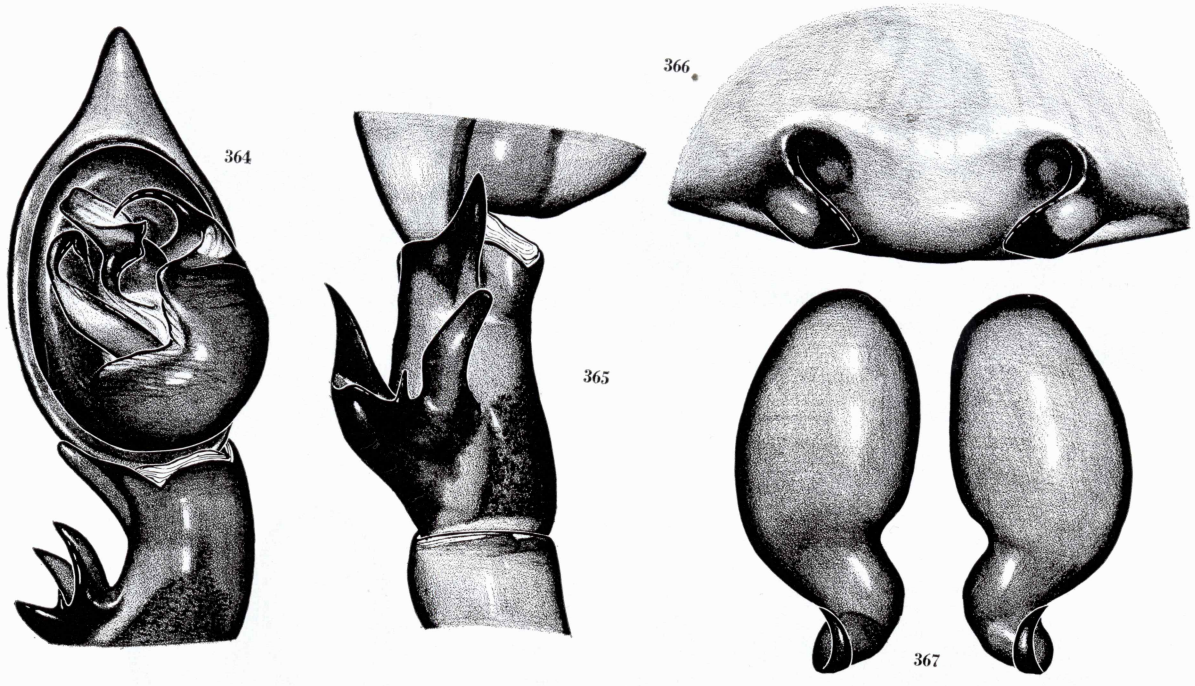
Legs Spines. First leg. Femur, prolateral spine present, d.1.1.0. p.0.1. r.0. Tibia, v.2.2.2. p.1.0. r.0. Metatarsus, v.2.2 and a distal subwhorl of 5, p,r.0. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.2.2.2. p.1.1. r.0.1. Metatarsus, v.2.2 and distal subwhorl of 5, p,r.1 median. Trichobothria. First leg. Tibia, pro-row 1.1.1.1, retro-row 1.1.1.1.1.1. Metatarsus and tarsus, 5. Superior claws with 12 teeth and inferior with two. Calamistrum occupies 0.35 of the length of the segment.

Abdomen The epigynum and internal genitalia are shown in Figs. 366, 367. The spinning fields of the cribellum are reniform.

MALE

Measurements

	Carapace	length 2.10		width 1.60		
	Abdomen	length 2.30		width 1.60		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.20	0.90	2.00	2.00	1.10	8.20
2	1.90	0.80	1.60	1.70	0.90	6.90
3	1.70	0.70	1.30	1.50	0.80	6.00
4	1.90	0.80	1.60	1.80	0.90	7.00
Palp	0.80	0.30	0.50		0.90	2.50



Figs. 364-367 *Neoramia margaretae* n.sp. Fig. 364 Ventral view of male palp. Fig. 365 Tibial processes of male palp. Fig. 366 Epigynum. Fig. 367 Internal genitalia.

Eyes The ratio of AME.ALE.PME.PLE = 4.7.6.7. AME separated from each other and from the ALE by a distance equal to 3/4 of the diameter of an AME. PME separated from each other by 4/4 and from the PLE by 6/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 16.11 and as wide behind as long. Height of clypeus equal 5/4 of the diameter of an AME.

Palp The tibial processes and bulb are shown in Figs. 364, 365.

Types Holotype female and allotype male. Westland. Open Bay Island, January 1971, Margaret Miller (Otago Museum).

Neoramia alta n.sp.

Figs. 368-373

FEMALE

Measurements

	Carapace		length 4.40		width 2.80	
	Abdomen		length 5.50		width 3.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.90	1.50	2.65	2.50	1.30	10.85
2	2.75	1.35	2.35	2.30	1.25	10.00
3	2.60	1.30	2.00	2.10	1.00	9.00
4	3.10	1.40	2.60	2.60	1.10	10.80
Palp	1.30	0.65	0.75		1.25	3.95

Colour Thoracic portion of carapace cream with slight brown shading and the head darkens through brown to become almost black anteriorly. The legs are pale without bands. The sternum is brownish yellow, darker at the margins and with some dark shading which includes the posterior projection. The pattern on the dorsal surface of the abdomen is shown on Fig. 369. The ventral surface is brown with a series of five pairs of white spots between the epigastric furrow and the spinnerets.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight by the posterior margins and from above the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 5.9.7.8. AME separated from each other by a distance equal to 6/5 and from the ALE by 8/5 of the diameter of an AME. Laterals separated by 2/5 of the diameter of an AME. PME separated from each other by 9/5 and from the PLE by 14/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.16 and wider behind than long in the ratio of 23.22. Height of clypeus equal to 9/5 of the diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1 basal and 1.1 distal. Trichobothria. Tibia, pro-row 1.1.1.1.1, retro-row 1.1.1.1.1. Tarsus, 0. A small tarsal organ is present. Claw with ten teeth.

Legs Femoral spines long and slender and tibial and metatarsal spines of the first pair short. Spines. First leg. Femur, prolateral spine present, d.1.1.0. p.1.1. r.0. Tibia, v.0.1.2. p,r.0. Metatarsus, v.2.2.3. p,r.0. Trichobothria. First leg. Tibia, pro-row 2.1.1.1 basal, retro-row 1.1.1.1.1 to the midpoint. Metatarsus, 5. Tarsus, 6. Tarsus of third and fourth legs with 5. Superior claws with from nine to ten teeth and the inferior claw one.

Abdomen The spinning fields of the cribellum are oblong with rounded angles. The epigynum and internal genitalia are shown in Figs. 370, 371.

MALE

Measurements

	Carapace		length 4.20		width 2.80	
	Abdomen		length 3.60		width 2.30	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.40	1.50	3.50	3.40	1.50	13.30
2	3.20	1.50	3.00	2.95	1.35	12.00
3	3.00	1.35	2.40	2.55	1.10	10.40
4	3.25	1.45	2.90	3.00	1.30	11.90
Palp	1.50	0.60	0.65		1.35	4.10

With the general characteristics of the female.

Eyes The group occupies 2/3 of the width of the head. The curvature of the rows similar to the female. Ratio of AME.ALE.PME.PLE = 4.7.6.7. AME separated from each other by a distance equal to 6/4 and from the ALE by 8/4 of the diameter of an AME. Laterals separated by 3/4 of the diameter of an AME. PME separated

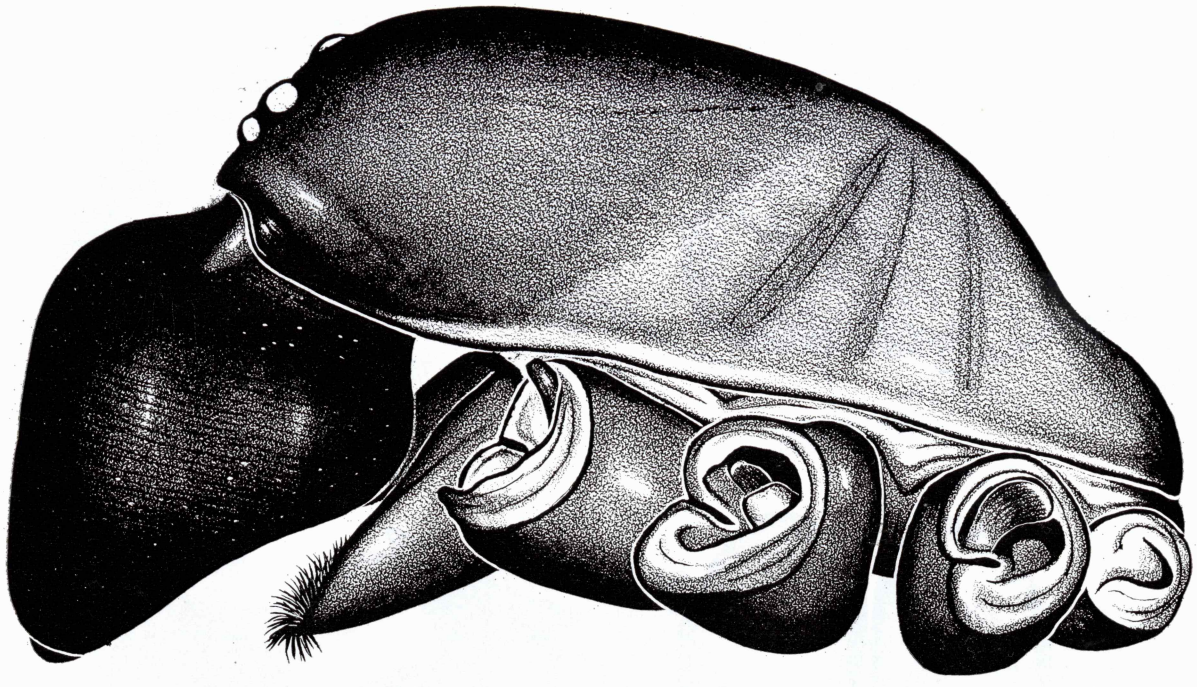
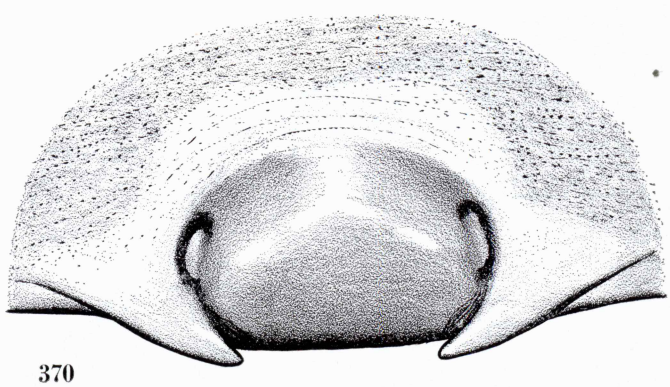


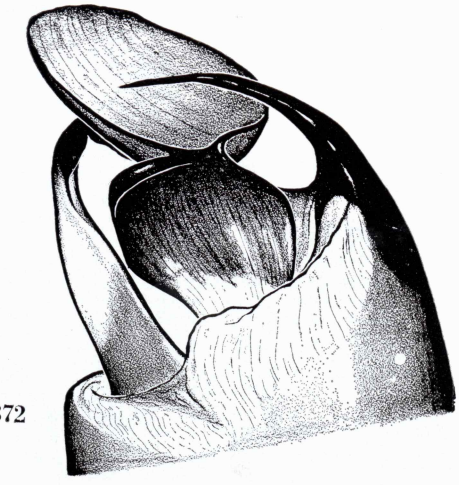
Fig. 368 *Neoramia alta* n.sp. Lateral view of carapace and chelicerae. Old Man Range specimen.



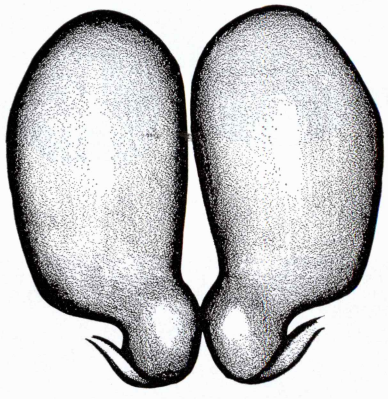
Fig. 369 *Neoramia alta* n.sp. Holotype female from Lake Alta, Remarkable Ranges.



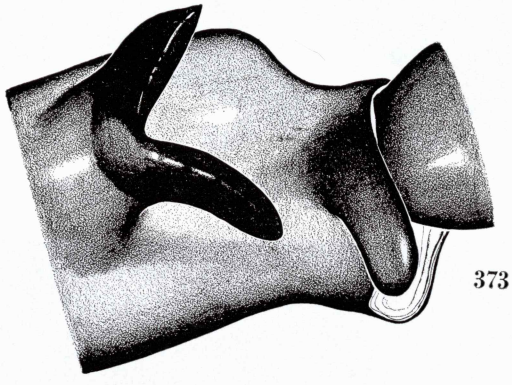
370



372



371



373

Figs. 370-373 *Neoramia alta* n.sp. Fig. 370 Epigynum. Fig. 371 Internal genitalia. Fig. 372 Distal portion of male bulb. Fig. 373 Tibial processes of male palp.

from each other by 9/4 and from the PLE by 14/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 21.14 and wider behind than long in the ratio of 21.20. Height of clypeus equal to twice the diameter of an AME.

Palp Trichobothria. Tibia, 5 from the base of the segment to the base of the bifid process and a dorsal row of 5. Tarsus, 0. The tibial processes and the bulb are shown in Figs. 372-373.

Types Holotype female and allotype male. Otago. Lake Alta, 6,000 ft, The Remarkables, D. R., M. R. and S. Forster (Otago Museum).

Neoramia koha n.sp.

Figs. 374-378

FEMALE

Measurements

	Carapace		length 4.6		width 3.2	
	Abdomen		length 5.4		width 3.2	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.9	1.5	2.8	2.7	1.2	11.1
2	2.8	1.4	2.4	2.5	1.1	10.2
3	2.6	1.4	2.1	2.3	1.0	9.4
4	2.9	1.4	2.5	2.7	1.1	10.6
Palp	1.3	0.6	0.9		1.3	4.1

Colour Carapace yellowish orange shading to dark reddish brown anteriorly. Chelicerae dark reddish brown with the lateral condyles paler. Legs yellowish orange without dark banding. Sternum yellowish brown shading to orange brown at anterior and lateral margins. Maxillae and labium orange brown with white distal margins. The dorsal surface of the abdomen is strongly patterned.

Eyes The group occupies about 3/5 of the width of the head. Viewed from in front the lower margins of the anterior row are in a straight line and from above the posterior row is procurved. Ratio of AME.ALE. PME.PLE = 5.7.6.7. AME separated from each other by a distance equal to 6/5 and from the ALE by 10/5 of the diameter of an AME. Lateral eyes separated by 1/5 of the diameter of an AME. PME separated from each other by 7/5 and from the PLE by 15/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 19.16 and longer than wide behind in the ratio of 21.19. Height of the clypeus is equal to 11/5 of the diameter of an AME.

Chelicerae Viewed laterally, longer than wide in the ratio of 5.4.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.0. p.1 basal, 1.1 distal. r.2 distal. Claw with 11 teeth. Trichobothria. Tibia, pro-row 1.1.1.1, retro-row 1.1.1.1.1, extending further than the prorow.

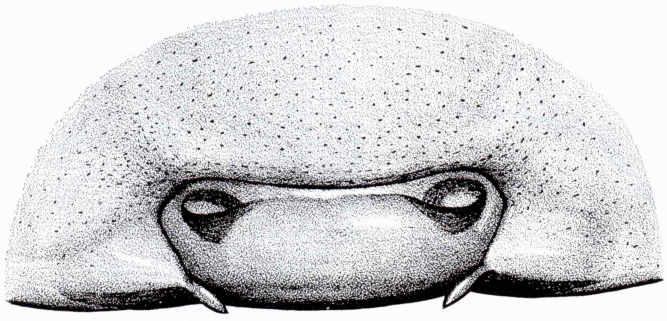
Legs Spines. First leg. Femur, prolateral spine present. d.1.1.1. p.1.1. r.0.1. Tibia, v.2.2.2. p.1. r.0. Metatarsus, v.2.2 and a distal subwhorl of 3, p,r.0. Second leg. Femur, d,p,r.1.1.1. Tibia, v.2.2.2. p.1. r.0. Metatarsus, v.2.1 and a distal subwhorl of 3, p.1. r.0. The calamistrum occupies 0.30 of the length of the metatarsus.

Abdomen The epigynum and internal genitalia are shown in Figs. 374-375.

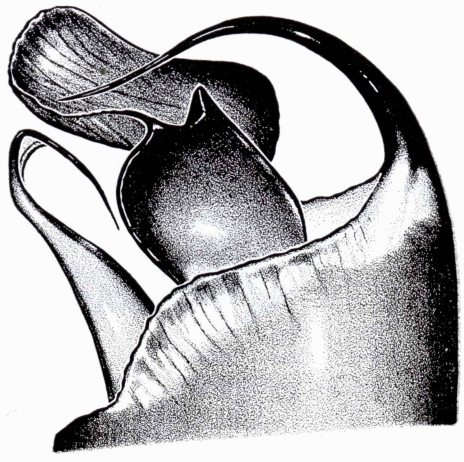
MALE

Measurements

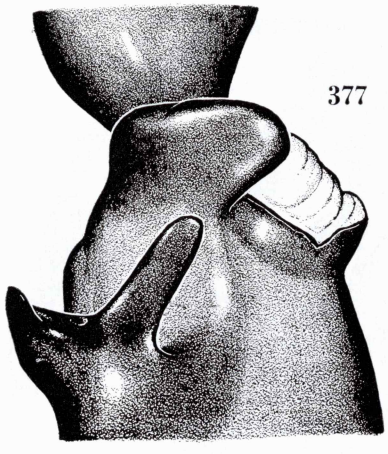
Carapace	length 4.0	width 2.8
Abdomen	length 4.5	width 2.8



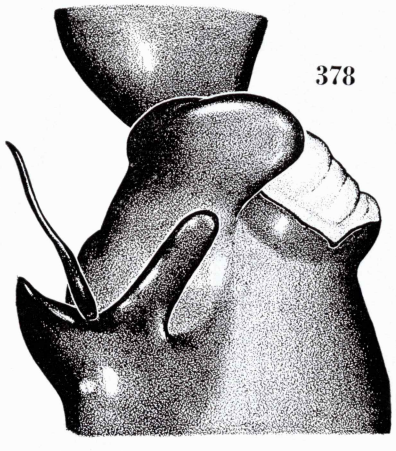
374



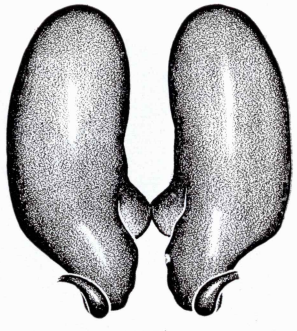
377



377



378



375

Figs. 374-378 *Neoramia koha* n.sp. Fig. 374 Epigynum. Fig. 375 Internal genitalia (showing duct to epigynum). Fig. 376 Distal portion of male bulb. Fig. 337 Tibial processes of male palp. Fig. 378 With bristle in situ (usually absent).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.4	1.5	3.4	3.3	1.4	13.0
2	3.0	1.3	2.8	2.8	1.2	11.1
3	2.7	1.2	2.2	2.4	1.1	9.6
4	3.0	1.3	2.6	2.9	1.2	11.0
Palp	1.4	0.5	0.6		1.4	3.9

Resembles the female in most respects but there are slight differences in the eye group.

Eyes Ratio of AME.ALE.PME.PLE = 5.8.6.8. AME separated from each other by a distance equal to 7/5 and from the ALE by 8/5 of the diameter of an AME. Lateral eyes separated by 1/5 of the diameter of an AME. PME separated from each other by 10/5 and from the PLE by 14/5 of the diameter of an AME. MOQ wider behind than in front in the ratio of 22.17 and wider behind than long in the ratio of 22.21. Height of the clypeus is 9/5 of the diameter of an AME.

Palp The tibial processes and the distal portion of the bulb are shown in Figs. 376-378.

Types Holotype female and allotype male. Fiordland. Thompson Sound, tops above upper camp, 3,000 ft, 21.i.1958, R. R. Forster (Otago Museum).

Records Fiordland. Paratype females, same data as types. Kakapo Ridge, Thompson Sound, 3,400 ft, under stones, 21.i.1958, R.R.F.

Neoramia hoggi Forster 1964

1909 *Rubrius cruciferus,* Hogg (in part). Subantarct. Is. of N. Zeal. 1: 169.

1955 *Ixeuticus rubrioides* (in part) Forster. Rec. Dom. Mus. 2(4): 172.

1964 *Oramia hoggi,* Forster. Pacific Insects Monograph 7: 62.

Figs. 379-382

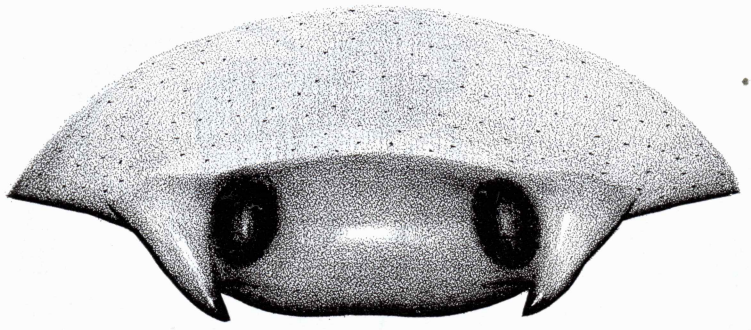
Measurements

Carapace length 4.68 width 3.60
Abdomen length 4.14 width 2.88

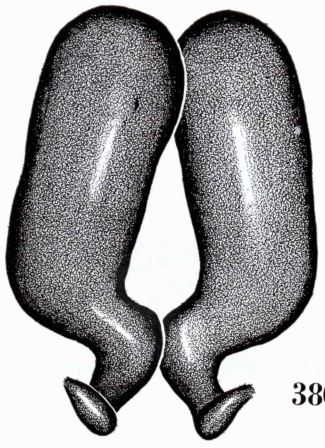
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.60	1.55	3.06	2.88	1.53	12.62
2	3.34	1.44	2.61	2.52	1.35	11.16
3	2.88	1.35	2.34	2.52	1.26	10.35
4	3.42	1.44	2.70	2.97	1.35	11.88
Palp	1.44	0.63	0.90		1.26	4.23

Colour Cephalothorax reddish brown with dark shading anteriorly, so that the area in front and at the sides of the eyes is black. Abdomen greyish brown with two parallel, longitudinal, pale bands down the anterior half of the mid-dorsal surface, followed by three indistinct, pale chevrons. Ventral surface with a longitudinal row of pale spots near each lateral margin. Chelicerae black, legs pale yellow, sternum reddish brown.

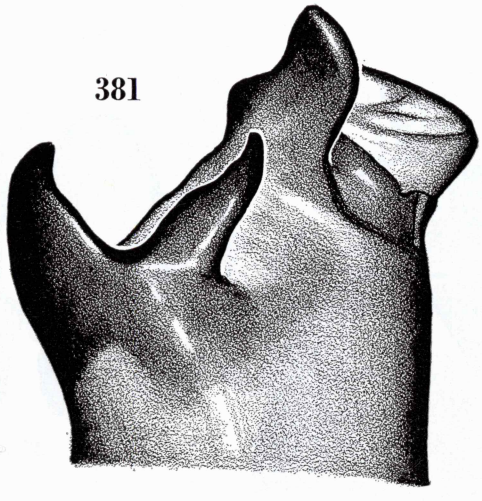
Eyes The eyegroup occupies 2/3 of the width of the head in that region. From above the anterior row is straight and the posterior row is procurved. Ratio of



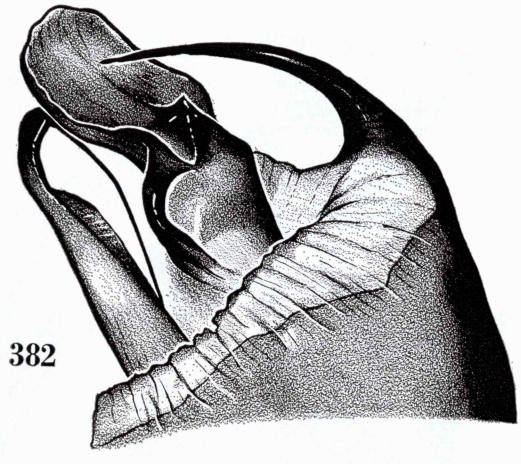
379



380



381



382

Figs. 379-382 *Neoramia hoggi* (Forster). Fig. 379 Epigynum. Fig. 380 Internal genitalia. Fig. 391 Tibial processes of male pulp. Fig. 382 Distal portion of male bulb.

AME.ALE.PME.PLE = 7.11.10.11. AME separated from each other by 10/7 and from the ALE by 14/7 of the diameter of an AME. Lateral eyes separated by a distance equal to 5/7 of the diameter of an AME. PME separated from each other by 16/7 and from the PLE by 22/7 times the diameter of an AME. MOQ wider behind than in front and longer than wide in the front in the ratio of 19.12.

Chelicerae Stout, vertical, promargin with three teeth, retromargin with two teeth.

Legs Spination as in *crucifera*. Trichobothria. Leg. 1. Tibia, 2.2.2 proximal. Metatarsus, 3 distal. Tarsus, 6. Leg. 2. Tibia, 2.2.2.2.2. Metatarsus, 5. Tarsus, 4. Leg 3. Tibia, 2.2.2.2.2. Metatarsus and tarsus, 4. Leg 4. Tibia, 2.2.2.2.2.2. Metatarsus. 5. Tarsus, 4. Superior claws with ten teeth. Inferior claw with two long curved teeth.

Palp Tibia with 8 trichobothria arranged 2.2.2.2. Claw slender and smooth. Epigynum as in Fig. 378. Internal genitalia as in Fig. 380.

MALE

Measurements

Carapace length 4.68 width 2.88
Abdomen length 4.14 width 2.34

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.78	1.35	3.60	3.42	1.62	13.77
2	3.24	1.26	2.88	2.70	1.44	11.52
3	2.70	1.17	2.16	2.45	1.26	9.74
4	3.06	1.26	2.70	2.88	1.35	11.25

Similar to female. Bifid process on tibia of palp (Fig. 381), slightly different from *crucifera* (Fig. 386) while the distal plate is indented along the dorsal margin where in *crucifera* it is evenly curved. The embolus, conductor and median apophysis are quite distinct from *crucifera* as shown in Figs. 382, 385.

Types Holotype male, allotype female. Campbell Is., x.1961, V. O'Neill (Dominion Museum).

Records A very large series of specimens have been collected by various expeditions in recent years from all parts of Campbell Island. The species is closely related to *crucifera* but may be separated by the form of the male palp and the epigynum and internal genitalia of the female. *N. hoggi* and *N. crucifera* appear to be related to the *N. fiordensis* series from the Fiordland and Westland region of the South Island of New Zealand.

Neoramia crucifera (Hogg) 1909

1909 *Rubrius cruciferus*, Hogg. Subantarctic Is. N. Zeal. 1: 169.

1917 *Rubrius cruciferus*, Dalmas. Ann. Soc. ent. Fr. 86: 405.

1930 *Rubrius cruciferus*, Berland. C.R. Soc. biogéogr. 1930 (10): 92.

1931 *Rubrius cruciferus,* Berland. Rec. Cant. Mus. 3: 357, 361.

1931 *Ixeuticus rubrioides,* Berland. Rec. Cant. Mus. 3: 357.

1954 *Rubrius cruciferus,* Roewer. Katalog der Aran. 2a: 97.

1955 *Ixeuticus rubrioides,* (in part) Forster. Rec. Dom. Mus. 2(4): 172 *(=cruciferus).*

1958 *Rubrius crucifer,* Bonnet, Bibl. Aran. 2(4): 3880.

1964 *Oramia crucifera,* Forster. Pacific Ins. Mon. 7: 60. Figs. 383-386

FEMALE

Measurements

Carapace length 5.20 width 3.68
Abdomen length 6.40 width 4.20

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.40	1.60	3.19	3.19	1.58	12.96
2	2.78	1.45	2.40	2.40	1.28	10.31
3	2.40	1.40	2.38	2.38	1.24	9.80
4	3.19	1.24	3.16	2.59	1.12	11.30
Palp	1.60	0.60	0.88		1.08	4.16

Colour As in *hoggi.*

Eyes the ratio of AME.ALE.PME.PLE = 3.4.5.4. AME separated from each other by 4/3 and from the ALE by 8/3 of the diameter of an AME. Laterals contiguous. PME separated from each other by 7/3 and from the PLE by 13/3 of the diameter of an AME. MOQ wider behind than in front and wider behind than long in the ratio of 17.10.

Legs Spines. First leg. Femur, d.1.1.0.1. p.1.0.2.0. Tibia, v.0.2.2. Metatarsus, v.2.2.2. p.0.0.1. Second leg. Femur, d.2.1.1.1. Tibia, v.0.1.0.0.0. p,r.0.0.0.1.0. d.1.0.1.0.1. Metatarsus, v.2.1.1. p,r.0.1.1. d.0.0.2. Third leg, Femur, d.1.1.1.1.1. Tibia, v.1.2.2. p,r.0.1.1. Metatarsus, v.0.2.2.1. p,r.1.0.1.2. Fourth leg. Femur, d.1.1.1.1.1. Tibia, v.1.1.1. p,r.0.1.1. Metatarsus, v.0.1.1.2. p.1.0.1.1. d.0.0.1.1. Trichobothria. First leg. Tibia, 2.2.2. Metatarsus and tarsus, 4. Second and third legs. Tibia, 2.2.2.2.2. Metatarsus, 5. Tarsus, 4. Fourth leg. Tibia, 2.2.2.2.2.2. Metatarsus, 5. Tarsus, 4.

Abdomen The epigynum has the form shown in Fig. 383. The internal genitalia is shown in Fig. 384.

MALE

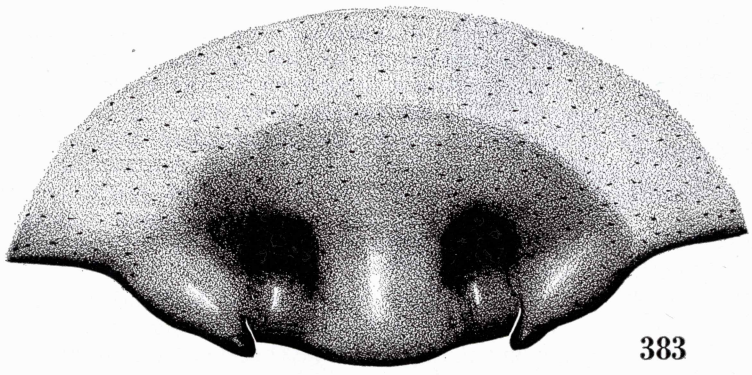
Measurements

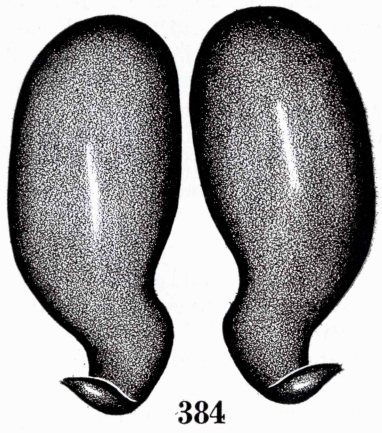
Carapace length 4.40 width 3.40
Abdomen length 4.00 width 2.80

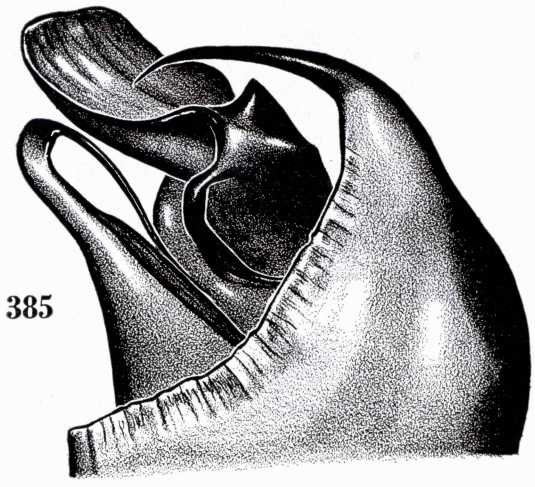
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.39	1.52	4.78	4.78	2.00	17.47
2	3.86	1.44	3.40	3.40	1.59	13.69
3	3.18	1.20	2.59	2.88	1.40	11.25
4	3.61	1.20	2.78	3.41	1.38	12.38
Palp	1.58	0.68	0.48		1.60	4.34

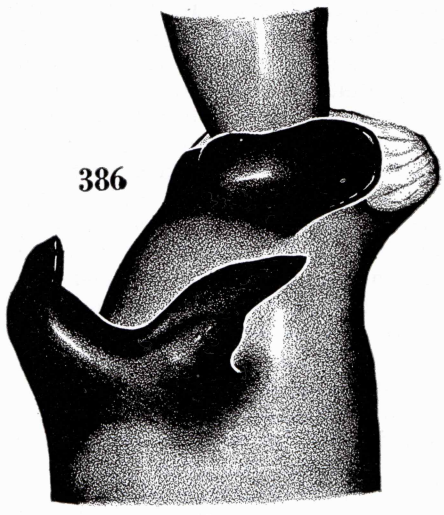
Similar to the female in general characters. The tibial process is bifid and the distal plate has the form shown in Fig. 386. The embolus is relatively short and slightly sinuous and the conductor has the form shown in Fig. 385.

Types The types of *Rubrius cruciferus* Hogg are from the Auckland Islands and are housed in the Canterbury Museum.









Figs. 383-386 *Neoramia crucifera* (Hogg). Fig. 383 Epigynum. Fig. 384 Internal genitalia. Fig. 385 Distal portion of male bulb. Fig. 386 Tibial processes of male palp.

Records A large number of specimens have been collected from many localities in the Auckland Is. including the smaller islands in the Auckland group, Ewing Is., Ocean Is., French Is., Disappointment Is., Adams Is., and Enderby Is. The species is restricted to the Auckland Islands.

Family STIPHIDIIDAE Dalmas 1917

1917 *Stiphidiinae* Dalmas. Ann. Soc. Ent. France. 86: 325.

Dalmas established the sub-family Stiphidiinae for the two genera *Stiphidion* Simon (=*Stiphidium*) and *Stiphidiellum* Dalmas (synonym of *Laestrygones* Urquhart, Desidae) which he placed in the Psechridae. He did not recognise the relationship with *Cambridgea* which he placed in the Agelenidae or *Ischalea* which he listed in the Pisauridae.

Emphasis has been placed on the strongly recurved eyes characteristic of the type species of *Stiphidium,* but it seems that there are closely related species in Australia which have both rows more or less straight, as is typical for the other genera grouped together below.

We consider that the four New Zealand genera *Stiphidium, Cambridgea, Nanocambridgea* and *Ischalea* along with *Corasoides, Tartarus, Baiami* and *Procambridgea,* known only from Australia, belong in this family. Both cribellate and ecribellate genera are included and the large size of the colulus in the ecribellate genera and its flattened form suggests that the ecribellate state is relatively recent in the phylogeny of the group.

While there is little to suggest any direct lineages from cribellate to ecribellate genera amongst the genera examined there is undoubtedly a close affinity between *Cambridgea* and *Procambridgea.* The absence of a developed median apophysis in *Procambridgea* precludes a direct link with *Cambridgea.* It is possible however to postulate a close common ancestor.

Two types of snare are known for the family. The cribellate genera *Stiphidium* and *Tartarus* construct a large inverted truncated cone with guy threads attached to the margins of the sheet. The spider rests on the substratum within the apex of the cone (Fig. 395). *Cambridgea, Nanocambridgea* and *Corasoides* construct a large horizontal sheet guyed with threads below and to the sides and above this sheet are a large volume of knockdown threads. The spiders move on the underside of the sheet in contrast to *Agelena* and *Tegenaria* which move on the upper surface. At first sight the two types of webs appear to be very different but the cribellate web could be transformed into the *Cambridgea* structure if the attachment at the apex was released from the substratum and attached from below. The cribellate spiders do in fact move on the inner surface of the cone which is the undersurface of the sheet. A similar web form would be also attained if the retreat were to be situated at one side of the web.

The characteristics of the family are as follows:

Medium sized to large three clawed spiders with the eyes in two more or less straight rows *(S. facetum* is an exception). Claw tufts and scopulae absent. Spination of the basic pattern with rarely more than three pairs of spines on the ventral surface of the tibiae and metatarsi of the first two pairs of legs. Tarsal organ present. Plumose hairs present or absent. Trichobothria in a double row on tibiae, single on metatarsi and tarsi. Both cribellate and ecribellate spiders are included in the family. Calamistrum when present in a single row. Cribellum with paired spinning fields. Colulus large, usually as a hairy flattened plate which suggests recent derivation from a cribellum. Chelicerae with a lateral boss. Both margins with strong teeth. Basic number, retromargin two, promargin three, but a greater number often present. Trichobothria present on the tarsus of the female palp and the cymbium of the male palp. Bulb of the male palp simple, with the three basic structures, embolus, conductor and median apophysis. The embolus spiniform and slender, straight or evenly curved. The conductor well developed and much more extensive and more heavily sclerotized than the simple membraneous structure characteristic of the Amaurobiidae. The median apophysis is of the simple hooked form *(Ischalea)* but shows a strong tendency to reduction, and in some genera it is lost. The epigynum is characterized by a median plate or ridge, which is sometimes reduced to a small median protuberance. Internal genitalia strongly receptaculate. Tracheal spiracle at the base of the spinnerets, small. Tracheal system simple, consisting of four unbranched and slender trachae which are limited to the abdomen.

Type genus *Stiphidium* Simon, 1902.

This family is separated from the Amaurobiidae, as we restrict it, by the presence of a simple hooked median apophysis in the male palp or progressive derivations from this form of median apophysis which are degenerative and lead to the loss of the structure. The Amaurobiidae is characterized by the strong development of the median apophysis, usually flattened, strongly sclerotized and with a tendency to vary considerably in shape.

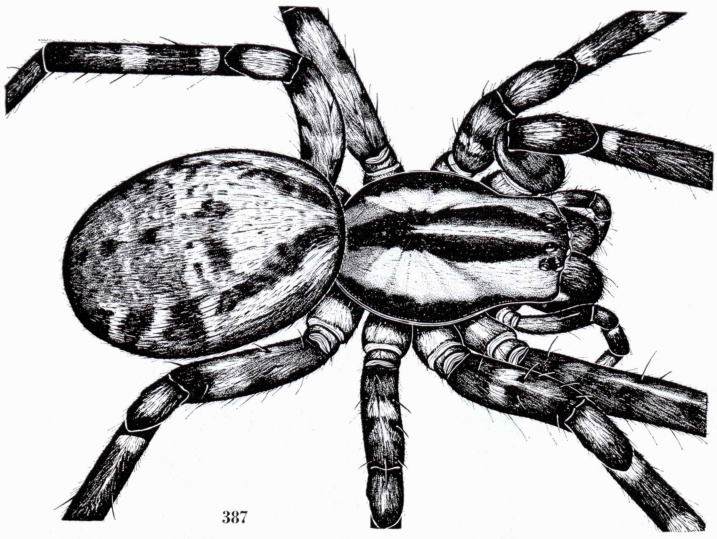
A firm separation from the Agelenidae is difficult. We have broadened the Agelenidae well beyond the limitations suggested by Lehtinen but nevertheless by stressing the importance of the tracheal system have restricted the limits below those usually accepted by other workers. There are a number of general characteristics of the Agelenidae such as the T-shaped conductor of the male palp, the tendency for the cribellum to become reduced to a conical structure which then gives rise to a small colulus or a paired colulus rather than the plate structure found in the Stiphidiidae and also in the Amphinectidae but when considered at lower taxonomic levels these distinctions become blurred.

Perhaps the most distinctive feature characterizing the Stiphidiidae at present is the form of the snare.

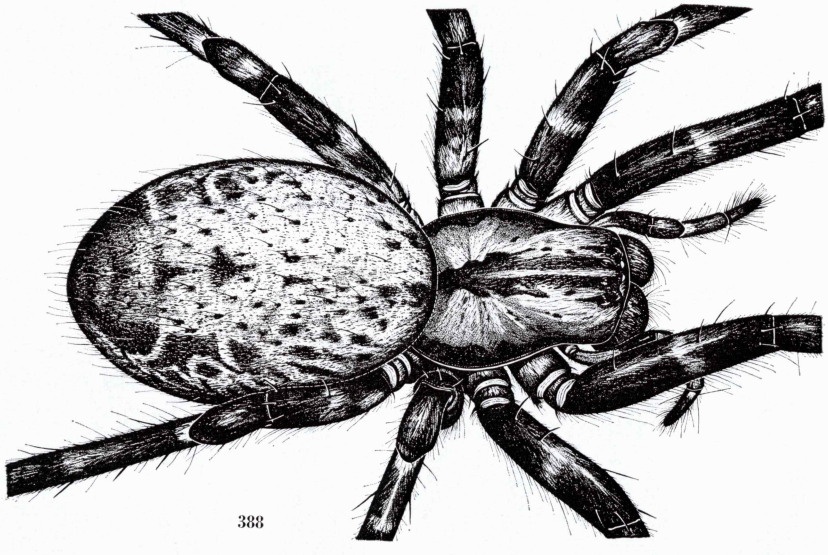
KEY TO THE NEW ZEALAND GENERA OF THE FAMILY STIPHIDIIDAE

1. Cribellate. Posterior spinnerets conspicuously longer than anterior pair **Stiphidium** Simon

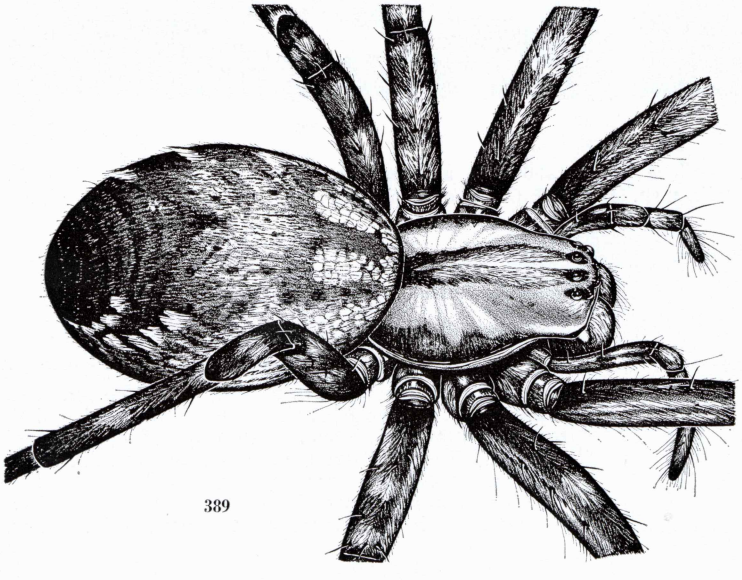
   Ecribellate. Both anterior and posterior pairs of spinnerets more or less equal in length 2



387

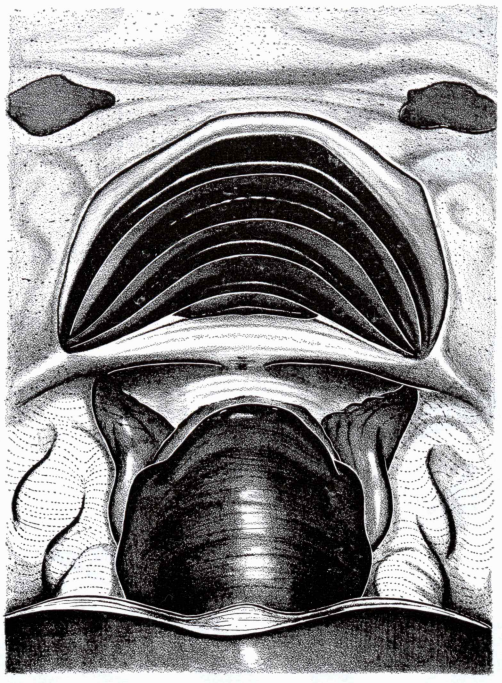


388

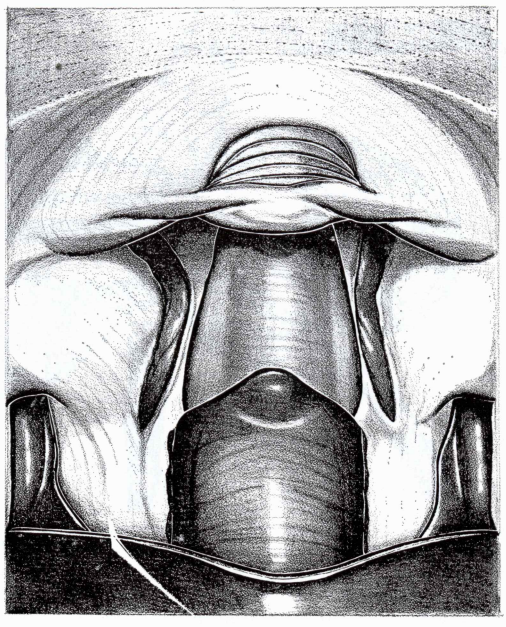


389

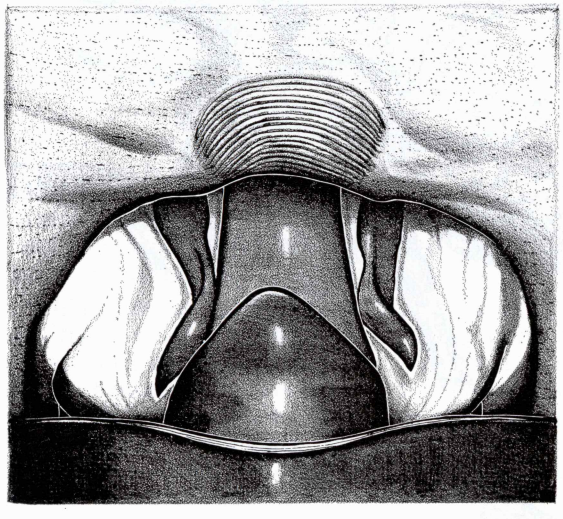
Figs. 387-389 Dorsal surface of the body of female. Fig. 387 *Cambridgea fasciata* L. Koch. Fig. 388 *Cambridgea antipodiana* (White). Fig. 389 *Cambridgea foliata* (L. Koch).



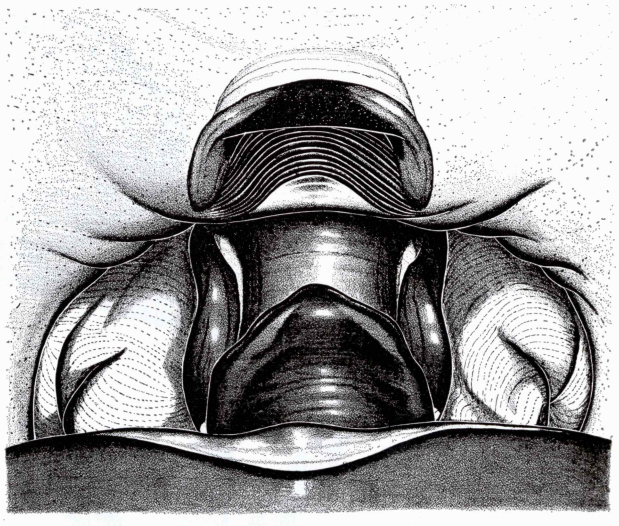
390



391



392



393

Figs. 390-394 Stridulating organ on the dorsal surface of the abdomen and petiolus of male *Cambridgea*. Fig. 390 *Cambridgea antipodiana*. Fig. 391 *C. occidentalis*, n.sp. Fig. 392 *C. secunda* n.sp. Fig. 393 *C. arboricola* (Urquhart).

2. Abdomen elongate, somewhat flattened. Spider not associated with snare. Epigynum with paired spines

Ischalea L. Koch

Body normal. Associated with a prominent sheetweb. Epigynum without paired spines 3

3. Legs with plumose hairs. Stridulating organ of male on ventral surface of the lorum and abdomen

Nanocambridgea n.gen.

Legs without plumose hairs. Stridulating organ of male when present on the dorsal surface of the pedicel and abdomen

Cambridgea L. Koch

Stiphidium Simon 1902

1902 *Stiphidion*, Simon. Bull. Soc. ent. Fr. 15: 242.

1958 *Stiphidium*, Bonnet. Bibliogr. Aran. 2: 4170.

Medium sized (body length 6-8mm) cribellate spiders. Carapace with the head region clearly defined but rather low. Raised on the upper portion of the head and the region around the fovea. Both rows of eyes strongly recurved. The eyes stand out from the surface and the AME are relatively large and at times larger than the PME. Chelicerae short and vertical with two teeth on the retromargin and three on the promargin. Lateral boss distinct. Legs very long and slender. Plumose hairs absent. Superior claws strongly pectinate. Inferior claw with few teeth. Trichobothria numerous, in a double row on the tibiae and a single row on metatarsi and tarsi. Calamistrum proximal, absent in male. Cribellum rectangular, wider than long, spinning fields divided, but absent in male. Anterior pair of spinnerets stout and

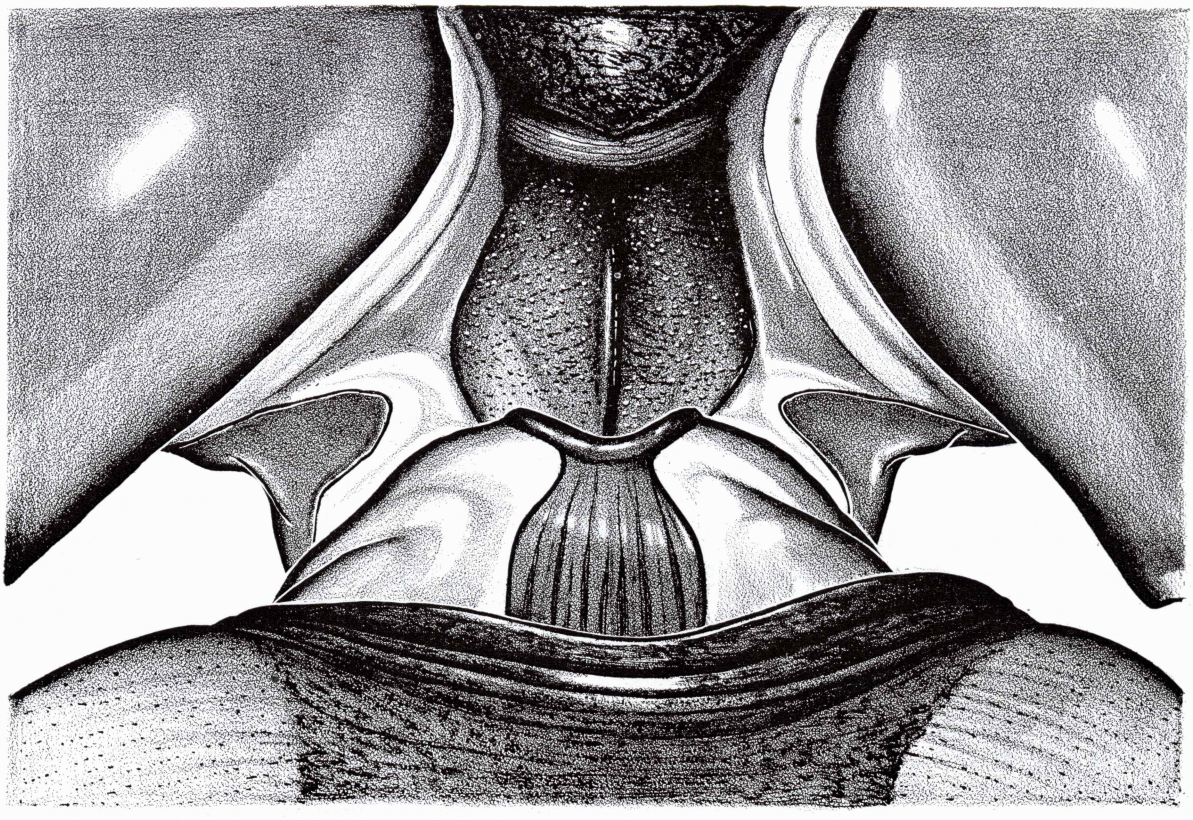


Fig. 394 Stridulating organ on the ventral surface of the abdomen and petiolus of the male of *Nanocambridgea gracillipes* n.sp.

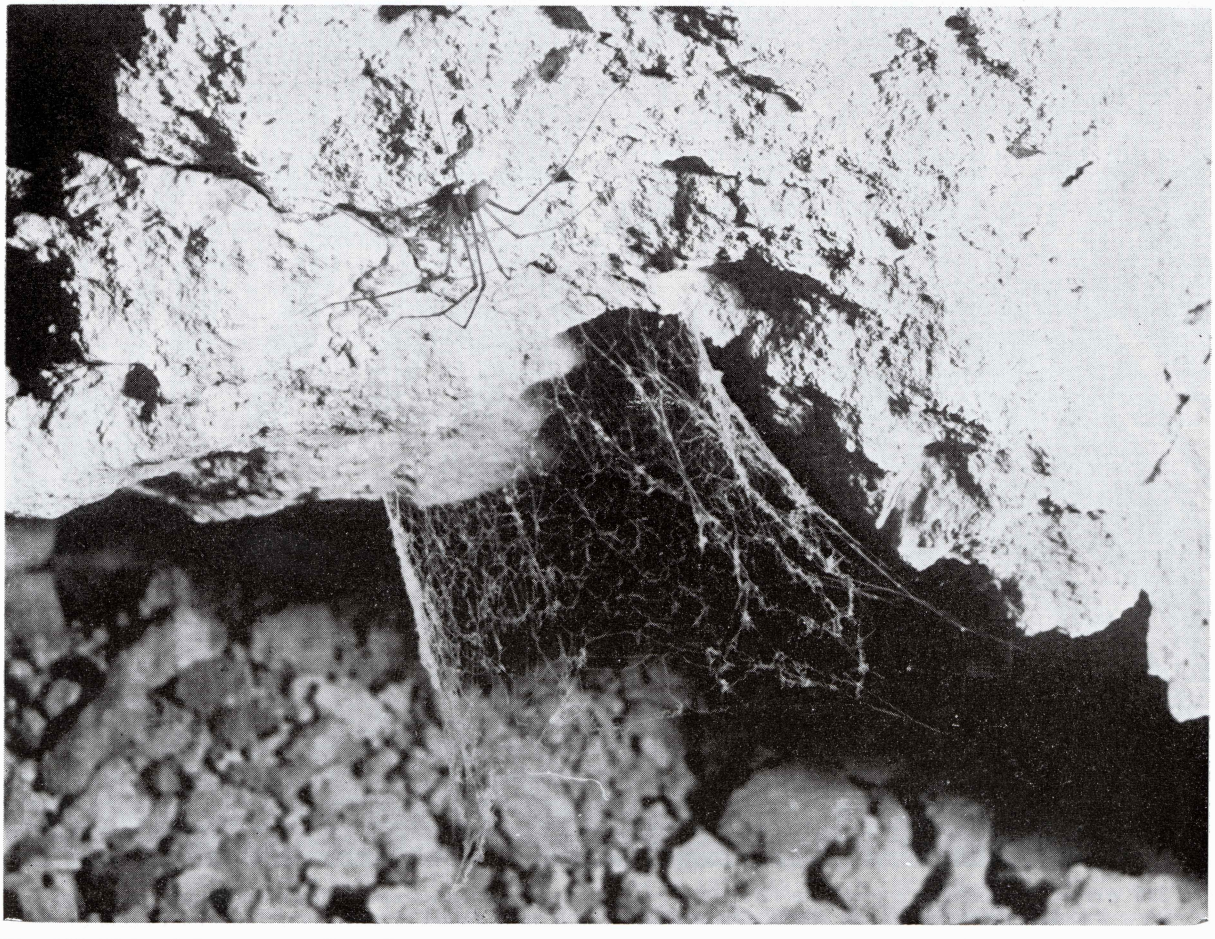


Fig. 395 Web of *Tartarus mullamullangensis* Gray. Mullamullanga Cave, near Madura, Nullarbor Plain, Australia (Photo M. R. Gray).

well separated. Posterior pair slender with the distal segment as long as basal segment. Epigynum with the typical median ridge. Internal genitalia receptaculate with a short duct. Male palp with a slender spiniform embolus. Conductor very large, T-shaped. Median apophysis absent. Cymbium pointed distally and extending well beyond the bulb but not as pronounced as in other genera.

Type species *Stiphidion facetum,* Simon, 1902.

This typically Australian genus is known from a single species which has undoubtedly been introduced into this country. The relatively long, slender legs, the length of the posterior pair of spinnerets and the fact that it is cribellate makes this genus easy to recognise in this country. A number of related genera are known from Australia.

Stiphidium facetum Simon 1902

1902 *Stiphidion facetum,* Simon. Bull. Soc. ent. Fr., 1902. (15): 242.

1903 *Stiphidion facetum,* Simon. Hist. nat. Araign. 2(4): 974.

1911 *Stiphidion facetum,* Rainbow. Rec. Austral. Mus. 9: 125.

1928 *Stiphidion facetum,* Petrunkevitch. Trans. Connect. Acad. Arts Sci. 29: 90.

1954 *Stiphidion facetum,* Roewer. Katalog der Aran. 2: 1378.

1958 *Stiphidium facetum,* Bonnet. Bibliog. Aran. 2: 4170.

1959 *Amarara fera,* Marples. Trans. Roy. Soc. N. Zeal. 87(3-4): 354.

1967 *Stiphidion facetum,* Lehtinen. Ann. Zool. Fenn. 4: 211, 265, 331 *(= Amarara fera).*

1967 *Stiphidium facetum,* Hickman. Common Spiders of Tasmania: 36.

1968 *Stiphidion facetum,* Clyne. Guide to Australian spiders: 34, 36, 37.

Figs. 397-402

FEMALE

Measurements

Carapace	length 2.89		width 2.22	
Abdomen	length 4.00		width 2.50	

Leg	Femur	Patella and Tibia	Metatarsus	Tarsus	Total
1	4.72	5.50	3.89	2.00	16.11
2	3.83	4.39	3.28	1.50	13.00
3	3.39	3.78	3.17	1.39	11.73
4	4.17	4.39	4.00	1.72	14.29
Palp	1.28	1.22		1.22	3.72

Colour Dorsal surface as in Fig. 397. Ventrally, two longitudinal black bands, separated by a speckled area, run from the epigynum region to the spinnerets. Spinnerets dark. Sternum distinctly sooty posteriorly. Legs clearly ringed with grey. Chelicerae dark brown.

Carapace The carapace is broad and flat. Thoracic region clearly differentiated from the head region which is higher than the thorax. Fovea distinct.

Eyes (Fig. 402). The eyes are large. From above both rows are strongly recurved. From in front the anterior row is slightly recurved and the posterior row straight.



Fig. 396 Web of *Cambridgea antipodiana* (White). The spider moves upsidedown beneath the sheet, biting through to insects knocked down on to the sheet. Occasionally it will move round on to the upper surface to capture prey.

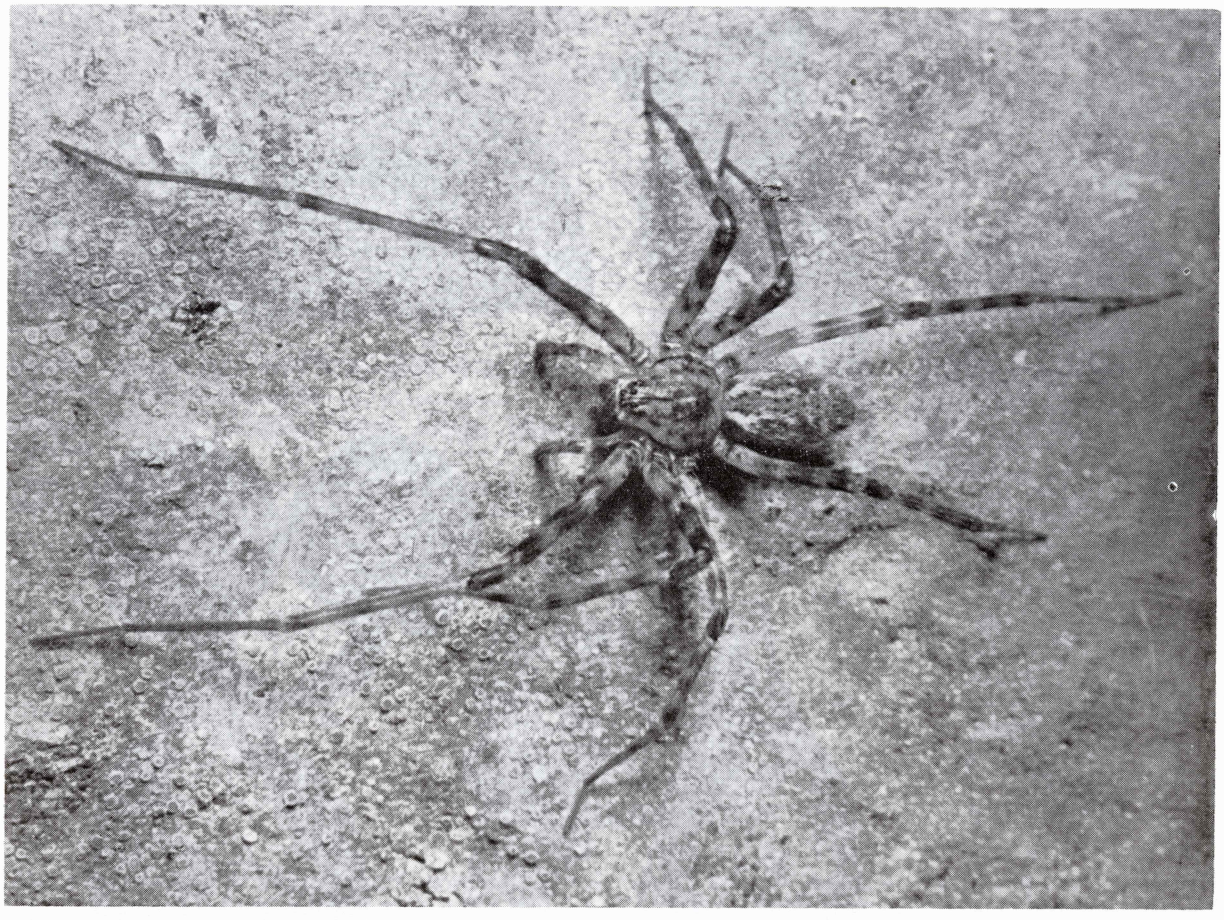


Fig. 387 *Stiphidium facetum* Simon female.

Ratio of AME.ALE.PME.PLE = 4.5.3.4. AME separated from each other by 3/4 and from the ALE by 2/4 of the diameter of an AME. Lateral eyes separated by 3/4 of the diameter of an AME. PME separated from each other by 5/4 and from the PLE by 4/4 of the diameter of an AME. MOQ as wide behind as in front and wider behind than long in the ratio of 11.10. Height of clypeus equal to 5/4 of the diameter of an AME and concave.

Sternum Scutiform, longer than wide in the ratio of 8.7. Anterior margin gently incurved, lateral margins evenly curved. Posterior projection sharp.

Labium Lateral margins converging slightly distally, anterior margin indented. As wide at the base as long.

Chelicerae Retromargin with two and promargin with three teeth.

Palp Slender with few spines. Femur, d.0.1.1.1. Tibia, p.1.0. Tarsus many. Five trichobothria on the tibia arranged 2.2.1. Tarsal claw with eight teeth.

Legs Long and slender. Clothed with strongly ciliate hairs. Spines. First leg. Femur, d.1.1.0.0. p.1.1.0.1. r.0.1.0.1. Tibia, v.2.1.2. p.0.0.1. Metatarsus, v.2.2.2. p.0.0.1. Second leg. Femur, d.1.1.0.0. p.1.1.0.1. r.0.1.0.1. Tibia, v.1.0.2. p,r.0.0.1. Metatarsus, v.2.2.1. p,r.0.1.2. Third leg. Femur, d.1.1.0.0. p.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.0.1. d.1.0.0. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Fourth leg. Femur, d.1.1.0.0. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.0.1. p,r.0.1.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.2. d.1.0.1. Trichobothria. Tibia, 2.1.1.1. Metatarsus, 4. Tarsus, 6. Tarsal organ does not appear to be present. Superior claws of legs 1 and 2 with nine teeth, 3 and 4 with seven teeth. Inferior claw with three teeth. Calamistrum short, extending down 2/9 of the length of the fourth metatarsus.

Abdomen Epigynum and internal genitalia shown in Figs. 400, 401. The cribellum is distinct and divided.

MALE

Measurements

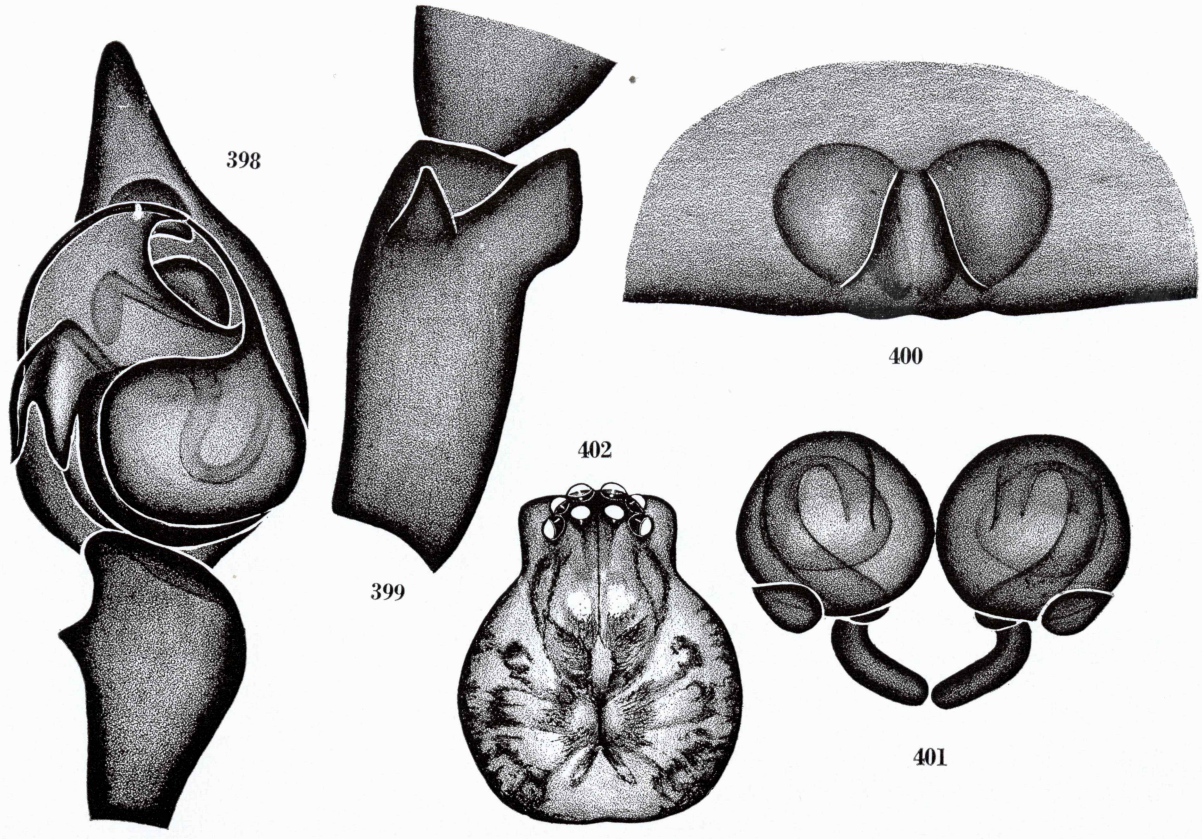
Carapace	length 3.06	width 2.28	
Abdomen	length 3.44	width 2.00	

Leg	Femur	Patella and Tibia	Metatarsus	Tarsus	Total
1	5.78	6.94	0.06	2.56	21.34
2	4.61	5.11	4.56	1.83	16.11
3	4.17	4.39	4.00	1.67	14.23
4	4.39	5.22	5.33	1.89	17.33
Palp	1.44	1.11		1.11	3.66

Similar to the female. The palp is shown in Figs. 398, 399. The cribellum is small and apparently not functional and the calamistrum is absent.

Type Stiphidion facetum Simon, Tasmania (M. N. H. Paris) *Amarara fera* Marples. Auckland Domain (Otago Museum).

Records Auckland Domain, May 1956, R. R. Marples. Beachlands, Auckland, 3.vi.1948, J. C. Campbell. Wenderholm Rd, Auckland, 14.v.1970, M. R. Buchler. Ohope Beach, 1.x.1969, C.L.W. Opononi Beach, 7.i.1967, R.R.F. Dargaville, 10.ii.1952, B. J. Marples. Mimiwhangata, pitfall, 10-17.xii.1970, J. Darby. Houhora, 25.viii.1953, B. J. Marples. Houhora, 7.i.1967, R.R.F. Cambridge, 11.ii.1952, B. J. Marples. Rotorua, 25.vii.1970, D. Court. Waitetola, 8.i.1967, R. W. Hutton. Taradale, R. W. Hutton.



Figs. 398-402 *Stiphidium facetum* Simon. Fig. 398 Ventral view of male palp. Fig. 399 Tibial processes of male palp. Fig. 400 Epigynum. Fig. 401 Internal genitalia. Fig. 402 Dorsal view of carapace showing eyes.

The snare, an inverted cone, is constructed on the overhanging surfaces of clay banks, rock faces etc. The eggsac is plano-convex, often covered with debris and attached to the substrate.

Undoubtedly introduced from Australia this spider is probably restricted to the North Island although there is one doubtful record from Nelson.

Procambridgea n.gen.

Medium sized (body length 4-5.5mm) cribellate spiders. Eyes in two more or less straight rows. AME distinctly smaller than remaining eyes. Carapace typical for the family with the head region clearly defined. Chelicerae with from 6-7 teeth on each margin. Lateral boss well defined. Legs long and slender, without plumose hairs. Trochantera notched. Trichobothria numerous, in a double row on tibiae and single row on metatarsi and tarsi. Superior claws strongly pectinate. Inferior claw with few teeth. Calamistrum proximal, absent from the male. Cribellum with divided spinning fields, absent from the male. Epigynum with a median ridge. Internal genitalia receptaculate with well developed ducts which open anteriorly. Male palp long and slender with the distal portion of the cymbium slender and extending well beyond the bulb. Embolus originating distally, slender, spiniform. Conductor large, a membraneous plate. Median apophysis greatly reduced or absent.

Type species *Procambridgea rainbowi* n.sp.

This group is entirely Australian and the two species are described below to provide a source of comparison with the ecribellate *Cambridgea* of New Zealand. The genus seems most closely related to *Tartarus* but may be separated by the distal origin of the embolus, the notched trochanters and the absence of plumose hairs. The relationship of this genus with the ecribellate *Cambridgea* and *Nanocambridgea* is also clear. Apart from the fact that these spiders construct a sheet web little is known of their habits.

Procambridgea rainbowi n.sp.

Figs. 403-406

FEMALE

Measurements

Carapace	length 2.10	width 1.55	
Abdomen	length 2.03	width 1.42	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.3	0.7	2.2	1.9	1.4	8.5
2	2.0	0.6	1.7	1.6	1.2	7.1
3	1.7	0.6	1.4	1.6	1.0	6.3
4	2.2	0.6	1.9	2.2	1.2	8.1
Palp	0.9	0.4	0.6		0.9	2.8

Colour Carapace dull yellow brown with dark shading on the lateral margins of the thorax and in the vicinity of the median fovea from which a pair of vein-like markings diverge forward to the lateral eyes. Chelicera slightly darker than the carapace. Legs with broad black bands. Abdomen heavily shaded with black. On the median anterior half there is a pale area which has a median dark band which terminates with a pair of white spots. Mid ventral surface pale with dark flecks but the surface is darker posteriorly. Anterior spinnerets black but posterior spinnerets white.

Carapace Mostly well covered with rather long hair with a few small bristles on the dorsal surface.

Eyes the group occupies 2/3 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row is recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 3.5.5.5. AME separated from each other and from the ALE by a distance equal to 1/3 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 14.7 and wider behind than long in the ratio of 14.12. Height of clypeus equal to 7/3 of the diameter of an AME.

Sternum As wide as long. The posterior projection separates the posterior coxae by a distance equal to 2/3 of the diameter of a coxa.

Maxillae Longer than wide in the ratio of 25.14 and twice the length of the labium.

Labium As wide as long. Distal margin slightly indented.

Chelicerae The promargin has a carina which ends distally in a tooth followed by a large tooth and four or five minute teeth. The retromargin has seven small contiguous teeth which decrease in size towards the base of the fang.

Palp Spines. Femur, d.0.1.1. p.1. r.0. Patella, d.1.1. Tibia, p.1.0. d.1.1. Tarsus, numerous. Trichobothria. Tibia, 2.2.2.2. Tarsus, 4.

Legs Spines short and rather stout. Without plumose hairs. Trochantera notched. Spines. First leg. Femur, d.1.1.0. p.0.1.1. r.0.0.1. Patella, 1.1. Tibia, v.1.0. d.1.1. p.0.1. r.0. Metatarsus, v.2.2 and distal subwhorl of 3, p,r.0. Second leg. Femur, d.1.1.0. p,r.0.0.1. Patella, 1.1. Tibia, v.0.1.0. p,d.1.1. r.0.1. Metatarsus, v.2.2 and distal subwhorl of 5, p,r.1 median. Third leg. Femur and patella, as for second leg. Tibia, v.1.0.2. p,d,r.1.1. Metatarsus, v.1.2 and subwhorl of 5, p,r.1.1. Fourth leg. Femur, d.0.1.0. p,r.0.0.1. Patella, tibia and metatarsus, as for third leg. The calamistrum occupies 1/3 of the length of the metatarsus. Trichobothria. First leg. Tibia, pro and retro 1.1.1.1. Metatarsus and tarsus, 1.1.1.1. Tarsal organ distal to the trichobothria and situated at a point 0.64 of the length of the tarsus from the base. Superior claws with ten teeth and inferior claw with two teeth.

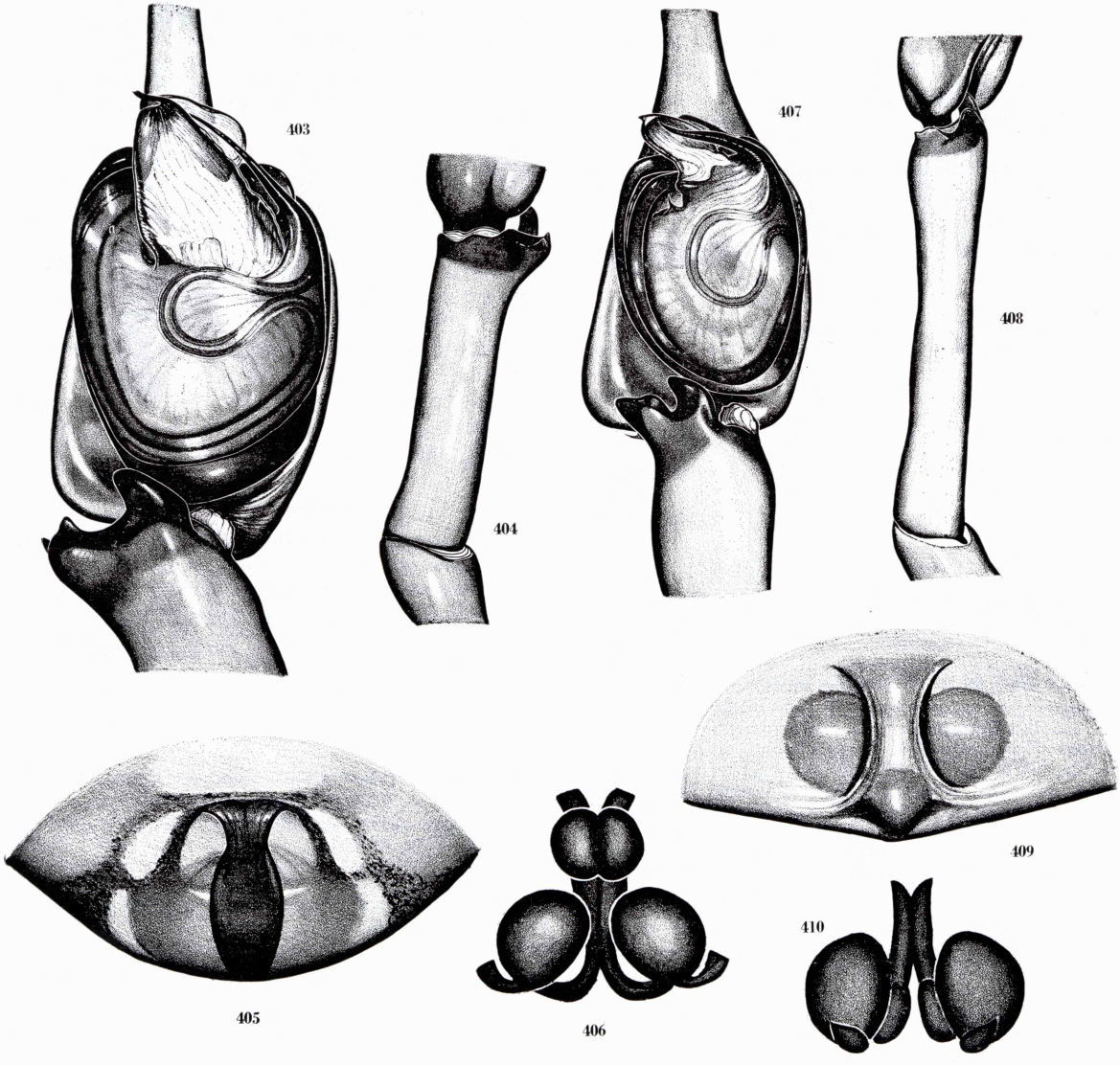


Fig. 403-406 *Procambridgea rainbowi* n.sp. Fig. 403 Ventral view of male palp. Fig. 404 Tibial processes of male palp. Fig. 405 Epigynum. Fig. 406 Internal genitalia. Figs. 407-410 *Procambridgea cavernicola* n.sp. Fig. 407 Ventral view of male palp. Fig. 408 Tibial processes of male palp. Fig. 409 Epigynum. Fig. 410 internal genitalia.

Abdomen Cribellum divided, each spinning field elongate oblong. Epigynum and internal genitalia are shown in Figs. 405, 406.

MALE

Measurements

	Carapace		length 2.5		width 1.8	
	Abdomen		length 2.3		width 1.4	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.3	0.8	3.6	3.3	1.8	12.8
2	2.7	0.8	2.6	2.6	1.5	10.2
3	2.4	0.7	2.1	2.4	1.4	9.0
4	2.9	0.8	2.8	3.1	1.7	11.3
Palp	2.4	0.9	1.3		2.0	6.6

Resembles the female in general characteristics. No calamistrum and cribellum probably not functional.
Palp The cymbium is produced distally well beyond the alveolus as is similar to *Cambridgea.* Trichobothria. Tibia, 2.2.2. Cymbium, 1.1.1.1. The tibial processes and the bulb are shown in Figs. 403, 404.

Types Holotype female and allotype male. New South Wales, Australia. Rain forest, Jenolan, Blue Mountains, N.S.W., 18.vii.1970, R. R. Forster (Australian Museum, Sydney). Paratype males, same data.

Collected from under fallen logs and between low foliage. Although detailed notes of the snare were not made the spiders were associated with small sheet webs.

Procambridgea cavernicola n.sp.

Figs. 407-410

MALE

Measurements

	Carapace		length 2.3		width 1.7	
	Abdomen		length 2.5		width 1.6	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.5	0.8	3.7	3.6	2.0	13.6
2	3.0	0.7	2.9	2.9	1.8	11.3
3	2.6	0.7	2.3	2.7	1.6	9.9
4	3.2	0.8	3.0	3.6	1.9	12.5
Palp	2.6	1.1	1.6		1.9	7.2

Colour Carapace and chelicerae pale yellowish cream. legs paler without markings. Sternum and mouthparts almost white. Abdomen very pale grey with slight mottling.

Carapace Well covered with hair.

Eyes The group occupies 2/3 of the width of the head. From in front the anterior row is slightly recurved and the posterior row procurved. From above the posterior row is straight and the anterior row recurved. Ratio of AME.ALE.PME.PLE = 3.4.4.4. AME separated from each other by a distance equal to 1/3 and from the ALE by 2/3 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/3 and from the PLE by 2/3 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/3 and from the PLE by 3/3 of the diameter of an AME. MOQ wider behind than in front in the ratio of 12.7 and wider behind than long in the ratio of 12.11. Height of clypeus equal to 7/3 of the diameter of an AME.

Sternum Scutiform. As wide as long. Anterior margin indented. The posterior projection separates the posterior coxae by a distance equal to 2/3 of the diameter of a coxa.

Maxillae Longer than wide in the ratio of 30.15 and twice the length of the labium. Inclined over labium. Outer margins slightly convex.

Labium As wide as long. Distal margin indented.

Chelicerae Similar to *P. rainbowi.*

Palp The tibial processes and bulb are shown in Figs. 407, 408. Distal portion of cymbium extremely long and slender.

Legs Trochantera notched. Spines. Similar to those of the female, except there is no calamistrum.

FEMALE

Measurements

	Carapace		length 2.2		width 1.6	
	Abdomen		length 3.1		width 2.1	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.8	0.8	2.8	2.6	1.5	10.5
2	2.5	0.8	2.3	2.2	1.5	9.3
3	2.2	0.7	1.9	2.1	1.3	8.2
4	2.7	0.7	2.5	2.7	1.7	10.3
Palp	1.1	0.4	0.7		1.2	3.4

Resembles the male in general characteristics.

Legs Spines. First leg. Femur, d.0.1.0. p,r.0.1.1. Tibia, v.0.2.0. p,r.0.0. Metatarsus, v.1.2 and distally 2 (v.1. p.1.) p,r.0. Second leg. Femur, d.1.1.0. p,r.0.0.1. Tibia, v.1.2.0. p.0.1. r.0. Metatarsus, v.0.2 and distally 4 (v.1. p.2. r.1.) p.1 median. Third leg. Femur, d.1.1.0. p,r.0.0.1. Tibia, v.1.1.2. p,d.1.1. r.0.1. Metatarsus, v.1.2 and distal subwhorl of 5, p.1.1. r.0.1. Fourth leg. Femur, d.1.0.0. p,r.0.0.1. Tibia and metatarsus same as third leg. Calamistrum occupies 1/3 of the metatarsus.

Abdomen Cribellum divided but spinning fields difficult to see. Epigynum and internal genitalia are shown in Figs. 409, 410.

Types Holotype male, allotype female. New South Wales, Australia. Signatore Cave, Wee Jasper, N.S.W., 2.vi.1962, E. Hamilton-Smith (Australian Museum, Sydney).

Records New South Wales, Australia. Far chamber, Punch Bowl Cave, Wee Jasper, 12.viii.1961, E. Hamilton-Smith. Twilight zone, Church Cave, Wee Jasper, 3.vi.1962, E. Hamilton-Smith.

This species is probably restricted to caves. Pigment is almost lost and the legs are relatively longer and more slender than *rainbowi.*

Cambridgea L. Koch 1872

1849 *Tegenaria* (part), White. Ann. Mag. Nat. Hist. (2) 5: 52.

1872 *Tegenaria* (part), Koch. L. Arachn. Austr.: 356.

1872 *Cambridgea,* Koch.. L. Arachn. Austr.: 358.

1891 *Cambridgea,* Urquhart. Trans. N. Zeal. Inst. 23: 129.

1898 *Cambridgea,* Simon. Hist. Nat. Ar. 2(2): 129.

1913 *Cambridgea,* Merian. Rev. Mus. La Plata. 20: 42, 47, 56, 59.

1917 *Cambridgea,* Dalmas. Ann. Soc. ent. Fr. 86: 397, 399.

1928 *Cambridgea,* Petrunkevitch. Trans. Conn. Acad. Arts. Sc. 29: 94.

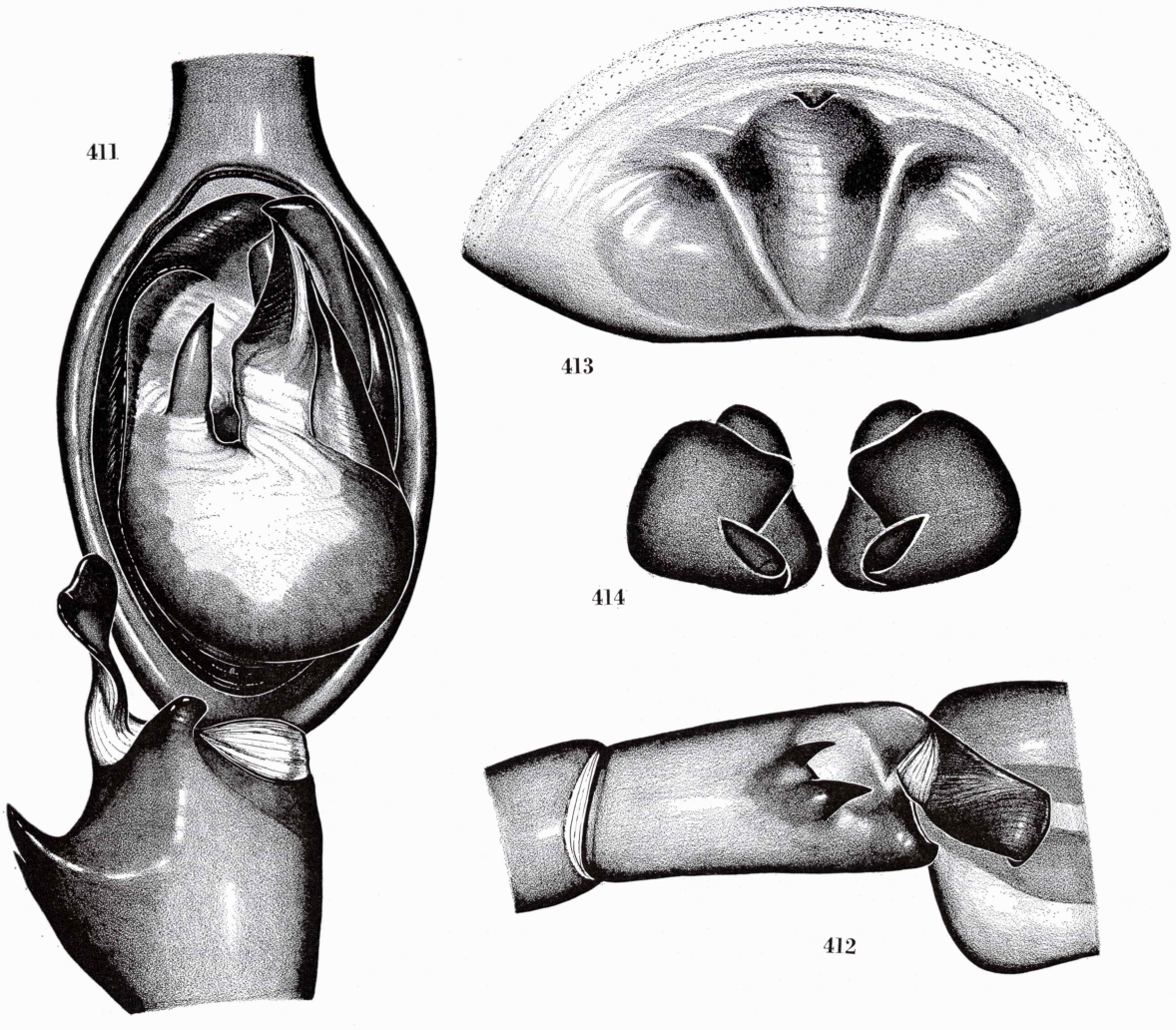
1932 *Cambridgea,* Berland. Encycl. ent. 16: 140, 383.

1938 *Cambridgea,* Gerhardt & Kastner. Handbuch Zool. 3(2): 617.

1939 *Cambridgea,* Neave. Nom. Zool. 1: 558.

1967 *Cambridgea,* Lehtinen. Ann. Zool. Fenn. 4: 221.

Medium sized to large (body length 8-20mm) ecribellate spiders. Head region of carapace distinct. Eyes in two more or less straight rows. AME only slightly smaller than remaining eyes. Chelicerae with a strong lateral boss. Promargin with two teeth, retromargin with from 3-5 teeth but usually four. Often much larger and porrect in the male. Legs long and slender, without



Figs. 411-414 *Cambridgea fasciata* L. Koch. Fig. 411 Ventral view of male palp. Fig. 412 Tibial processes of male palp. Fig. 413 Epigynum. Fig. 414 Internal genitalia.

plumose hairs. Trochanters of legs 2-4 with a very shallow notch. Superior claws strongly pectinate. Inferior claw with few teeth. Colulus a large, flat plate similar in appearance to the cribellum of *Procambridgea*. Males often with a stridulating organ in the form of an erect projection from the anterior plate of the lorum of the pedicel which engages with a series of sclerotized ridges on the anterior overhang of the abdomen. This structure is not present in all species. Epigynum characteristically with a median furrow while the median ridge is represented by an anteriorly situated lobe. Internal genitalia receptaculate with short ducts which open anteriorly. The male palp is long and slender with the distal portion of the cymbium narrowing and extending well beyond the bulb. Embolus spiniform, originating from the prolateral margin of the bulb. Conductor well developed and membraneous. The median apophysis is poorly developed and virtually absent in some species. Distal segment of posterior spinnerets shorter than basal segment. The snare is the same in all species recorded. It consists of a large horizontal sheet held with lateral and ventral guylines. The ventral lines pull out the sheet into characteristic inverted domes. Above the sheet is an extensive network of knock-down threads. The spider moves on the ventral surface of the sheet.

Type species *Cambridgea fasciata,* L. Koch, 1872.

This genus includes some of the most commonly seen endemic spiders. A number of species construct their webs in hedges and shrubs in gardens, in sheds or under houses. During the latter half of the summer when the males reach maturity they are often found wandering about inside the house.

Cambridgea antipodiana (White) 1849

1849 *Tegenaria antipodiana,* White. Proc. Zool. Soc. 1849: 52, also Ann. Mag. Nat. Hist. (2) 5: 52.

1895 *Cambridgea antipodiana,* Pocock. Ann. Mag. Nat. Hist. (6) 16: 231.

1897 *Tegenaria antipodiana,* Urquhart. Trans. N. Zeal. Inst. 29: 284.

1898 *Cambridgea antipodiana,* Simon. Hist. Nat. Araign. 2: 229, 234, 235.

1899 *Cambridgea antipodiana,* Simon. Zool. Jahrb. Syst. 12: 434.

1904 *Cambridgea antipodiana,* Hutton. Index Faun. N. Zeal.: 238.

1905 *Cambridgea antipodiana,* Simon. Zool. Jahrb. Syst. 21: 418.

1911 *Cambridgea antipodiana,* Hogg. Proc. Zool. Soc. Lond. 1911: 300.

1917 *Cambridgea antipodiana,* Dalmas. Ann. Soc. ent. Fr. 86: 401, 402.

1928 *Cambridgea antipodiana,* Savory. Biology of Spiders London: 97.

1930 *Cambridgea antipodiana,* Berland. C.R. Soc. biogéogr. 1930(60): 91.

1932 *Cambridgea antipodiana,* Berland. Les arachnides. Encyclopédie entomologique, Paris: 178.

1946 *Cambridgea antipodiana,* Parrott. Rec. Cant. Mus. 5(2): 60.

1954 *Cambridgea antipodiana,* Roewer. Katalog der Aran. 2a: 109.

1956 *Cambridgea antipodiana,* Bonnet. Bibl. Aran. 2: 942.

1967 *Cambridgea antipodiana,* Lehtinen. Ann. Zool. Fenn. 4: 221.

Figs. 388, 390, 415-418

FEMALE

Measurements

Carapace length 6.8 width 4.8
Abdomen length 10.5 width 7.0

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.8	2.8	7.0	6.0	3.1	25.7
2	6.0	2.3	5.3	4.8	2.5	20.9
3	5.1	2.1	4.0	4.4	1.9	17.5
4	6.2	2.3	5.5	5.7	2.7	22.4
Palp	3.0	1.2	2.0		2.9	9.1

Colour The general pattern is shown in Fig. 388.

Eyes The group occupies 9/16 of the width of the head. From in front the anterior row is straight and thet posterior row procurved. From above the anterior row is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 12.13.12.12. AME separated from each other by a distance equal to 7/12 and from the ALE by 8/12 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by the diameter of an AME. MOQ wider behind than in front in the ratio of 36.31 and longer than wide behind in the ratio of 40.36. Height of clypeus equal to the diameter of an AME.

Sternum Longer than wide in the ratio of 60.48. The posterior projection separates the posterior coxae by slightly less than half the diameter of a coxa.

Chelicerae Promargin of groove with four teeth, the second tooth from the fang very small. Retromargin with two teeth.

Palp Spines. Femur, d.1.1.1. p,r.1 patella, 1 (bristle) 1. Tibia, d,p.1.1. r.0.0. Tarsus, numerous. Trichobothria. Tibia, anterior surface 4.2.1, posterior surface 3.2.1.1.1. Tarsus, 1.1.1.1.1.1. Claw with ten teeth.

Legs Trochanters of third and fourth pairs notched. Spines and trichobothria typical.

Abdomen The epigynum and internal genitalia are shown in Figs. 417, 418.

MALE

Measurements

Carapace length 6.1 width 4.6
Abdomen length 7.0 width 3.6

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.5	2.7	8.6	8.0	3.9	30.7
2	6.6	2.6	6.5	6.3	3.0	25.0
3	5.5	2.0	4.4	5.3	2.2	19.4
4	6.6	2.3	6.2	7.2	3.2	25.5
Palp	3.7	1.1	1.4		3.8	10.0

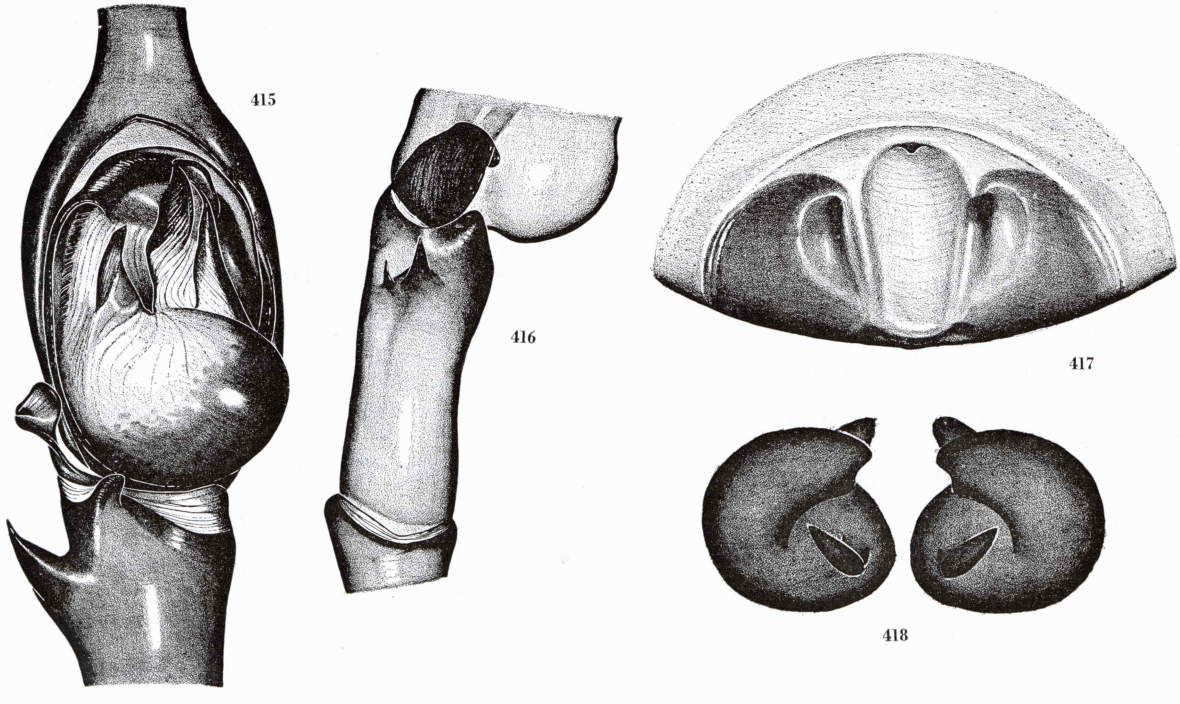
Resembles the female in general characters.

Palp Trichobothria. Tibia, pro-surface 3.3.1.1, retro-surface 4.2.1.1. Tarsus, 1.1.1.1.1.1. Tibial processes and bulb are shown in Figs. 415, 416.

Abdomen The stridulation organ is well developed and is shown in Fig. 390.

Types White's type is in the British Museum (Nat. Hist.). Specimens described and figured are from Otago. Female, Dunedin, 2.v.1966, L. Jolly. Male, Dunedin, 9.i.1966, C. Robertson (Otago Museum).

Records Otago. Dunedin, December 1966, R.R.F. March 1958 R.R.F. 18.xi.1955, B. J. Marples. 9.iv.1967, M. Burrows. January 1960, R.R.F. 20.iii.1960, J. Dineen. 17.v.1971, T. R.



Figs. 415-418 *Cambridgea antipodiana* (White). Fig. 415 Ventral view of male palp. Fig. 416 Tibial processes of male palp. Fig. 417 Epigynum. Fig. 418 Internal genitalia.

Beatson. 25.iii.1966, T. Bruce. 8.xii.1959, C. Burrel. Opoho Bush, 3.i.1946, J. T. Salmon. St Clair, 20.iii.1967, 20.xi.1958, November 1957, January 1956, R.R.F. Portobello, 16.xi.1957, T. R. Beatson. Waipori Gorge, 18.xi.1966, 13.xi.1970, R.R.F., C.L.W. Flagstaff, 10.xi.1962, W. T. Poppelwell. Head of Aurum Creek, Skippers, 4,000 ft, January 1970, K. Mason. Inch Valley, B. J. Marples. Duntroon, along cliffs, 19.v.1948, B. J. Marples. Pigroot Stream, near Red Cutting, 13.ix.1966, C.L.W. Near Red Hut, Mt Misery Rd, Waianakarurua, 10.ii.1970, T. R. Beatson. Black Umbrellas, Mukarere, Stm. 3,000 ft, 12.ii.1963, W. Ramsay. Ettrick, under bark, 29.x.1958, R.R.F. Wanaka, under stones, 7.x.1959, R.R.F. Wanaka, January 1955, B. J. Marples. Queenstown, August 1948, B. Beagle. Queenstown Hill, 16.xii.1952, B. J. Marples. Clinton, 10.xii.1966, L. A. Taylor. Makarora, Camerons Flat, 17.iii.1966, R.R.F. Southland. Croydon Bush, Gore, 17.ii.1966, R.R.F., C.L.W. Otautau, under logs, 13.iv.1963, R.R.F. Strathearn, Wairana, 10.xii.1966, B. E. Sutherland. Orepuki, 25.xi.1948, J. H. Sorensen. Orepuki, 11.viii.1949, J. H. Sorensen. Orepuki, 9.v.1949, R.R.F. Waimea Rd, Orepuki, 26.xi.1970, R.R.F., C.L.W. Tuatapere, 19.v.1962, B. J. Marples. Alton Burn, Tuatapere, 25.xi.1970, R.R.F., C.L.W. Invercargill, 16.iii.1966, K. P. Rennell. Stewart Is., 25.xi.1965, T. Bruce. Halfmoon Bay, 20.xi.1947, June 1950, 10.iii.1951, O. Allan. Golden Bay, January 1960, January 1959, M. N. Watt. Oban, 23.ii.1972, C.L.W. Masons Bay, 14.ii.1949, O. Allan. Head of Lords River, 6.xi.1960, R. G. Ordish. Solander Is., 20.v.1956, R. K. Dell. Fiordland. Eglinton Valley, under logs, 13.xii.1943, J. T. Salmon. Eglinton Valley, under logs, 30.v.1963, R.R.F. Manapouri, 15.xi.-1966, R.R.F., C.L.W. Middle Arm, Lake Te Anau, 1,750 ft, 22.v.1962, A. Chapman. Spey River, 13.ii.1959, A. Chapman. Milford Sound, 30.i.1946, R.R.F. Franklin Mts, North of Te Anau, May 1955, B. J. Marples. Hollyford Valley, Hidden Falls, under logs, 21.i.1955, R.R.F. Head of Lake McKerrow, 6.ii.1955, R.R.F. Martins Bay, 27.i.1955, R.R.F. Westland. Blackball, 19.viii.1949, A. W. Parrott. Westport, 12.i.1944, A. W. Parrott. Maori Creek, Greymouth, August 1956, L. R. Jackson. Old West Coast Road, Kumara, January 1957, L. R. Jackson. Inangahua, January 1951, W. C. Clarke. Franz Josef, 29.iv.1951, R.R.F. Paringa River, 3.vi.1954, J. M. Moreland. Otira Valley, 28.i.1954, J. S. Dugdale. Moana, January 1954, C. Sinclair. Moana, 10.iii.-1950, R.R.F. Moana, 12.iii.1960, C. W. O'Brien. Canterbury. Christchurch, December 1950, T. Robinson. Deans Bush, 20.xii.1949, J. S. Dugdale. Deans Bush, 15.x.1960, K. A. J. Wise. Harewood, 30.i.1960, R. E. Leech. Harewood, 6.ii.1960, under logs, R. E. Leech. Port Hills, 1.x.1961, Brook McKenzie. Banks Peninsula, Little Fishermans Bay, Akaroa, 22.iv.1950, L. P. Hughson. The Cabstand, Akaroa, 17.vi.1962, L. P. Hughson. Kaituna Valley, 10.v.1948, R.R.F. Kaituna Valley, 13.iv.1967, C.L.W. Kaituna Valley, 28.ix.1952, R.R.F. Prices Valley, 14.iv.1967, R.R.F., C.L.W. Mt Cockayne, 3,000 ft, 20.xii.1946, I. D. R. Cresswell. Mt Cheeseman, 2,500 ft, 20.xii.1948, E. W. Dawson. Glentui Gorge, 14.iii.1954, R.R.F. Hanging Rock, Opihi River, 21.v.1955, B. J. Marples. Ashley Gorge, 16.x.1949, R.R.F. Springfield, March 1951, H. Talbot. Okuti Valley, 10.xii.1950, R.R.F. Lake Rubicon, 19.xi.1950, R.R.F. Chalk Hill, 4.xi.1951, R.R.F. Between Castle Rocks and Cass, 12.xii.1961, B. J. Marples. Cass, 10.vii.1949, R.R.F. Cass Reservoir Bush, November 1971, R. L. Pilgrim. Ribbonwood Creek, Cass, 21.v.-1954, J. S. Dugdale. Cass, 6.iii.1920, Cass, 10.vii.-1949, R.R.F. Upper Hororata River, 21.i.1922, G. Archey. Upper Hororata, 21.i.1922, G. Archey. Mt Algidus, 14.v.1955, J. S. Dugdale. South-east slopes, Mt Misery, 23.v.1954, J. S. Dugdale. Peel Forest, under logs, 9.ii.1946, R.R.F. Geraldine, Peel Forest, 9.iii.1960, C. W. O'Brien. Kakahu, 30.iv.1950, R.R.F. Grey River, 17.i.1921, G. Archey. Hurunui River, 25.iii.1969, C.L.W. Nth side Conway River, 12.v.1955, R.R.F. Gore Bay, 30.x.1948, R.R.F. Wellington, 12.ii.1961, R.R.F. Wellington, September 1956, J. Hamond. Upper Hutt, February 1962. Otaki Forks, 7.vi.1941, R.R.F. Marlborough. Picton, 23.iii.1969, R.R.F., C.L.W. Motu Ngaratiti Is., 12.ix.1948, R. K. Dell.

This is the most commonly found species in the South Island. In the North Island it is only found near Wellington. In the northern parts of the North Island this species is replaced by *fasciata.*

There seems to be two forms of male distinguished by the size of the chelicerae. One form is similar to the female but in the other the chelicerae are very large and porrect. Apart from this difference the two forms are structurally similar.

Cambridgea fasciata L. Koch 1872

1872 *Cambridgea fasciata,* L. Koch. Die Arachn. Austral. 1: 359.

1873 *Cambridgea fasciata,* O. Pickard-Cambridge. Trans. N. Zeal. Inst. 6: 202.

1892 *Cambridgea fasciata,* Urquhart. Trans. N. Zeal. Inst. 24: 222.

1898 *Cambridgea fasciata,* Simon. Hist. Nat. Araign. 2: 234, 236.

1899 *Cambridgea fasciata,* Simon. Zool. Jahrb. Syst. 12: 425, 434 *(= antipodiana).*

1904 *Cambridgea fasciata,* Hutton. Index Faun. N. Zeal.: 238.

1909 *Cambridgea fasciata,* Shipley. *in* Sedgwick. A Student's Textbook of Zoology: 825.

1917 *Cambridgea fasciata,* Dalmas. Ann. Soc. ent. Fr. 86: 402 *(= antipodiana).*

1928 *Cambridgea fasciata,* Petrunkevitch. Trans. Conn. Acad. Arts. Sci. 29: 24.

1946 *Cambridgea fasciata,* Parrott. Rec. Cant. Mus. 5. 2: 60 *(= antipodiana).*

1954 *Cambridgea fasciata,* Roewer. Katalog der Aran. 2: 109, 1439 *(= antipodiana).*

1956 *Cambridgea fasciata,* Bonnet. Bibliogr. Aran. 2(2): 936 *(= antipodiana).*

1967 *Cambridgea fasciata,* Lehtinen. Ann. Zool. Fenn. 4: 221 *(= antipodiana).*

Figs. 387, 411-414

FEMALE

Measurements

Carapace	length 3.5	width 2.5
Abdomen	length 5.7	width 4.1

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.8	1.4	5.0	4.0	2.3	17.5
2	3.7	1.2	3.3	3.0	1.7	12.9
3	3.0	1.1	2.5	2.7	1.4	10.7
4	4.2	1.2	3.6	4.0	2.0	15.0
Palp	1.7	0.6	1.0		1.6	4.9

Colour Dorsal pattern as shown in Fig. 387. The paler areas are pale brownish cream and the darker areas dark brown.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 7.10.9.10. AME separated from each other by a distance equal to 3/7 and from the ALE by 4/7 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 5/7 and from the PLE by 4/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.17 and longer than wide behind in the ratio of 26.23. Height of clypeus equal to 8/7 of the diameter of an AME.

Sternum Longer than wide in the ratio of 40.32. The posterior projection separates the posterior coxae by a distance equal to 1/3 of the diameter of a coxa.

Maxillae Longer than wide in the ratio of 25.16 and twice the length of the labium.

Labium Wider than long in the ratio of 13.12. Distal margin broadly indented.

Chelicerae Retromargin with two teeth, promargin with four teeth one of which is very small.

Palp Spines. Femur, d.1.1.1. p,r.1. Patella, 1.1. Tibia, d,p.1.1. r.0.0. Numerous on tarsus. Trichobothria. Tibia, 6.4.2.1. Tarsus, 1.1.1.1.1.1. Claw with seven teeth.

Legs The trochanters of the posterior two pairs of legs are notched. Spines. First leg. Femur, d,p.1.1.1. r.1.0.1. Tibia, v.2.2.2. p.1.1. r.1.0. Metatarsus, v.2.2 and a distal subwhorl of 3, p.1 median, r.0. Second leg. Femur, d,p.1.1.1. r.1.0.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2 and a distal subwhorl of 4. 2 on prolateral surface and one each on the ventral and retrolateral surfaces, p.1.1. r.0.1. Third leg. Femur and tibia as for second leg. Metatarsus, v.2.2. and subwhorl of 5, p,r.1.1. Fourth leg. Femur, d.1.1.1. p.1.0.1. r.0.0.1. Tibia, v.1.1.2. p.1.1. r.1.0. Metatarsus, v.2.2 and subwhorl of 5, p,r.1.1. Superior claw with about 12 teeth and the inferior claw with three.

Abdomen The epigynum and internal genitalia are shown in Figs. 413, 414.

MALE

Measurements

Carapace length 3.2 width 2.4
Abdomen length 3.5 width 2.0

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.1	1.3	5.3	4.8	2.7	19.2
2	4.1	1.1	3.7	3.5	1.8	14.2
3	3.4	1.0	2.7	3.1	1.6	11.8
4	4.4	1.1	4.0	4.6	2.2	16.3
Palp	1.9	0.6	0.8		2.0	5.3

In general characteristics the male resembles the female.

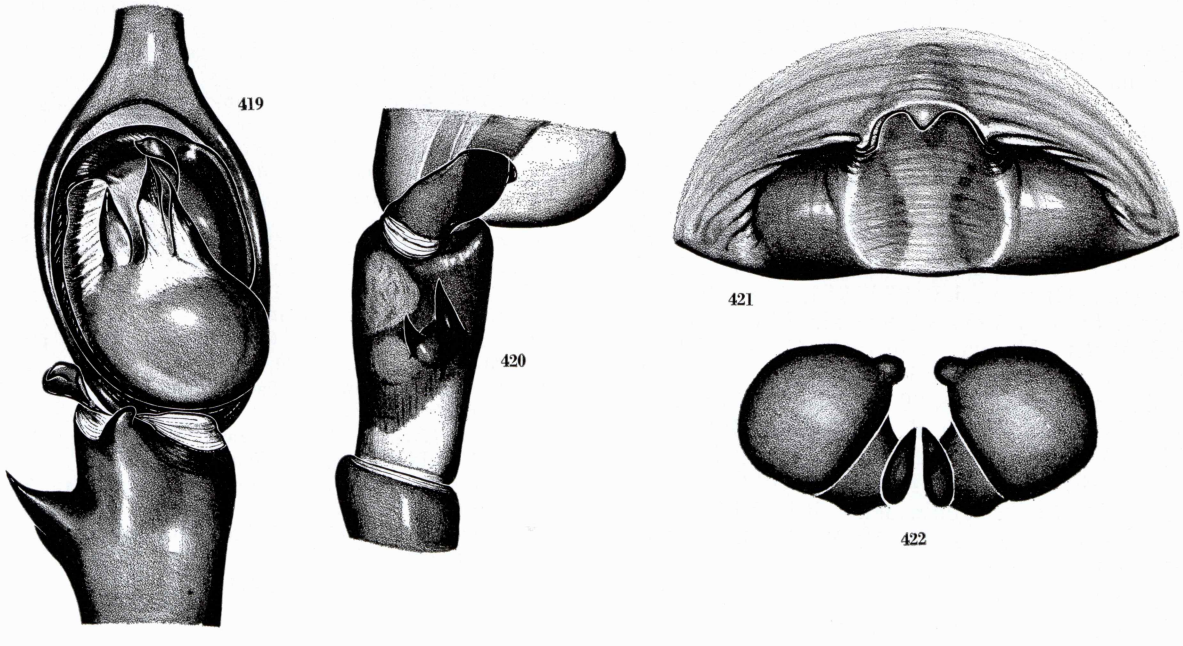
Palp The tibial processes and the bulb are shown in Figs. 411, 412.

Chelicerae There is a protuberance on the anterior surface near the base of the fang.

Abdomen The stridulating organ is similar to that of *antipodiana.*

Types Although Koch gives Canterbury as the locality from which the holotype female was collected, Cambridge (1873, p. 203) states that the specimen examined by Koch was a small example from a collection of several females collected by Captain Hutton in the Waikato. This specimen is in the Cambridge collection. Plesiotype male. Waikato. Matamata, 22.viii.1970, D. Court (Otago Museum). Female described and figured. Waikato. Cambridge, slopes leading to Lake, 15.viii.1953, B. J. Marples (Otago Museum).

Records North Island. Hen Is., January 1968, M. Grantham. Auckland. Titirangi, 12.xii.1945,



Figs. 419-422 *Cambridgea agrestis* n.sp. Fig. 419 Ventral view of male palp. Fig. 420 Tibial processes of male palp. Fig. 421 Epigynum. Fig. 422 Internal genitalia.

R.R.F. Beachlands, January 1951, J. Campbell. Matamata, 22.viii.1970, D. Court. Ohope Beach. 5.x.1969, C.L.W. Auckland, 23.i.1971, M. Buchler. Cambridge, near lake, 15.viii.1953, B. J. Marples. Taranaki. Mt Egmont, 3,600 ft, 1923, H. Bellringer. Dawson Falls, Mt Egmont, 14.i.1955, G. Ramsay. Cape Egmont, 23.ii.1967, C.L.W. Manawatu. Aorangi, Feilding, under logs, 21.viii.1948, R.R.F. Feilding, 6.x.1942, R.R.F. Vinegar Hill Reserve, 12.xii.1948, R.R.F. Hawkes Bay, Morere, T. K. Lomas. Taradale, 6.vi.1967, 30.xii.1968, R. W. Hutton. Dannevirke, 12.iv.1946, R.R.F. Clifton, 28.ii.1947, R.R.F. Wairarapa. Masterton, 20.ii.1967, C.L.W. Carters Reserve, Gladstone, 16.ix.1967, C.L.W. Wainuioru River, near Admiral Station, 1.iv.1968, C.L.W. Mangareia, 4.iii.1967, C.L.W. Mangareia, 7.xii.1947, C.L.W. Wellington. Tawa, 3.xii.1963, R. G. Ordish. Kapiti Is., May 1947, R.R.F. South Island. Canterbury, Fox's Creek, 19.ii.1953, R.R.F. Lake Taylor, 14.iv.1952, Cass, 10.vii.1949, R.R.F. Conway River, 12.v.1955, R.R.F.

Cambridgea agrestis n.sp.

Figs. 419-422

MALE

Measurements

Carapace	length 4.6	width 3.3	
Abdomen	length 6.0	width 3.2	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.0	1.9	5.8	5.2	2.7	20.6
2	4.9	1.7	4.5	4.0	2.2	17.3
3	4.1	1.4	3.3	3.6	1.8	14.2
4	5.0	1.5	4.4	4.9	2.6	18.4
Palp	2.5	0.7	0.9		2.6	6.7

Colour The carapace is strongly marked. The legs have only faint indications of bands confined to the posterior pairs. The abdomen is rather pale with the typical pattern obscure.

Eyes The group occupies 4/7 of the width of the head. From in front the anterior row is very slightly recurved and the posterior row procurved. From above the anterior row is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 8.11.8.10. AME separated from each other and from the ALE by a distance equal to 4/8 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 7/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 23.20 and longer than wide behind in the ratio of 29.23. Height of clypeus equal to the diameter of an AME.

Sternum Longer than wide in the ratio of 50.38. The posterior projection separates the posterior coxae by half the diameter of a coxa.

Chelicerae Promargin with four teeth and the retromargin with two teeth.

Palp The tibial processes and the bulb as shown in Figs. 419, 420.

Legs Typical

Abdomen The stridulating organ is strongly sclerotised as in *C. antipodiana* but has only three ridges.

FEMALE

Measurements

Carapace	length 3.6	width 2.6
Abdomen	length 4.4	width 2.8

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.2	1.5	4.2	3.6	2.0	15.5
2	3.6	1.3	3.0	2.8	1.7	12.4
3	3.0	1.1	2.3	2.5	1.2	10.1
4	3.8	1.2	3.4	3.7	1.9	14.0
Palp	1.6	0.7	1.0		1.6	4.9

Resembles the male in general characteristics.

Abdomen The epigynum and internal genitalia are shown in Figs. 421, 422.

Types Holotype male. Otago. Pitfall trap, Naseby-Kyeburn Diggings Road, 16.ii.1969, C. L. Wilton. Allotype female. Otago. Pitfall trap, Deep Dell, 9.ii.1968, C. L. Wilton (Otago Museum).

Record Same data as holotype.

Cambridgea annulata Dalmas 1917

1873 *Cambridgea fasciata,* (part, male) Cambridge. Trans. N. Zeal. Inst. 6: 203.

1899 *Cambridgea antipodiana,* Simon. Zool. Jahrb. Syst. 12: 434.

1905 *Cambridgea antipodiana,* Simon. Zool. Jahrb. Syst. 21: 418.

1917 *Cambridgea antipodiana annulata,* Dalmas. Ann. Soc. ent. Fr. 86: 402.

1925 *Cambridgea antipodiana annulata,* Berland. Rec. Cant. Mus. 2(5): 298.

1946 *Cambridgea antipodiana annulata,* Parrott. Rec. Cant. Mus. 5(2): 61.

1954 *Cambridgea antipodiana annulata,* Roewer. Katalog der Aran. 2a: 109.

1956 *Cambridgea antipodiana annulata,* Bonnet. Bibliog. Aran. 2: 942 *(= C. antipodiana).*

Figs. 423-426

FEMALE

Measurements

Carapace	length 5.6	width 4.0	
Abdomen	length 7.3	width 5.0	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.8	2.0	5.8	5.3	3.1	22.0
2	5.2	2.0	4.5	4.3	2.5	18.5
3	4.5	1.8	3.6	3.9	2.0	15.8
4	5.7	2.0	5.0	5.5	2.8	21.0
Palp	2.6	0.9	1.7		2.5	7.7

Colour In general resembles *antipodiana.*

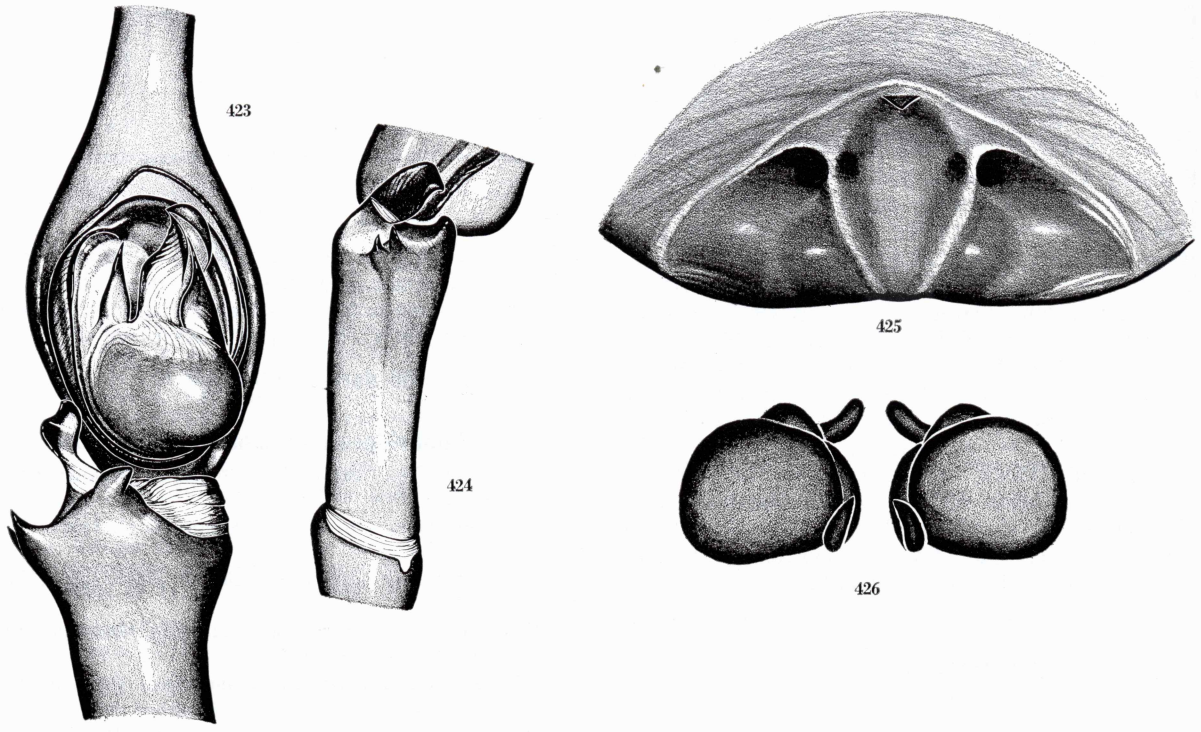
Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 11.13.11.13. AME separated from each other and from the ALE by a distance equal to 4/11 of the diameter of an AME. Laterals are narrowly separated. PME separated from each other by 8/11 and from the PLE by 7/11 of the diameter of an AME. MOQ wider behind than in front in the ratio of 30.26 and longer than wide behind in the ratio of 34.30. Height of clypeus equal to 10/11 of the diameter of an AME.

Sternum Longer than wide in the ratio of 40.30. The posterior projection separates the posterior coxae by 1/3 of the diameter of a coxa.

Chelicerae Promargin with from four to five teeth and the retromargin with two teeth.

Palp Spines. Femur, d.1.1.1. p,r.1. Patella, 1.1. Tibia, d,p.1.1. r.0. Tarsus, numerous. Trichobothria. Tibia, pro 3.1.1 retro 3.1.1.1. Tarsus, 1.1.1.1.1. Claw with ten teeth.

Legs Trochanters lightly notched. Spines. First leg. Femur, d,p.1.1.1. r.1.0.1. Tibia, v.2.2.2. p.0.1. r.0. Metatarsus, v.2.2.3. p.1 median. r.0. Second and third legs



Figs. 423-426 *Cambridgea annulata* Dalmas. Fig. 423 Ventral view of male palp. Fig. 424 Tibial processes of male palp. Fig. 425 Epigynum. Fig. 426 Internal genitalia.

typical. Fourth leg. Femur, d.1.1.1. p.1.0.1. r.0.0.1. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2 and subwhorl of 5, p.1.2. r.1.1.1.

Abdomen, Epigynum and internal genitalia are shown in Figs. 425, 426.

MALE

Measurements

	Carapace		length 6.0		width 4.5	
	Abdomen		length 6.5		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.6	2.6	7.7	7.3	4.0	29.2
2	6.7	2.4	6.0	6.0	3.2	24.3
3	5.4	2.0	4.5	5.0	2.6	19.5
4	6.6	2.2	6.0	6.8	3.4	25.0
Palp	3.8	1.0	1.8		3.5	10.1

Resembles the female in general characteristics.

Palp Trichobothria. Tibia, pro 4.1.1.1, retro 4.1.1.1. Cymbium, 1.1.1.1.1. The tibial processes and bulb are shown in Figs. 423, 424.

Abdomen Stridulating organ well developed but with one less ridge than *antipodiana*.

Types Dalmas' types were not available for examination. The female and male described and figured. Chatham Island, Lake Rangitai, February 1952, J. Eyles.

Records Chatham Islands. Material collected by G. Archey in 1924 and determined by Berland is from Kaiangaroa, Whangamarino Hill, Maunganui Owenga, Wharekauri Is. and from Mangare Is. More recent material. Wharekauri Is., Manuka Point Owenga, 2.ii.1954, E. W. Dawson. Owenga, 5.ii.1954, R.R.F. Lake Huro, under logs, 30.i.1954, E. W. Dawson. Lake Rangitai, February 1952, J. Eyles. Kaiangaroa, 28.i.1954, E. W. Dawson. Same data coll. R. K. Dell, R.R.F. 28.i.1954, R.R.F. Waitangi, January 1946, J. Ardley. Waitangi, 28.ii.1954, 30.i.1954, R.R.F. South-east Is., 3.ii.1954, R. K. Dell, Port Hutt, under logs, 9.ii.1954, R.R.F.

Cambridgea arboricola (Urquhart) 1891

1891 *Tegenaria arboricola*, Urquhart. Trans. N. Zeal. Inst. 23: 129.

1892 *Tegenaria arboricola*, Urquhart. Trans. N. Zeal. Inst. 24: 222.

1898 *Tegenaria arboricola*, Simon. Hist. nat. Araign. 2: 256.

1904 *Tegenaria arboricola*, Hutton. Index Faun. N. Zeal.: 238.

1917 *Tegenaria arboricola*, Dalmas. Ann. Soc. ent. Fr. 86: 401 (= *C. antipodiana*).

1946 *Tegenaria arboricola*, Parrott. Rec. Cant. Mus. 5(2): 60 (= *C. antipodiana*).

1954 *Tegenaria arboricola*, Roewer. Katalog der Aran. 2a: 109 (= *C. antipodiana*).

1956 *Tegenaria arboricola*, Bonnet. Bibliogr. Aran. 2: 942 (= *C. antipodiana*).

Figs. 393, 427-431

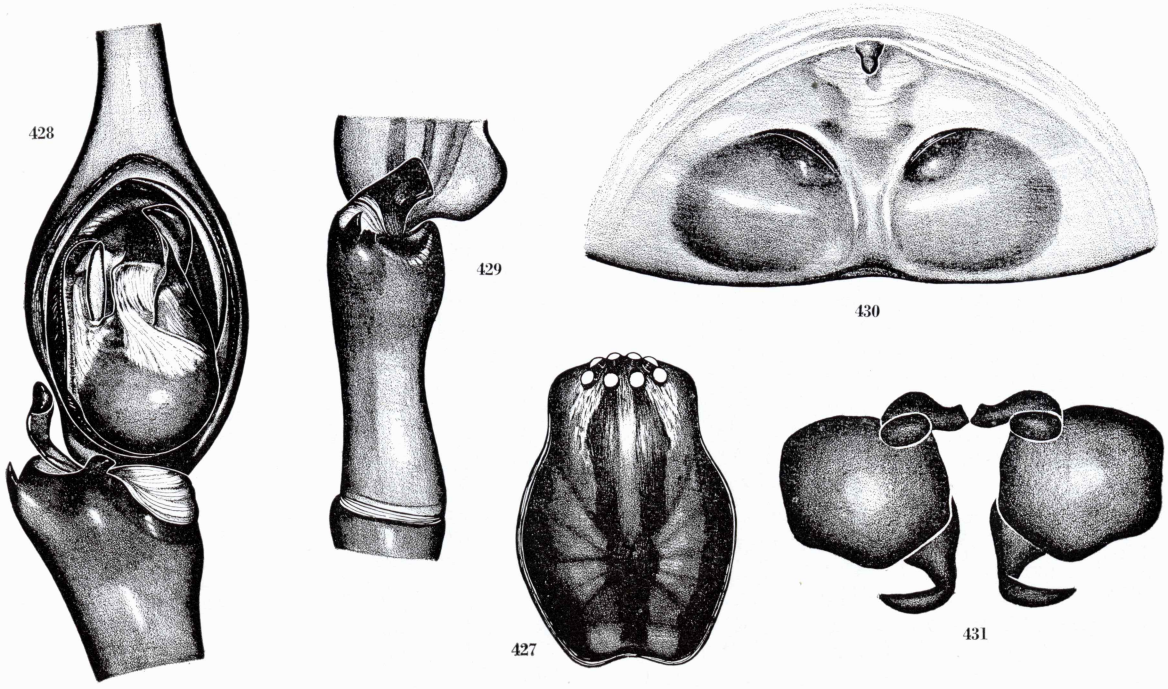
MALE

Measurements

	Carapace		length 5.7		width 4.5	
	Abdomen		length 7.5		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	8.0	2.5	8.2	7.6	4.1	30.4
2	7.1	2.5	6.7	6.4	3.4	26.1
3	5.7	2.1	5.1	5.8	3.0	21.7
4	7.1	2.3	6.6	7.8	3.9	27.7
Palp	3.7	1.1	1.7		3.6	10.1

Colour Generally resembles *antipodiana*. The carapace is shown in Fig. 427.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row is



Figs. 427-431 *Cambridgea arboricola* (Urquhart). Fig. 427 Dorsal view of carapace. Fig. 428 Ventral view of male palp. Fig. 429 Tibial processes of male palp. Fig. 430 Epigynum. Fig. 431 Internal genitalia.

slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 8.11.9.11. AME separated from each other and from the ALE by a distance equal to 5/8 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 7/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 25.21 and longer than wide behind in the ratio of 27.25. Height of clypeus equal to 10/8 of the diameter of an AME.

Sternum Longer than wide in the ratio of 40.33. The posterior projection separates the posterior coxae by 1/3 of the diameter of a coxa.

Chelicerae Promargin with from four to five teeth, and the retromargin with two teeth.

Palp Trichobothria. Tibia, pro-surface with 4.2.1, retro-surface 5.2.1.1. Cymbium, 1.1.1.1.1.1.1. Tibial processes and bulb are shown in Figs. 428, 429.

Legs All trochanters slightly notched. Spination and trichobothrial pattern typical.

Abdomen Stridulatory organ well developed with more and finer ridges than that of *antipodiana* (Fig. 393).

FEMALE

Measurements

	Carapace		length 7.0		width 4.8	
	Abdomen		length 7.8		width 5.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.6	2.6	7.6	6.8	3.9	28.5
2	6.6	2.5	6.0	5.6	2.9	23.6
3	5.8	2.2	4.7	5.1	2.4	20.2
4	7.1	2.3	6.2	7.1	3.1	25.8
Palp	3.2	1.2	2.0		3.2	9.6

Resembles the male in general characteristics.

Eyes The group occupies 4/7 of the width of the head. Curvature of the rows similar to that of the male. Ratio of AME.ALE.PME.PLE = 12.16.14.16. AME separated from each other by a distance equal to 6/12 and from the ALE by 4/12 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 9/12 of the diameter of an AME. MOQ wider behind than in front in the ratio of 37.30 and longer than wide behind in the ratio of 38.37. Height of clypeus equal to 16.12 of the diameter of an AME.

Abdomen The epigynum and internal genitalia are shown in Figs. 430-431.

Types Holotype male. Taranaki. Mt Egmont, 16.i.1883 (Canterbury Museum). Plesiotype female. Nelson. Salisbury Opening, 24.i.1948, R. R. Forster (Dominion Museum).

Records Dunedin, 20.xi.1958, R.R.F. Dunedin, December 1966, R.R.F. Dunedin, 6.iv.1958, J. Weston. Frasers Gully, 13.v.1967, R. W. Hutton, C.L.W. Leith Saddle, 3.iv.1952, B. J. Marples. Signal Hill, Dunedin, under stones, 1.ii.1958, R.R.F. Taieri, 30.i.1955, R.R.F. Tainui, Dunedin, 12.iv.1966, J. Dineen. Catlins, near Puketiro Rd Junction, 31.viii.1966, R.R.F. Pounawea, under logs, 17.i.1969, C.L.W. Taumatu, Papatowai, 11.i.1961, R.R.F. Plant Reserve, Balclutha, 21.iv.1966, R.R.F. Outram, Woodside Glen, 11.i.1969, C.L.W. Bull Creek, 14.v.1967, R. W. Hutton, C.L.W. Port Chalmers, above Deborah Bay, 13.v.1967, R. W. Hutton, C.L.W. Waipori Gorge, 18.xi.1966, R.R.F., C.L.W. Waipori Gorge, 8.xii.1966, R.R.F., C.L.W. Tapanui, 25.i.1951, R.R.F. Tapanui, 1.x.1959, R.R.F. Rock and Pillar, pitfall, 1 mile south of Summit rock, 8.ii.1969, 28.xii.1969, J. Child. Southland. Invercargill, March 1948, P. O. Beagle. Longwood Rge, 25.xi.1948, J. H. Sorensen. Waimeamea, Orepuki, 26.xi.1970, R.R.F., C.L.W. Alton Burn, Tuatapere, 25.xi.1970, R.R.F., C.L.W. Stewart Is., 6.ii.1947, O. Allan. Golden Bay, R. G. Ordish. Golden Bay, 15.xi.1961, R.R.F. Stewart Is., 1898,

W. Traill. Canterbury, Banks Peninsula, Kaituna Valley, 11.ix.1949, R.R.F. Kaituna Valley, 12.vi.1960, R.R.F. Back of Sugarloaf, 21.v.1950, J. S. Dugdale. Governors Bay, 22.i.1949, I. Cresswell. Paua Bay, 21.v.1950, L. P. Hughson. Pigeon Bay, 4.v.1952, J. S. Dugdale. Hickory Bay, Akaroa, 25.i.1952, R. L. Pilgrim. Mt Desmond, Akaroa, 26.iv.1950, L. P. Hughson. Akaroa, 14.x.1949, R.R.F. Christchurch, Kennedy's Bush, 30.xi.1946, R.R.F. Menzies Bay, 1.ix.1954, Lake Rubicon, 19.xi.1950, R.R.F. Kiwi Hut, Lewis Pass, 14.xi.1949, R.R.F. Arthurs Pass, 9.iv.1950, R. Jenkin. Lake Taylor, 14. iv.1952, R.R.F. Cass, Ribbonwood Ck, 21.v.1954, J. S. Dugdale. Upper Waimakariri River, 25.viii.1954, J. S. Dugdale. Hawdon River, September 1954, R. S. Bigelow. Hawdon Valley, 27.v.1954, J. S. Dugdale. Hoods Bush, 3.v.1953, R.R.F. Alford Forest, 12.ix.1954, R.R.F. Hermitage, Mt Cook, 20.i.1951, R.R.F. Fiordland. Cascade Ck, 16.ii.1960, 12.i.1971, 14.i.1971, 10.ii.1955, R.R.F. Eglinton Valley, under log, 13.xii.1943, J. T. Salmon. Eglinton Flat, 16.ii.1966, R.R.F. Lower Pyke, 10.iv.1956, H. Walker. Lake McKerrow, 24.i.1955, R.R.F. Martins Bay, 25.i.1955, J. S. Dugdale. Martins Bay, 1.ii.1955, R.R.F. Takahe Valley, 11.ii.1949, J. H. Sorensen. Lake Manapouri, 25.i.1951, R.R.F. Lake Te Au 12.i.1953, R.R.F. Lake Monk, 16.i.1960, A. Chapman. Spey River, 17.ii.1959, A. Chapman. Deep Cove, 25.i.1958, R.R.F. Thompson Sound, 2,800 ft, 25.i.1958, T. Hitchings. Thompson Sound, 3,000 ft, 21.i.1958, R.R.F. Upper Stillwater, Caswell Sound, 3.iii.1949, R.R.F. Long Sound, Jeannie Burn, pitfall, 24.i.1960, J. Kikkawa. Wet Jacket Arm, Dusky Sound, 5.ii.1955, R. Close. Westland. Bruce Bay, April 1946, R.R.F. Sth bank Paringa River, 3.vi.1954, J. M. Moreland. Franz Josef, 15.iv.1967, R. W. Hutton. Fox. 1.ix.1951, M. Warren. Okarito, 7.xii.1949, R.R.F. Lake Kanieri, 1.i.1956, J. H. Sorensen. Waitotara, August 1952, M. Warren. Greymouth, July 1956, L. R. Jackson. Stony Creek, Inangahua, 15.xii.1951, W. Clark. Moana, 10.iii.1950, R.R.F. Nelson. Mt Arthur Track, 4,000 ft, under log, 22.i.1948, R.R.F. Mt Arthur Tableland, 4,600 ft, under logs, 20.ii.1946, J. T. Salmon. Leslie Valley, 24.i.1948, R.R.F. Mt Balloon, under logs, 26.i.1948, R.R.F. Mt Balloon Cave, near entrance, 26.i.1948, R.R.F. Salisbury Opening, 23.i.1948, R.R.F. North Island. Mount Egmont, 16.i.1883 (label in Urquhart's writing). Palmerston North, 29.iii.1960, C. W. O'Brien.

Cambridgea secunda n.sp.

Figs. 432-435

MALE

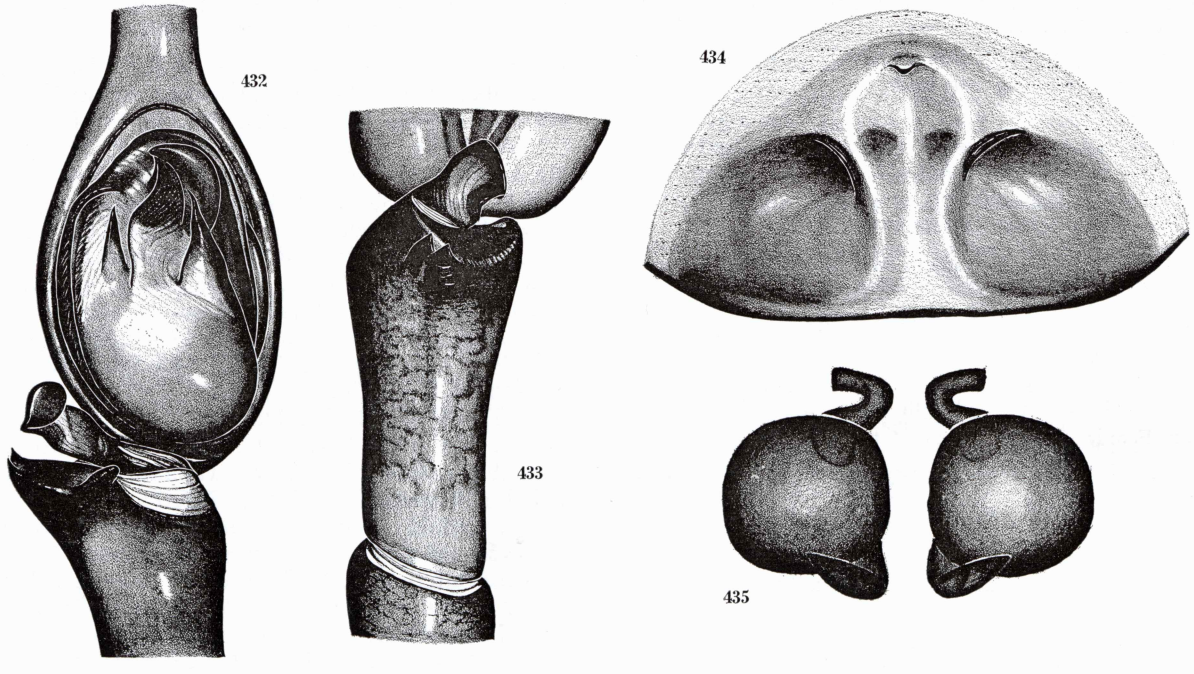
Measurements

Carapace length 3.8 width 2.7
Abdomen length 5.0 width 2.7

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.5	1.6	4.8	4.4	2.3	17.6
2	3.9	1.4	3.5	3.4	1.6	13.8
3	3.4	1.2	2.7	3.0	1.5	11.8
4	4.3	1.3	3.9	4.4	1.9	15.8
Palp	2.0	0.6	0.8		2.1	5.5

Colour Carapace pattern very strongly marked. Leg banding discernible slightly on the posterior pairs of legs. Abdomen generally pale with a row of black spots from the mid-dorsal region towards the spinnerets. Lateral and posterior surfaces lightly shaded.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 7.9.8.9. AME separated from each other by a distance equal to 3/7 and from the ALE by 4/7 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 6/7 of the diameter of an AME. MOQ



Figs. 432-435 *Cambridgea secunda* n.sp. Fig. 432 Ventral view of male palp. Fig. 433 Tibial processes of male palp. Fig. 434 Epigynum. Fig. 435 Internal genitalia.

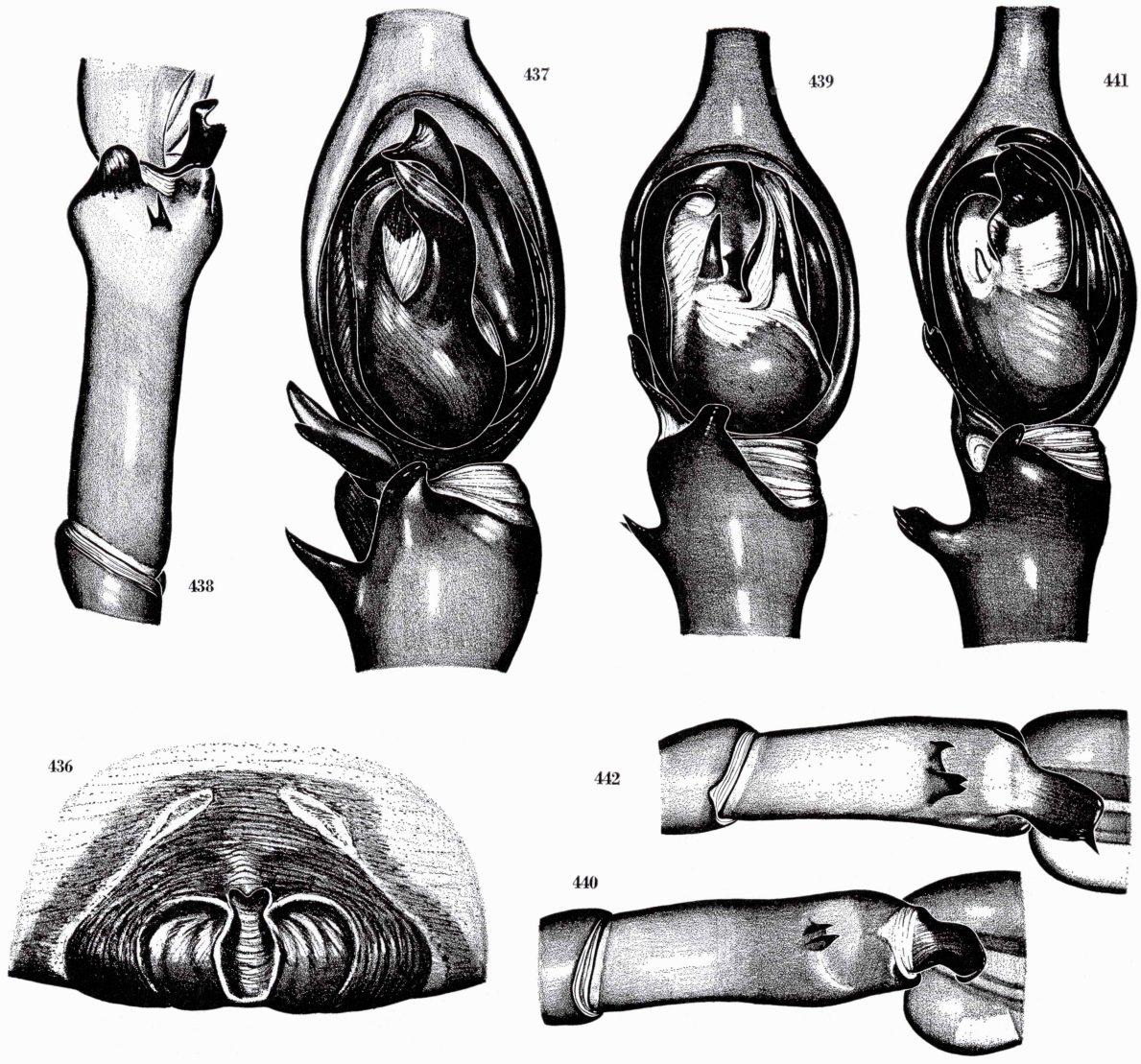


Fig. 436 Epigynum of *Cambridgea occidentalis* n.sp. Figs. 437-438 *Cambridgea peculiaris* n.sp. Fig. 437 Ventral view of male palp. Fig. 438 Tibial processes of male palp. Figs. 439-440 *Cambridgea occidentalis*, n.sp. Fig. 439 Ventral view of male palp. Fig. 440 Tibial processes of male palp. Figs. 441-442 *Cambridgea sylvatica* n.sp. Fig. 441 Ventral view of male palp. Fig. 442 Tibial processes of male palp.

wider behind than in front in the ratio of 22.17 and longer than wide behind in the ratio of 25.22. Height of the clypeus is equal to 6/7 of the diameter of an AME.

Palp Trichobothria. Tibia, pro 2.2.1, retro 3.2.1.1. Cymbium 1.1.1.1.1.1. Tibial processes and bulb are shown in Figs. 432, 433.

Legs All trochanters slightly notched, posterior pairs more strongly than anterior pairs. Spines typical. First leg. Femur, d.1.1.1. p.0.1.1. r.0.0.1. Tibia, v.2.2.2. p,r.0.1. Metatarsus, v.2.2 and subwhorl of 3, p.1 median r.0.

Abdomen Stridulating organ not as developed as in *arboricola*. Ridges much less sclerotized.

FEMALE

Measurements

Carapace length 4.0 width 2.8
Abdomen length 4.5 width 2.6

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.3	1.6	4.2	3.7	2.0	15.8
2	3.7	1.5	3.2	2.8	1.5	12.7
3	3.2	1.3	2.4	2.6	1.3	10.8
4	4.2	1.5	3.6	4.0	1.8	15.1
Palp	1.8	0.7	1.0		1.6	5.1

Resembles the male in general characteristics.

Palp Trichobothria. Tibia, pro 3.2.1, retro 3.2.1.1. Tarsus, 1.1.1.1.1. Claw with eight teeth.

Abdomen Epigynum and internal genitalia are shown in Figs. 434, 435.

Type Holotype male. Otago. Pitfall trap, Flagstaff, Dunedin, 23-31.i.1971, C. L. Wilton. Allotype female. Same locality and collector, 7-12.ii.1971 (Otago Museum).

Records Otago. Flagstaff, near Dunedin, pitfall traps, C.L.W. 6-13.xii.1970, 3-10.i.1971, 23-31.i.1971, 7-21.ii.1971, 21 Feb-7 March 1971, 3.iv.1971, 7-11.iv.1971, 11-29.iv.1971. Flagstaff ex tussock, 24.i.1955, B. J. Marples. Rock and Pillar Range, pitfall, 3,500 ft, 31.xii.1968, J. Child. Rock and Pillar Range, pitfall, Matagouri scrub, 800 ft, 10.iii.1969, J. Child. Lawrence, 10.x.1966, C.L.W. Frazers Gully, Dunedin, 31.x.1965, J. Child. Sullivans Dam, 24.iii.1955, B. J. Marples. Leith Saddle, pitfall, 17.i.1967, 17.ii.1968, R.R.F. Allans Beach, 26.xii.1952, B. J. Marples.

Cambridgea occidentalis n.sp.

Figs. 436, 439-440

Carapace	length 7.4	width 6.4	
Abdomen	length 10.8	width 7.2	

MALE

Measurements

Carapace	length 4.5	width 3.1	
Abdomen	length 5.2	width 2.8	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.7	1.8	6.2	5.3	3.0	22.0
2	4.7	1.6	4.3	4.0	2.3	16.9
3	4.0	1.4	3.4	3.7	1.9	14.4
4	5.0	1.5	4.5	5.2	2.5	18.7
Palp	2.5	0.8	1.0		2.5	6.8

Colour Carapace creamy yellow with a broad median band and lateral marginal bands. The median band fades slightly anteriorly and posteriorly does not reach petiolus. The posterior pairs of legs are slightly marked with bands. Abdominal pattern typical but rather obscure.

Eyes The group occupies 4/7 of the width of the head. From in front the anterior row is slightly recurved and the posterior row procurved. From above the anterior row is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 8.11.10.10. AME separated from each other by a distance equal to 3/8 and from the ALE by 4/8 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/8 and from the PLE by 5/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 24.19 and longer than wide behind in the ratio of 29.24. Height of clypeus equal to the diameter of an AME.

Chelicerae Promargin with four teeth of fairly even size and spacing. Retromargin with two teeth.

Palp Trichobothria. Tibia, 6.4.2.1, cymbium, 1.1.1.1.1.1. The tibial processes and bulb are shown in Figs. 439, 440.

Legs Trochanters slightly notched. Spines rather slender and sharp and on the anterior pairs of legs the long erect hairs are curved. Spination typical except that the subwhorl on the metatarsus of the second pair consists of 5 instead of 4 spines which is the usual number found in the *antipodiana* and *arboricola* groups.

Abdomen The stridulating organ appears to be an undeveloped form of that of *antipodiana*. There are five unsclerotized ridges.

FEMALE

The epigynum illustrated (Fig. 436) is of a female from Open Bay Is. which probably is this species.

Type Holotype male. Westland. Rough River, Ikamatua, Greymouth, 4.iv.1956, L. R. Jackson (Otago Museum).

Cambridgea peculiaris n.sp.

Figs. 437-438

MALE

Measurements

Carapace	length 4.2	width 2.9	
Abdomen	length 5.0	width 2.0	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.9	1.6	7.5	6.9	3.3	26.2
2	5.3	1.4	5.0	4.8	2.5	19.0
3	4.4	1.2	3.6	4.1	2.0	15.3
4	5.4	1.4	5.1	5.9	2.8	20.6
Palp	2.7	0.7	1.1		2.8	7.3

Colour Carapace creamy yellow with a slight orange tinge. Black bands originate at the PME and PLE on each side and unite behind the median fovea and continue as a a single band to the posterior margin. There is a black band on each lateral margin. PME each on a black spot as are each pair of the lateral eyes and the AME. Chelicerae same colour as the carapace with dark shading on the anterior surface. Legs pale with dark shading which becomes bands on the posterior pairs. Abdomen pale cream on the anterior half and becoming dark olive grey on the posterior half. On each side there is a dark band which follows the lateral shape of the abdomen and merges with the dark posterior surface. Within the pale space enclosed by these bands are two short bands extending forward for a short distance from the dark posterior half.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is slightly recurved and the posterior row procurved. From above the anterior row is recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 6.9.8.9. AME separated from each other by a distance equal to 3/6 and from the ALE by 4/6 of the diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 3/6 of the diameter of an AME. MOQ wider behind than in front in the ratio of 19.15 and longer than wide behind in the ratio of 24.19. Height of clypeus equal to 5/6 of the diameter of an AME.

Chelicerae Promargin with four small teeth which are evenly spaced and nearer to the base of the segment than they are to the fang. First and third teeth very small. Retromargin with two teeth.

Palp Trichobothria. Tibia, p.2.2.2.1, r.2.2.1.1.1. Cymbium, 1.1.1.1.1.1.1. The tibial processes and the bulb are shown in Figs. 437, 438.

Legs The trochanters are notched. The long hairs on the anterior pairs of legs are curved. The spination is typical except that the metatarsus of the second pair of legs has a distal subwhorl of five spines. Inferior claws of a first leg with four teeth and superior claw twelve teeth.

Abdomen There are no stridulating ridges.

Type Holotype male. North Auckland. Pitfall trap, Mimiwhangata, Bay of Islands, 10-17.xii.-1970, J. Darby (Otago Museum). Paratype males, same data.

The embolus of the palp is different in form from other known species of *Cambridgea* or allied genera but otherwise is typical.

Cambridgea sylvatica n.sp.

Figs. 441-442

MALE

Measurements

Carapace	length 3.6	width 2.9	
Abdomen	length 4.8	width 2.5	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	Missing					
2	5.2	1.5	4.8	4.4	2.5	18.4
3	4.2	1.4	3.2	3.7	2.0	18.7
4	5.3	1.4	4.7	5.2	2.6	19.2
Palp	2.2	0.7	1.0		2.3	6.2

Colour Carapace pale yellowish brown with a broad brown median band extending from the eyes to the posterior margin. There is a narrow brown band on each lateral margin. Only slight banding on the legs. Abdomen pale but darkening on the lateral and posterior slopes. There is a dark longtitudinal band on each side which gradually merges with the darker posterior surface. Ventral surface clearly defined from the lateral surfaces and posterior spinnerets are darker than the anterior spinnerets.

Eyes The group occupies 2/3 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row

is slightly recurved and the posterior row straight. Ratio of AME.ALE.PME.PLE = 8.10.9.10. AME separated from each other by a distance equal to 3/8 and from the ALE by 2/8 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 4/8 and from the PLE by 6/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 22.19 and longer than wide behind in the ratio of 27.22. Height of the clypeus equal to 7/8 of the diameter of an AME.

Chelicerae Relatively short and stout. The teeth resemble those of a female of *antipodiana*.
Palp The tibial processes and the bulb are shown in Figs. 441-442.

Legs The coxa of a fourth leg with a protuberance on the basal posterior surface. The trochantera are broadly notched. Second leg. Femur, d,p.1.1.1. r.1.0.1. Tibia, v,p.1.1.1. r.0.1.1. Metatarsus, v.2.2, and a distal subwhorl of 4, p.1.1. r.0.1. Third leg. Femur, d,p,r.1.1.1. Patella, 1.1. Tibia, v.1.2.2. d,p,r.1.1. Metatarsus, v.2.2 and subwhorl of 5, p,r.1.1. Fourth leg. Femur, d.1.1.1. p.1.0.1. r.0.1.1. Patella, tibia and metatarsus the same as the third leg. Trichobothria. Second leg. Tibia, p.3.2.1. r.2.1.1.1.1. Metatarsus, 1.1.1.1.1.1. Tarsus, 1.1.1.1.1.1.1. Inferior claw with three teeth and superior claws with thirteen.

Abdomen The colulus is semicircular and as wide as long. The stridulating organ is sclerotized, with five ridges but is much smaller and simpler than that of *antipodiana*.

Types Holotype male. North Auckland. Mangamuka Gorge, in bush, 19.ix.1953, B. J. Marples (Otago Museum).

Cambridgea foliata (L. Koch) 1872

1872 *Tegenaria foliata*, L. Koch. Arachn, Austral. 1(1): 356.

1878 *Tegenaria foliata*, Karsch. Zeitschr. ges. Naturw. 51: 796.

1898 *Cambridgea foliata*, Simon. Hist. Nat. Araign. 2(2): 234.

1946 *Cambridgea foliata*, Parrott. Rec. Cant. Mus. 5(2): 61.

Figs. 443-447

FEMALE

Measurements

Carapace length 7.4 width 6.4
Abdomen length 10.8 width 7.2

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Tot.
1	8.8	3.0	9.6	9.4	4.4	35.2
2	8.0	3.0	7.4	6.6	3.0	28.0
3	6.8	2.2	5.0	5.2	2.2	21.4
4	8.4	2.8	6.6	6.8	2.8	27.4
Palp	4.0	1.4	2.4		3.4	11.2

Colour (Fig. 443). Carapace and chelicerae uniform reddish brown. The abdomen is a uniform greyish yellow with the posterior dorsal surface darker. The legs are orange brown.

Carapace The width of the head is equal to 5/8 of the width of the thorax. Lateral margins of the head straight and parallel, extending back one fifth of the length of the carapace. Fovea distinct.

Eyes The eyegroup occupies one half of the width of the head. From above the anterior row is recurved and the posterior row slightly procurved. Ratio of AME.

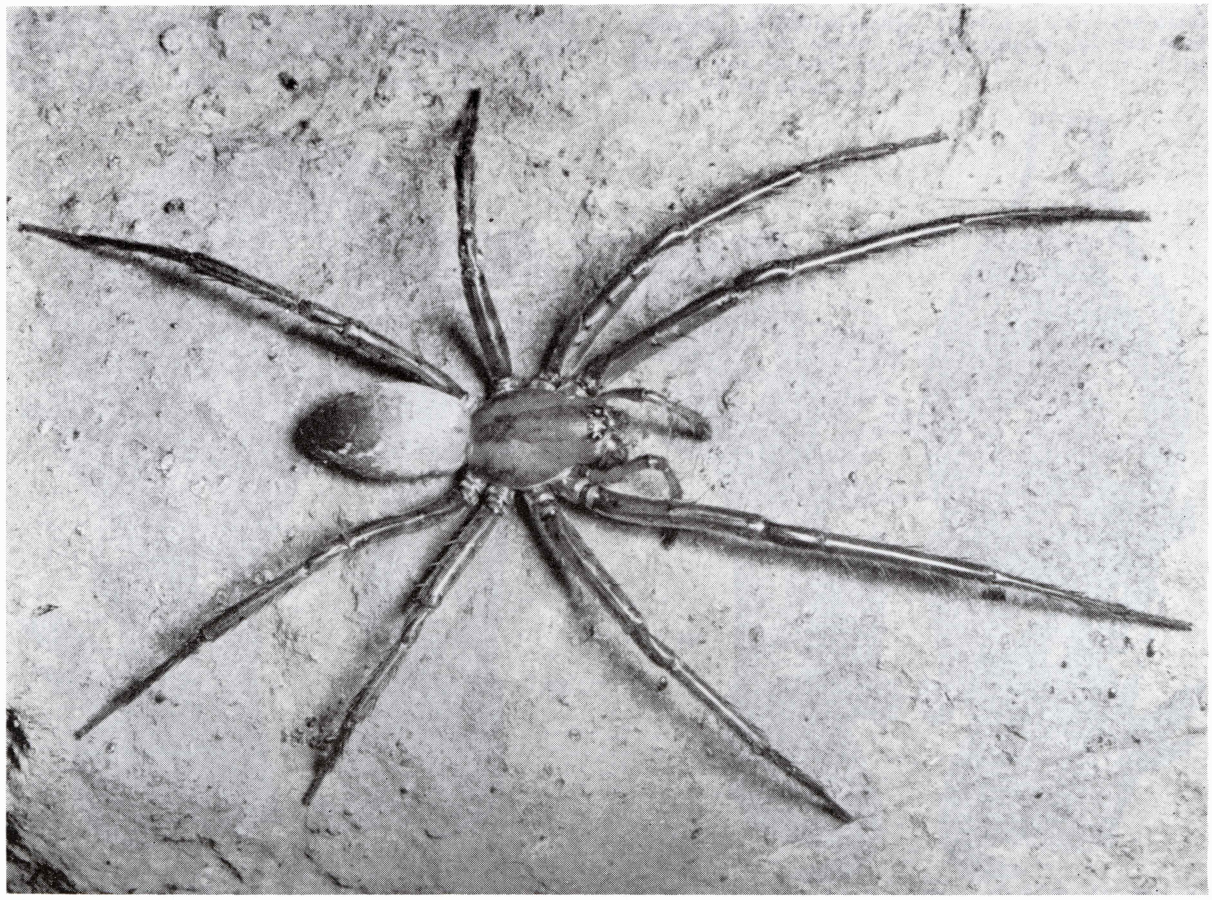


Fig. 443 *Cambridgea foliata* (L. Koch) female.

ALE.PME.PLE = 10.10.9.10. AME separated from each other by a distance equal to 5/10 and from the ALE by 3/10 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 9/10 and from the PLE by 7/10 of the diameter of an AME. MOQ wider behind than in front in the ratio of 27.25 and longer than wide behind in the ratio of 31.27. Height of clypeus equal to 8/10 of the diameter of an AME.

Sternum The anterior margin is gently incurved and the lateral margins evenly curved to the posterior margins of coxae 3 where they slope sharply to the posterior projection. The posterior projection is relatively long and separates coxae 4 by a distance equal to 3/7 of the width of a coxa.

Maxillae The inner margins are curved in over the labium and the outer margins are straight. Anterior margin evenly curved. Scopula thick. Twice as long as wide.

Labium Notched at the base. Lateral margins straight and convergent. Anterior margin straight. As long as wide.

Chelicerae The length of the chelicerae is equal to 4/9 of the length of the carapace. Lateral boss strong. Proximal portion of the chelicera swollen. Retromargin with two closely spaced teeth. Promargin with three teeth.

Palp Spines. Femur, d.1.1.1. p,r.0.0.1. Tibia p.1.1. d.1.0.

Legs Clothed with short plumose hairs and longer smooth hairs. Spines. First leg. Femur, d.1.1.0.1 p,r.0.1.1. Tibia, v.2.2.2.1.2. p.1.0.1.1.0. r.0.1.1.0.1. Metatarsus, v.2.2.1. p.1.0.1. r.0.1.1. Second leg. Femur d.1.1.0.1. p.1.1.1.1. r.0.1.1.1. Tibia, v.2.1.2.1.2. p.0.1.1.1.0. r.0.1.0.1.0. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Third leg Femur, d.1.1.0.0.1. p.1.1.1.1.1. r.0.1.1.1.1. Tibia, v.2.2.2.2 p,r.1.0.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Fourth leg. Femur, d.1.1.0.1. r.0.0.1.1. Tibia, v.2.2.2. p,r.0.1.1 Metatarsus, v.2.2.1. p,r.1.1.2. Trichobothria are numerous and similar to *antipodiana*.

Abdomen The epigynum and internal genitalia are distinctive as shown in Figs. 446, 447. The anterior spinnerets are stout and squat while the posterior pair are more slender and slightly longer. The colulus is large and flat, with the posterior margin evenly curved. The spiracle is distinct and situated at the base of the spinnerets.

MALE

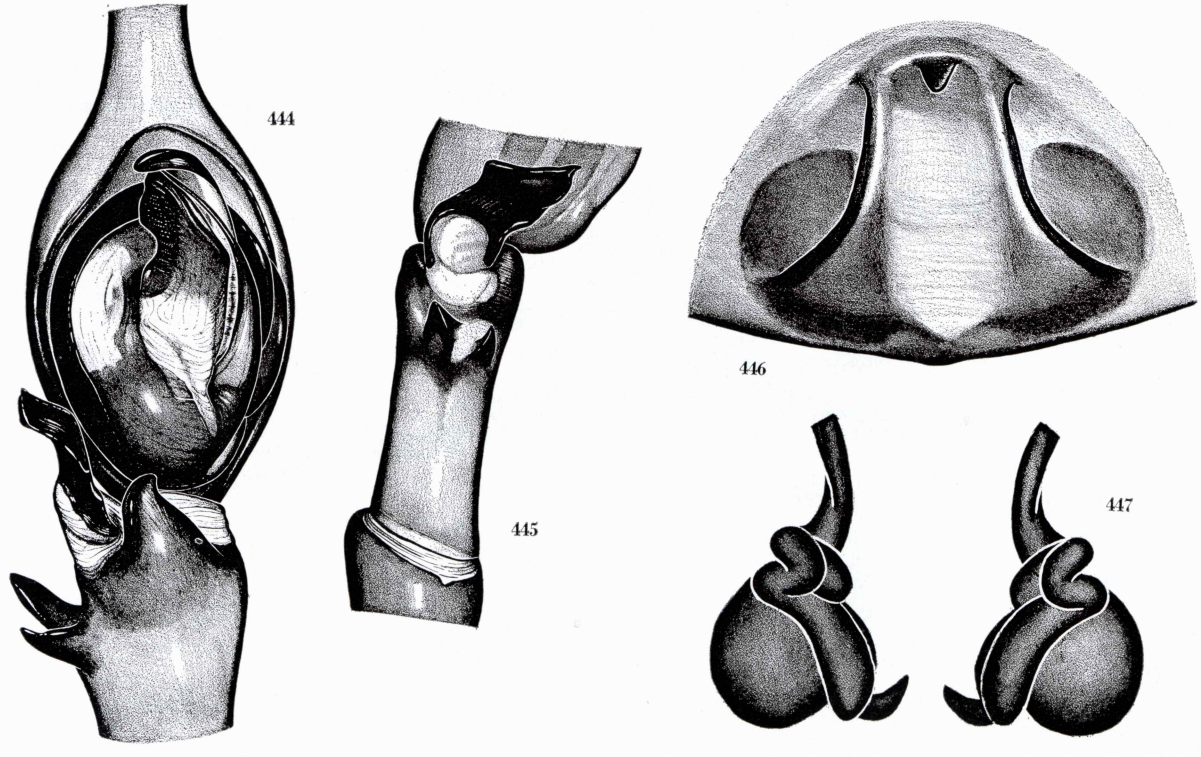
Measurements

	Carapace		length 10.0		width 7.2	
	Abdomen		length 9.2		width 5.4	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	12.0	3.6	14.0	12.8	6.2	48.6
2	10.8	3.4	10.0	8.8	4.2	37.2
3	8.4	2.4	6.8	7.6	3.6	28.8
4	10.6	2.8	8.8	4.2	8.8	35.2
Palp	5.6	1.4	1.8		6.2	15.0

With most of the characters of the female. Usually larger than the female. The chelicerae are relatively longer, equal to 17/25 of the length of the carapace. Retromargin with two teeth but promargin with four teeth with a small extra tooth placed between the distal two. Palp is as shown in Figs. 444, 445. No abdominal stridulating organ.

Type Location of the type of *Tegenaria foliata* L.Koch. not known.

Records North Island. Auckland, Parnell, 1.v.-1947, in house, E. G. Turbott. Beachlands, January 1951, J. Campbell. Auckland, January 1968, M. Pilai. Titirangi, 16.iv.1947, B. Molesworth. Waitakere Rge, 8.ii.1949, R.R.F. Takapuna, in house, 4.iv.1953, Vosper. Freyberg Wharf, Auckland, 21.vi.1963, Muritai, 10.vii.1929, A. Stack. Waimaina, 12.xii.1937, J. M. Valentine. Taurikura Bay, Whangarei Heads, 5.vi.1970, D. Court.



Figs. 444-447 *Cambridgea foliata* (L. Koch). Fig. 444 Ventral view of male palp. Fig. 445 Tibial processes of male palp. Fig. 446 Epigynum. Fig. 447 Internal genitalia.

Mimiwhangata, 16.xii.1970, J. Darby. Kauri forest east of Kaikohe, 21.viii.1953, B. J. Marples. Kokukohu, 21.viii.1953, B. J. Marples. Trounson Park, 3.xii.1932, J. M. Valentine. Kaitaia, 3.iii.1954, F. Baker. Cape Reinga, 7.i.1967, R.R.F. Little Barrier Is., Te Waikohare Stream, 14.ix.1959, A. Chapman. Little Barrier Is., Summit Track, 22.xi.1947, E. G. Turbott. Little Barrier Is., December 1966, E. Townsend. Gt Barrier Is., Motairehe Track, 18.xi.1963, R. G. Ordish. Cuvier Is., July 1943, R.R.F. Big Chicken Is., December 1953, Manunui, 25.ii.1967, C.L.W. Bird Cage Entrance, 10 yards inside Karamu Cave, near Te Awamutu, 20.iv.1957, P. Skinner. Ohakune, T. R. Harris. Ranawahia, February 1954, V. Mitchell. Rotorua, 25.viii.1970, D. Court. Rotorua, February 1952, B. J. Marples. Lake Rotorua, 18.v.1960, K. E. Seal. Pukeamaru Rge, East Cape, December 1950, J. M. Moreland. Hicks Bay, December 1950, R. K. Dell. Lotin Point, Cape Runaway, 10.iii.1962, R. K. Dell. Waikaremoana, 13.xii.1946, R.R.F. Hawkes Bay, Mahoe, 26.iii.1966, R. W. Hutton. Waipatiki, 20.ii.1968, R. W. Hutton. New Plymouth, February 1970, R. Allan. Inglewood, 28.viii.1960, B. J. Marples. New Plymouth, 1923, Bellringer. Palmerston North, 16.xii.1957, J. I. Townsend. Wanganui, Westmere, 12.xii.1948, J. M. Moreland. Wellington, Days Bay, 24.ix.1956, R. A. Falla. Stokes Valley, 31.v.1957, R. E. Penman. Paekakariki, 12.viii.1922, J. G. Myers. Wairarapa, Masterton, 24.xii.1947, M. Lawson. Carters Reserve, near Gladstone, 15.ix.1967, C.L.W. Solway, 24.vii.1966, R. W. Hutton. Mangareia, 11.ix.1945, C.L.W. South Island. Nelson, Miner River, 11.vi.1961, J. I. Townsend. Marlborough, Queen Charlotte Sound, January 1955, R. L. Pilgrim. Westland, Hayden's Spur, Barrytown, July 1956, L. R. Jackson. Punakaiki, 27.ix.1966, R.R.F., C.L.W.

This large and conspicuous spider is widespread in the North Island but occurs only in the Nelson-Marlborough and north Westland regions of the South Island. The webs are typical in form but very large. The sheet may at times be up to 3 feet in width. Commonly found within forest this species rarely lives in settled areas. The web is usually constructed from a secure retreat, such as a hole in a tree trunk.

Cambridgea plagiata n.sp.

Figs. 448-451

FEMALE

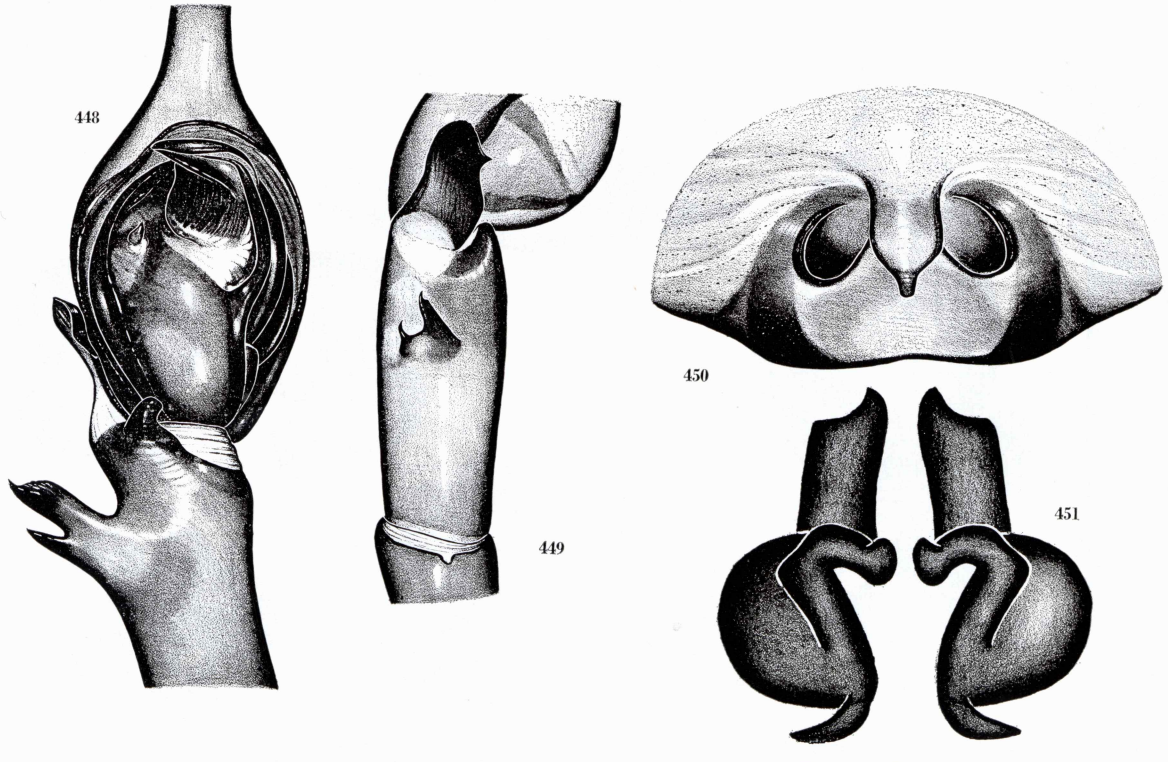
Measurements

Carapace	length 6.2	width 4.4	
Abdomen	length 5.8	width 4.8	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.4	2.4	6.6	6.0	3.4	25.8
2	5.2	2.0	4.8	4.4	2.6	19.0
3	5.2	2.0	4.4	4.4	2.4	18.4
4	6.4	2.0	5.2	6.6	3.0	23.2
Palp	2.9	1.1	1.8		3.2	9.0

Colour The carapace is similar to *turbotti* but the pale area in the median band is absent. Legs banded. Abdomen with grey shading leaving a pale area on the antero-dorsal surface and four longitudinal pale streaks on the ventral surface. Chelicerae and maxillae dark red brown.

Carapace Width of the head equal to 7/11 of the width of the thoracic region. Lateral margins of the head straight and parallel, extending back one quarter of the length of the carapace.



Figs. 448-451 *Cambridgea plagiata* n.sp. Fig. 448 Ventral view of male palp. Fig. 449 Tibial processes of male palp. Fig. 450 Epigynum. Fig. 451 Internal genitalia.

Eyes Eyegroup placed on a slightly raised area which occupies 9/14 of the width of the head. From above the posterior row is straight and the anterior row slightly recurved and the posterior row is slightly procurved. Ratio of AME.ALE.PME.PLE = 7.10.7.10. AME separated from each other by a distance equal to 5/7 and from the ALE by 3/7 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 7/7 and from the PLE by 6/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 21.19 and longer than wide behind in the ratio of 25.21. Height of clypeus equal to 5/7 of the diameter of an AME.

Sternum The anterior margin is straight and the lateral margins undulate. The posterior projection is long and sharp and separates coxae 4 by a distance equal to one half of the width of a coxa.

Maxillae Lateral margins straight and slightly divergent. Anterior margin rounded. Scopula thick. Longer than wide in the ratio of 5.3.

Labium Notched at the base. Lateral margins straight and convergent. Anterior margin straight. As long as wide.

Chelicerae Length of the chelicerae equal to 17/31 of the length of the carapace. Retromargin with two teeth. Promargin with five teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 450, 451. Colulus large and flat evenly curved posteriorly.

MALE

Measurements

	Carapace		length 7.2		width 4.8	
	Abdomen		length 7.0		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	9.6	3.0	10.4	9.2	4.6	36.8
2	7.4	2.8	7.2	6.4	3.6	27.4
3	7.2	2.2	5.8	4.2	2.8	22.2
4	8.0	2.4	7.4	7.8	3.8	29.4
Palp	4.2	1.6	1.7		4.4	11.9

Similar in most characters to the female. The palp is shown in Figs. 448, 449. The length of the chelicerae is equal to 11/18 of the length of the carapace, teeth as in female. The spinous process is present on the lorum but much smaller than in *antipodiana*. The posterodorsal surface of the abdomen is wrinkled and slightly sclerotized but does not form definite ridges.

Types Holotype male. Hawkes Bay, Kereru, Poporangi Ck, 17.ii.1954, J. S. Dugdale (Otago Museum). Allotype female. West Taupo, Upper Waihaha Valley, in sink hole, 4.xi.1953, R. K. Dell (Dominion Museum).

Records West Taupo, Ngakotoko Rd Bridge, 3.ii.1953. Red Mercury Is., September 1971, D. Court. Little Barrier Is., in outhouse, 30.xi.1947, E. G. Turbott. Gt Barrier Is., Motairehe, Katherine Bay, 19.xi.1964, R. G. Ordish. Cambridge, collected at night on slopes leading down to lake, 15.viii.1953, B. J. Marples. Hawkes Bay, Mahoe, between rocks in bush, 26.iii.1966, R. W. Hutton. Waikaremoana, 9.i.1969, R. W. Hutton.

Cambridgea turbotti n.sp.

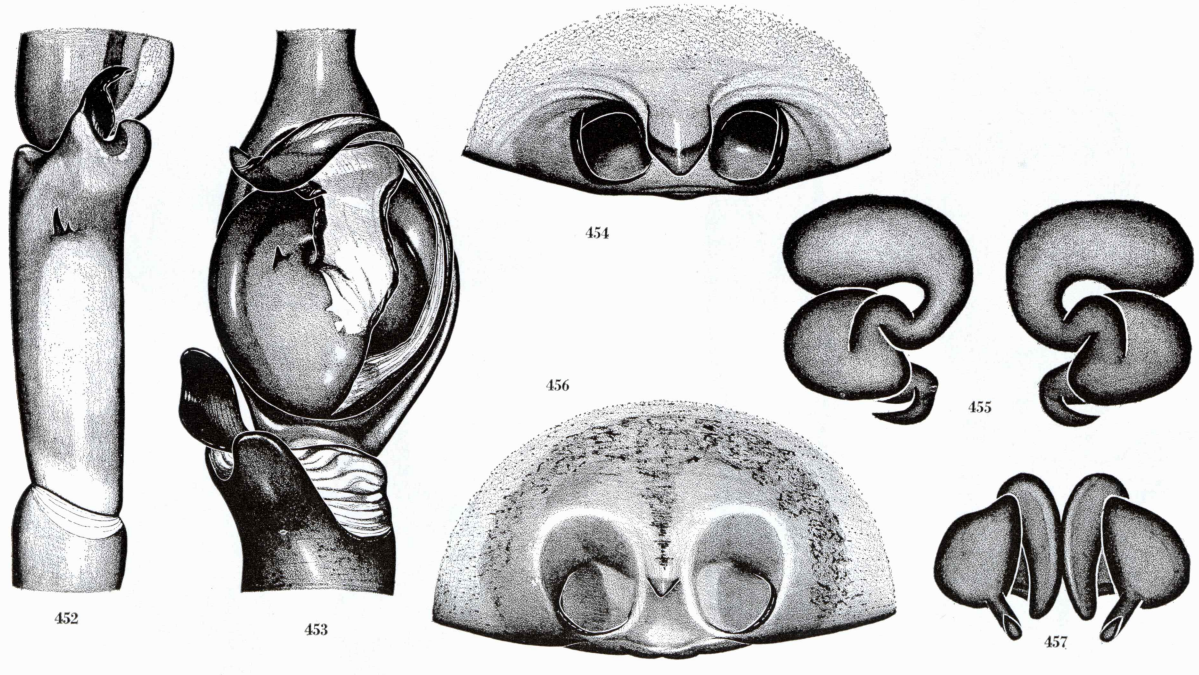
Figs. 452-457

FEMALE

Measurements

	Carapace		length 5.2		width 3.6	
	Abdomen		length 6.2		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.0	2.2	6.4	5.6	3.2	23.4
2	5.0	2.0	4.4	4.2	2.4	18.0
3	4.2	1.6	3.6	4.2	1.9	15.5
4	5.0	1.7	5.0	5.6	2.6	19.9
Palp	2.4	1.0	1.6		2.2	7.2

Colour Carapace with a broad reddish brown band extending from the eyes to the posterior margin and a similar brown band extending around each lateral margin. Mid surface of the median band from the eyes to



Figs. 452-455 *Cambridgea turbotti* n.sp. Fig. 452 Tibial processes of male palp. Fig. 453 Ventral view of male palp. Fig. 454 Epigynum. Fig. 455 Internal genitalia. Figs. 456-457 *Cambridgea reinga* n.sp. Fig. 456 Epigynum. Fig. 457 Internal genitalia.

the fovea paler than the rest of the head. Lateral areas enclosed by the bands are pale yellow. Legs conspicuously banded with dark brown. Chelicerae reddish brown. Abdomen uniform greyish brown.

Carapace Width of the head equal to 2/3 of the width of the thoracic region. Lateral margins of the head straight and parallel extending back one quarter of the length of the carapace. Fovea long, with margins slightly raised.

Eyes The eyegroup occupies 7/12 of the width of the head. From above the posterior row is slightly procurved and the anterior row more strongly recurved. From in front both rows appear procurved. Ratio of AME.ALE.PME.PLE = 21.28.24.29. AME separated from each other and from the ALE by a distance equal to 11/21 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 21/12 and from the PLE by 17/21 of the diameter of an AME. MOQ wider behind than in front in the ratio of 69.53 and longer than wide behind in the ratio of 77.69. Height of clypeus equal to 22/21 of the diameter of an AME.

Sternum Longer than wide in the ratio of 13.11. The anterior margin straight and the lateral margins slightly undulate. Posterior projection relatively long and slender but rounded distally, separating coxae 4 by a distance equal to one half of the width of a coxa.

Chelicerae Length of the chelicerae equal to 7/13 of the length of the carapace. Retromargin with two closely spaced distal teeth. Promargin with four teeth at the proximal end of the groove.

Palp Spines. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, p.1.1. d.1.0. Trichobothria. Tibia, 2.2.1. Tarsus, 1.1.1.1.1.1.1.1. Claw with 12 small uniform teeth.

Legs Spines. First leg. Femur, d.1.1.0.1. p.0.2.0.1. r.0.0.0.1. Tibia, v.1.2.2.0.1. p,r.0.0.1.1.0. Metatarsus, v.2.2.1. p.0.1.1. r.0.0.1. Second leg. Femur, d.1.0.1.1. p.0.1.1.1. Tibia, v.2.2.2. p.0.1.1. r.0.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. Trichobothria. Tibia, 2.1. Metatarsus and tarsus, 1.1.1.1.1.1.1.1. Superior claws with from 12-13 teeth. Inferior claw with three teeth.

Abdomen Epigynum and internal genitalia are shown in Figs. 454, 455. Colulus large, flattened and evenly curved posteriorly.

MALE

Measurements

	Carapace		length 4.0		width 2.7	
	Abdomen		length 5.0		width 2.5	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.4	1.7	7.1	6.6	3.6	25.4
2	5.0	1.6	4.9	4.8	2.7	19.0
3	4.3	1.4	3.5	4.1	2.1	15.4
4	5.3	1.5	5.0	6.0	3.0	20.8
Palp	2.2	0.7	1.2		2.2	6.3

Resembles the female in general characteristics.

Palp Trichobothria. Tibia, in two rows each with 1.1.1.1. Cymbium, 1.1.1.1.1.1.1. The tibial processes and bulb are shown in Figs. 452, 453.

Abdomen There are no stridulating ridges present.

Types Holotype female. Three Kings Islands, Great Island, under stone in Quadrat 1, 14.v.1946, E. G. Turbott (Auckland Museum). Allotype male. Three Kings Island, Great Island, beaten at night, November 1970, J. C. Watt and G. W. Ramsay (Ent. Divn. D.S.I.R.).

Records Three Kings Islands, Castaway Camp, November 1970, G. W. Ramsay.

Cambridgea reinga n.sp.

Figs. 456-457

FEMALE

Measurements

	Carapace		length 3.7		width 2.6	
	Abdomen		length 4.6		width 2.8	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.6	1.5	4.6	3.8	2.4	16.9
2	3.8	1.3	3.3	2.9	1.8	13.1
3	3.2	1.1	2.6	2.7	1.4	11.0
4	4.2	1.3	3.7	4.0	1.9	15.1
Palp	1.8	0.7	1.2		1.7	5.4

Colour Carapace pale cream with a broad median band and lateral bands. The median band is divided longitudinally between the PME and the fovea. The posterior pairs of legs are banded. Abdomen pale anteriorly becoming darker on the lateral and posterior slopes. On each side there is a dark band which follows the lateral outline of the adbomen and merges with the darker areas posteriorly. Between these bands a series of dark flecks or spots converge from each side to meet mid-dorsally and continue as a single row posteriorly. Ventral surface uniformly brownish grey and separated from the lateral surfaces on each side by a row of white spots. No marked differences in colour between the anterior and posterior spinnerets.

Eyes The group occupies 3/5 of the width of the head. From in front the anterior row is straight and the posterior row procurved. From above the anterior row is recurved and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 7.10.8.9. AME separated from each other and from the ALE by a distance equal to 3/7 of the diameter of an AME. Laterals are narrowly separated. PME separated from each other by 5/7 and from the PLE by 4/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 21.17 and longer than wide behind in the ratio of 25.21. Height of clypeus equal to 6/7 of the diameter of an AME.

Chelicerae Typical. Teeth on promargin slightly more separated than in *antipodiana*.

Palp Trichobothria. Tibia. p.2.2.1. r.3.2.1.1.1. Cymbium, 1.1.1.1.1.1. Claw with seven teeth.

Legs Trochantera notched. Long hairs on anterior pairs curved. Metatarsus of a second leg with a distal subwhorl of 5 spines.

Abdomen The epigynum and internal genitalia are shown in Figs. 456, 457.

Type Holotype female. North Auckland. Cape Reinga, 7.i.1967, R. R. Forster (Otago Museum).

Cambridgea ramsayi n.sp.

Figs. 458-461

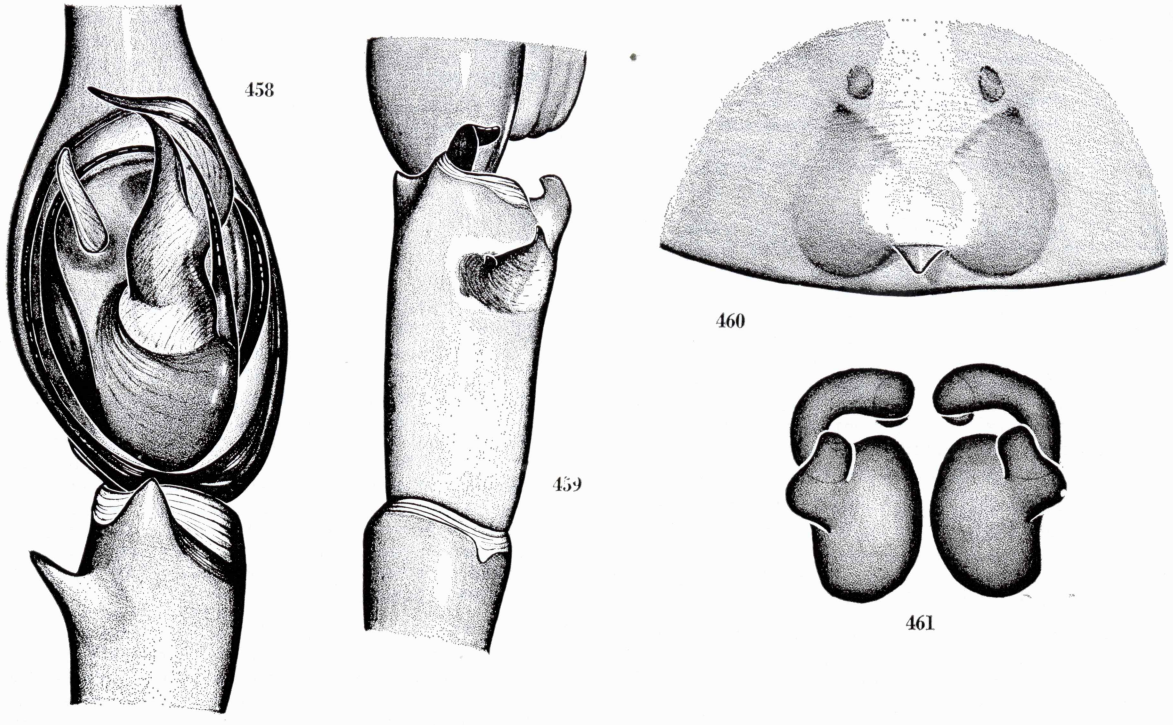
MALE

Measurements

	Carapace		length 2.48		width 2.00	
	Abdomen		length 3.00		width 2.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.47	0.95	3.72	3.34	1.95	13.43
2	2.84	0.88	2.52	2.52	1.45	10.21
3	2.58	0.88	2.14	2.39	1.32	9.31
4	3.15	0.82	2.96	3.21	1.76	11.90
Palp	1.64	0.44	0.72		1.80	4.60

Colour Cephalothorax and chelicerae dark red brown. Legs uniform orange brown. Abdomen cream with black shading except for the antero-dorsal surface and two pale patches on each lateral surface.

Carapace The width of the head is equal to 3/5 of the width of the carapace. Lateral margin of the head straight, extending back one third of the length of the carapace. Fovea distinct.



Figs. 458-461 *Cambridgea ramsayi* n.sp. Fig. 458 Ventral view of male palp. Fig. 459 Tibial processes of male palp. Fig. 460 Epigynum. Fig. 461 Internal genitalia.

Eyes The eyegroup occupies 2/3 of the width of the head. From above the anterior row is slightly recurved and the posterior row straight. From in front the anterior row is slightly recurved and the posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 12.18.16.17. AME separated from each other by a distance equal to 5/12 and from the ALE by 8/12 of the diameter of an AME. Lateral eyes separated by a distance equal to 9/12 of the diameter of an AME. PME separated from each other by 12/12 and from the PLE by 14/12 of the diameter of an AME. MOQ wider behind than in front in the ratio of 44.29 and longer than wide behind in the ratio of 46.44. Height of the clypeus equal to 15/12 of the diameter of an AME.

Sternum As long as wide. Anterior margin straight, lateral margins evenly curved. Posterior projection sharp, separating coxae 4 by 2/3 of the width of a coxa.

Maxillae Longer than wide in the ratio of 5.3. Inner margin convergent.

Labium Basal notch small. Lateral margins straight and parallel. Anterior margin gently incurved. Slightly wider than long.

Chelicerae Directed obliquely forward. Long and slender, equal to 5/6 of the length of the carapace. Boss present. Retromargin with two widely spaced teeth. Promargin with three closely spaced teeth at the proximal limit of the furrow.

Palp As shown in Figs. 458, 459.

Legs Spines. First leg. Femur, d.1.1.0.1. p.0.0.1.0. Tibia, v.0.2.2. p.0.1.1. r.0.0.1. Metatarsus, v.0.2.1. p.0.1.1. Second leg. Femur, d.1.1.0.1. p.0.1.1.1. Patella, d.0.1. Tibia, v.0.2.2. r.0.1.1. d.1.1.0. Metatarsus, v.0.2.1. p,r.0.1.2. Trichobothria. First leg. Tibia, 1.3. Metatarsus and tarsus, 5. Second leg, Tibia, 2.2.1. Metatarsus, 1.1.1.1.1. Tarsus, 6. Third leg. Tibia, 2.2.2.1.1. Metatarsus, 5. Tarsus, 6. Fourth leg, Tibia, 1.2.1. Metatarsus, 5. Tarsus, 6. Tarsal organ present at 4/5 of each tarsus. Superior claws with ten teeth. Inferior claw with three teeth.

Abdomen The posterior pair of spinnerets are slightly longer than the anterior pair. The colulus is large, flat, with the posterior margin evenly curved. No stridulating ridges.

FEMALE

Measurements

	Carapace	length 2.55		width 1.85		
	Abdomen	length 2.75		width 2.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.65	0.90	2.70	2.30	1.60	10.15
2	2.25	0.80	1.90	1.75	1.20	7.90
3	2.10	0.75	1.65	1.75	1.05	7.30
4	2.60	0.85	2.40	2.40	1.40	9.65
Palp	1.05	0.40	0.70		1.15	3.30

Resembles the male in general characteristics.

Carapace The highest point is at the fovea and the posterior slope is steep. With the exception of the posterior slope there is a rather dense covering of long hairs.

Palp Trichobothria. Tibia, 3.3.2.1. Tarsus, 1.1.1.1.1. Claw with seven teeth.

Abdomen The median spinnerets are relatively large with the spigots extending down the posterior surface. The epigynum and internal genitalia are shown in Figs. 460, 461.

Types Holotype male. Taranaki. Dawson Falls, Mount Egmont, 3,100 ft, 20.i.1955, G. Ramsay. Allotype female. Taranaki, Mount Egmont, 23.iii.1969, R. R. Forster and C. L. Wilton (Otago Museum).

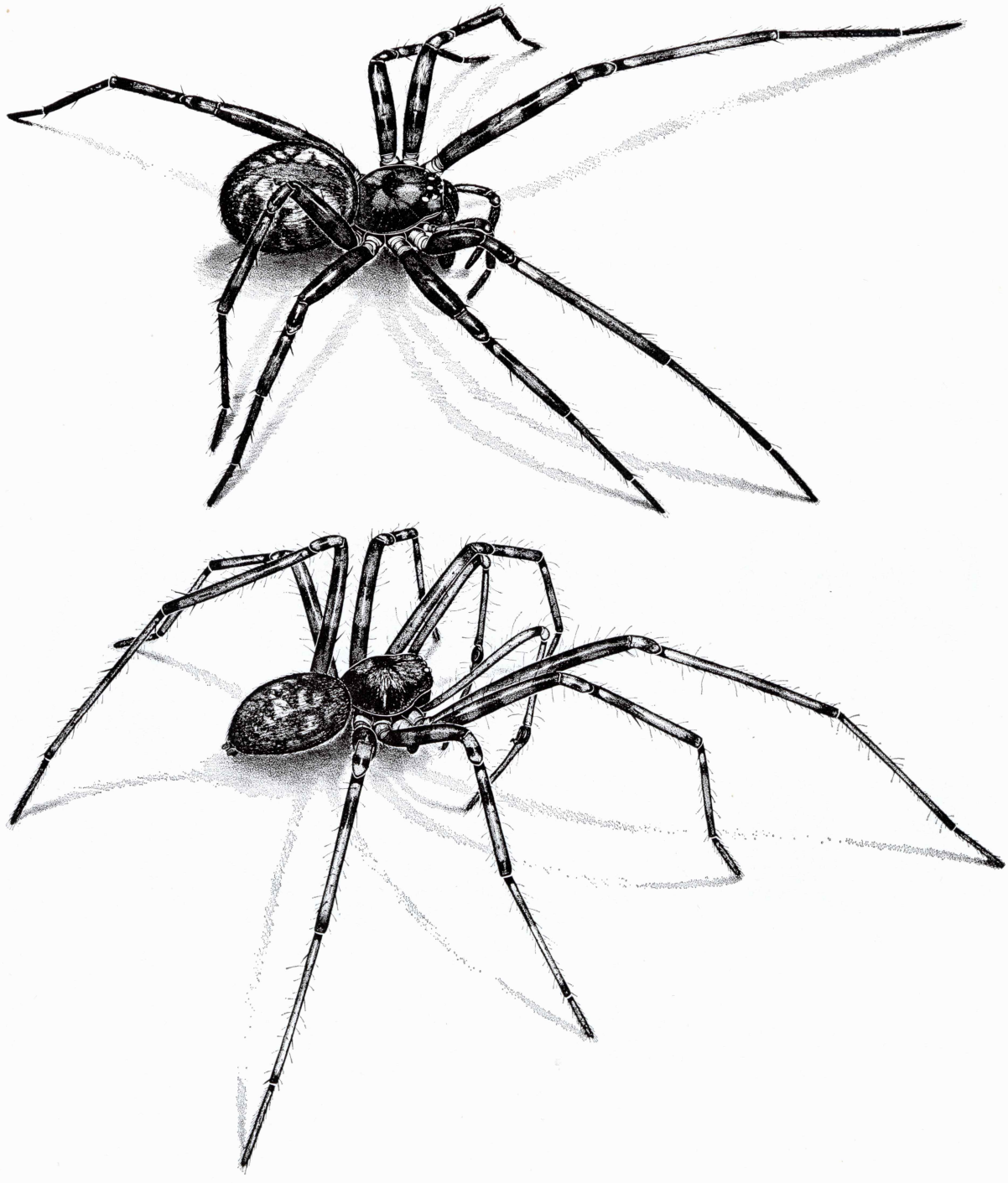
Nanocambridgea n.gen.

Medium sized (body length 5.5-7mm) ecribellate spiders with extremely long and slender legs. Carapace typical for the family with the head region distinct. Eyes in two rows, both strongly recurved when viewed from above.

Chelicerae with three teeth on the retromargin and four on promargin. Chelicerae of male longer and porrect. Lateral boss present. Trochanters not notched. Plumose hairs present. Trichobothria nuherous with a double row on tibiae and a single row on metatarsi and tarsi. Superior claws strongly pectinate. Inferior claw with few teeth. Male with a stridulating organ functionally similar to that of *Cambridgea* but on the ventral surface. The plagula of the pedicel has a median longitudinal ridge and is strongly tuberculate, while the abdominal structure is a sclerotized portion of the antero-ventral surface (Fig. 394). Epigynum with a small median lobe near the posterior margin. Internal genitalia receptaculate with short ducts directed posteriorly. Cymbium of male palp narrowing beyond the bulb and extremely long. Embolus short and spiniform. Conductor a prominent twisted plate. Median apophysis reduced and apparently immovable. Anterior and posterior spinnerets shorter than basal segment. Web similar to *Cambridgea*, usually constructed on damp banks in forest.

Type species *Nanocambridgea gracilipes* n.sp.

Related to *Cambridgea* from which it is separated by the presence of plumose hairs, the presence of four teeth on the promargin of the chelicerae and the ventral stridulating organ of the male.



Figs. 462-463 *Nanocambridgea gracilipes* n.sp. Fig. 462 Female. Fig. 463 Male.

Nanocambridgea gracilipes n.sp.

Figs. 394, 462-469

MALE

Measurements

	Carapace		length 3.0		width 2.2	
	Abdomen		length 3.5		width 1.8	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.8	1.1	6.4	5.9	2.7	21.9
2	4.5	1.0	4.3	4.2	1.8	15.8
3	4.5	1.0	3.8	4.5	1.8	15.6
4	4.9	1.0	4.8	5.6	2.4	18.7
Palp	4.7	0.8	3.4		3.8	12.7

Colour Carapace pale cream with wide olive-brown lateral bands and a large olive-brown patch mid-dorsally. Chelicerae pale orange brown. Legs with bands. Abdomen pale anteriorly, becoming darker laterally and posteriorly and without a definite pattern.

Carapace Lightly covered with short hairs, longer in the ocular area.

Eyes The group occupies 3/4 of the width of the head. From in front the anterior row is recurved and the posterior row procurved. From above both rows rather strongly recurved. Ratio of AME.ALE.PME.PLE = 7.8.8.8. AME separated from each other and from the ALE by a distance equal to 3/7 of the diameter of an AME. Lateral eyes separated from each other by 5/7 of the diameter of an AME. PME separated from each other by 4/7 and from the PLE by 6/7 of the diameter of an AME. MOQ wider behind than in front in the ratio of 20.17 and longer than wide behind in the ratio of 26.20. Height of clypeus equal to the diameter of an AME.

Sternum Longer than wide in the ratio of 47.40. Embossed opposite the coxae on each side. The posterior projection separates the posterior coxae by a distance equal to half the diameter of a coxa.

Maxillae Longer than wide in the ratio of 33.17 and longer than the labium in the ratio of 33.15.

Labium As wide as long. Distal margin indented.

Chelicerae Promargin with four teeth and retromargin with three.

Palp The alveolus occupies less than 1/9 of the total length of the tarsus. The cymbium is produced distally into a long terete process. Trichobothria. Tibia, 3.3.3.2.2. Tarsus, 1.1.1. The tibial processes and the bulb are shown in Figs. 468, 469.

Legs Trochantera do not appear to be notched. Plumose hairs present. Spine. First leg. Femur, d,p.1.1.1. r.1.1.1.1. Patella, 0.1 (bristle). Tibia, v.0.2.1. p.1.0. r.1.1. Metatarsus, v.1.2 and distally 3, p.0. r.1. Second leg. Femur, d,p,r.1.1.1. Patella, 0.1 (bristle). Tibia, v.1.2.2. p,r.1.1. Metatarsus, v.0.2 and distally 3, p,r.1 median. Third leg. Femur, d,p,r.1.1.1. Patella, 1.1. Tibia, v.0.2.2. p,r.1.1. d.1.0. Metatarsus, same as second leg. Fourth leg. Femur, d,p,r.1.1.1. Patella, 1.1. Tibia, v.1.2.2. d,p,r.1.1. Metatarsus, v.1.1 and distally 3, p,r.1.1. Trichobothria. Tibia, p.1.1.1.1 on basal third, r.1.1.1.1 on basal half. Metatarsus and tarsus, 5. Superior claws with ten teeth and inferior claw with three teeth.

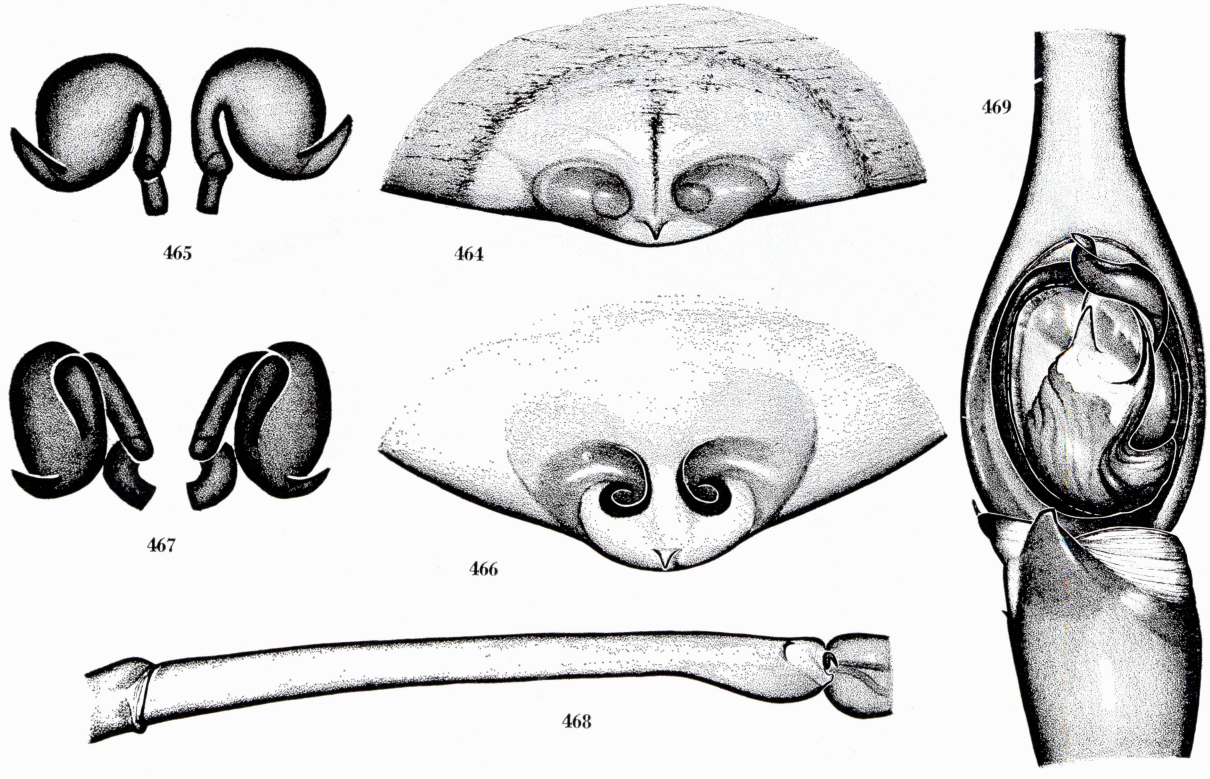
Abdomen There is a stridulating organ situated ventrally on the anterior part of the abdomen Fig. 394. This structure is not always visible as it can be retracted into the abdomen.

FEMALE

Measurements

	Carapace		length 2.50		width 1.90	
	Abdomen		length 3.20		width 2.20	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.0	0.9	4.3	3.7	2.0	14.9
2	3.1	0.8	2.8	2.5	1.2	10.4
3	2.6	0.7	2.1	2.2	1.1	8.7
4	3.5	0.8	3.2	3.3	1.6	12.4
Palp	1.4	0.5	1.0		1.2	4.1

Resembles the male in general characteristics.



Figs. 464-469 *Nanocambridgea gracilipes* n.sp. Fig. 464 Epigynum (Maxwell, near Wanganui). Fig. 465 Internal genitalia (Maxwell). Fig. 466 Epigynum (Greymouth). Fig. 467 Internal genitalia (Greymouth). Fig. 468 Tibial processes of male palp (Feilding). Fig. 469 Ventral view of male palp (Greymouth).

Palp Spines. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, p.1.1. d.1.0. r.0. Tarsus, numerous. Trichobothria. Tibia, 2.2.2.1. Tarsus, 1.1.1. Claw with eight teeth.

Abdomen The epigynum and internal genitalia are shown in Figs. 464-467. Median spinnerets with a rather extensive area of spigots on the posterior surface.

Types Holotype male and allotype female. Okehu, Maxwell, 20.iii.1969, R. R. Forster and C. L. Wilton (Otago Museum).

Records North Island. Okehu, Maxwell, 20.iii.-1969, R.R.F., C.L.W. Taranaki, Mt Messenger, 22.viii.1969, R.R.F. Kitchener Park, Feilding, 20.xii.1966, R.R.F. Aorangi, Feilding, 22.viii.1948, R.R.F. Tolara Reserve, 10.viii.1948, R.R.F. Vinegar Hill Reserve, 6.i.1967, R.R.F. Hawkes Bay, Tangoia, 27.ix.1969, R. W. Hutton. Taradale, 12.i.1967, R. W. Hutton. Waikaremoana, 9.i.1967, R. W. Hutton. Wellington, Days Bay, under stones, 19.ii.1948, R. K. Dell. Days Bay, 9.vii.1942, R.R.F. Silverstream, 5.ix.1957, W. Ponder. Levin, 6.vi.1948, R.R.F. Waikanae, 3.i.1948, R.R.F. Stokes Valley, 10.i.1948, R.R.F. Kahuterawa, North Tararua Rge, 27.iv.1951, R. A. Cumber. Wairarapa, Mangareia, 9.i.1959, C.L.W. Mangareia, 18.ix.1967, C.L.W. Marlborough, Motu Ngaratiti Is., under stones, 12.x.1948, J. T. Salmon. Inner Chetwode Is., 30.vii.1963, P. M. Johns. Nelson. Takaka Cave, near mouth, 16.xii.1961, B. J. Marples. Westland, Barrytown, 2.v.1956, L. R. Jackson. Woodpecker Bay, 22.i.1950, R.R.F. Greymouth, 5.iii.1949, L. P. Hughson.

Ischalea L. Koch 1872

1872 *Ischalea*, Koch, L. Arachn. Austr. 1: 196.
1877 *Podophthalma* (part), Pickard-Cambridge. Proc. Zool. Soc.: 570.
1893 *Tetragnatha* (part), Urquhart. Trans. N. Zeal. Inst. 25: 171.
1894 *Ischalea*, Simon. Hist. Nat. Ar. 1(3): 718, 720, 722, 723, 726.
1898 *Ischalea*, Simon. Hist. Nat. Ar. 2(2): 283, 287, 288, 290, 193.
1903 *Ischalea*, Simon. Hist. Nat. Ar. 2(4): 999.
1928 *Ischalea*, Petrunkevitch. Trans. Conn. Acad. Arts. Sc. 29: 102.
1933 *Ischalea*, Bryant. Rec. Cant. Mus. 4(1): 22.
1946 *Ischalea*, Parrott. Rec. Cant. Mus. 5(2): 82.

Fairly large (body length 9-12mm) ecribellate spiders. The elongate body form with long legs directed front and back in the resting position as in *Tetragnatha* is characteristic of this genus. Eyes in two more or less straight rows. AME smallest. Carapace flattened, with head region distinct. Chelicerae with two teeth on the retromargin and three on promargin. Legs long and slender. Spines relatively long. Trichobothria numerous, in two to three rows on tibiae and a single row



Fig. 470 *Ischalea spinipes* L. Koch, immature in characteristic resting position of leaf

on metatarsi and tarsi. Trochanters not notched. Plumose hairs lacking. Superior claws very strongly pectinate. Inferior claw with few teeth. Anterior and posterior spinnerets almost equal in length. Distal segment of posterior spinnerets much shorter than basal segment. Colulus prominent, flattened plate, rounded posteriorly. Epigynum with a pair of small spines and paired anterior openings. Internal genitalia weakly receptaculate with ducts opening in front. Male palp long and slender. Cymbium extremely long with the bulb at the base. Embolus distal, short and spinous. Conductor stout but membraneous. Median apophysis well developed, hooked.

Type species *Ischalea spinipes* L. Koch.

These spiders do not seem to construct a snare but hunt for their prey on low foliage. The colour and the pattern is variable. The colours recorded range from browns and dark yellow to leaf green. The coloration may be without any distinct pattern, particularly with green specimens, ranging to the type of pattern shown in the drawing (Fig. 475) and photograph. The spiders rest flat along a leaf or twig with the legs directed fore and aft (Fig. 470).

Although the relationship of this genus with *Cambridgea* and *Nanocambridgea* is perfectly clear, now that the group has been revised, the correct placement has been a matter of controversy in the past. L.Koch when establishing the genus from a single female considered that it was related to *Tetragnatha*. Simon in his Histoire Naturelle des Araignées first accepted this placing but later in the same publication transferred the genus to the Pisauridae. Subsequent authors have accepted one or other of these placings although Bryant (1933) after deciding that the genus should be placed in the Tetragnathidae did comment on the similarity of the tibial processes of the male palp to *Cambridgea*.

Close comparison of specimens from widely separate localities show little difference between populations other than colour and only a single species is recognized. The two species placed in this genus, I. *incerta* Cambr. from Madagascar, and *I. longiceps* Simon from Maurice are not related to the type species.

Ischalea spinipes L. Koch 1872

1872 *Ischalea spinipes*, L. Koch. Arachn. Austral. 1(1): 197.

1892 *Tetragnatha tenella*, Urquhart. Trans. N. Zeal. Inst. 25: 172.

1898 *Ischalea spinipes*, Simon. Hist. Nat. Araign. 2(2): 292.

1933 *Ischalea spinipes*, Bryant. Rec. Cant. Mus. 4(1): 22.

1954 *Ischalea spinipes*, Roewer. Explor. Parc. Nation. Upemba.

Figs. 470-478

MALE

Measurements

Carapace length 3.3 width 2.1
Abdomen length 6.8 width 1.4

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.7	1.2	8.4	10.0	2.9	30.2
2	6.4	1.2	6.9	7.5	2.1	24.1
3	4.3	0.9	4.5	4.7	1.9	16.3
4	6.3	1.1	6.0	7.3	2.2	22.9
Palp	2.6	0.6	1.5		2.4	7.1

Colour The entire spider is pale straw yellow or cream with variable pattern on the abdomen but in the southern regions of the South Island the entire spider is pale green.

Carapace Flattened (Fig. 474). The width of the head region is slightly less than one half of the width of the thorax. The fovea is long and shallow.

Eyes The eyegroup occupies most of the head. Eyes pale, circled with black. Lateral eyes situated on a low tubercle which overhangs the clypeus. From above and from in front the anterior row is straight and the posterior row is slightly recurved. The ratio of the AME.ALE.PME.PLE = 8.19.12.14. AME separated from each other by a distance equal to 10/8 and from the ALE by 16/8 of the diameter of an AME. Lateral eyes separated by 5/8 of the diameter of an AME. PME separated from each other by 14/8 and from the PLE by 18/8 of the diameter of an AME. MOQ wider behind than in front in the ratio of 38.26 and wider behind than long in the ratio of 38.25. Height of clypeus equal to one half of the diameter of an AME.

Sternum Evenly curved from the outer margins of the labium to the posterior projection. Posterior projection short and sharp and separates coxae 4 by a distance equal to 2/5 of the width of a coxa.

Maxillae Twice as long as wide. Lateral margins straight and parallel.

Labium The basal notch is extensive. Lateral margins straight and convergent. Anterior margin straight. Longer than wide in the ratio of 13.11.

Chelicerae Vertical. Length equal to 3/10 of the length of the carapace. Retromargin with 2 teeth, promargin with 3 teeth.

Palp Long and slender. The bulb is small and the cymbium projecting beyond the bulb is slender and rounded distally (Figs. 471-473).

Legs Long and slender. Spines. First leg. Femur, p.1.1.1.1.1. r.1.1.1.0.1. Patella, d.1.1. Tibia, v.1.2.1.2.2.2.2.0. d.1 subdistal. Metatarsus, v.2.2.2.0. p,r.1.1.1.1. Second leg. Femur, p.1.1.1.1.1. r.1.1.1.1.1.1. d.1.0.0.0.0. Patella, d.1.1. Tibia, v.2.2.2.0. p,r.1.1.1.0. d.1.0.1.0. Metatarsus, v.2.2.2.2.0. p,r.1.0.1.0.0. Third leg. Femur, p.1.1.1.1.1. r.1.1.1.0.1. Tibia, v.2.2.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.2.0. p,r.1.1.0.1. d.0.0.1.0. Fourth leg. Femur, p.0.1.0.1.1. r.0.1.1.1.1. Patella, d.1.1. Tibia, v.2.2.2.2.2. d.1.0.0.0.1. Metatarsus, v.2.1.1.1. p.1.1.1.1. r.1.0.0.1. The spines are long and conspicuous. Trichobothria. First leg. Tibia, 1.2.1.1.1. Metatarsus and tarsus, 4. Second leg. Tibia, 1.3.2.1.1.1.1. Metatarsus, 6. Tarsus, 5. Fourth leg. Tibia, 3.1.1.1.1. Metatarsus, 7. Tarsus, 6. Tarsal organ sub-distal. Inferior claw with two long teeth. Superior claws with from 27-29 long closely spaced teeth.

Abdomen Elongate and clothed with slender short hairs. The anterior and posterior pairs of spinnerets are subequal in length but the posterior pair are more slender. The anal tubercle is relatively large. The colulus is relatively small and sub-triangular, clothed with hairs (Fig. 476). The spiracle is small and situated immediately in front of the spinnerets.

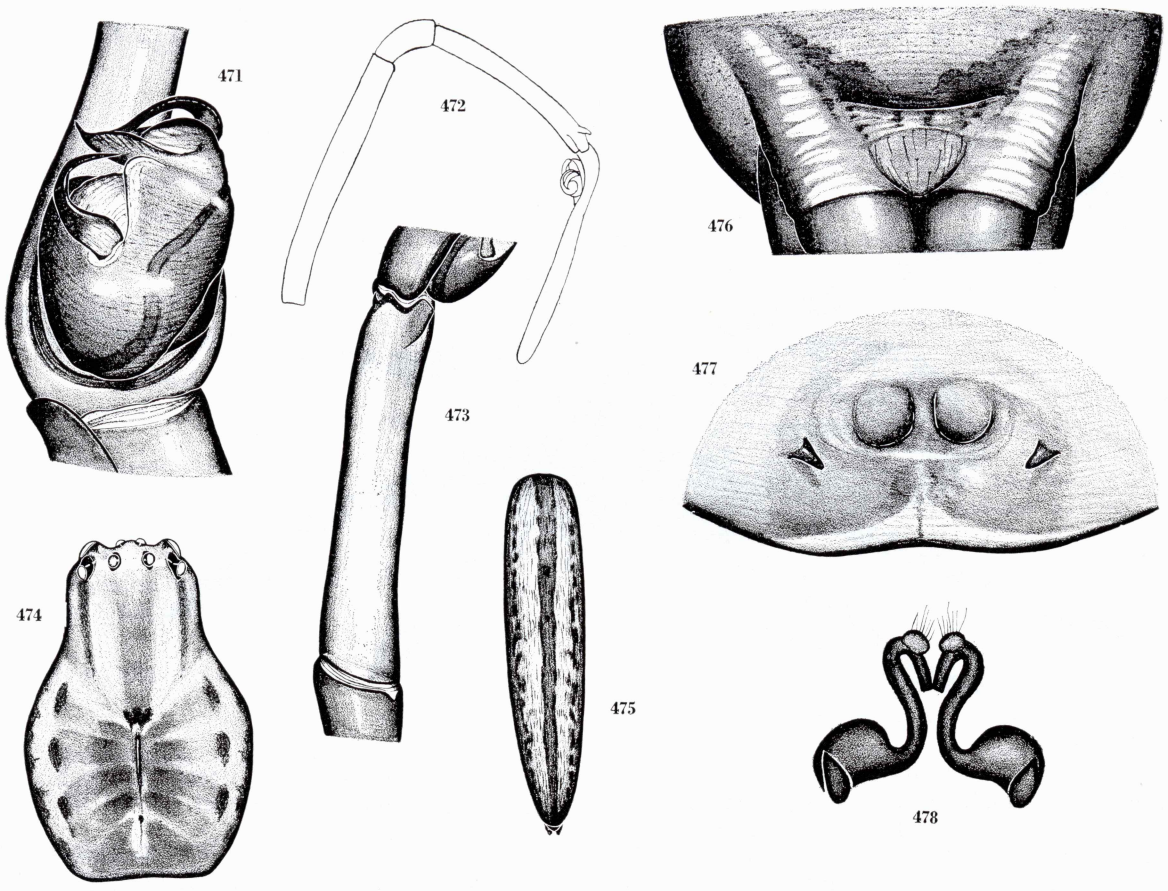
FEMALE

Measurements

Carapace length 4.0 width 2.8
Abdomen length 12.0 width 3.0

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.3	1.6	7.8	8.7	2.5	27.9
2	6.2	1.0	6.7	6.8	1.9	22.6
3	4.6	1.0	4.3	4.3	1.3	15.5
4	6.3	1.1	5.8	6.7	2.2	22.1
Palp	2.5	0.7	1.8		2.5	7.5

Similar in general appearance to the male. The epigynum and internal genitalia are as shown in Fig. 477, 478.



Figs. 471-478 *Ischalea spinipes* L. Koch. Fig. 471 Ventral view of male palp. Fig. 472 Male palp showing the relative proportions of the segments. Fig. 473 Tibia of male palp showing processes. Fig. 474 Dorsal view of the carapace. Fig. 475 Dorsal view of the abdomen. Fig. 476 Colulus and base of spinnerets. Fig. 477 Epigynum. Fig. 478 Internal genitalia.

Palp Spines. Femur, d.0.1.1.1. p.0.1.1.0. r.0.0.1.1. Patella, d.1.1. Tibia, v,d.1.0.0. p.2.1.0. r.0.1.0. Tarsus, v.2.2.0. p.2.0.1. d.1.0.0. Trichobothria. Tibia, 1.2.1.1.1.1.1. Tarsus, 5. Claw with from 14-15 small teeth. Tarsal organ subdistal.

Types Holotype male. *Ischalea spinipes* Koch, New Zealand. British Museum (Nat. Hist.). *Tetragnatha tenella* Urquhart. Type locality, Pirongia Mountains (Canterbury Museum).

Records Urquhart records specimens under the name *T. tenella* from Waiorongomai Gorge, Te Aroha and Mount Egmont. Present records. South Island. D'Urville Island, 19.viii.1960, I. Mannering. Canterbury. New Brighton, 1924. Okuku Pass, under stones, 21.v.1956, R.R.F. Nelson. Leslie Valley Track, 24.i.1948, R.R.F. Gouland Downs Hut, in rotten logs, January 1956, R. Chapman. Westland. Haydens Spur, Barrytown, vii.1956, L. R. Jackson. Croesus Track, Blackball, 4.iv.1956, L. R. Jackson. Buller River, 10 miles south of Murchison, 3.xii.1960, P. R. Kettle, J. I. Townsend. Greymouth, 11.iv.1950, L. R. Hughson. Fiordland. Thompson Sound, sea level, beaten from shrubs, 16.i.1958, E. G. Turbott. Thompson Sound, 2,800 ft, under logs, 22.i.1958, R.R.F. Lake Te Au, near South Arm of Lake Te Anau, 12.i.1953, R.R.F. Rugged Burn Valley, West Te Anau, 15.ii.1953, G. W. Ramsay. West of Lake Poteriteri, 12.ii.1953, G. W. Ramsay. Lake Gunn, foliage, 29.xii.1943, J. T. Salmon. Anita Bay, Milford Sound, foliage, 15.xii.1944, J. T. Salmon. Southland, Lake Hauroko, November 1969, R.R.F. North Island. Little Barrier Is., Tom Thumb Track, 23.xi.1954, G. Ramsay. Mt Egmont, 24.ii.1967, C.L.W. Mt Egmont, 3,500 ft, above Stratford House, 23.iii.1969, R.R.F., C.L.W. Hongi's Track, 5.x.1966, K. A. J. Wise. Lake Okataina, 2.iii.1960, C. W. O'Brien.

Family AMPHINECTIDAE n.fam.

Eyes in two transverse rows. Cribellate and ecribellate. Median apophysis weakly sclerotized, represented by the apically hooked form and derivatives from this form. Sometimes missing. Embolus spiniform with a tendency to be twisted across the bulb, coiled or bent. Epigynum often retaining the posterior paired spines.

Internal genitalia usually with well developed convoluted ducts. Cymbium of male palp with trichobothria. Three claws, without claw tufts. Scopulae rarely present (weakly developed in *Mamoea* and *Paramamoea).* Legs strongly spined but with basic spination. Trichobothria in a double row on tibiae and a single row on the metatarsi and tarsi. Plumose hairs present or absent. Chelicerae with boss. Teeth present on both margins. Cribellum when present with two spinning fields. Colulus not divided. Calamistrum in a single row. Tracheal system simple, usually with four slender unbranched tubes originating from a median spiracle near the spinnerets and limited to the abdomen.

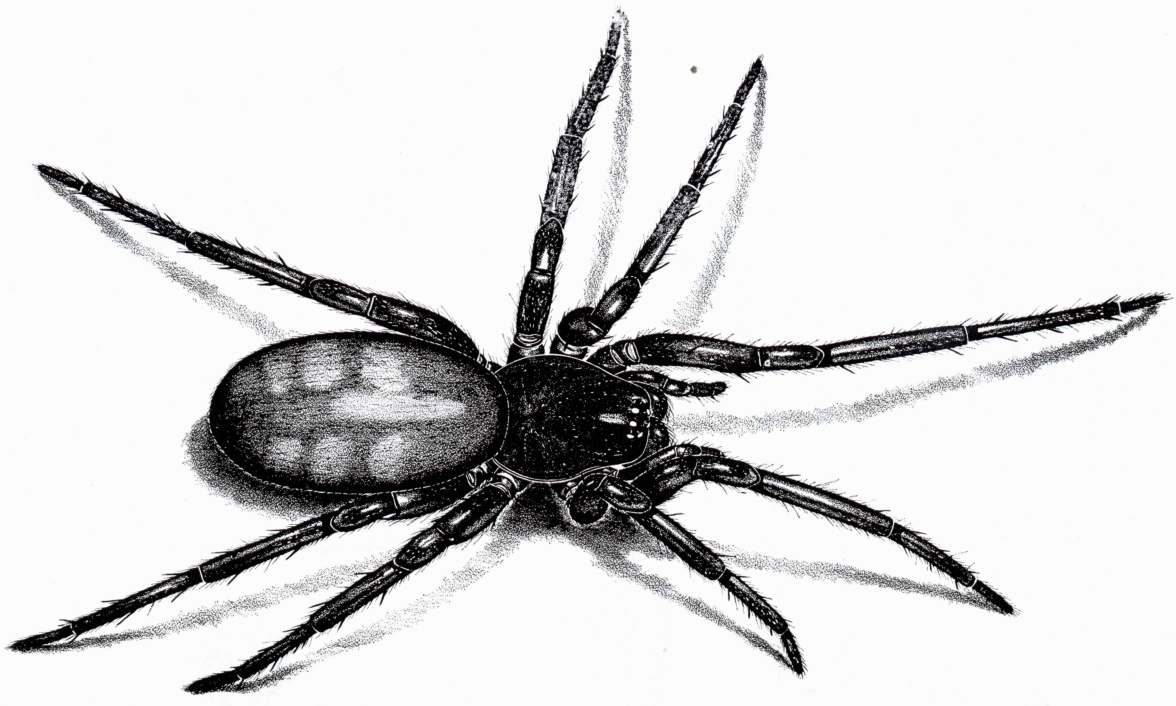


Fig. 479 *Amphinecta pika* n.sp. female.

Type genus *Amphinecta* Simon, 1898.

The family Amphinectidae is at present endemic to New Zealand but we have examined a number of undescribed species from Eastern Australia which belong to this family. Most of the cribellate genera construct some form of snare but these are small in relation to the size of the spiders and are rarely anything more than a limited sheet extension from a retreat.

The two common ecribellate genera *Amphinecta* and *Mamoea* would seem to be nocturnal hunters on the forest floor or, with some of the species, amongst rocks above the bushline. The eggsacs are spherical or purse-shaped, well covered with silk and guarded by the female during development. The type genus *Amphinecta* was originally described in the Agelenidae and most authors have retained this placement. It has sometimes been placed in the Argyronetidae, while Lehtinen (1967) transferred it to his Desinae (Amaurobiidae). The previously known cribellate genera *Maniho* (placed by the original author R. Marples, 1959 in the Dictynidae) and *Marplesia* Lehtinen 1967 were also placed by Lehtinen in the Desinae. The presence of a simple tracheal system in these three genera precludes their association with *Desis*. The two genera *Maniho* and *Amphinecta* which have retained an almost identical form of male and female genitalia illustrate well the limited value of the presence or absence of the cribellum and calamistrum.

KEY TO THE NEW ZEALAND GENERA OF THE FAMILY AMPHINECTIDAE

1. Cribellate 2
   Not cribellate 11
2. With plumose hairs 3
   Without plumose hairs 7
3. Chelicerae with two teeth on each margin and an additional row in the furrow
   Maniho Marples

   Chelicerae with two teeth on the retromargin and usually more than two on the promargin. Furrow without teeth 4
4. Small, less than 4 mm in body length. Epigynum relatively large and covering most of the epigastrium
   Dunstania n.gen.

   Larger than above (body length 5-7 mm). Epigynum not occupying the full width of the epigastrium 5
5. Lateral eyes only slightly larger than the AME. Carapace of female with thoracic patches
   Makora n.gen.

   Lateral eyes much larger than the AME. Carapace of female without thoracic patches 6
6. Promargin of the chelicerae with three or four teeth
   Oparara n.gen.

   Promargin of the chelicerae with five teeth
   Waterea n.gen.
7. Retromargin of chelicera with two teeth 8
   Retromargin with from 4-6 teeth
   Akatorea n.gen.
8. Tarsal organ distal to the trichobothria. Thoracic patches not present 9
   Trichobothria extending beyond the tarsal organ. Thoracic patches present
   Rangitata n.gen.

9. Promargin of chelicera with three teeth. Epigynum with two deep cavities

Marplesia n.gen.

Promargin of chelicera with more than three teeth. Epigynum without deep depressions 10

10. Small, body length, 1.5-2 mm. Promargin of chelicera with from 4-5 teeth

Rorea n.gen.

Medium sized to large (body length 6.5-12 mm). Promargin of chelicera with from 5-8 teeth

Reinga n.gen.

11. Retromargin of chelicera with two teeth 12
Retromargin with three or more teeth 14

12. Promargin of chelicera with two teeth. Preening combs lacking 13
Promargin with from 8-9 teeth. Preening combs present on the metatarsi of legs 3 and 4

Amphinecta Simon

13. Tarsal organ distal to the trichobothria

Neororea n.gen.

Trichobothria extending beyond the tarsal organ

Huara n.gen.

14. Scopula present on the ventral surface of some of the segments of the legs. Promargin of chelicera with from 4-10 teeth. Embolus of male palp not coiled 15
Scopula not present on the legs. Promargin of the chelicera with three teeth. Embolus coiled

Holomamoea n.gen.

15. Medium sized to large (body length 7-12 mm). Scopulae present on ventral surfaces of metatarsi and tarsi

Mamoea n.gen.

Medium sized to small (body length 2.5-7 mm). Scopula present only on the distoventral surface of metatarsi

Paramamoea n.gen.

Amphinecta Simon, 1898

1898 *Amphinecta,* Simon. Hist. Nat. Araign. 2: 235.

1917 *Amphinecta,* Dalmas. Ann. Soc. Ent. Fr. 86: 397.

1928 *Amphinecta,* Petrunkevitch. Trans. Conn. Acad. Arts Sci. 29: 94.

1967 *Amphinecta,* Lehtinen. Ann. Zool. Fenn 4: 213.

Medium to large (body length 9-16mm) ecribellate spiders. Thoracic patches lacking. Eyegroup compact, occupying approximately one half of width of head. AME as large as or larger than PME. Lateral eyes distinctly larger. Two more or less straight rows. Sternum scutiform and longer than wide. Labium notched at base and as long as wide. Chelicerae with boss. Retromargin with two and promargin with eight-nine teeth. Female palp with double row of trichobothria on tibia and a single row on tarsus. Claw strongly pectinate. Legs 1423 or 4123, without plumose hairs. Trochanters notched. Preening combs present on metatarsi of legs 3 and 4. Trichobothria numerous. Double row on tibiae and a single row on metatarsi and tarsi. Superior claws similar, strongly pectinate. Inferior claw smooth. Claw tufts and tenent hairs lacking. Colulus present as a prominent flat plate wider than long and evenly clothed with hairs. Epigynum with a pair of spines near posterior margin. Internal genitalia with pair of small receptacula from which extend thick walled ducts expanding into thin-walled and convoluted ducts. Male palp similar to *Maniho* but lacking basal retrolateral tibial process. Type species *Amphinecta decemmaculata* Simon 1898.

The structure of the male and female genitalia is very similar to *Maniho* but *Amphinecta* is ecribellate and lacks plumose hairs. It also possesses preening combs on the metatarsi of the third and fourth pairs of legs.

Lehtinen (1957) in listing the characteristics of this genus has confused the situation considerably by placing *Rubrius milvinus* Simon from Tasmania into *Amphinecta.* Through the kindness of Dr V. V. Hickman we have had the opportunity of examining both male and female specimens. This species is not related to the New Zealand forms placed in this genus and the only common characteristic is the abdominal colour pattern.

These spiders live on the forest floor and are often collected in and under rotten logs. They construct a flimsy web which appears to be more of a retreat than a snare. The eggsac, which is large and spherical, is attached within the retreat. Both males and females are readily trapped in pitfalls and so they probably are nocturnal hunters.

Amphinecta decemmaculata Simon

1898 *Amphinecta decemmaculata,* Simon. Hist. Nat. Araign. 2(2): 235.

1946 *Amphinecta decemmaculata,* Parrott. Rec. Cant. Mus. 5(2): 60.

1954 *Amphinecta decemmaculata,* Roewer. Catalog der Aran. 2(a): 108.

1955 *Amphinecta decemmaculata,* Bonnet. Bibl. Aran. 2(1): 300.

Figs. 482, 488-489

MALE

Measurements

Carapace length 4.20 width 3.20
Abdomen length 4.40 width 2.60

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.20	1.60	3.98	3.18	2.24	15.20
2	3.20	1.60	3.19	3.00	1.88	12.87
3	2.80	1.20	2.38	3.00	1.36	10.74
4	3.60	1.56	3.42	4.20	1.88	14.66
Palp	2.20	0.80	1.12		2.08	6.20

Colour Carapace, chelicerae and sternum dark reddish brown. Legs paler reddish brown or orange brown, without bands. Abdomen shaded with grey, leaving five pairs of more or less distinct pale patches on dorsal surface.

Carapace Shiny with a few short hairs. Head region 14/19 of width of thorax. Lateral margins of head straight and sub-parallel, extending back distance equal to 1/5 of length of carapace. Fovea well defined.

Eyes Eyegroup occupies one half of width of head. From above anterior row slightly recurved and posterior row straight. From in front anterior row straight and posterior row gently procurved. AME and lateral eyes on low tubercles. Ratio of AME.ALE.PME.PLE = 21.26.19.24. AME separated from each other by 9/21 and from the ALE by 5/21 of diameter of an AME. Lateral eyes separated by 5/21. PME separated from each other by 20/21 and from PLE by 25/21. MOQ

wider behind than in front in ratio of 58.51 and wider behind than long in ratio of 58.54.

Sternum Scutiform. Longer than wide in ratio of 13.11. Anterior margin slightly indented. Lateral margins only gently curved back to posterior margins of coxae 3, where they slope sharply to form short posterior projection. Short sharp projections at base of each coxa. Coxae 4 separated by 2/5 of width of a coxa.

Maxillae Sub-parallel. Twice as long as wide. Inner margins straight but outer margins evenly curved beyond insertion of palp and merge with anterior margin. Scopula thick and consists of brown hairs.

Labium As long as wide. Notched at base. Lateral margins straight and strongly convergent. Anterior margin gently incurved.

Chelicerae Strong and vertical. Anterior surface swollen proximally. Lateral boss prominent. Retromargin with two teeth, one at distal surface of furrow and the second at proximal end. Promargin with from eight-nine teeth. A low carina extends from proximal promarginal tooth to base.

Palp Tibia excavated on distal retrolateral surface, with a strong spinous process on dorsal surface above excavation and heavily sclerotized plate ventrally. Five trichobothria on tibia arranged 2.2.1. Embolus in double coil. Conductor as a short white lobe with thin transparent plate. Median apophysis hooked. (Fig. 482, cf. 480).

Legs Scopula of short hairs on distal retrolateral surfaces of metatarsi of legs 3 and 4. Tarsal organ subdistal. Superior claws with eight teeth. Inferior claw with single tooth. Spines. First leg. Femur, d.0.1.1.1. Tibia, v.2.2.0. Metatarsus, v.2.2.0. Second leg. Femur, d.1.1.0.0. p.0.0.1.0. Tibia, v.2.2.0. p.0.0.1. Third leg. Femur, d.0.1.2.1. p.0.0.1.1. Tibia, v.2.2.2. p.1.1.0. r.1.1.1. Metatarsus, v.2.2.1. p,r.1.2.2. Fourth leg. Femur, d.1.1.0.0. Tibia, v.2.2.2. p.1.1.0. r.1.1.1. Metatarsus, v.2.2.2.1. p,r.1.2.0.2. Two combs on ventro-distal surface of metatarsi of legs 3 and 4 Trichobothria. Tibia, 2.2.2.2.1.1. Metatarsus, 1.1.1.1.1. Tarsus, 1.1.1.1.1.1. First four pairs of trichobothria on tibiae formed by two rows of four trichobothria situated on lateral surfaces.

Abdomen Closely clothed with short hairs. Anterior pair of spinnerets stouter than posterior pair but approximately equal in length. Colulus flat, rounded posteriorly and clothed with short hairs. Spiracle distinct and situated at base of spinnerets.

FEMALE

Measurements

Carapace	length 4.16	width 3.40	
Abdomen	length 7.31	width 4.76	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.57	1.70	3.40	3.06	2.04	13.77
2	3.40	1.53	3.06	2.72	1.87	12.58
3	2.89	1.36	2.38	2.72	1.36	10.71
4	3.74	1.53	3.40	4.25	1.70	14.62
Palp	1.87	0.85	1.36		1.87	5.95

Similar to male. Epigynum as in Fig. 488. Internal genitalia consists of pair of strongly sclerotized vesicles with strong duct which extends back and curves round

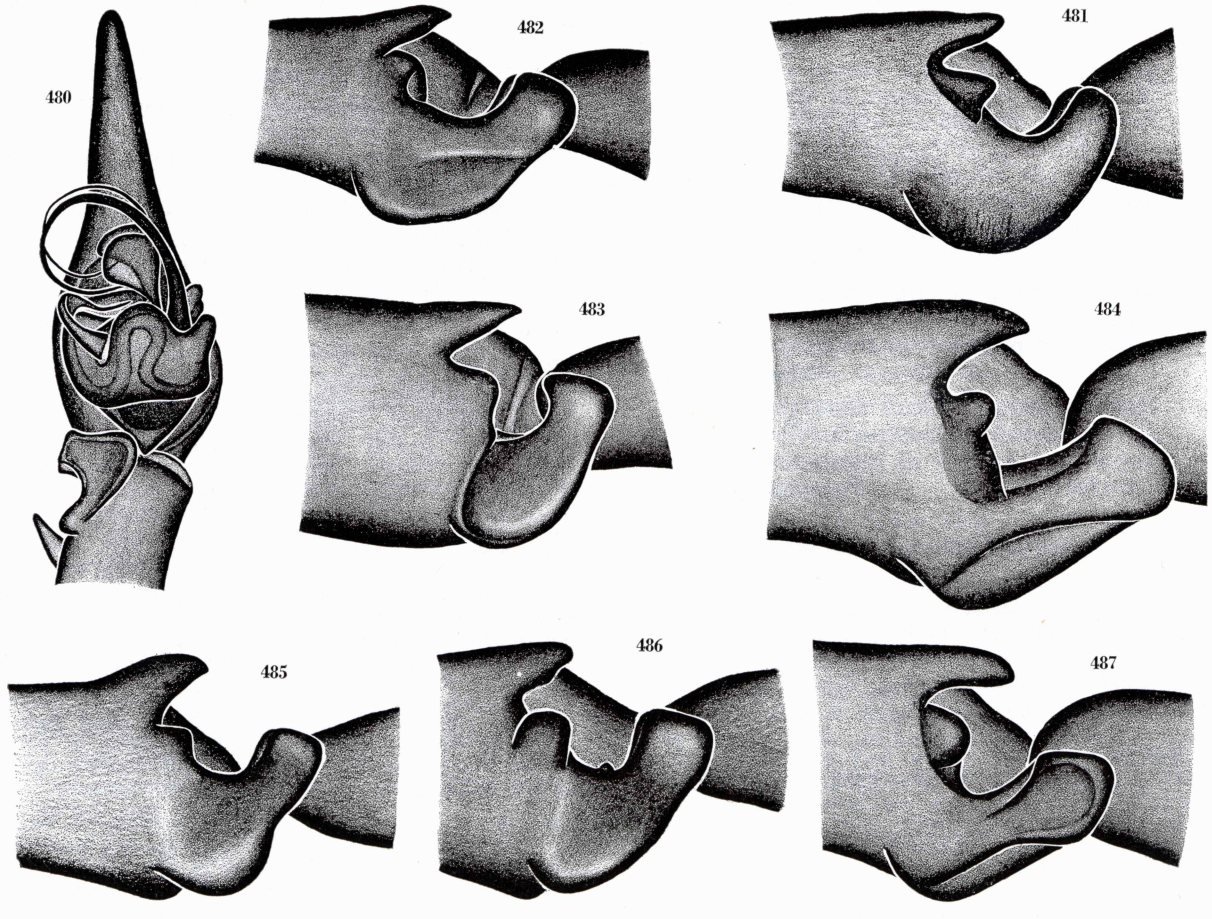


Fig. 480 *Amphinecta milina* n.sp. Ventral view of male palp. Figs. 481-487 Tibial processes of male palp. Fig. 481 *Amphinecta milina* n.sp. Fig. 482 *Amphinecta decemmaculata* Simon. Fig. 483 *Amphinecta mara* n.sp. Fig. 484 *Amphinecta lima* n.sp. Fig. 485 *Amphinecta pika* n.sp. Fig. 486 *Amphinecta dejecta* n.sp. Fig. 487 *Amphinecta luta* n.sp.

where it continues as weakly sclerotized and larger duct (Fig. 489). Pair of slender processes distended distally and provided with numerous hair-like ducts leading into accessory glands are present on anterior portion of membraneous duct.

Type 'New Zealand', female in Natural History Museum, Paris.

Records Orongorongo District, above Jacobs Ladder, 25.i.1961, under beech log, B. A. Holloway. Wellington, Karori, iv.1948, R.R.F. Levin, 6.vi.1948, R.R.F.

Amphinecta puka n.sp.

Figs. 490-491

FEMALE

Measurements

	Carapace	length 5.10		width 3.57		
	Abdomen	length 7.65		width 4.42		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.25	1.87	3.57	3.06	2.21	14.96
2	3.40	1.53	3.06	2.21	1.70	11.90
3	2.72	1.53	2.38	3.06	1.53	11.22
4	4.42	1.70	3.57	4.59	1.87	16.15
Palp	2.38	0.68	1.70		2.04	6.80

Ratio of AME.ALE.PME.PLE = 20.25.21.21. AME separated from each other by 18/20 and from ALE by 8/20 of diameter of an AME. Lateral eyes separated by 4/20 of diameter of an AME. The PME are separated from each other by 16/20 and from PLE by 22/20. MOQ wider behind than in front in ratio of 58.55 and wider behind than long in ratio of 58.33. Chelicerae with two teeth on retromargin and from 9-10 on promargin. Epigynum and internal genitalia as in Figs. 490, 491.

Type Holotype female. Canterbury. Kaikoura, Hapuka River, 31.viii.1962, R. S. Bigelow (Otago Museum).

Records Canterbury, Oaro Stream, vi.1952, J. S. Dugdale.

Amphinecta mara n.sp.

Figs. 483, 492-493

FEMALE

Measurements

	Carapace	length 6.29		width 4.42		
	Abdomen	length 10.54		width 5.10		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.76	2.04	4.59	4.25	2.89	18.53
2	4.59	2.04	3.57	3.74	2.38	16.32
3	4.08	1.87	3.23	3.91	1.87	14.96
4	5.10	2.04	4.76	5.78	2.21	19.89
Palp	1.70	1.02	1.70		2.55	6.97

Ratio of AME.ALE.PME.PLE = 23.31.22.28. AME separated from each other by 15/23 and from ALE by 6/23 of diameter of an AME. Lateral eyes separated by 10/23. PME ceparated from each by 24/23 and from and from PLE by 27/23. MOQ wider behind than in front and wider behind than long in ratio of 68.61. Chelicerae with two teeth on retromargin and nine on promargin. Epigynum and internal genitalia as in Figs. 492, 493.

MALE

Similar to female. Palp typical with tibial processes as in Fig. 483.

Type Holotype female. Canterbury. South-east slopes of Mt Misery, Cass, 23.v.1954, J. S. Dugdale (Otago Museum).

Records Cass, under logs, 10.vii.1949, R.R.F. Cass, 27.vi.1949, L. Wolffe. Ribbonwood Ck, Cass, 21.v.1954, J. S. Dugdale. Arthurs Pass, 2,700 ft, in bush, 25.iv.1953, J. S. Dugdale. Glentui Gorge, 7.ii.1956, I. W. T. Munro. Okuku Pass, under stones in creek, 21.v.1956, R.R.F. Okuku Pass, 6.iv.1952, J. S. Dugdale. Lake Taylor, 14.iv.1952, R.R.F. Kiwi Hutt, Lewis Pass, 14.xi.1949, R.R.F. Hawdon Valley, 27.v.1954, J. S. Dugdale. Fox Creek, 19.ii.1953, R.R.F.

Amphinecta milina n.sp.

Figs. 481, 494, 495

FEMALE

Measurements

	Carapace	length 5.27		width 3.74		
	Abdomen	length 8.33		width 4.59		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.42	2.04	4.25	3.40	2.38	16.49
2	3.91	1.87	3.23	2.89	2.04	13.94
3	3.40	1.53	2.72	3.06	1.53	12.24
4	4.42	1.70	3.91	4.59	1.87	16.49
Palp	2.55	0.85	1.70		2.04	7.14

Ratio of AME.ALE.PME.PLE = 21.31.20.26. AME separated from each other and ALE by a distance equal to 10/21 of diameter of an AME. Lateral eyes separated by 5/21. PME separated from each other by 20/21 and from PLE by 25/21. MOQ wider behind than in front in ratio of 60.52 and wider behind than long in ratio of 60.54. Chelicerae with two teeth on retromargin and from eight-nine teeth on promargin. Epigynum and internal genitalia as in Figs. 494-495.

MALE

Measurements

	Carapace	length 5.20		width 3.42		
	Abdomen	length 5.20		width 3.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.40	1.68	4.40	3.82	2.60	16.90
2	3.42	1.60	3.00	3.00	1.96	12.98
3	2.96	1.40	2.40	2.40	1.40	10.56
4	3.82	1.60	3.71	4.40	1.80	15.33
Palp	2.24	0.80	0.80		2.00	5.84

Type Holotype female. New Plymouth, January 1920, H. Bellringer (Otago Museum).

Records Stratford, 30.xii.1937, J. M. Valentine. Dawson Falls, Mt Egmont, 3,100 ft, 14.i.1955, G. W. Ramsay. Fanthams Peak, 6,500 ft, Mount Egmont, 16.i.1955, G. W. Ramsay. Mt Egmont, above Stratford House, 23.iii.1969, R.R.F., C.L.W. Feilding, 24.iv.1943, R.R.F. Taupo-Napier Rd, 2,640 ft, 14.iv.1952, B. J. Marples. Apiti, 29.xii.1966, R.R.F. Lake Waikare-iti, under logs, 13.xii.1946, R.R.F. Torbay, Auckland, pitfall in flax scrub, 1-21.vi.1971, M. Buchler. Cuvier Is., viii. 1943, R.R.F. Tiritiri Is., 23xi.1961, A. Wright.

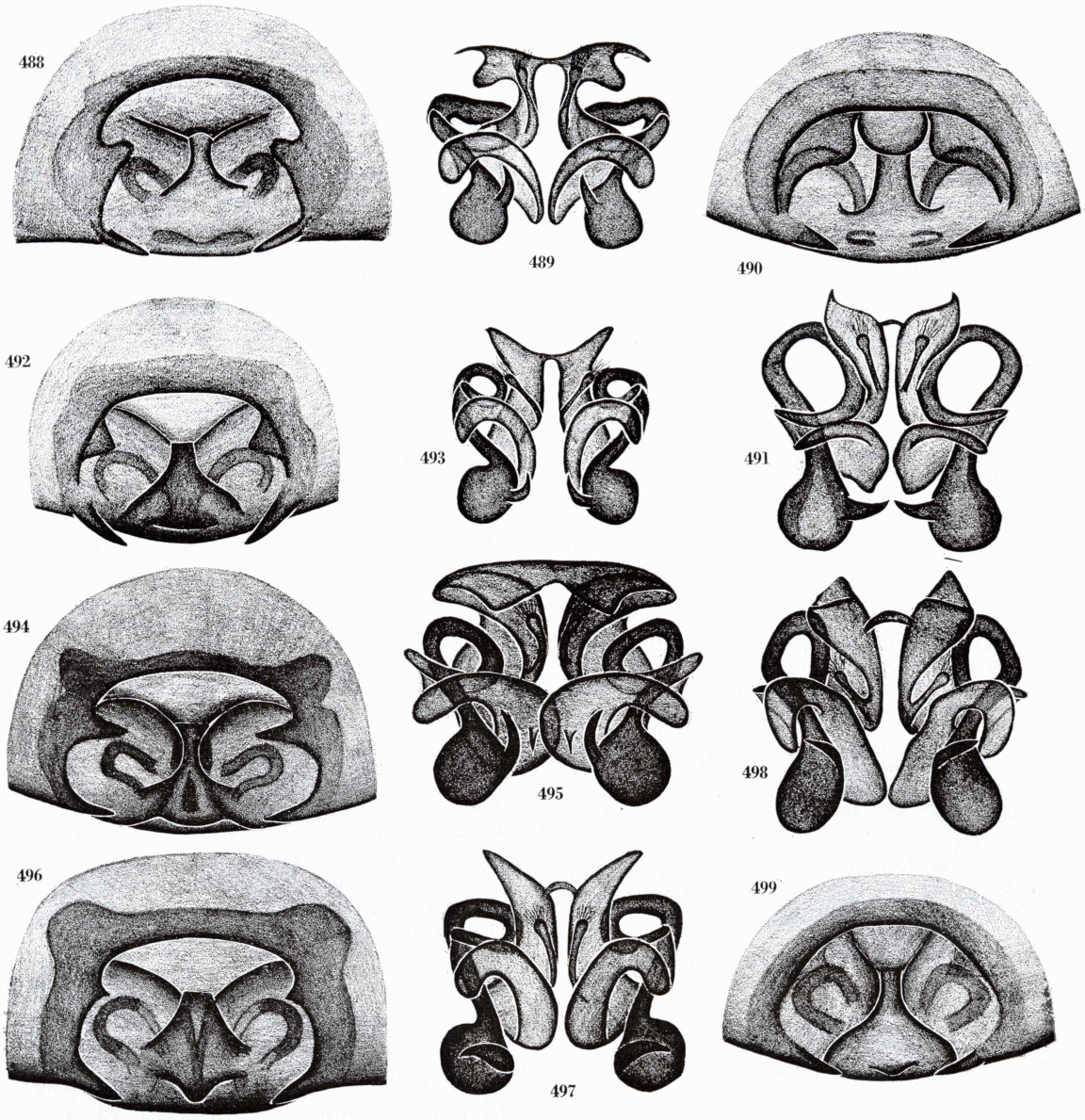
Amphinecta mula n.sp.

Figs. 496-497

FEMALE

Measurements

	Carapace	length 6.80		width 4.59		
	Abdomen	length 9.18		width 5.27		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.61	2.38	5.10	4.76	3.06	20.91
2	4.93	2.21	4.08	4.08	2.55	17.85
3	4.25	1.87	3.40	4.42	2.04	15.98
4	5.61	2.04	5.10	6.46	2.55	21.76
Palp	2.04	1.19	2.04		2.38	7.65



Figs. 488-499 Female genitalia of *Amphinecta*. Figs. 488-489 *A. decemmaculata* Simon. Fig. 488 Epigynum. Fig.489 Internal genitalia. Figs. 490-491 *A. puka* n.sp. Fig. 490 Epigynum. Fig. 491 Internal genitalia. Figs. 492-493 *A. mara* n.sp. Fig. 492 Epigynum. Fig. 493 Internal genitalia. Figs. 494-495 *A. milina* n.sp. Fig. 494 Epigynum. Fig. 495 Internal genitalia. Figs. 496-497 *A. mula* n.sp. Figs. 498-499 *A. pika* n.sp. Fig. 498 Internal genitalia. Fig. 499 Epigynum.

Ratio of AME.ALE.PME.PLE = 23.31.24.29. AME separated from each other by 20/23 and from ALE by 10/23 of diameter of an AME. Lateral eyes separated by 10/23. PME separated from each by 24/23 and from PLE by 31/23. MOQ wider behind than in front in ratio of 71.63 and wider behind than long in ratio of 71.64. Chelicerae with three teeth on retromargin of which two are distal, and from 8-9 on promargin. Epigynum and internal genitalia as in Figs. 496, 497.

Type Holotype female. Nelson. Portia Creek Valley, near Boulder Lake, 22.iv.1962, R. G. Ordish (Dominion Museum).

Records Nelson. Oparara, 24.i.1950, R.R.F. Boulder Lake, 3,200 ft, 21.iv.1962, R. E. Ordish. Canaan Track, 25.x.1948. Bush near Cable Bay, 29.iii.1966, C.L.W. Maitai, 29.iii.1966, C.L.W. Riwaka, 22.vi.1965, C.L.W. Graham Valley, Motueka, 17.iv.1968, C.L.W. Little Wanganui, 28.ix.1966, R.R.F.

Amphinecta pika n.sp.

Figs. 485, 498-499

FEMALE

Measurements

	Carapace	length 5.44		width 3.74		
	Abdomen	length 7.99		width 5.44		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.25	1.70	3.91	3.40	2.21	15.47
2	3.74	1.70	3.40	3.06	2.04	13.94
3	3.06	1.70	2.55	3.06	1.70	12.07
4	4.76	1.87	3.74	4.25	1.70	16.32
Palp	2.38	0.85	1.53		2.04	6.80

Ratio of AME.ALE.PME.PLE = 21.26.22.22. AME separated from each other by 16/21 and from ALE

by 7/21 of diameter of an AME. Lateral eyes separated by 7/21. PME separated from each other by 23/21 and from PLE by 22/21. MOQ wider behind than in front in ratio of 67.58 and wider behind than long in ratio of 67.55. Chelicerae with two teeth on retromargin and nine teeth on promargin. Epigynum and internal genitalia as in Figs. 493, 499.

MALE

Measurements

	Carapace		length 5.7		width 4.0	
	Abdomen		length 5.6		width 3.4	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.0	2.2	6.3	5.5	3.4	23.4
2	4.9	2.1	4.4	4.2	2.7	18.3
3	4.2	1.9	3.3	4.3	2.0	15.7
4	5.6	2.2	6.2	6.3	2.2	22.5
Palp	2.8	1.0	1.3		2.4	7.5

Promargin of chelicerae with seven teeth. Bulb and the tibial processes of palp as in Fig. 485.

Types Holotype female. Westland. Franz Josef, 29.iv.1951, R.R.F. Allotype male. Franz Josef, 20.i.1971, R.R.F. (Otago Museum).

Records Fox Glacier, September 1951, M. Warren. Knights Point, Haast, 16.iii.1966, R.R.F. Bruce Bay, xi.1945. Okarito, 7.xii.1949, R.R.F. Paringa River, 27.ix.1966, R.R.F. Mt Davy, Greymouth, 24.i.1950, R.R.F. Greymouth, 4.xii.-1960, P. R. Kettle, J. I. Townsend. Perpendicular Point, Greymouth, January 1957, L. R. Jackson. 12-mile, Greymouth, 20.i.1950, R.R.F. Moana, 16.iii.1956, R.R.F. Pukekura, August 1952, M. Warren. Kokopotuki, November 1946, L. Laroche. Blackball, 24.x.1945, A. W. Parrott. Buller Gorge, in bush, 14.viii.1963, B. J. Marples.

Amphinecta pila n.sp.

Figs. 500-501

FEMALE

Measurements

	Carapace		length 4.93		width 3.40	
	Abdomen		length 5.10		width 3.23	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.40	1.70	3.23	2.55	1.87	12.75
2	3.06	1.70	1.36	2.72	1.70	10.54
3	2.55	1.36	3.23	2.55	1.53	11.22
4	3.57	1.19	3.40	3.74	1.70	13.60
Palp	2.55	0.68	1.19		1.70	6.12

Ratio of AME.ALE.PME.PLE = 18.24.18.22. AME separated from each other by 12/18 and from ALE by 8/18 of diameter of an AME. Lateral eyes separated by 6/18. PME separated from each other and from the PLE by 22/18. MOQ wider behind than in front in ratio of 58.48 and wider behind than long in ratio of 58.52. Chelicerae with two teeth on retromargin and from 9-10 teeth on promargin. Epigynum and internal genitalia as in Figs. 500, 501.

Type Holotype female. Canterbury. Lake Rubicon, 15.iv.1955, J. S. Dugdale (Otago Museum).

Records Hoods Bush, Malvern Hills, 3.v.1953, R.R.F. Mt Algidus, 30.i.1946, R.R.F.

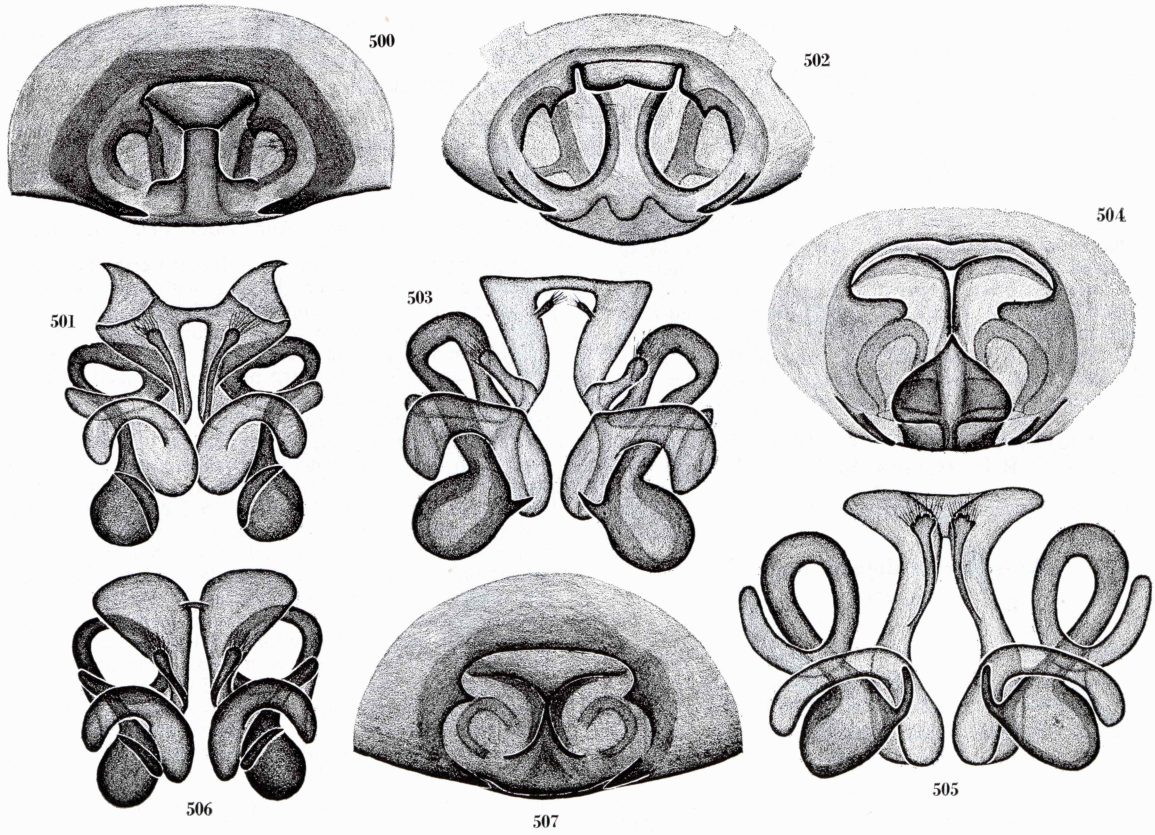
Amphinecta luta n.sp.

Figs. 487, 502-503

FEMALE

Measurements

Carapace	length 6.80	width 4.59
Abdomen	length 8.50	width 5.27



Figs. 500-507 Internal genitalia of *Amphinecta*. Figs. 500-501 *A. pila* n.sp. Fig. 500 Epigynum. Fig. 501 Internal genitalia. Figs. 502-503 *A. luta* n.sp. Fig. 502 Epigynum. Fig. 503 Internal genitalia. Figs. 504-505 *A. tula* n.sp. Fig. 504 Epigynum. Fig. 505 Internal genitalia. Figs. 506-507 *A. tama* n.sp. Fig. 506 Internal genitalia. Fig. 507 Epigynum.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.10	2.21	5.10	4.25	2.72	19.38
2	4.59	2.04	4.08	3.91	2.38	17.00
3	4.25	1.87	3.40	4.25	1.87	15.64
4	5.44	2.04	4.93	5.95	2.21	20.57
Palp	3.06	0.85	1.70		2.04	7.65

Ratio of AME.ALE.PME.PLE = 20.33.21.25. AME separated from each other by 17/20 and from ALE by 13/20 of diameter of an AME. Lateral eyes separated by 5/20. PME separated from each other by 25/20 and from PLE by 38/20. MOQ wider behind than in front and wider behind than long in ratio of 67.57. Chelicerae with three teeth on retromargin, two of which are situated on distal surface and from eight-nine on promargin. Epigynum and internal genitalia as in Figs. 502, 503.

MALE

Tibial processes as in Fig. 487.

Type Holotype female. Nelson. Flora Hut, under logs, 22.i.1948, R.R.F. Allotype male. Mount Arthur Track, 3,000 ft, under logs, 20.ii.1946, J. T. Salmon (Dominion Museum).

Records Nelson. Salisbury Opening, Mt Arthur Tableland, 23.i.1948, R. K. Dell. Leslie River Track, under log, 24.i.1948, R. K. Dell. Flora Track, under logs, 5.iv.1946, R.R.F. Flora Hut, under logs, 22.i.1948, R.R.F. Mount Arthur Track, under logs, 22.i.1948, R.R.F. Coads Creek, 2.ix.1953, R. Evans.

Amphinecta tula n.sp.

Figs. 504-505

FEMALE

Measurements

Carapace	length 5.27	width 3.74	
Abdomen	length 5.95	width 3.40	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.25	1.70	3.74	3.23	2.21	15.13
2	3.74	1.70	3.06	2.89	1.87	13.26
3	2.32	1.53	2.55	3.06	1.36	11.73
4	4.25	1.70	3.74	4.42	1.87	15.92
Palp	2.55	0.85	2.21		2.04	7.65

Ratio of AME.ALE.PME.PLE = 25.32.21.28. AME separated from each other and from the ALE by 10/25 of diameter of an AME. Lateral eyes separated by same distance. PME separated from each other by 21/25 and from PLE by 28/25. MOQ wider behind than in front in ratio of 63.60 and wider behind than long in ratio of 63.59. Chelicera with two teeth on retromargin and eight teeth on promargin. Epigynum and internal genitalia as in Figs. 504, 505.

Type Holotype female. Chateau Tongariro, 20.xii.1948, R.R.F. (Otago Museum).

Record Chateau Tongariro, 20.xii.1948, R.R.F.

Amphinecta dejecta n.sp.

Fig. 486

MALE

Measurements

Carapace	length 6.5	width 4.6	
Abdomen	length 7.0	width 3.5	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.7	2.7	7.0	6.4	3.6	26.4
2	5.5	2.5	5.6	4.9	2.9	21.4
3	4.7	2.2	3.8	5.0	2.3	18.0
4	6.2	2.4	5.8	7.0	2.7	24.1
Palp	3.2	1.2	1.5		2.8	8.7

Eyes Ratio of AME.ALE.PME.PLE = 10.14.11.12. AME separated from each other by 4/10 and from ALE by 2/10 of diameter of an AME. PME separated from each other by 7/10 and from PLE by distance of an AME. MOQ wider behind than in front in ratio of 29.24 and longer than wide behind in ratio of 30.29. Height of clypeus 14/10 of diameter of an AME.

Chelicerae Promargin with ten teeth.

Palp Tibial processes as in Fig. 486.

Type Holotype male. Fiordland. Cascade Creek, pitfall trap, 14.i.1971, R.R.F. (Otago Museum).

Record Fiordland. Eglinton Valley, pitfall trap, 10.ii.1966, R.R.F., C.L.W.

Amphinecta tama n.sp.

Figs. 506-507

FEMALE

Measurements

Carapace	length 4.76	width 3.23	
Abdomen	length 4.76	width 2.72	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.74	1.36	3.23	2.89	1.87	13.09
2	3.23	1.36	2.72	2.55	1.70	11.56
3	3.23	1.53	2.72	2.21	1.70	11.39
4	2.89	1.53	2.21	2.72	1.36	10.71
Palp	2.04	0.68	1.36		1.70	5.78

Ratio of AME.ALE.PME.PLE = 20.22.16.20. AME separated from each other by 12/20 and from ALE by 5/20 of diameter of an AME. Lateral eyes separated by 6/20. PME separated from each other and from PLE by 17/20. MOQ wider in front than behind in ratio of 52.49 and wider in front than long in ratio of 52.47. Chelicerae with two teeth on retromargin and nine teeth on promargin. Epigynum and internal genitalia as in Figs. 506, 507.

Type Holotype female. D'Urville Island, Mount Woore, beech forest, 23.viii.1960, I. Mannering (Otago Museum).

Maniho Marples 1959

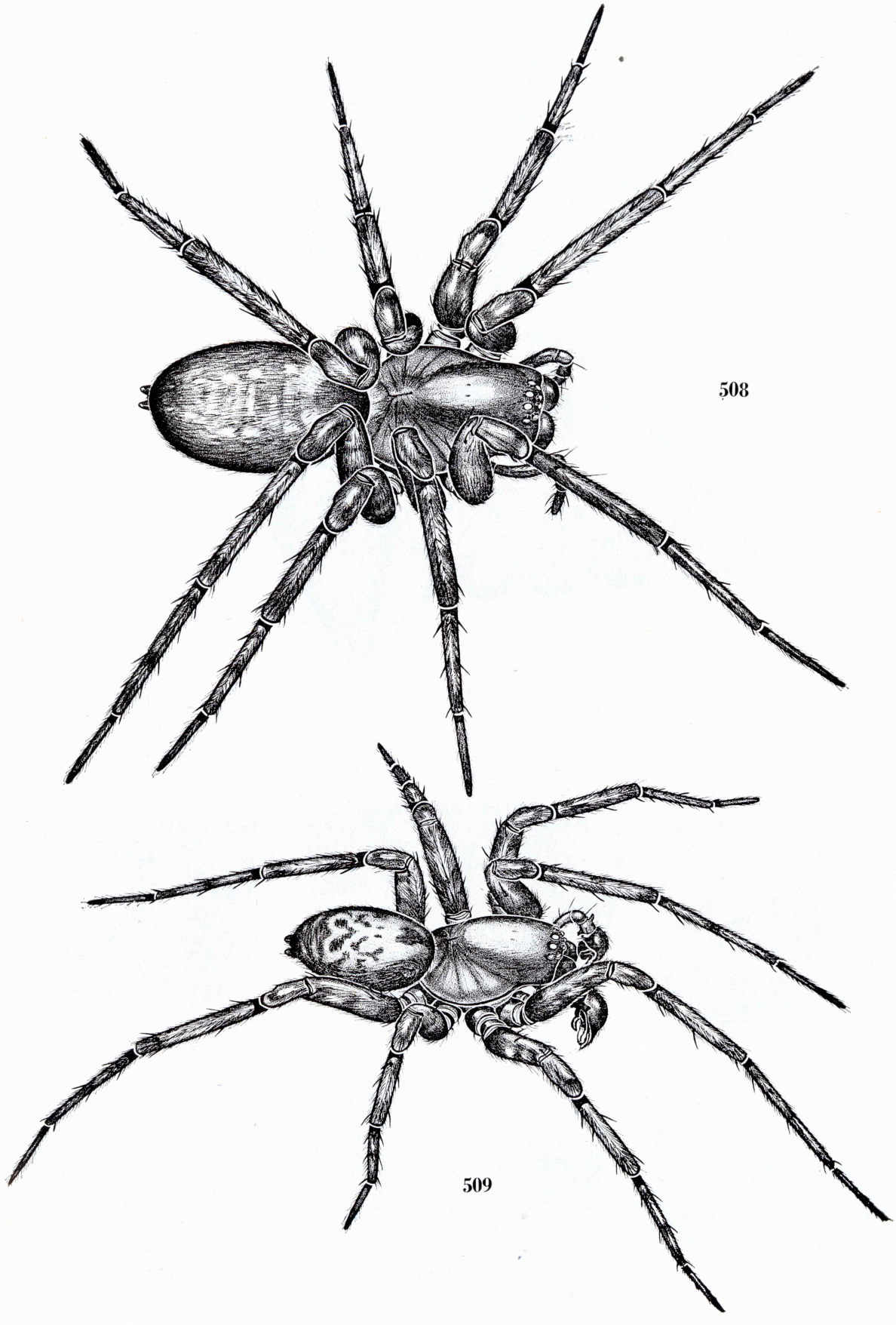
1959 *Maniho*, Marples. Trans. Roy. Soc. N. Zeal. 87 (3, 4): 349.

1967 *Maniho*, Lehtinen. Ann. Zool. Fenn. 4: 246.

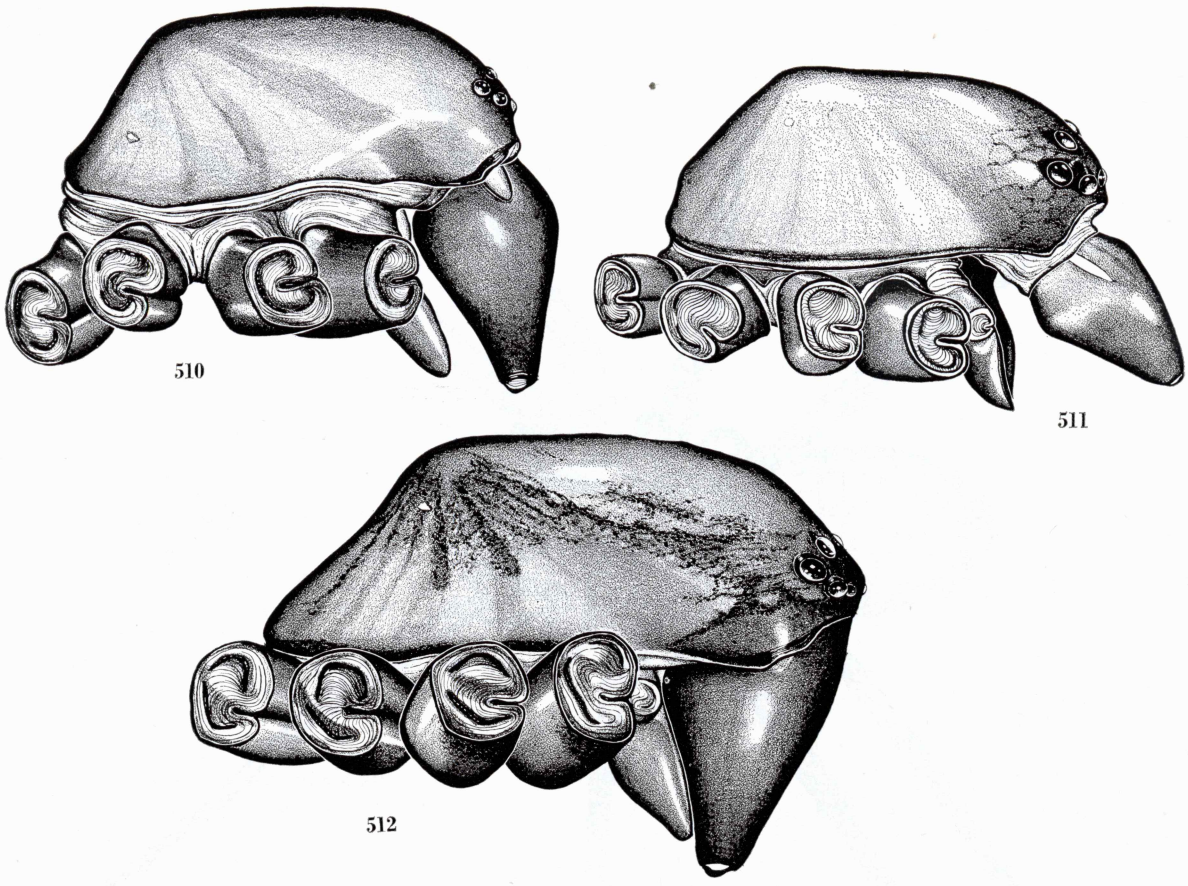
Medium sized (5-10mm body length) cribellate spiders. Carapace relatively high. Female with thoracic patches. Eyegroup occupying approximately 2/3 of width of head. Two rows, more or less straight. AME distinctly smaller than remaining eyes which are sub-equal. Sternum longer than wide with sharp posterior projection. Labium as long as wide and notched at base. Chelicerae with two teeth on each margin and a third row of five teeth on median surface along chelicerae groove. Female palp with a double row of trochobothria on tibia and single row on tarsus. Claw pectinate. Legs 1423 or 4123. Trochanters notched. Plumose hairs present. Trichobothria long and numerous. Double row on tibiae and single row on metatarsi and tarsi. No claw tufts or tenent hairs. Superior claws similar and strongly pectinate. Inferior claw strongly pectinate. Calamistrum well developed, proximal. Anterior and posterior spinnerets subequal in length. Cribellum well developed. Spinning field divided. Epigynum with small pair of spines and large anterior median opening. Internal genitalia with distinct receptacula and convoluted ducts. Male palp with characteristic coiled spiniform embolus and squat conductor (Fig. 526). Median apophysis well developed but not hooked distally.

Type species *Maniho tigris* Marples 1959.

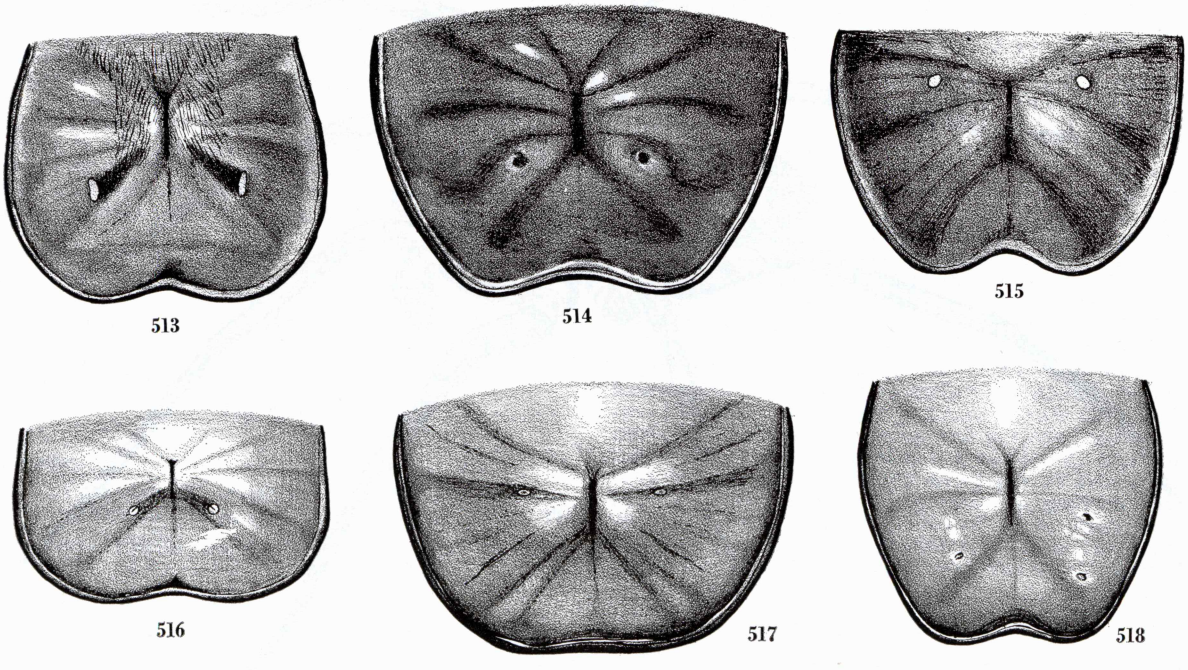
These spiders are commonly found on the forest floor beneath fallen logs or under loose bark. They construct a small sheet web beneath which



Figs. 508-509 *Maniho vulgaris* n.sp. Fig. 508 Female. Fig. 509 Male.



Figs. 510-512 Lateral view of carapace and chelicerae. Fig. 510 *Akatorea otagoensis* n.sp. Fig. 511 *Dunstania montana* n.sp. Fig. 512 *Maniho otagoensis* n.sp.



Figs. 513-518 Posterior portion of the carapace showing the 'thoracic patches'. Fig. 513 *Maniho ngaitahu* n.sp. Fig. 514 *Maniho insulanus* n.sp. Fig. 515 *Dunstania montana* n.sp. Fig. 516 *Maniho otagoensis* n.sp. Fig. 517 *Makora mimica* n.sp. Fig. 518 *Akatorea gracilis* (Marples).

they shelter. They are found in both North and South Islands but have not been recorded from the far north of the North Island. The second species recorded by Marples, *M. gracilis*, is placed by us in a new genus *Akatorea*.

Maniho tigris Marples

1959 *Maniho tigris* (part), Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 349.

Figs. 509, 519, 524-529

FEMALE

Measurements

Carapace	length 3.4	width 2.3	
Abdomen	length 4.0	width 2.7	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.80	1.10	2.70	2.65	1.65	10.90
2	2.50	1.05	2.05	2.05	1.30	8.95
3	2.35	1.00	1.80	2.00	1.15	8.30
4	2.95	1.15	2.60	2.80	1.30	10.80
Palp	1.15	0.50	0.80		1.35	3.80

Colour Carapace pale orange brown with dark shading on upper slopes of head and thorax and narrow dark band on lateral margin of thorax. Chelicerae darker than carapace, with pale bosses. Legs same colour as carapace with prominent dark bands. Sternum reddish brown with a dark band from median surface to posterior projection. Dorsal surface of abdomen marked as in Fig. 519. Ventral surface grey with four longitudinal rows of white spots.

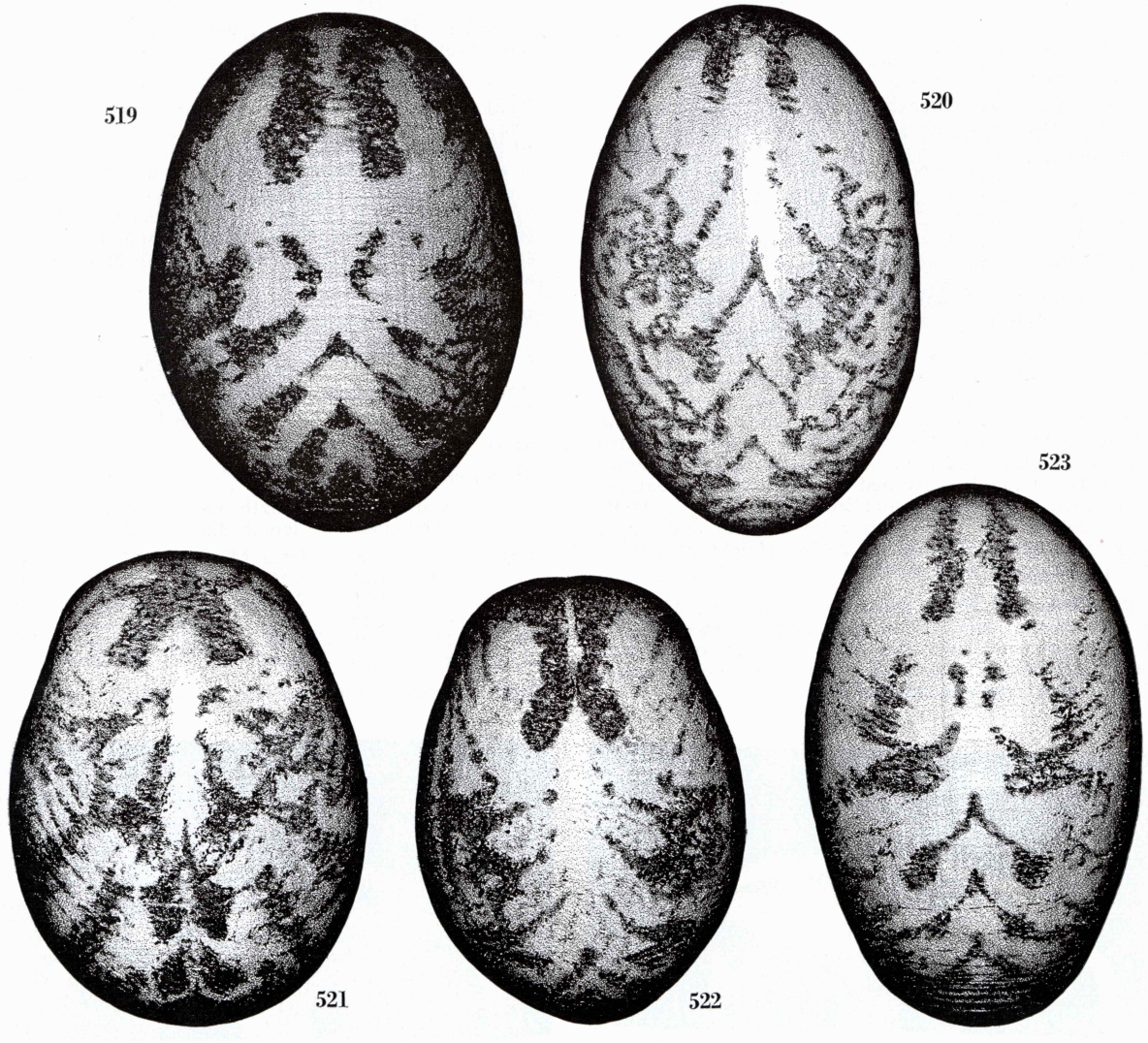
Carapace Head region relatively high. Width of head about 5/8 of greatest width of thorax. Thoracic patches elongate, situated on lateral angle of posterior slope.

Eyes Group occupies 2/3 of width of head. From in front anterior row straight and posterior procurved. From above anterior row recurved and posterior straight. Ratio of AME.ALE.PME.PLE = 7.11.9.9. AME separated from each other and from ALE by 4/7 of diameter of an AME. Laterals separated by 2/7. PME separated from each other by 7/7 and from PLE by 9/7. MOQ as wide behind as long and wider behind than in front in ratio of 25.18. Height of clypeus 12/7 of diameter of an AME.

Sternum Longer than wide in ratio of 5.4. Lateral margin undulate. Anterior margin almost straight. Posterior projection narrow and sharp separating the posterior coxae by half diameter of a coxa.

Maxillae Longer than wide in ratio of 21.11 and longer than labium in ratio of 21.11.

Labium As wide at base as long. Notched at base. Anterior margin indented.



Figs. 519-523 Dorsal abdominal patterns of females of *Maniho*. Fig. 519 *M. tigris* Marples. Fig. 520 *M. centralis* n.sp. Fig. 521 *M. vulgaris* n.sp. Fig. 522 *M. otagoensis* n.sp. Fig. 523 *M. ngaitahi* n.sp.

Chelicerae Two teeth on both pro- and retromargin. Carina extends down ventral surface from proximal promarginal tooth. Five further teeth between these two rows which increase in size distally but largest smaller than marginal teeth.

Palp Spines. Femur, d.1.1.1. p,r.1. Patella, 1.1. Tibia, p.1.2. d.1.1. r.0. Tarsus, numerous. Trichobothria. Tibia, pro-row 5, retro-row 6. Tarsus, 7 and subdistal tarsal organ.

Legs 1423. All trochanters notched. Plumose hairs present. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.1.1. Patella, 0. Tibia, v.2.2.2. p,r.1.1. d.0. Metatarsus, v.2.0 and a subwhorl of 5, p,r.1 median. Second leg. Femur, d.1.1.1. p,r.1.1. Patella, 0. Tibia, v.2.2.2. p,r.1.1. d.0.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1.2. r.1.1. Third leg. Femur and metatarsus same as second leg. Patella, 0.1. Tibia, v.2.2.2. p,r,d.1.1. Fourth leg. Femur, d.1.1.1. p.1.1. r.0.1. Patella, 0.1. Tibia, v.2.1.2. p,r,d.1.1. Metatarsus, v.2.2 and subwhorl of 5, p.1.2. r.1 calamistrum 1. Trichobothria. First leg. Tibia, pro-row 5, retro-row 6. Metatarsus, 5. Tarsus, 7 and subdistal tarsal organ. Superior claws with nine teeth. Inferior claw with three teeth. Calamistrum occupies 0.35 of metatarsus.

Abdomen epigynum and internal genitalia as in Figs. 528, 529. Cribellum as in Fig. 524. Distal segment of posterior spinneret conical and almost as long as basal segment.

MALE

Measurements

	Carapace		length 3.25		width 2.30	
	Abdomen		length 3.00		width 2.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.20	1.15	3.10	3.25	2.10	12.80
2	2.95	1.10	2.40	2.60	1.55	10.60
3	2.70	1.05	2.15	2.55	1.40	9.85
4	3.45	1.15	3.05	3.50	1.60	12.75
Palp	1.20	0.50	0.60		1.70	4.00

Male resembles female in most respects but lacks thoracic patch.

Eyes Group occupies about 3/5 of width of head. From in front anterior row straight across lower margins of eyes and posterior row procurved. From above anterior row recurved and posterior row straight. Ratio of AME.ALE.PME.PLE = 7.9.9.10. AME separated from each other and from ALE by 3/7 of diameter of an AME. Laterals separated by 2/7. PME separated from each other by 6/7 and from PLE by 9/7. MOQ wider behind than in front in ratio of 24.17 and longer than wide behind in ratio of 25.24. Height of clypeus 4/7 of diameter of an AME.

Palp Bulb and tibial processes as in Figs. 526, 527 Trichobothria. Tibia, 1.1 on basal half of dorsal surface, 1.1.1 on proximal apophysis, and a very long one at base of distal processes near small tooth. Cymbium of tarsus, 7 and small subdistal tarsal organ.

Abdomen Cribellum as in Fig. 525.

Types Holotype male, allotype female. Nelson District, December 1953, B. J. Marples (Otago Museum).

Records Nelson. Flora Track, 20.i.1948, R.R.F. Flora Hut, 20.i.1948, R.R.F. Maitai Valley, 29.iii.1966, C.L.W. Drummond's Flat, Takaka Gorge, 27.iii.1966, C.L.W. Aniseed Valley, 1.xii.1953, B. J. Marples. Pohara Beach, 7.iii.1967, C.L.W.

Maniho vulgaris n.sp.

Figs. 521, 530-532

FEMALE

Measurements

	Carapace		length 4.2		width 2.9	
	Abdomen		length 6.0		width 4.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.65	1.40	3.40	3.45	2.10	14.00
2	3.10	1.30	2.60	2.75	1.60	11.35
3	3.00	1.25	2.35	2.65	1.30	10.55
4	3.70	1.35	3.25	3.65	1.65	13.60
Palp	1.40	0.60	1.00		1.55	4.55

Colour Typical. Abdominal pattern as in Fig. 521.

Carapace Typical. Thoracic patch elongate but without sclerotization.

Eyes Group occupies 3/5 of width of head. From in front anterior row straight by upper margins and from above posterior row straight. Ratio of AME.ALE.PME.PLE = 7.8.8.9. AME separated from each other and from ALE by 4/7 of diameter of an AME. Laterals separated by 2/7. PME separated from each other by 8/7 and from PLE by 10/7. MOQ wider behind than in front in ratio of 24.18 and wider behind than long in ratio of 24.23. Height of clypeus 12/7 of diameter of an AME.

Palp Femoral spines, d.1.1.1. p,r.1.

Legs Spination typical.

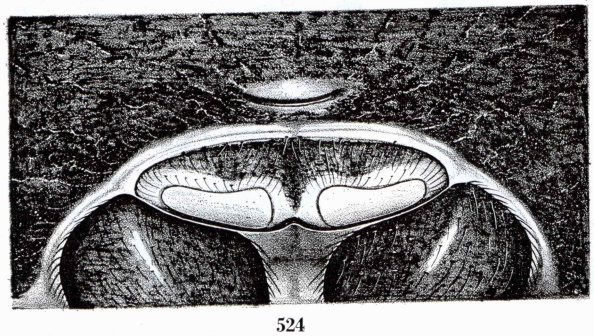
Abdomen Epigynum and internal genitalia as in Figs. 530, 531.

MALE

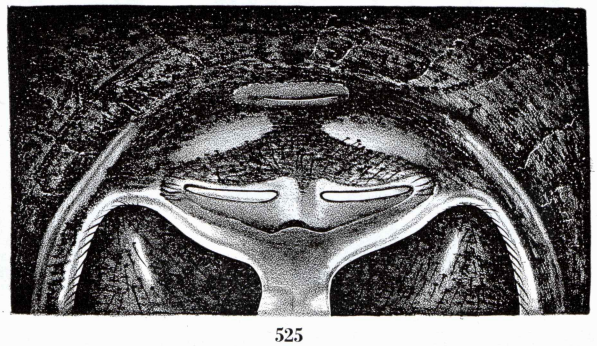
Measurements

	Carapace		length 3.9		width 2.5	
	Abdomen		length 3.6		width 2.2	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.50	1.25	3.55	3.75	2.20	14.25
2	3.15	1.20	2.65	2.90	1.65	11.55
3	3.00	1.15	2.40	2.75	1.40	10.70
4	3.75	1.25	3.30	3.80	1.60	13.70
Palp	1.30	0.50	0.60		1.65	4.05

With the general characteristics of female.

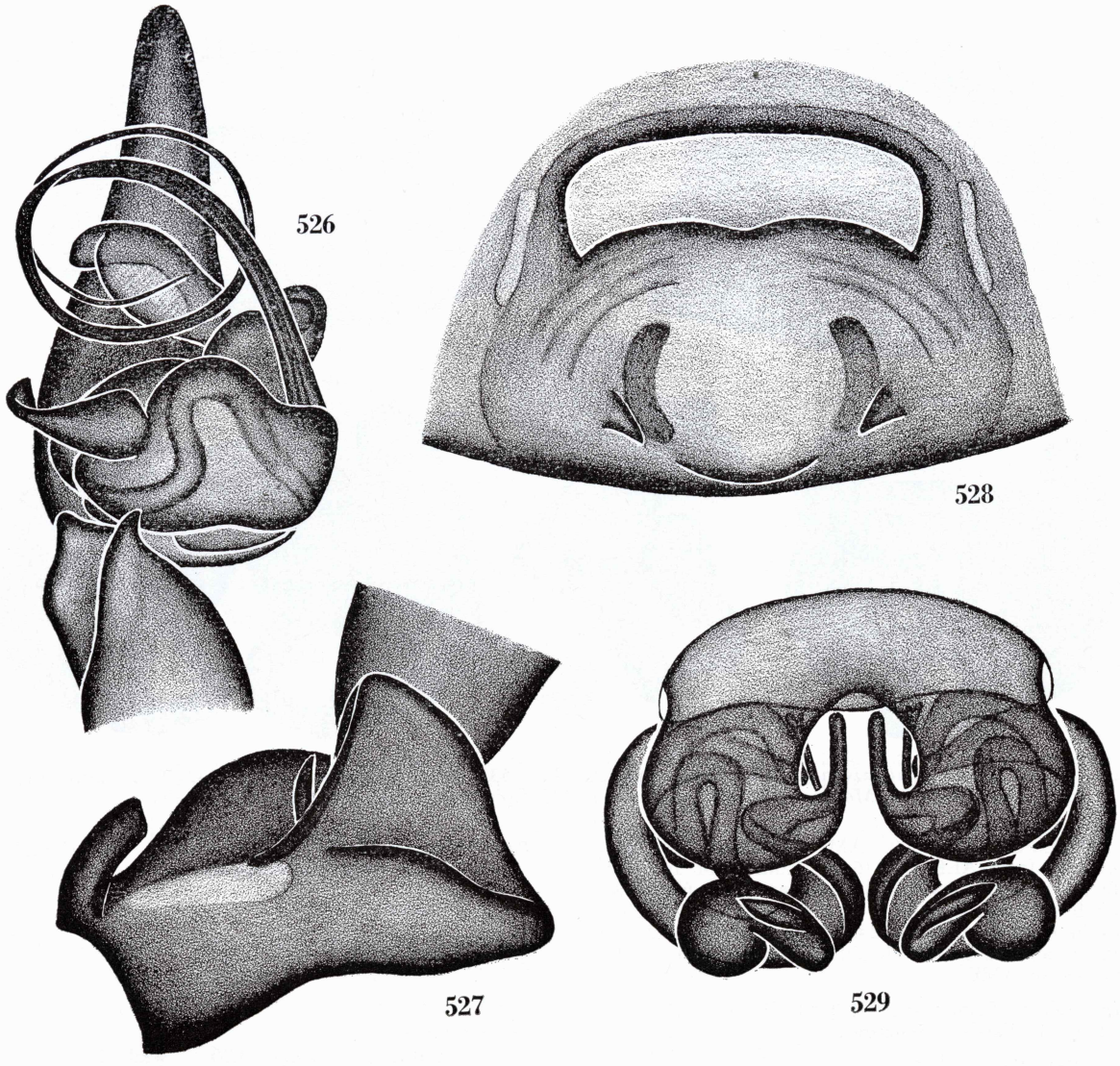


524



525

Figs. 524-525 Cribellum of *Maniho tigris* Marples. Fig. 524 Female. Fig. 525 Male.



Figs. 526-529 *Maniho tigris* Marples. Fig. 526 Ventral view of male palp. Fig. 527 Tibial processes of male palp. Fig. 528 Epigynum. Fig. 529 Internal genitalia.

Palp Bulb similar to *tigris* and tibial processes as in Fig. 532.

Types Holotype female, allotype male. Under bark of fallen trees, Waitapu, Waituna West, 25.iv.1965, R. W. Hutton (Otago Museum).

Records Wellington, 6.viii.1948, R.R.F. Wellington, Botanical Gardens, 20.iii.1941, A. N. Booth. Karori, 2.xi.1941, R.R.F. Kapiti Is., May 1947, R.R.F. Porirua, 7.vi.1945, C. McCann. Somes Is., 19.x.1954, B. A. Holloway. Rimutaka District, 10.viii.1942, R.R.F. Wairarapa. Gladstone, near Masterton, June 1953, B. J. Marples. Solway Show Grounds, 24.ix.1966, R. W. Hutton. Solway, 13.ix.1967, C.L.W. Mangareia, 10.i.1960, 12.ix.1965, C.L.W. Mikimiki, 14.ix.1967, C.L.W. Earlyhearst, Bideford, 3.viii.1966, C.L.W. Te Wharau, near Ngakaraka Station, pitfall, 5-13.ix.1970, C.L.W. Mt Ross, 5.iv.1947, R.R.F. Manawatu. Totara Reserve, Pohangina, 20.viii.-1949, 18.i.1967, R.R.F. Waiputiki, 12.xii.1965, R. W. Hutton. Waituna West, 25.viii.1965, R. W. Hutton. Feilding, 1.x.1942, R.R.F. Hawkes Bay. Kereru, 23.xii.1945. Marlborough. Inner Chetwode Is., 11.ix.1948, R. K. Dell. Motu Ngaratiki Is., 12.ix.1948, R. K. Dell, J. T. Salmon.

Maniho insulanus n.sp.

Figs. 514, 533-534

FEMALE

Measurements

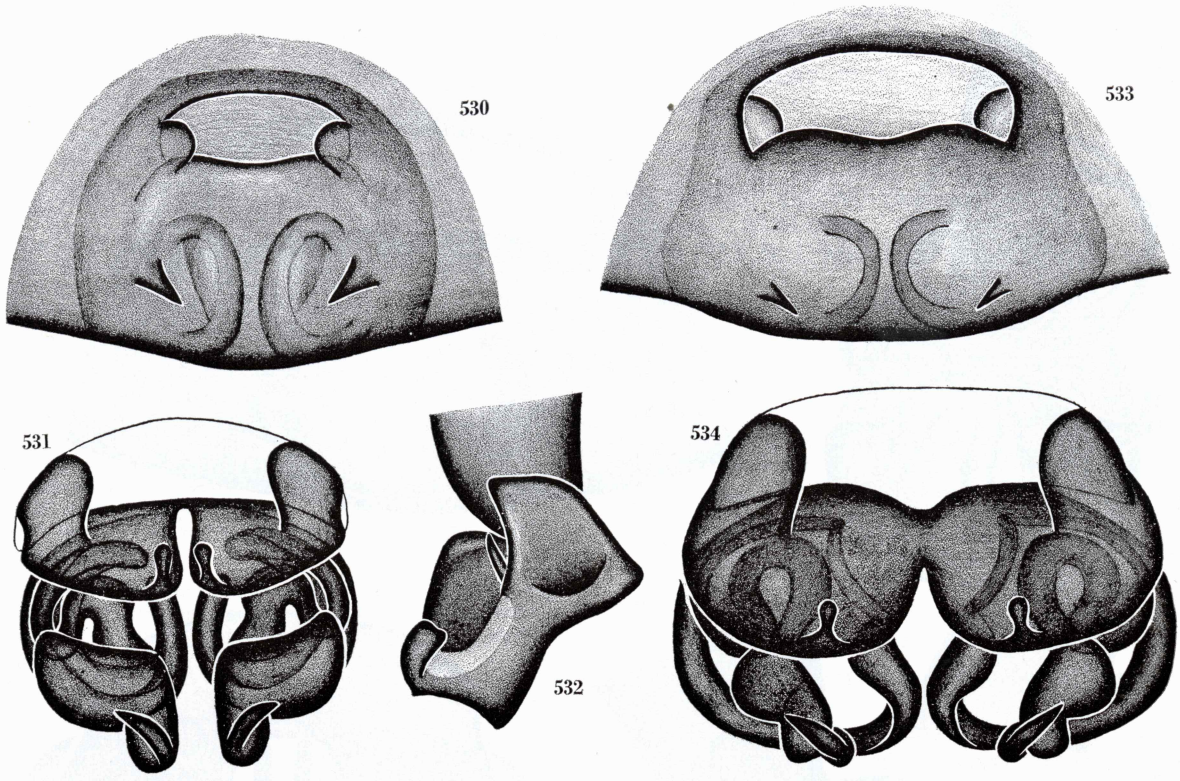
Carapace	length 3.50		width 2.40	
Abdomen	length 4.00		width 2.50	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.45	1.10	3.35	3.25	2.00	13.15
2	3.00	1.10	2.50	2.55	1.60	10.75
3	2.85	1.05	2.25	2.55	1.35	10.05
4	3.50	1.10	3.15	3.50	1.60	12.85
Palp	1.25	0.50	0.95		1.60	4.30

Colour Typical.

Carapace Typical. Thoracic patch as in Fig. 514.

Eyes From in front anterior row very slightly recurved and from above posterior row straight. Ratio of AME.



Figs. 530-532 *Maniho vulgaris* n.sp. Fig. 530 Epigynum. Fig. 531 Internal genitalia. Fig. 532 Tibial processes of male palp. Figs. 533-534 *Maniho insulanus* n.sp. Fig. 533 Epigynum. Fig. 534 Internal genitalia.

ALE.PME.PLE = 6.9.8.9. AME separated from each other and from ALE by 4/6 of diameter of an AME. Laterals separated by 2/6. PME separated from each other by 8/6 and from PLE by 9/6. MOQ wider behind than in front in ratio of 24.16 and wider behind than long in ratio of 24.20. Height of clypeus 14/6 of diameter of an AME.

Palp Spines. Femur, d.1.1.1. p,r.1. Patella, 1.1. Tibia, p.1.2. d.1.1. Tarsus, numerous.

Legs Spination typical.

Abdomen Epigynum and internal genitalia as in Figs. 533, 544.

Type Holotype female. Cuvier Island, August 1943, R. R. Forster (Dominion Museum).

Maniho cantuarius n.sp.

Figs. 535-537

FEMALE

Measurements

Carapace	length 3.30		width 2.25	
Abdomen	length 4.00		width 2.65	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.65	1.10	2.50	2.40	1.45	10.10
2	2.15	1.00	1.85	1.85	1.10	7.95
3	2.15	1.00	1.65	1.80	0.90	7.50
4	2.75	1.10	2.40	2.55	1.05	9.85
Palp	1.10	0.50	0.80		1.20	3.60

Eyes Group occupies 3/5 of width of head. From in front anterior row straight by upper margins and from above posterior row straight. Ratio of AME.ALE.PME. PLE = 6.9.8.9. AME separated from each other and from ALE by 5/6 of diameter of an AME. Laterals separated from each other by 9/6 and from PLE by 10/6. MOQ wider behind than in front in ratio of 25.17 and wider behind than long in ratio of 25.23. Height of clypeus 10/6 of diameter of an AME.

Palp Femoral spines. d.1.1.1. p.0. r.1. Occasionally a reduced spine present pro-apically on one of palps.

Legs Spination typical.

Abdomen Epigynum and internal genitalia as in Figs. 535, 536.

MALE

Measurements

Carapace	length 3.20		width 2.10	
Abdomen	length 2.75		width 1.80	

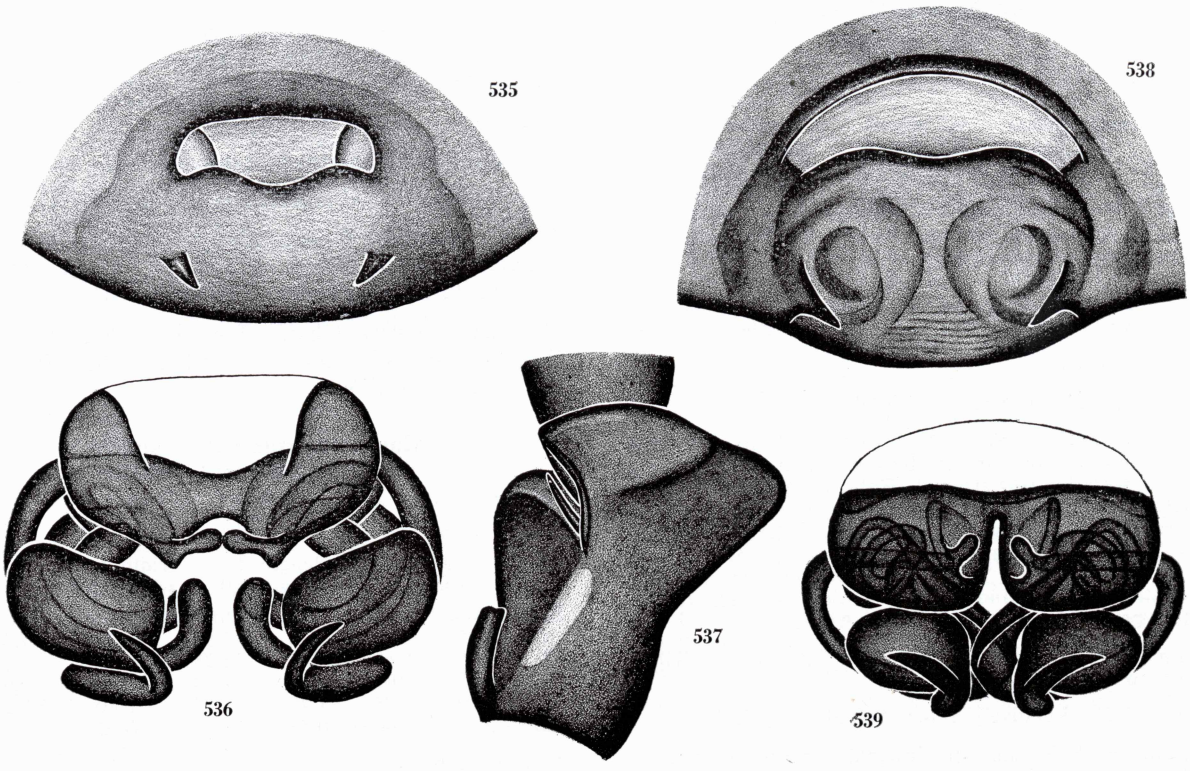
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.75	1.00	2.75	2.80	1.75	11.05
2	2.40	1.00	2.05	2.15	1.30	8.90
3	2.30	0.95	1.80	2.10	1.00	8.15
4	2.95	1.05	2.70	3.00	1.20	10.90
Palp	1.15	0.45	0.55		1.35	3.50

With the general characteristics of female.

Palp Bulb and tibial processes similar to those of *ngaitahu*.

Types Holotype female and allotype male. Canterbury. Lake Taylor, April 1957, R.R.F. (Otago Museum).

Records Canterbury. Christchurch Gardens, 12.vii.1945, R.R.F. Kennedy's Bush, 30.xi.1946, R.R.F. Kaituna Valley, 13.iv.1967, R.R.F. Mt Herbert, 2,500 ft, J. S. Dugdale. Chalk Hill, November 1951, R.R.F. Lake Janet, 7.vii.1954, R.R.F. Ashley Gorge, October 1949, R.R.F. Lake Rubicon, November 1950, R.R.F. Lake Taylor, April 1952, R.R.F. Ribbonwood Creek, Cass, May 1954, R.R.F. Moana, 10.iii.1950, R.R.F. Kaikoura, 30.viii.1962, R. S. Bigelow. Oaro Stream, June 1952, B. J. Marples. Goose Bay, May 1952, B. J. Marples.



Figs. 535-537 *Maniho cantuarius* n.sp. Fig. 535 Epigynum. Fig. 536 Internal genitalia. Fig. 537 Tibial processes of male palp. Figs. 538-539 *Maniho ngaitahu* n.sp. Fig. 538 Epigynum. Fig. 539 Internal genitalia.

Maniho ngaitahu n.sp.

Figs. 513, 523, 538-539

FEMALE

Measurements

	Carapace		length 3.20		width 2.10	
	Abdomen		length 4.10		width 2.70	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.50	1.05	2.35	2.20	1.55	9.65
2	2.25	1.00	1.85	1.75	1.10	7.95
3	2.15	0.95	1.70	1.80	1.00	7.60
4	2.65	1.05	2.40	2.40	1.15	9.65
Palp	1.10	0.50	0.80		1.20	3.60

Colour Abdominal pattern as in Fig. 523.

Carapace Thoracic patch a sclerotized area with the pale fissure-like region on outer and lower part (Fig. 513).

Eyes Group occupies about 3/5 of width of head. From in front anterior row straight by lower margins and posterior row procurved. From above anterior row gently recurved and posterior row straight. Ratio of AME.ALE.PME.PLE = 7.9.8.9. AME separated from each other and from ALE by 5/7 of diameter of an AME. Laterals separated by 3/7. PME separated from each other and from PLE by 8/7. MOQ wider behind than in front in ratio of 24.19 and longer than wide behind in ratio of 26.24. Height of clypeus 8/7 of diameter of an AME.

Palp Spines. Femur, d.1.1.1. p,r.1. Patella, 1.1. Tibia, d.1.1. p.1.1.1. r.0. Trichobothria. Tibia, pro-row 4, retro-row 6. Tarsus, 7 and a tarsal organ. Claw with eight teeth.

Legs Spines typical of genus. Trichobothria. First leg. Tibia, pro-row 5, retro-row 6. Metatarsus, 6. Tarsus, 8. Second leg and third leg. Tibia, pro-row 1.2.1.1, retro-row 5. Tarsus, 7 and a tarsal organ. Claw with eight row 4, retro-row 5. Metatarsus, 6. Tarsus, 7. Subdistal tarsal organ. Superior claws with nine teeth and inferior claws three.

Abdomen Epigynum and internal genitalia as in Figs. 538, 539.

MALE

Measurements

	Carapace		length 3.5		width 2.2	
	Abdomen		length 3.5		width 2.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.80	1.05	2.75	2.80	1.75	11.15
2	2.50	1.05	2.10	2.15	1.40	9.20
3	2.30	1.00	1.90	2.25	1.20	8.65
4	3.00	1.10	2.25	3.00	1.40	10.75
Palp	1.20	0.50	0.60		1.70	4.00

With the general characteristics of the female.

Palp Bulb and tibial processes very similar to *cantuarius*. Trichobothria. Proximal apophysis of tibia with at least one, dorsal surface with two rows, a pro-row of 2 median and a retro-row of 5. Distal trichobothria long. A further long trichobothrium near the base of spur on distal process. Tarsus, 7 and a small subdistal tarsal organ.

Types Holotype female, allotype male. Kaituna Valley, Banks Peninsula, 13.iv.1967, R. R. Forster, C. L. Wilton (Otago Museum).

Records Banks Peninsula, Canterbury. Kaituna Valley, April 1944, 10.x.1948, 11.ix.1949, 1.xi.-1966, 13.iv.1967, R.R.F. Prices Valley, 14.iv.1967, R.R.F., C.L.W. Akaroa, 4.x.1949, R.R.F. Little Fisherman Bay, 22.v.1950, L. P. Hughson. Pigeon Bay, May 1952, R.R.F. Okuti Valley, 10.xii.1950, R.R.F. Mt Pleasant, July 1952, R.R.F. Paua Bay, Akaroa, April 1950. Mt Pleasant, July 1952, R.R.F. Governor's Bay, 4.i.1949, D. R. Cresswell.

Maniho australis n.sp.

Figs. 540-543

FEMALE

Measurements

Carapace	length 2.8	width 1.0	
Abdomen	length 4.0	width 2.8	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.80	0.85	1.60	1.55	1.05	6.85
2	1.60	0.75	1.20	1.25	0.80	5.60
3	1.55	0.75	1.15	1.30	0.70	5.45
4	2.00	0.85	1.65	1.80	0.75	7.05
Palp	0.80	0.35	0.55		0.90	2.60

Colour Typical.

Carapace Thoracic patches circular.

Eyes Group occupies 2/3 of width of head. From in front anterior row straight by lower margins and from above posterior row straight. Ratio of AME.ALE.PME. PLE = 5.8.7.8. AME separated from each other and from ALE by a diameter of an AME. Laterals separated by 2/5. PME separated from each other by 7/5 and from PLE by 9/5. MOQ wider behind than in front in ratio of 21.15 and as wide behind as long. Height of clypeus 7/5 of diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1.1.1. r.0.

Legs 4123. Relatively short. Spination typical.

Abdomen Epigynum and internal genitalia as in Figs. 542, 543.

MALE

Measurements

Carapace	length 2.9	width 1.8
Abdomen	length 3.2	width 2.0

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.30	0.90	2.15	2.25	1.35	8.95
2	2.00	0.90	1.65	1.75	1.00	7.30
3	1.90	0.85	1.45	1.80	0.85	6.85
4	2.40	1.00	2.15	2.50	1.00	9.05
Palp	0.95	0.35	0.45		1.20	2.95

With general characteristics of female.

Palp Bulb and tibial processes as in Figs. 540, 541.

Types Holotype female, allotype male, paratype female. Stewart Island. Bravo Is., under logs, 23.xi.1946, R. R. Forster (Dominion Museum).

Records Stewart Island, January 1955, R.R.F. Port Pegasus, S.E. Stewart Island, 22.i.1955, R. K. Dell, B. A. Holloway.

Maniho meridionalis n.sp.

Figs. 544-547

FEMALE

Measurements

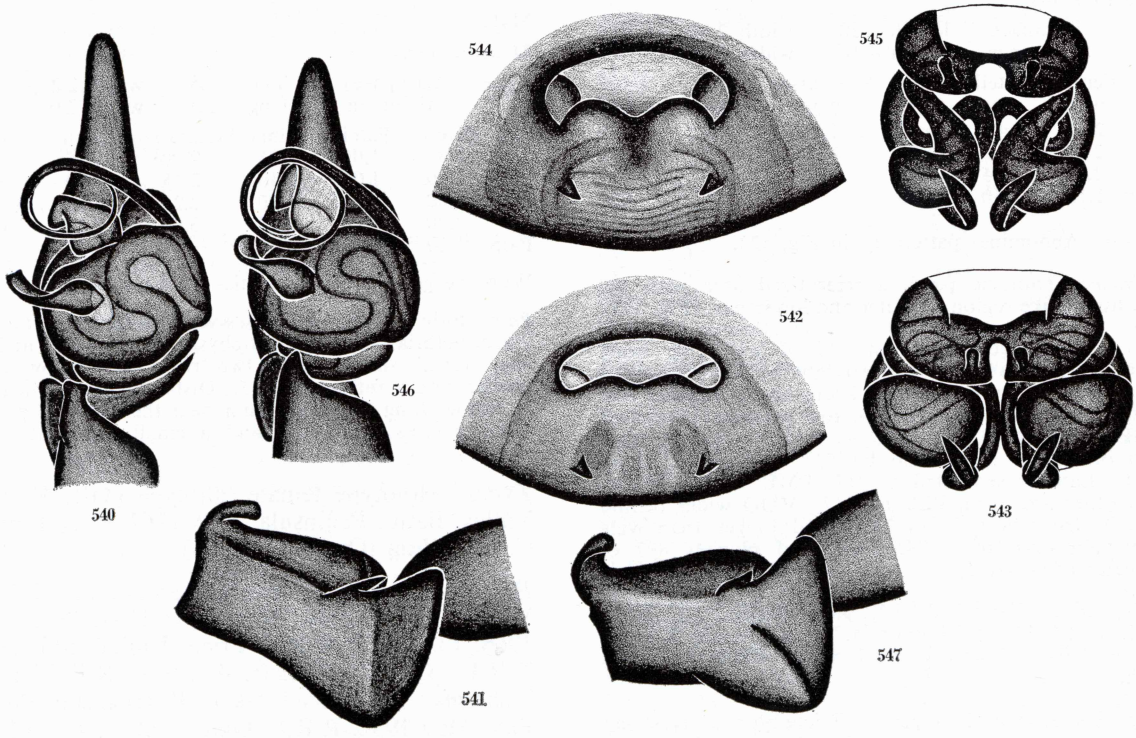
Carapace	length 2.6	width 1.8	
Abdomen	length 3.0	width 2.0	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.95	0.80	1.70	1.55	1.05	7.05
2	1.65	0.80	1.25	1.25	0.85	5.80
3	1.65	0.75	1.15	1.30	0.70	5.55
4	2.10	0.85	1.70	1.80	0.80	7.25
Palp	0.80	0.40	0.55		0.90	2.65

Colour Typical.

Carapace Thoracic patches similar to *otagoensis*.

Eyes Group occupies about 2/3 of width of head. From in front anterior row straight by upper margins and from above posterior row straight. Ratio of AME. ALE.PME.PLE = 5.8.6.7. AME separated from each



Figs. 540-543 *Maniho australis* n.sp. Fig. 540 Ventral view of male palp. Fig. 541 Tibial processes of male palp. Fig. 542 Epigynum. Fig. 543 Internal genitalia. Figs. 544-547 *Maniho meridionalis* n.sp. Fig. 544 Epigynum. Fig. 545 Internal genitalia. Fig. 546 Ventral view of male palp. Fig. 547 Tibial processes of male palp.

other and from ALE by a diameter of an AME. PME separated from each other and from PLE by 8/5. MOQ wider behind than in front in ratio of 20.15 and wider behind than long in ratio of 20.18. Height of clypeus 7/5 of diameter of an AME.

Sternum Longer than wide in ratio of 30.22. Posterior projection separates posterior coxae by slightly more than half diameter of a coxa.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, p.1.2. d.1.1. r.0. Tarsus, numerous.

Legs Spination typical.

Abdomen Epigynum and internal genitalia as in Figs. 544, 545.

MALE

Measurements

Carapace length 2.70 width 1.70
Abdomen length 2.65 width 1.55

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	0.80	2.05	2.10	1.20	8.25
2	1.85	0.75	1.55	1.60	0.90	6.65
3	1.55	0.70	1.35	1.60	0.75	5.95
4	2.30	0.80	2.05	2.25	0.90	8.30
Palp	0.85	0.30	0.40		1.10	2.65

With general characteristics of female.

Palp Bulb and tibial processes as in Figs. 546, 547.

Types Holotype female. Manapouri, beech forest, 6.vii.1952, B. J. Marples. Allotype male. Southland. Pitfall trap, The Wilderness near Te Anau, 6-13.xii.1969, C. L. Wilton (Otago Museum).

Records Mataura Range, 3,300 ft, P. L. Crosswell. Longwood Forest, 25.i.1957, R.R.F. Ben Lomond, April 1952, B. J. Marples. Between Lake George and Orepuki, 21.v.1962, B. J. Marples. Croydon Bush, Gore, 17.ii.1966, R.R.F., C.L.W. Arrowtown, 4.ix.1968, R.R.F. Lake McKerrow Hut, January 1955, R.R.F.

Maniho otagoensis n.sp.

Figs. 510, 522, 548-551

FEMALE

Measurements

Carapace length 2.8 width 1.9
Abdomen length 3.5 width 2.5

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.90	0.75	1.65	1.60	1.00	6.90
2	1.70	0.80	1.25	1.30	0.80	5.85
3	1.65	0.75	1.15	1.30	0.65	5.50
4	2.10	0.85	1.75	1.90	0.80	7.40
Palp	0.85	0.40	0.60		0.90	2.75

Colour Abdominal pattern as in Fig. 522.

Carapace Thoracic patches as in Fig. 510.

Eyes Eyegroup occupies about 5/8 of width of head. From in front anterior row straight by lower margins and from above posterior row straight. Ratio of AME. ALE.PME.PLE = 5.7.7.7. AME separated from each other and from ALE by the diameter of an AME. Laterals separated by 2/5. PME separated from each other by 8/5 and from PLE by 10/5. MOQ wider behind than in front in ratio of 22.15 and wider behind than long in ratio of 22.20. Height of clypeus 8/5 of diameter of an AME.

Palp Femoral spines. d.1.1.1. p.1. r.0.

Legs Spination typical. Anterior legs relatively short and fourth pair long relative to first pair.

Abdomen Epigynum and internal genitalia as in Figs. 548, 549.

MALE

Measurements

Carapace length 3.0 width 2.0
Abdomen length 2.8 width 1.6

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.30	0.90	2.20	2.20	1.30	8.90
2	2.00	0.80	1.60	1.75	1.05	7.20
3	2.00	0.85	1.45	1.85	0.85	7.00
4	2.50	0.95	2.25	2.55	0.95	9.20
Palp	1.00	0.40	0.45		1.35	3.20

With general characteristics of female.

Palp Bulb and tibial processes as in Figs. 550, 551.

Types Holotype female, allotype male. Otago. Balclutha Plant Reserve, 20.xi.1956, R. R. Forster (Otago Museum).

Records Otago. Waipori Gorge, 11.xii.1965, C.L.W. Waipori Gorge, 18.xi.1966, 13.xi.1970, R.R.F., C.L.W. Balclutha Plant Reserve, 20.xi.-1956, 21.iv.1966, R.R.F. East Branch, Eweburn, pitfall, 24.iii.1968, 12.ix.1968, 27.i.1969, C.L.W., Bull Creek, 27.iii.1970, C.L.W. Tapanui, 1.x.1959, R.R.F. Mt Watkin, December 1955, B. J. Marples. Clinton, 30.ix.1959, R.R.F. Fraser's Gully, Dunedin, 13.v.1967, R. W. Hutton, C.L.W.

Maniho centralis n.sp.

Figs. 552-555

FEMALE

Measurements

Carapace length 2.5 width 1.7
Abdomen length 4.0 width 2.7

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.15	0.80	2.10	1.90	1.30	8.25
2	1.90	0.80	1.55	1.50	1.05	6.80
3	1.80	0.75	1.45	1.50	0.90	6.40
4	2.35	0.85	2.10	2.20	1.10	8.60
Palp	0.85	0.30	0.60		0.95	2.70

Colour Typical.

Carapace Thoracic patches as in *otagoensis*.

Eyes Group occupies 5/8 of width of head. From in front anterior row straight by upper margins and from above posterior row straight. Ratio of AME.ALE.PME. PLE = 5.7.6.7. AME separated from each other and from ALE by 4/5 of diameter of an AME. PME separated from each other and from PLE by 7/5. MOQ wider behind than in front in ratio of 19.15 and is wider behind than long in ratio of 19.18. Height of clypeus 7/5 of diameter of an AME.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, p,d.1.1. r.0.

Legs Spination typical.

Abdomen Epigynum and internal genitalia as in Figs. 552, 553.

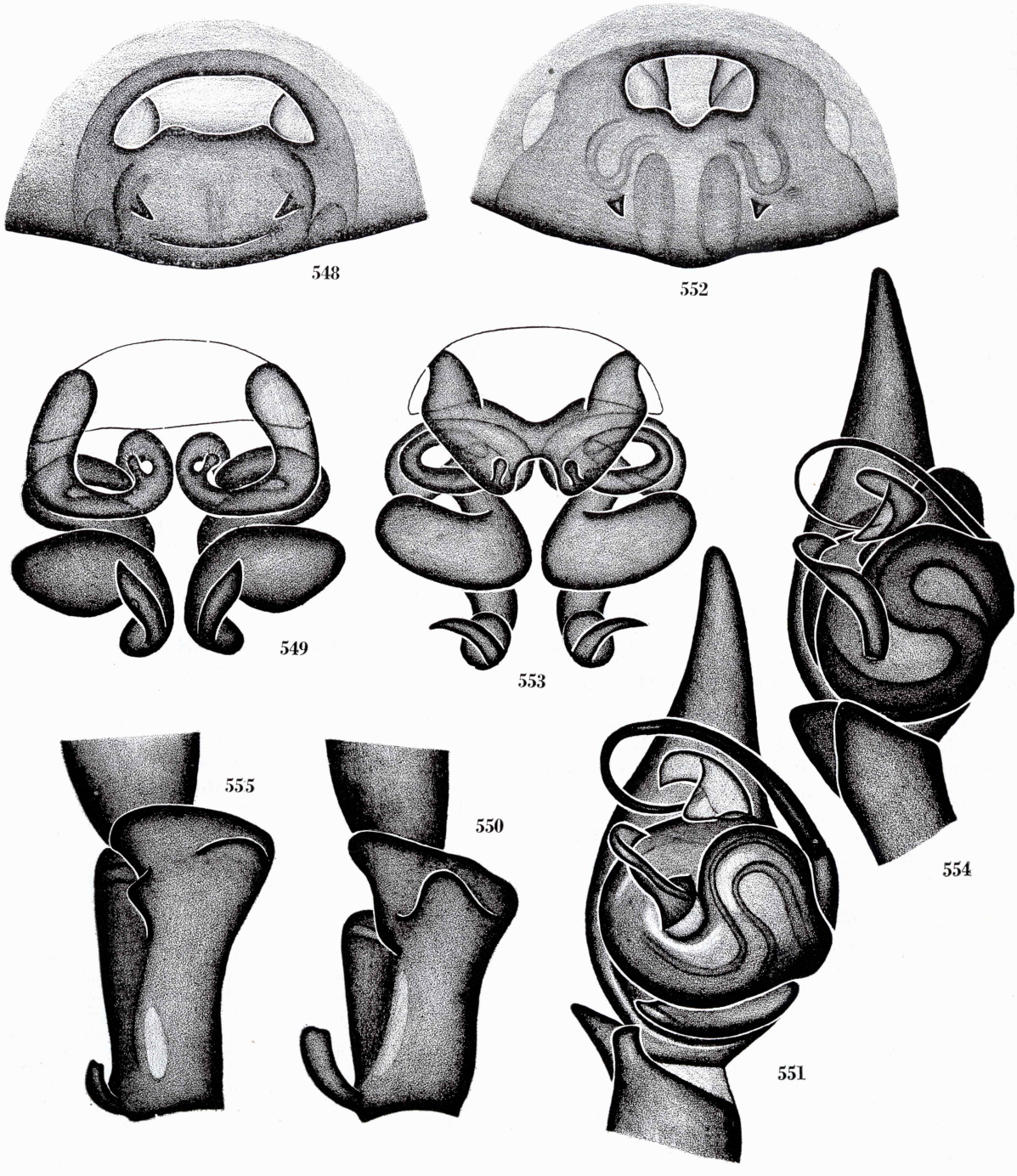
MALE

Measurements

Carapace length 3.05 width 2.10
Abdomen length 2.75 width 1.50

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.95	1.00	3.10	3.05	1.90	12.00
2	2.60	1.00	2.25	2.40	1.50	9.75
3	2.50	0.90	2.20	2.40	1.25	9.25
4	3.15	1.05	3.00	3.40	1.50	12.10
Palp	1.10	0.40	0.60		1.30	3.40

With general characteristics of female.



Figs. 548-551 *Maniho otagoensis* n.sp. Fig. 548 Epigynum. Fig. 549 Internal genitalia. Fig. 550 Tibial processes of male palp. Fif. 551 Ventral view of male palp. Figs. 552-555 *Maniho centralis* n.sp. Fig. 552 Epigynum. Fig. 553 Internal genitalia. Fig. 554 Ventral view of male palp. Fig. 555 Tibial processes of male palp.

Eyes From in front anterior row of eyes straight by lower margins. Ratio of AME.ALE.PME.PLE = 6.9.7.8. AME separated from each other and from ALE by 5/6 of diameter of an AME. PME separated from each other by 8/6 and from PLE by 10/6 of diameter of an AME. MOQ wider behind than in front in ratio of 22.17 and wider behind than long in ratio of 22.21. Height of clypeus 10/6 of diameter of an AME.

Palp Bulb and tibial processes as in Figs. 554, 555. Embolus relatively much more slender than *otagoensis*.

Types Holotype female, allotype male. Central Otago. Tawhiti, under stones in creek, 29.x.1958, R. R. Forster (Otago Museum).

Records Otago. Gorge Creek, 14.xii.1967, R.R.F., C.L.W. Alexandra, under stones, 18.xi.1958, R.R.F.

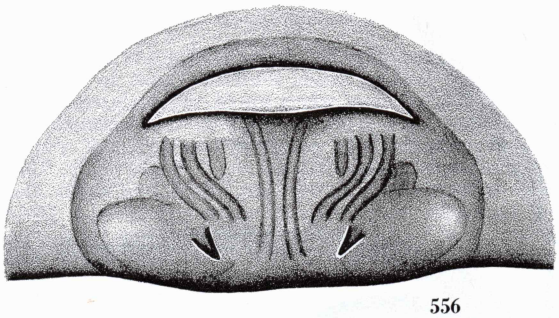
Maniho pumilio n.sp.

Figs. 556-559

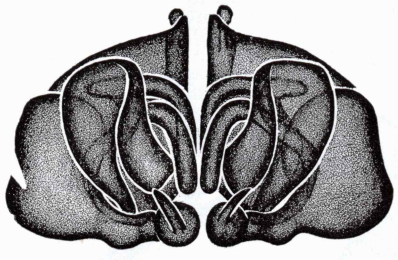
FEMALE

Measurements

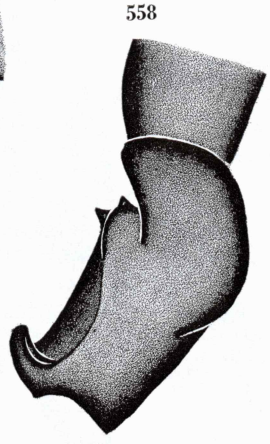
Carapace	length 1.8	width 1.3
Abdomen	length 3.2	width 2.4



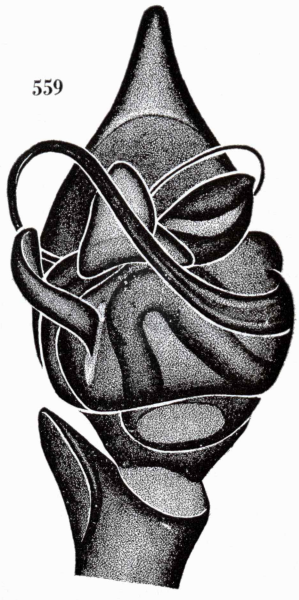
556



557



558



559

Figs. 556-559 *Maniho pumilio* n.sp. Fig. 556 Epigynum. Fig. 557 Internal genitalia. Fig. 558 Tibial processes of male palp. Figs. 559 Ventral view of male palp.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.35	0.55	1.15	1.15	0.80	5.00
2	1.25	0.50	0.95	0.90	0.70	4.30
3	1.15	0.50	0.85	0.95	Missing	
4	1.45	0.55	1.25	1.25	0.65	4.95
Palp	0.60	0.25	0.40		0.75	2.00

Colour Carapace and chelicerae orange brown with eyes on black spots. Legs rather paler with dark bands. Coxae with dark shading distally. Abdomen mottled brownish grey with very little pattern discernible. There are indications of a short dark median band anteriorly and some chevrons on posterior slope. Anterior spinnerets have some dark shading.

Carapace Four long curved hairs on summit anterior to fovea as well as an average cover of other hairs. Radial striae well defined and a fragmented thoracic patch on each side of posterior lateral striae.

Eyes Group occupies about 2/3 of width of head. From in front anterior row straight and posterior row procurved. From above anterior row recurved and posterior row straight. Ratio of AME.ALE.PME.PLE = 4.6.6.6. AME separated from each other by 3/4 and from ALE by 2/4 of diameter of an AME. Laterals narrowly separated. PME separated from each other and from PLE by 5/4. MOQ wider behind than in front in ratio of 17.11 and as wide behind as long. Height of the clypeus 7/4 of diameter of an AME.

Sternum Scutate. Longer than wide in ratio of 35.30. Anterior margin very slightly indented to accommodate convexity of labium. Posterior projection tapers rather gently to a blunt point beyond posterior coxae which are separated by 3/4 of diameter of a coxa.

Maxillae Inclined towards each other. Longer than wide in ratio of 18.12 and twice length of labium.

Labium Wider than long in ratio of 12.9. Distal margin indented.

Chelicerae Promargin with two teeth and retromargin with two teeth of which basal one is much larger. Inner row of six teeth, three being much smaller.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 0.1. Tibia, p.1.1. d.0.1. r.0. Tarsus, numerous. Trichobothria. Tibia, pro 3, retro 4. Tarsus, 4. Claw with seven teeth.

Legs 1423. Trochanters notched. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.0.1. Patella, 0. Tibia, v.0.2.2. p,r.1.1. d.1.0. Metatarsus, v.1.2 and subwhorl of 5, p,r.1 median. Second leg. Femur, d.1.1.1. p,r.1.1. Patella, 0. Tibia, v.0.1.2. p,r.1.1. d.1.0. Metatarsus, same as first leg. Third leg. Femur, d.1.1.1. p,r.1.1. Patella, 0.1. Tibia, same as second leg. Metatarsus, v.0.2 and subwhorl of 5, p.1.2. r.1.1. Fourth leg. Femur, d.1.1.1. p,r.0.1. Patella, 0.1. Tibia, v.1.1.2. p,r.1.1. d.1.0. Metatarsus, v.1.2 and subwhorl of 5, p.1.1. r.1, calamistrum, 1. The calamistrum occupies 1/4 of segment. Trichobothria. Tibia, p.3. r.4. Metatarsus, 3. Tarsus, 4. Superior claw with seven teeth and inferior claw with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 556, 557. Spinning fields of cribellum very small and difficult to see.

MALE

Measurements

Carapace	length 2.3		width 1.6	
Abdomen	length 2.3		width 1.6	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.70	0.70	1.65	1.65	1.10	6.80
2	1.60	0.65	1.30	1.35	0.90	5.80
3	1.60	0.65	1.25	1.40	0.80	5.60
4	2.00	0.65	1.80	1.90	0.95	7.30
Palp	0.75	0.25	0.50		1.05	2.55

With the general characteristics of female. Curved hairs present on carapace.

Palp Bulb and tibial processes as in Figs. 558, 559. Cymbium with 4 trichobothria.

Types Holotype female. Wellington. Days Bay, 2.vi.1942, R. R. Forster. Allotype male. Levin, June 1948, R. R. Forster (Dominion Museum).

Akatorea n.gen.

Medium sized (8-9.5mm in body length) cribellate spiders. Carapace of female with thoracic patches. Eye-group occupies two-thirds of width of head. Two more or less straight rows. AME and PME smaller than lateral eyes. AME usually slightly smaller than PME. Labium notched at base. Longer than wide. Sternum scutiform, as long as wide. Chelicerae with from three-four teeth on retromargin and from four-six teeth on

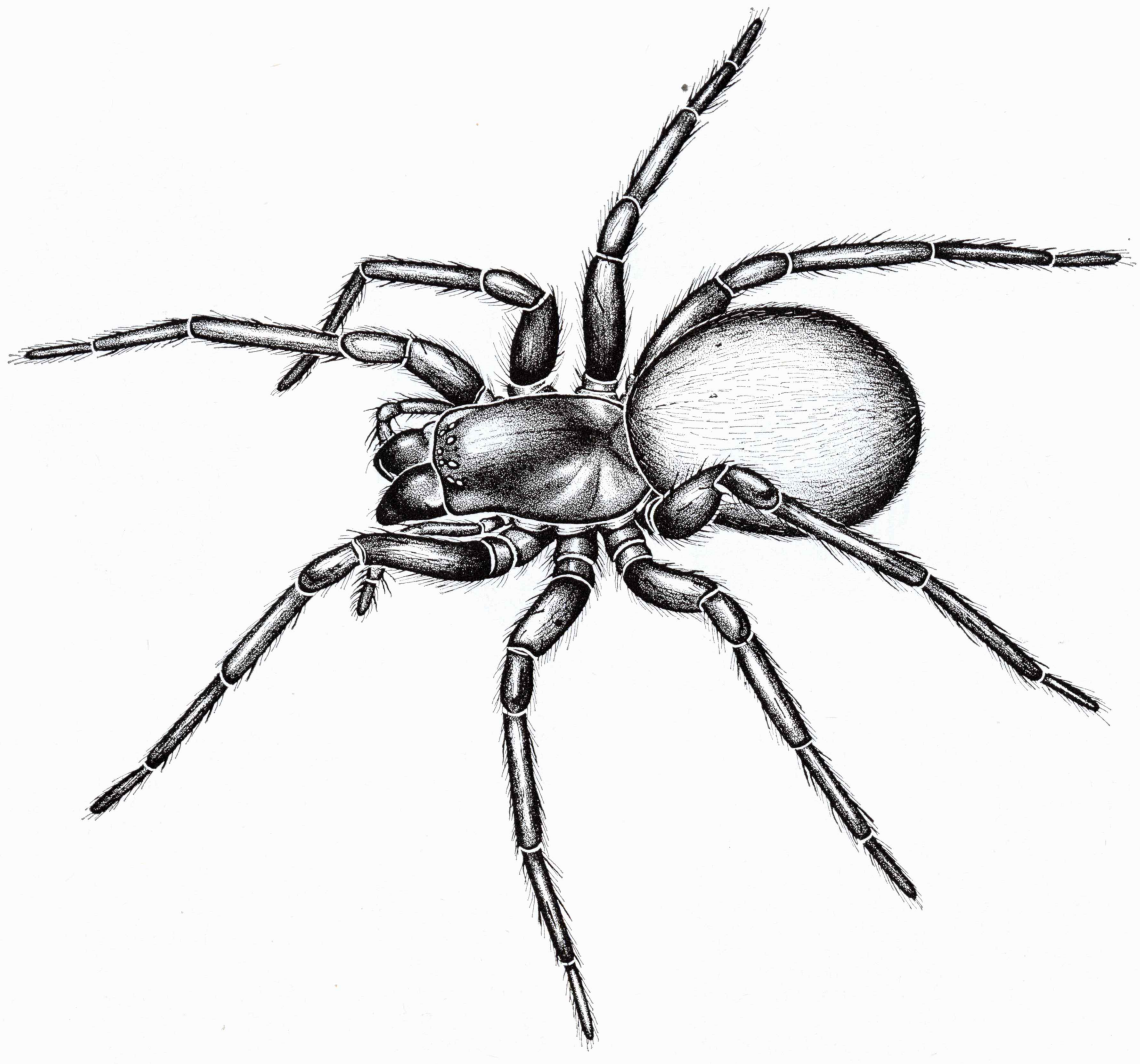


Fig. 560 *Akatorea gracilis* (Marples) female.

promargin. Female palp with a double row of trichobothria on tibia and a single row on tarsus. Claw strongly pectinate. Legs 4123. Plumose hairs lacking. Trichobothria in double row on tibiae and single row on metatarsi and tarsi. Superior claws strongly pectinate. Inferior claw with three teeth. Claw tufts and tenent hairs lacking. Trochantera strongly notched. Tarsal organ absent. Calamistrum proximal. Cribellum much wider than long. Spinning field divided. Anterior and posterior pairs of spinnerets equal in length. Epigynum with pair of spines, similar to *Maniho* but with paired anterior openings. Internal genitalia compact (Fig. 564). Male palp similar to *Maniho* but tibia with a basal process as well as the distal plate. Embolus distal as in *Maniho* but shorter and not coiled. Median apophysis large, hooked apically.

Type species *Maniho gracilis* Marples 1959.

Recorded only from the southern portion of the South Island. Marples (1959) found *gracilis* living in the hollow ends of rotted beech twigs but most of the specimens we have collected come from beneath and in rotten logs lying on the forest floor. They have also been found beneath loose rocks on cliff faces near the sea. They are usually associated with a small sheet web.

Akatorea is most closely related to *Maniho* from which it may be separated by the absence of plumose hairs, the paired membraneous areas of the epigynum, the simpler form of the embolus and the hooked median apophysis.

Akatorea gracilis (Marples)

1959 *Maniho gracilis,* Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 352.

Figs. 560, 565, 569

FEMALE

Measurements

Carapace	length 4.72	width 2.89	
Abdomen	length 4.67	width 3.11	

Leg	Femur	Patella and Tibia	Metatarsus	Tarsus	Total
1	4.00	4.94	3.50	2.00	14.44
2	3.44	4.33	2.89	1.56	12.22
3	3.28	3.89	3.06	1.50	11.73
4	4.11	5.17	3.89	1.83	15.00
Palp	1.61	1.56		1.56	4.73

Colour Carapace orange-yellow with dark shading around eyes and on margin of clypeus. Abdomen grey with a St. Andrews cross on mid-dorsal surface followed by two pale chevrons and a further series of thin pale transverse lines. Legs yellow brown.

Carapace Head region relatively high, clearly separated from thorax. Fovea long and narrow.

Eyes Eyes themselves small but eyegroup occupies 5/8 of width of head and from above appears to be placed on a separate lobe. From above anterior row recurved and posterior row straight. From in front anterior row slightly recurved and posterior row straight. Ratio of AME.ALE.PME.PLE = 2.4.2.3. AME separated from each other and from ALE by 3/2 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other and from PLE by 5/2. MOQ wider behind than in front and wider behind than long in ratio of 9.7. Height of clypeus twice diameter of an AME.

Sternum Scutiform, as wide as long. Anterior margin straight, lateral margins evenly curved. Posterior projection sharp, separating coxae 4 by half width of a coxa.

Labium Notched at base. Lateral margins evenly curved, anterior margin gently indented. Longer than wide at base in ratio of 7.6.

Chelicerae Four strong teeth on both margins. From the proximal promarginal tooth a carina extends back to base of chelicera.

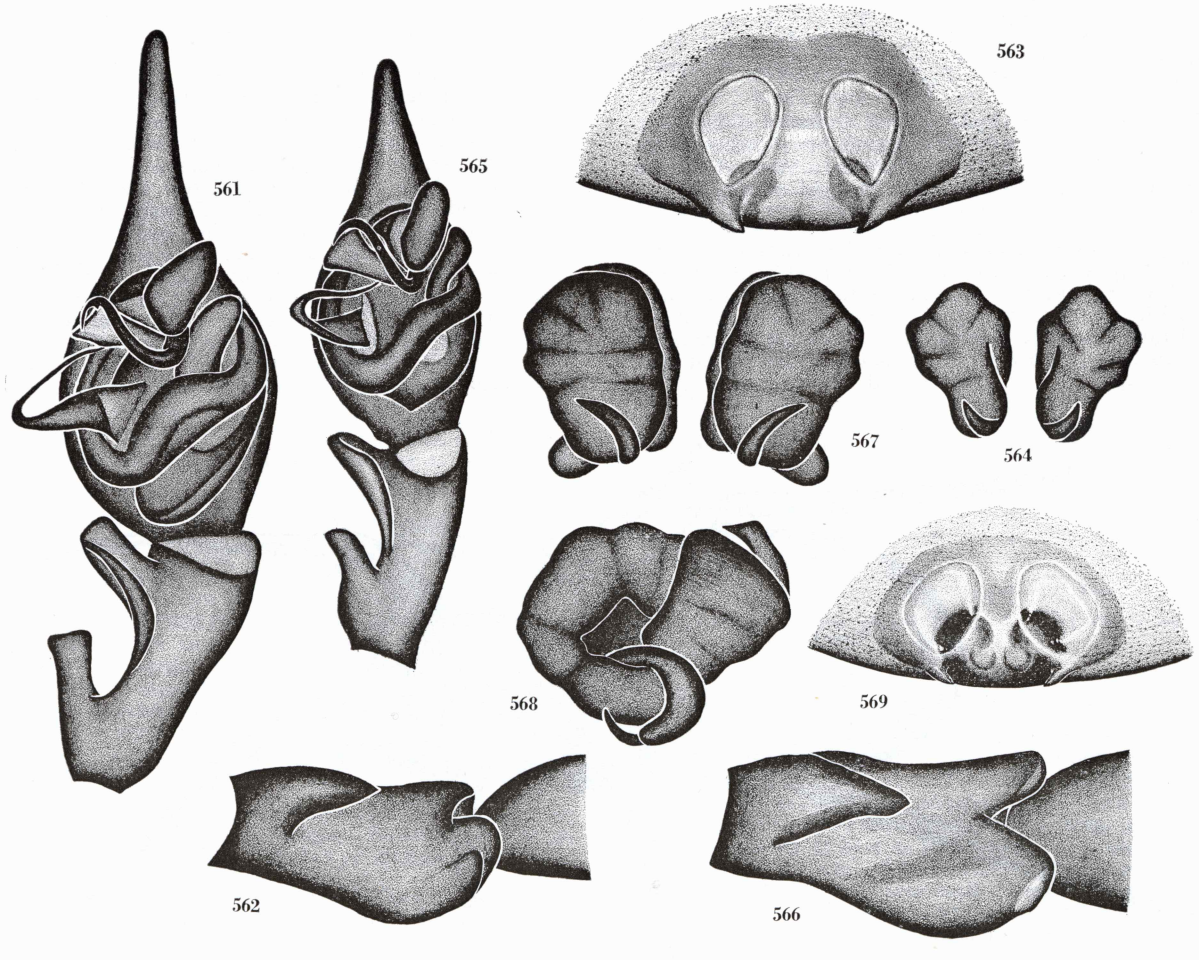
Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. r.1.1. Tarsus many, tarsal claw with 9 short teeth. Tibia with 6 trichobothria arranged 2.2.2. Tarsus, 5.

Legs Spines long and strong. First leg. Femur, d.0.1.0.1.1. p.0.0.0.1.1. r.0.0.1.0. Tibia, v.2.2.2. p.1.1.1. r.0.1.1. d.0.0.1. Metatarsus, v.1.2.2. p,r.0.1.1. Second leg. Femur, d.1.2.0.1. p.0.1.0.1. r.0.0.0.1. Tibia, v.2.2.2. p,r.0.1.1. d.0.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Third leg. Femur, d.1.1.0.1. p,r.0.1.0.1. Patella, d.0.1. Tibia, v.2.2.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Fourth leg. Femur, d.1.1.0.1. p.0.1.0.1. r.0.0.0.1. Patella, d.0.1. Tibia v.1.1.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.1. Trichobothria. First leg. Tibia, 1. Metatarsus, 3. Tarsus, 3. Second leg. Tibia, 1. Metatarsus, 0. Tarsus, 3. Third leg. Tibia, 2.1.1.1. Metatarsus, 0. Tarsus, 3. Fourth leg. Tibia, 2.2.2. Metatarsus and tarsus, 3. Calamistrum extends down 2/7 of length of metatarsus. Superior claws with six teeth, inferior claw with three teeth.

Abdomen Cribellum relatively small and divided. Epigynum and internal genitalia as in Figs.
Male similar to female. Palp as in Figs. 565, 566.

Type Holotype female. Southland. Tuatapere, 13.v.1956, R. R. Marples (Otago Museum).

Records Stewart Is., Bravo, under logs, 23.xi.-1946, R.R.F. Southland. Lake Hauroko, 25.xi.-1970, R.R.F., C.L.W. Colac Bay, 24.xi.1970, R.R.F., C.L.W. Alton Burn, Tuatapere, 25.xi.-1970, R.R.F., C.L.W. Orepuki, 26.xi.1970, R.R.F,



Figs. 561-564 *Akatorea otagoensis* n.sp. Fig. 561 Ventral view of the male palp. Fig. 562 Tibial processes of male palp. Fig. 563 Epigynum. Fig. 564 Internal genitalia Figs. 565-569 *A gracilis* (Marples). Fig. 565 Ventral view of male palp. Fig. 566 Tibial processes of male palp. Fig. 567 Internal genitalia from above. Fig. 568 Internal genitalia from side. Fig. 569 Epigynum.

C.L.W. Longwood Range, 1.ix.1948, J. H. Sorensen. Fiordland. Eglinton Valley, v.1952, B. J. Marples. Eglinton Flat, 6.ii.1946, R.R.F.

Akatorea otagoensis n.sp.

Figs. 561-564

FEMALE

Measurements

	Carapace	length 3.60		width 2.54		
	Abdomen	length 4.42		width 2.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.28	1.26	3.09	2.90	1.95	12.48
2	2.96	1.13	2.52	2.46	1.64	10.71
3	2.71	1.13	2.21	2.39	1.39	9.93
4	3.47	1.29	3.15	3.34	1.76	13.01
Palp	1.39	0.57	0.95		1.51	4.42

Colour Relatively pale. Carapace and legs orange-brown. Chelicerae reddish brown. Abdomen cream with five faint black bands across postero-dorsal half of abdomen.

Carapace Head region well developed, width equal to one half of width of thorax. Fovea distinct.

Eyes Eyegroup relatively compact occupying 5/9 of width of head. From above both rows appear recurved but from in front anterior row is recurved and posterior row straight. Ratio of AME.ALE.PME.PLE = 8.15.11.15. AME separated from each other by 15/8 and from ALE by 8/8 of diameter of an AME. Lateral eyes contiguous. PME separated from each other by 20/8 and from PLE by 17/8. MOQ wider behind than in front and wider behind than long in ratio of 42.31. Width of clypeus 17/8 of diameter of an AME.

Chelicerae Strong, equal to 4/9 of length of carapace. The number of teeth differ on the two chelicerae of holotype. One with three teeth on retromargin and 6 on promargin. The other with 4 teeth on retromargin and 5 teeth on promargin.

Legs Spines. First leg. Femur, d,p.0.1.1.1. r.0.1.0.1. Tibia, v.2.2.2. p,r.1.1.1. Metatarsus, v.2.2.0. p.0.1.2. r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.1.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,d.0.0.1. r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. d.1.1.0. Third leg. Femur, d.1.1.1.1. p.0.0.0.1. r.0.1.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r. 1.1.2. d.0.1.0. Fourth leg. Femur, d.1.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.1.2. p,r. 0.1.1. d.1.0.1. Metatarsus, v.1.1.2.1. p,r.0.0.1.2. d.1.0.1.0. Trichobothria. First leg. Tibia, 1.2.1.1. Metatarsus, 4. Tarsus, 7. Second and third legs. Tibia, 1.2.2.1. Metatarsus, 7. Tarsus, 6. Fourth leg. Tibia, 1.2.2.1.1. Metatarsus, 3. Tarsus, 7. Inferior claw with three teeth. Superior claws with 9-11 teeth.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Trichobothria. Tibia, 1.2.2.1.1. Tarsus, 7. Claw with 11 teeth.

Abdomen Epigynum and internal genitalia as in Figs. 548, 549. Cribellum relatively large, three times as wide as long. Spinning field small and appears divided.

Type Holotype female. Otago. Dunedin, under log, iv.1960, R. R. Forster. Allotype male. Leith Saddle, Dunedin, pitfall, 24.ix.1966, R. R. Forster (Otago Museum).

Records Waipori Gorge, 11.xii.1965, C.L.W. Matanaka Beach, on cliff face, 3.x.1968, R.R.F., C.L.W. Bull Creek, 19.v.1967, C.L.W., R. W. Hutton. Clinton, 30.ix.1959, R.R.F. Tapanui, November 1958, R.R.F.

These spiders are usually found associated with a small web beneath stones and logs on the forest floor. The Matanaka Beach specimens were found beneath loose rocks on a cliff in the spray zone.

Rangitata n.gen.

Medium sized (4mm in body length) cribellate spiders. Carapace of female with thoracic patches. Eyegroup occupies about two-thirds of width of head. Two rows, more or less straight. AME distinctly smaller. Sternum scutiform, longer than wide. Labium notched at base, wider than long. Chelicerae with two teeth on retromargin and four on promargin. Female palp with a double row of trichobothria on tibia and a single row on tarsus. Tarsal organ subdistal. Claw strongly pectinate. Legs 4123, without plumose hairs. Trichobothria in double row on tibiae and single row on metatarsi and tarsi. Trichobothria present beyond tarsal organ. Superior claws similar and strongly pectinate. Inferior claw with two teeth. Calamistrum proximal. Cribellum well developed, spinning field divided. Anterior and posterior

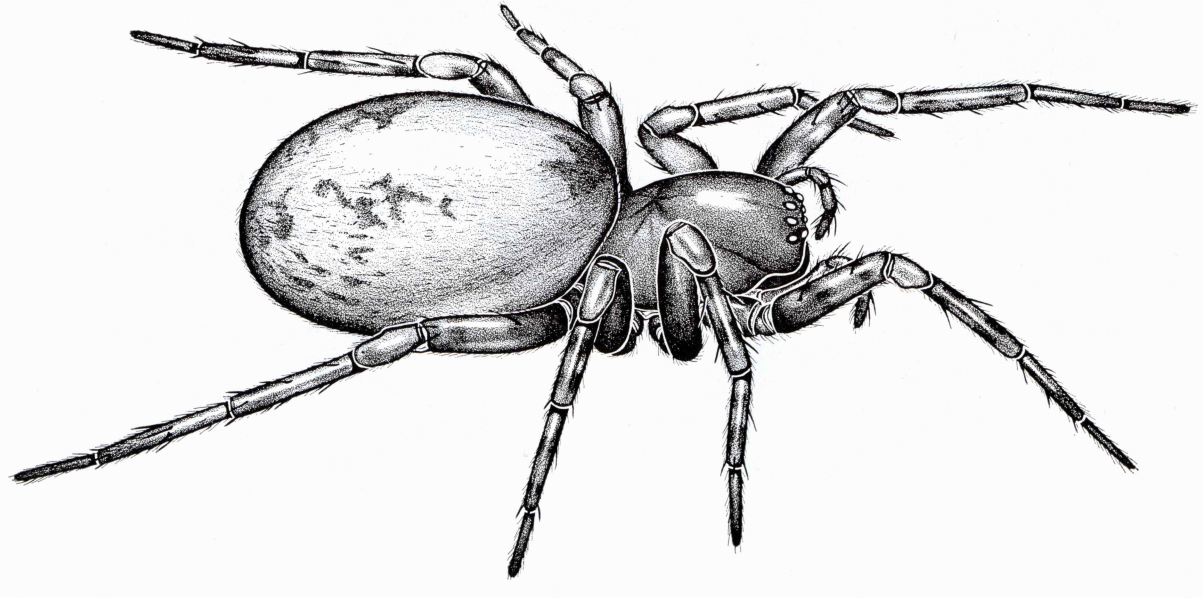
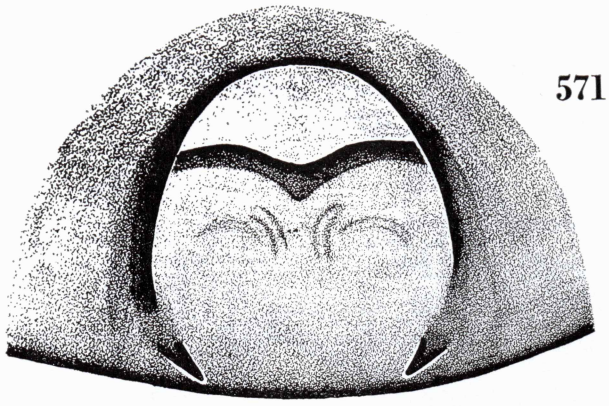
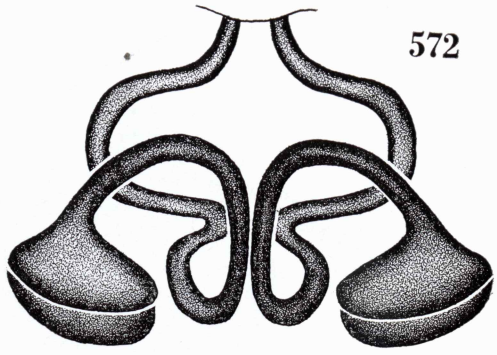


Fig. 570 *Rangitata peelensis* n.sp. female.



571



572

Figs. 571-572 *Rangitata peelensis* n.sp. Fig. 571 Epigynum. Fig. 572 Internal genitalia.

spinnerets of equal length but posterior pair more slender. Epigynum similar to *Maniho,* with pair of spines. Internal genitalia with receptacula and simple convoluted ducts.

Type species *Rangitata peelensis* n.sp.

This genus, known only from a single female, is similar to *Maniho,* but lacks plumose hairs on the legs. The position of the tarsal organ behind one or more of the trichobothria is very unusual. While the epigynum is similar in appearance to *Maniho* the internal genitalia are more simple.

Rangitata peelensis n.sp.

Figs. 570-572

FEMALE

Measurements

Carapace	length 1.7	width 1.2	
Abdomen	length 2.8	width 1.7	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.23	0.50	1.10	0.97	0.80	4.60
2	1.10	0.47	0.83	0.80	0.67	3.87
3	1.07	0.43	0.77	0.83	0.53	3.63
4	1.33	0.50	1.10	1.10	0.63	4.66
Palp	0.53	0.23	0.40		0.63	1.79

Colour Carapace orange brown becoming darker anteriorly. Legs similar in colour but with dark bands. Abdomen pale grey with black markings as in Fig. 570.

Carapace Width of head 2/3 of width of thorax. Thoracic patches on lateral angles of posterior slope.

Eyes Group occupies 9/14 of width of head. From in front anterior row straight by upper margins and from above posterior row very slightly recurved. Ratio of AME.ALE.PME.PLE = 2.4.3.5. AME separated from each other and from ALE by 3/2 of diameter of an AME. Laterals separated by half of diameter of an AME. PME separated from each other and from PLE by twice diameter of an AME. MOQ wider behind than in front in ratio of 10.7 and wider behind than long in ratio of 10.9. Height of clypeus 7/2 of diameter of an AME.

Sternum Scutiform. Longer than wide in ratio of 52.44. Anterior margin almost straight. Posterior projection separates posterior coxae by 2/3 of diameter of a coxa.

Maxillae Inclined slightly over labium. Longer than wide in ratio of 25.15 and longer than labium in ratio of 25.13.

Labium Wider than long in ratio of 16.13. Notched at base.

Chelicerae Length 14/34 of carapace. Viewed laterally longer than wide in ratio of 14.10. Promargin of groove has four teeth, and retromargin two teeth.

Palp Spines. Femur, d.1.1.1. p.1 distal. Patella, d.1.1. Tibia, d.0.1. p.1.1. r.0. Tarsus with numerous spines. Trichobothria. Tibia, pro-row 1 basal, retro-row 3. Tarsus, 4 and a sub-distal tarsal organ. The claw has seven teeth.

Legs 4123. Hairs very sparsely ciliate. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.0. Tibia, v.2.2.2. p,r.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1 median, r.0. Second leg. Femur, d.1.1.1. p,r.0.1. Tibia, v.0.1.2. p,r.0.1. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1 median. Third leg. Femur, d.1.0.1. p,r.0.1. Tibia, v.2.1.2. p,r,d.1.1. Metatarsus, v.0.2 and a subwhorl of 5, p.1.2. r.0.1. Fourth leg. Femur, d.1.0.0. p,r.0.1. Tibia, v.1.1.2. p,r,d.1.1. Metatarsus, v.1.2 and a subwhorl of 5, p.1.2. r.1 calamistrum 1. Trichobothria. First leg. Tibia, pro-row 2 basal, retro-row 3 extending to the midpoint. Metatarsus, 1 median, 1 subdistal. Tarsus, 4. Tarsal organ between third and fourth trichobothria at a point 2/3 of length of tarsus from base. Tarsus of the second leg has 4 trichobothria with tarsal organ much nearer base (9/12), between second and third thrichobothria. Tarsi of third and fourth legs have 3 trichobothria with tarsal organ on third leg situated just beyond first trichobothria and on fourth leg just in front of first trichobothria at a point on both legs 1/3 of length of tarsus from base. Superior claws of first leg with ten teeth and inferior claw two teeth. Seven teeth on superior claws of fourth leg. Calamistrum occupies 26/85 of metatarsus.

Abdomen Epigynum and internal genitalia as in Figs. 571-572. Cribellum divided, posterior margin strongly sclerotized and wider than long in ratio of 15.5. Width of cribellum is 15/23 of width of anterior spinnerets. Anterior spinnerets separated by 3/10 of diameter of an anterior spinneret. Posterior spinnerets less than half diameter of an anterior spinneret and about same length. Distal segment conical.

Type Holotype female. Canterbury. Peel Forest, 30.ix.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Oparara n.gen.

Medium sized (6-7mm in body length) cribellate spiders. Thoracic patches absent. Eyegroup compact, occupying little more than half of width of head. AME smallest. Remaining eyes subequal. Two more or less straight rows. Sternum scutiform, as long as wide. Labium notched at base as long as or longer than wide. Chelicerae with boss. Retromargin with two and promargin with from three-four teeth. Legs 4123. Plumose hairs present. Trochanters notched. Trichobothria in double row on tibiae and single row on metatarsi and tarsi. Tarsal organ subdistal. Superior claws similar, strongly pectinate. Inferior claw with three teeth. Calamistrum well developed in female, weak in male, proximal. Claw tufts and tenent hairs lacking. Female palp with double row of trichobothria on tibia and single row on tarsus. Claw strongly pectinate. Epigynum with

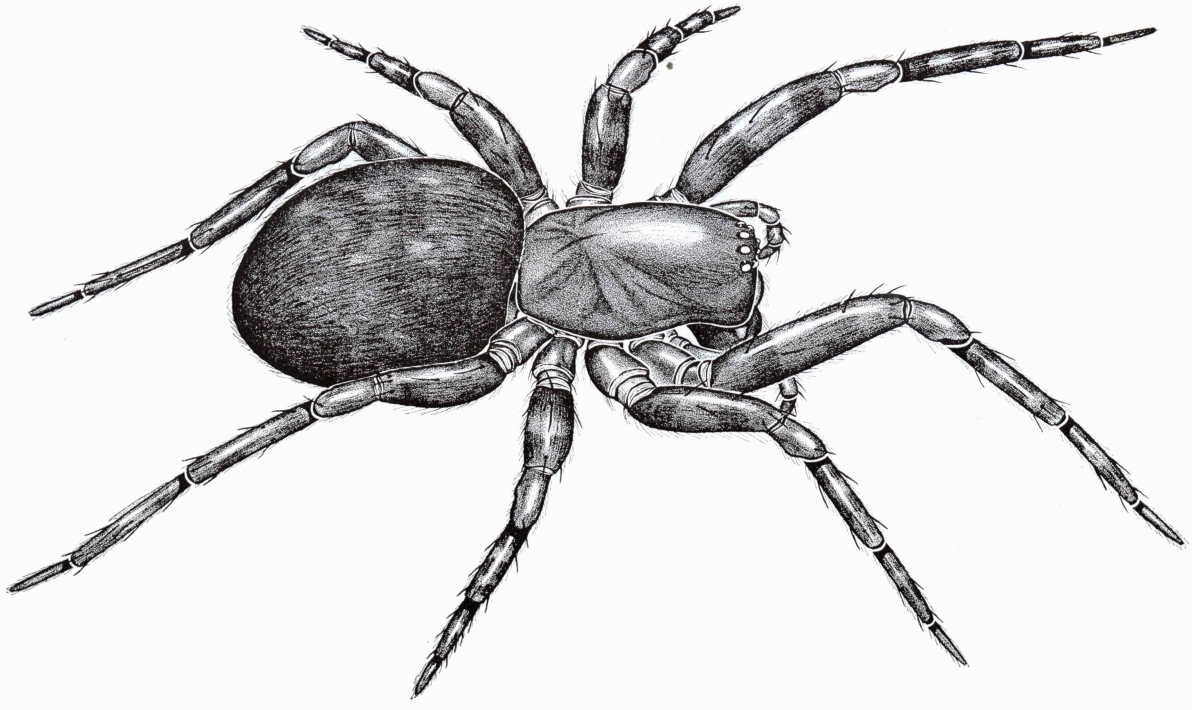


Fig. 573 *Oparara valla* (Marples) female.

paired spines. Anterior opening divided. Internal genitalia with pair of receptacula and flattened, convoluted ducts. Tibia of male palp with basal retrolateral process as well as distal processes. Embolus originates from mid-ventral surface extending directly forward and twisted distally. There appears to be a membraneous conductor fused to embolus. Median apophysis well developed as a concave lobe (Fig. 575). There is a small tegular apophysis on mid prolateral margin.

Type species *Ixeuticus vallus* Marples 1959.

The two species recorded below are found in the north-west of the South Island. The genitalia suggest that *Oparara* is most closely related to *Akatorea* which has the divided anterior opening of the epigynum and similar tibial processes. The detailed structure of the bulb is very similar to the ecribellate *Aorangia*. There is a small lobe on the mid prolateral surface which could be a homologue of the prominent plate characteristic of *Aorangia*.

Oparara valla Marples

1959 *Ixeuticus vallus* Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 344.

Figs. 573-578

FEMALE

Measurements

Carapace	length 2.28	width 1.44	
Abdomen	length 2.88	width 2.40	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.80	0.66	1.68	1.62	1.08	6.84
2	1.56	0.66	1.26	1.26	0.90	5.64
3	1.44	0.60	1.14	1.32	0.78	5.28
4	1.80	0.72	1.56	1.80	0.84	6.72
Palp	0.72	0.36	0.48		0.90	2.46

Colour (Fig. 573). Cephalothorax orange brown with black shading on lateral margins of thoracic region. Legs reddish brown with faint blackish shading forming inconspicuous bands. Abdomen dark.

Eyes Eyegroup relatively compact and occupies 9/14 of width of head. From above and in front posterior row appears procurved and anterior row gently recurved. Ratio of AME.ALE.PME.PLE = 6.10.9.10. AME separated from each other and from ALE by 5/6 of diameter of an AME. Lateral eyes contiguous. PME separated from each other by 9/6 and from PLE by 7/6. MOQ wider behind than in front in ratio of 27.17 and wider behind than long in ratio of 27.25. Height of clypeus 15/6 of diameter of an AME.

Sternum Scutiform, as long as wide. Posterior projection sharp separating coxae 4 by 2/3 of diameter of a coxa.

Maxillae Outer margin curves in distally. Anterior margin oblique. Twice as long as wide at base.

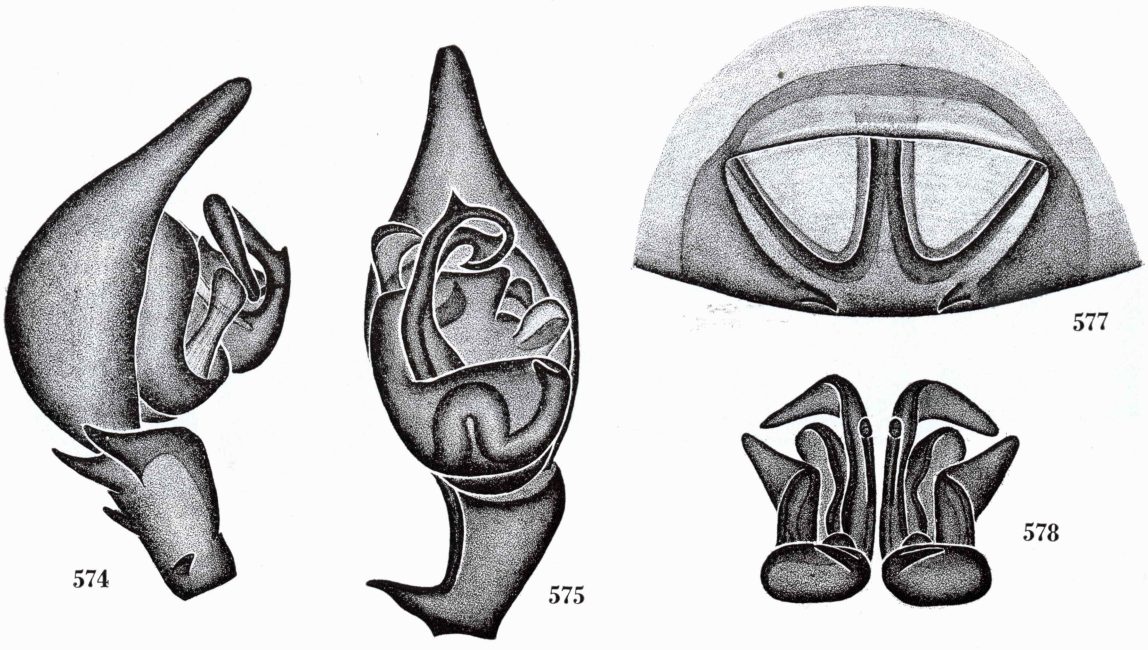
Labium Notched at base. Lateral margins straight but converging. Anterior margin gently indented. As long as wide at base.

Chelicerae Retromargin with two, promargin with three teeth of which median is largest. Carina present on ventral surface behind promarginal teeth.

Palp Spines. Femur, d.0.1.1.2. Tibia, d.2.1. Tarsus, v.1.1.2.2. p,r.2.1.0.0. d.1.0.0.0. Claw almost straight, with eight short teeth. Trichobothria, tibia, 1.2.2.1. Tarsus, 4.

Legs 1423. Spines. First leg. Femur, d.1.0.1.0. p.0.0.1.1. Tibia, v.2.2.2. p,r.0.1.1. Metatarsus, v.2.2.2. p,r.0.1.1. Second leg. Femur, d.1.0.1.1. p.1.0.1. Tibia, v.2.2.2. p,r.0.1.1. d.0.0.1. Metatarsus, v.2.2.2. p,r.1.1.1. d.0.1.1. Third leg. Femur, d.1.0.1.0. p.0.1.0.1. Tibia, v.2.2.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.2. p,r.1.1.2. d.0.1.2. Fourth leg. Femur, d.1.0.1.0. Tibia, v.1.1.1. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.2. p,r.0.1.1. d.1.1.2. Trichobothria. First leg. Tibia, 1.1.2. Metatarsus, 5. Tarsus, 0. Other legs. Tibia, 1.2.1.1.1. Metatarsus and tarsus, 4. Calamistrum relatively short, occupying 1/3 of length of metatarsus. Superior claws with seven teeth, inferior claw with single tooth.

Abdomen Cribellum small, divided. Spinnerets compact. Anterior and posterior pairs of equal length. Epigynum as in Fig. 577 with pair of spinous processes posteriorly. Internal genitalia as in Fig. 578.



Figs. 574-578 *Oparara valla* (Marples). Fig. 574 Retrolateral view of male palp. Fig. 575 Ventral view of male palp. Fig. 577 Epigynum. Fig. 578 Internal genitalia.

MALE

Similar to female. Palp as in Figs. 574, 575. Tibia with two spinous processes proximally and two flattened processes distally. Embolus flattened and twisted proximally, but spinous distally.

Types Holotype male, allotype female. Westland. Moana, iii.1950, R. R. Forster (Canterbury Museum).

Records Westland. Franz Josef, iv.1950, R.R.F. Franz Josef, 30.iv.1951, R.R.F. Mount Davie, 24.i.1950, R.R.F. Bullock Creek, 18.i.1951, R.R.F. Croesus Track, Blackball, 4.iv.1956, L. R. Jackson. Giles, Stony Creek, Inangahua, 5.xii.1951, W. Clarke. Old Taylorville, 6.xi.1950, L. P. Hughson. Fox's Creek, 4.v.1956, L. R. Jackson. 5 miles west of Otira, 29.ix.1966, R.R.F., C.L.W. Buller Gorge, 4.vii.1963. Otira Valley, moss, 28.v.1954, J. S. Dugdale. Reefton, 29.viii.1959, R. E. Leech. Upper Styx, 21.xi.1952, J. S. Dugdale.

Oparara karamea n.sp.

Figs. 579-581

FEMALE

Measurements

Carapace length 3.2 width 2.2
Abdomen length 3.6 width 2.6

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.77	0.95	2.52	2.46	1.64	10.34
2	2.46	0.95	2.02	2.08	1.26	8.77
3	2.33	0.88	1.83	2.02	1.13	8.19
4	2.96	1.01	2.46	2.77	1.32	10.52
Palp	1.20	0.50	0.82		1.32	3.84

Colour Carapace, legs and chelicerae dark reddish brown. Abdomen strongly mottled with greyish brown.

Carapace Head broad, half as wide as thoracic region. Lateral margins of head region straight and parallel, extending 3/8 of length of carapace. Fovea distinct with surface on each outer margin slightly raised.

Eyes Eyegroup occupies 4/7 of width of head. From above both rows are straight but from in front anterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 10.17.12.17. AME separated from each other by 10/10 and from ALE by 8/10 of diameter of an AME. Lateral eyes contiguous. PME separated from each other by 18/10 and from PLE by 15/10. MOQ wider behind than in front in ratio of 42.30 and wider behind than long in ratio of 42.37. Width of clypeus slightly more than twice diameter of an AME.

Chelicerae Lateral boss small, length 3/8 of carapace. Retromargin with two teeth, promargin with four teeth of which second tooth from base is largest.

Abdomen Epigynum as in Fig. 579. Spinous processes small. Internal genitalia complex (Figs. 580, 581) consisting of single pair of large vesicles from which extends a pair of convoluted ducts which before opening externally are flattened and twisted. Cribellum small, divided and deeply notched on posterior margin.

Legs Spines. First leg. Femur, d,p.1.0.1.1. Tibia, v.1.2.2. p,r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. d.1.0.1. Second leg. Femur, d,p.1.0.1.1. Tibia, v.1.2.1. p,r.0.1.1. d.0.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.0. Trichobothria. First leg. Tibia, 1.1. Metatarsus, 3. Tarsus, 5. Other legs, Tibia, 2.1.1.1. Metatarsus, 5. Tarsus, 6. Metatarsi and tarsi very slender. Calamistrum well developed, occupying median third of metatarsus 4. Inferior claw with three long teeth. Superior claws with from 9-10 teeth.

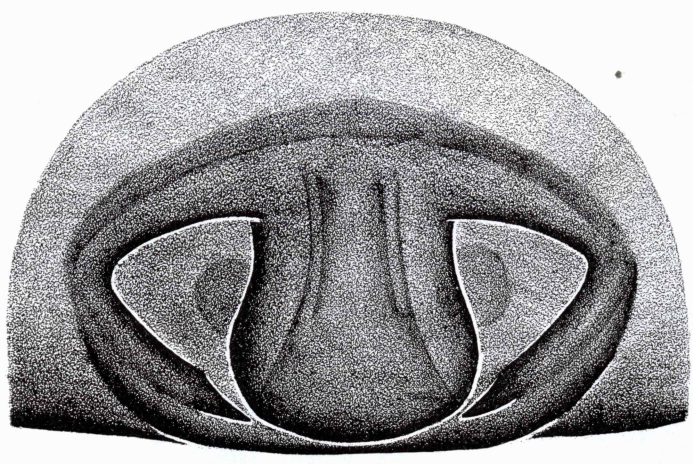
Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.1. d.1.0. Claw with 9 teeth. Trichobothria. Tibia, 3.1.1.1.1, tarsus, 7.

Type Holotype female. Nelson. Karamea, South Terrace, 20.i.1950, R. R. Forster (Otago Museum).

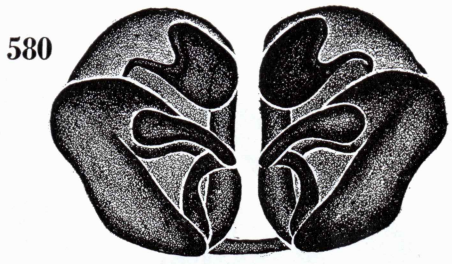
Record Nelson. Oparara, 28.ix.1966, R.R.F., C.L.W.

Dunstania n.gen.

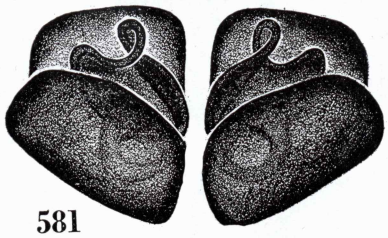
Small (2.5-4mm in body length) cribellate spiders. Carapace with thoracic patches in female. Eyegroup occupying approximately two-thirds of width of head. Two rows, more or less straight. AME little more than half of diameter of remaining eyes. Sternum scutiform,



579



580



581

Figs. 579-581 *Oparara karamea* n.sp. Fig. 579 Epigynum. Fig. 580 Internal genitalia, dorsal view. Fig. 581 Internal genitalia, ventral view.

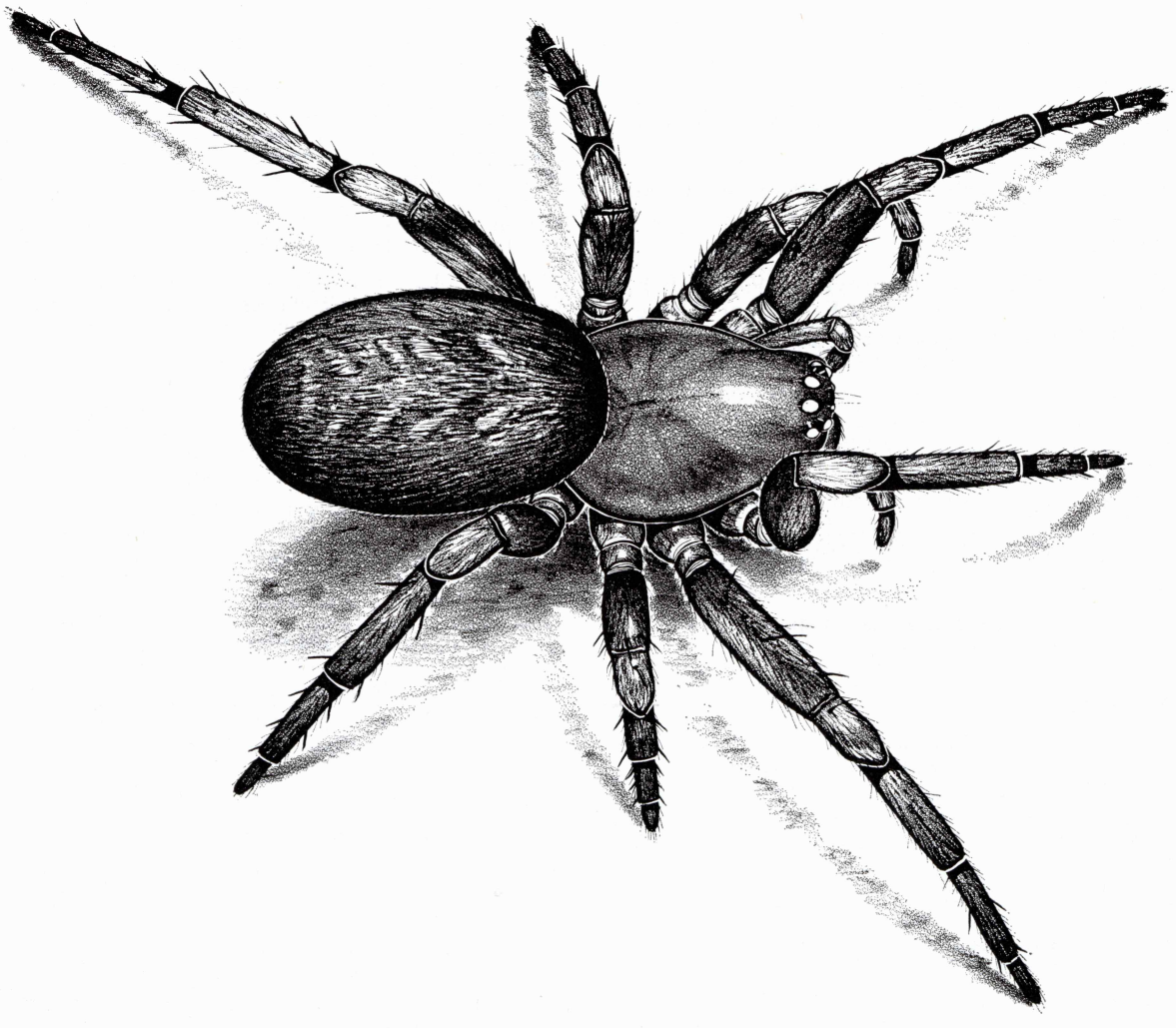


Fig. 582 *Dunstania kochi* n.sp. female.

longer than wide. Both pro- and retromargins of chelicerae with from two-three teeth. Female palp usually with a double row of trichobothria on tibia and a single row on tarsus although tarsal trichobothria are not recorded for some species. Legs 4123, with plumose hairs. Trichobothria in double row on tibiae and single row on metatarsi and tarsi. Superior claws strongly pectinate; inferior claw with two teeth. Claw tufts and tenent hairs absent. Tarsal organ often absent. Trochanters weakly notched. Anterior and posterior pairs of spinnerets equal in length. Cribellum distinct, spinning fields divided. Epigynum very large with a median oval or sub-rectangular area delineated by a marginal overhanging lip. Spines lacking. Internal genitalia as in Fig. 589. Male known only from the type species. Embolus originates from retromargin, curving back and under the bulb where it is notched before extending to conductor. Conductor a massive concave plate. Median apophysis well developed, membraneous and not hooked distally (Fig. 586).

Type species *Dunstania hesperis* n.sp.

These small cribellate spiders are found on the forest floor, under bark or in leafbases of shrubs and trees. They construct a small shapeless web. Two species described by Marples (1959) and placed in *Ixeuticus* (*nuntia, angustiae*) are transferred below to *Dunstania*. The genus ranges over practically all of New Zealand except for the far north.

Dunstania is undoubtedly closely related to *Makora* but the form of the epigynum is very distinctive.

Dunstania hesperis n.sp.

Figs. 586-589

FEMALE

Measurements

Carapace length 1.55 width 1.10
Abdomen length 2.10 width 1.50

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.20	0.45	1.05	0.95	0.60	4.25
2	1.10	0.50	0.90	0.90	0.55	3.95
3	1.05	0.45	0.75	0.85	0.50	3.60
4	1.20	0.45	1.00	1.10	0.60	4.35
Palp	0.50	0.30	0.35		0.55	1.70

Colour Carapace very pale cream with slight stippled shading anteriorly. Eyes on black patches. Legs without dark bands. Sternum pale, stippled with black. Maxillae and labium pale orange brown. There is a conspicuous pale area medially on anterior half of dorsal surface of abdomen. Lateral slopes densely flecked with black, posterior slope black with a series of four or five pale inconspicuous chevrons. Ventral surface separated from lateral surfaces by a pale band on each side with a series of four pairs of pale spots mesially.

Carapace Thoracic patches small. Width of the head 5/7 of thorax.

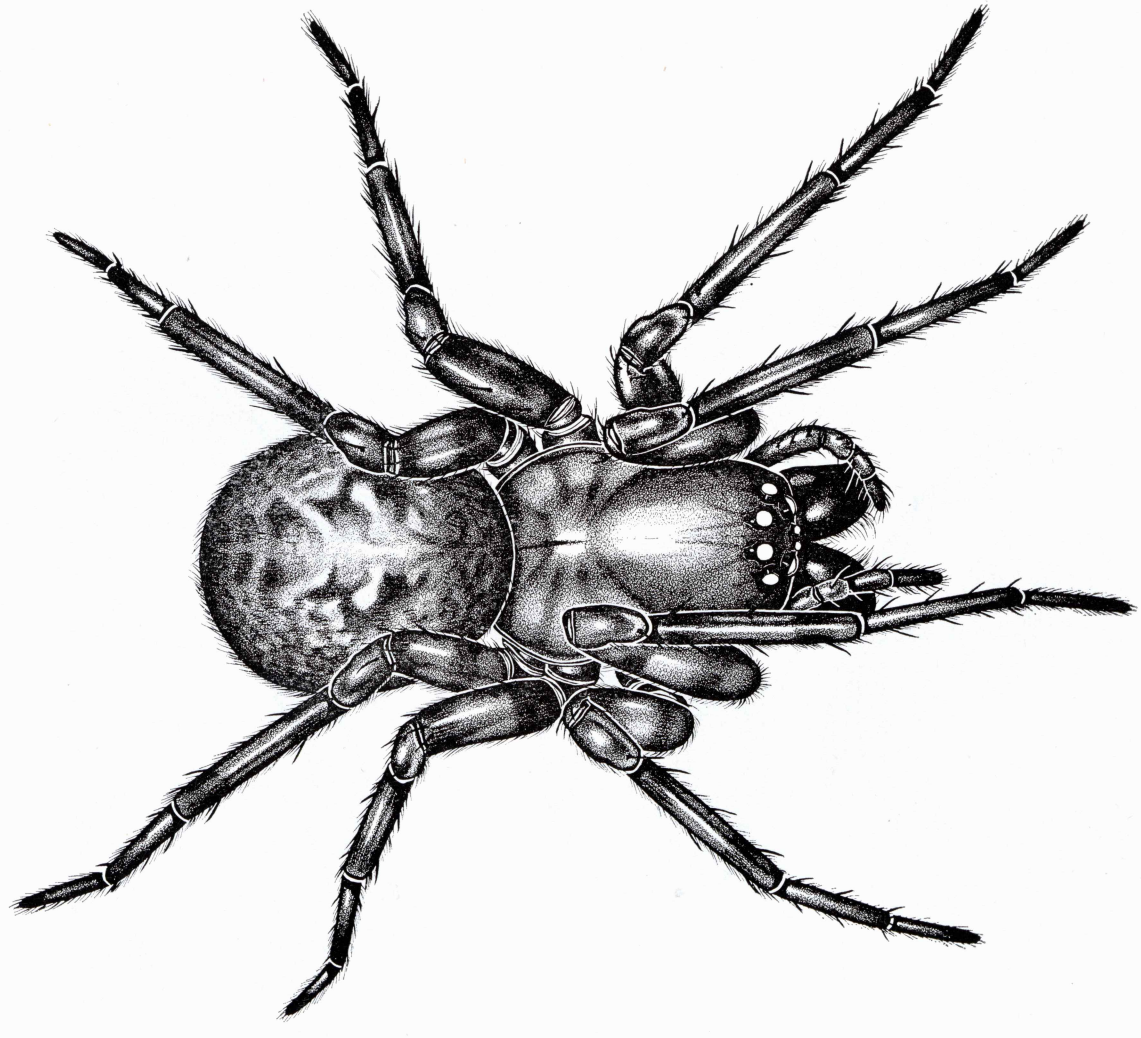
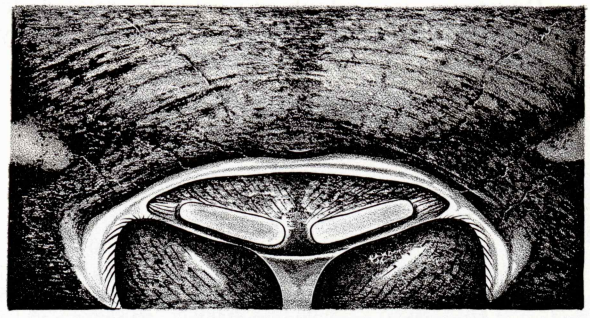
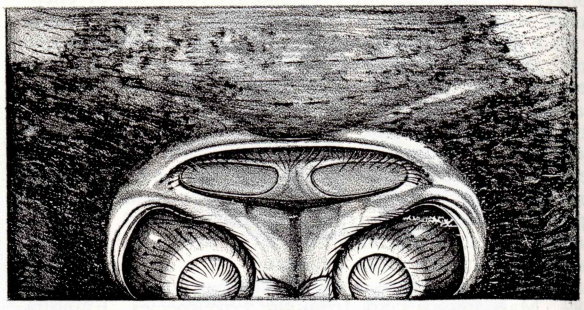


Fig. 583 *Dunstania nuntia* (Marples) female.



584



585

Figs. 584-585 Cribellum. Fig. 584 *Makora* sp. Fig. 585 *Dunstania montana* n.sp.

Eyes Group occupies 7/9 of width of head. From in front anterior row straight by centres and posterior row procurved. From above anterior row very slightly recurved and posterior row procurved. Ratio of AME. ALE.PME.PLE = 4.7.6.7. AME separated from each other by 3/4 and from ALE by 2/4 of diameter of an AME. Lateral eyes narrowly separated. PME separated from each other by 4/4 and from PLE by 5/4. MOQ wider behind than in front in ratio of 16/11 and as wide behind as long. Height of clypeus 5/4 of diameter of an AME.

Sternum Longer than wide in ratio of 50/40. Anterior margin slightly indented. Posterior projection separates posterior coxae by half diameter of a coxa.

Maxillae Longer than wide in ratio of 25/15 and longer than labium in ratio of 25/13.

Labium Wider than long in ratio of 15/13. Notched at base. Distal margin straight.

Chelicerae Promargin with three teeth and retromargin two.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, d.0.1. p.1.2. r.0.0. Tarsus, numerous. Trichobothria on tibia, pro 4, retro 4.

Legs 4123. Tibia of first pair of legs with v.0.2.2. p.1.1.1. r.0.0.1. d.1 very small.

Abdomen Epigynum and internal genitalia as in Figs. 588, 589.

MALE

Measurements

Carapace length 1.75 width 1.30
Abdomen length 1.80 width 1.30

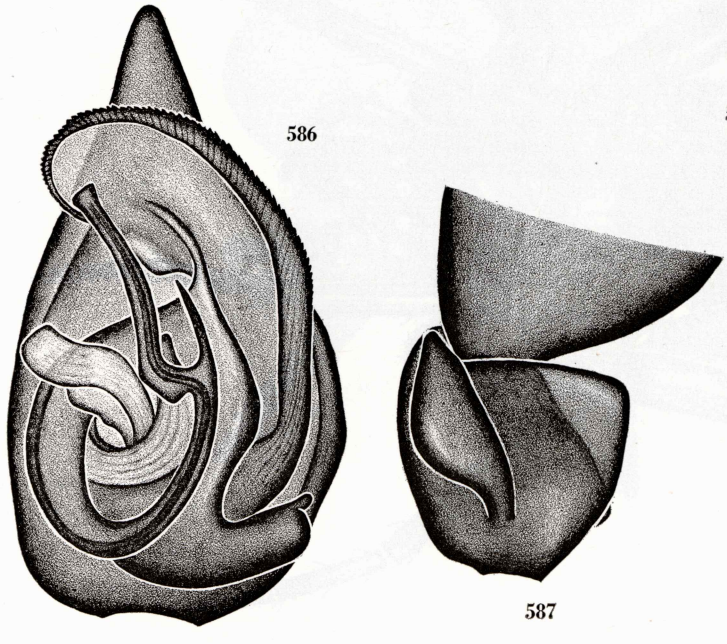
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.45	0.50	1.35	1.30	0.75	5.35
2	1.40	0.50	1.15	1.20	0.70	4.95
3	1.35	0.50	1.00	1.20	0.65	4.70
4	1.50	0.50	1.20	1.45	0.75	5.40
Palp	0.55	0.25	0.25		0.90	1.95

With the general characteristics of female.

Palp Bulb and tibial processes as in Figs. 586, 587. Trichobothria. Tibia, 1.1.1. Tarsus, 1.1.1 near outer margin of cymbium. Subdistal tarsal organ.

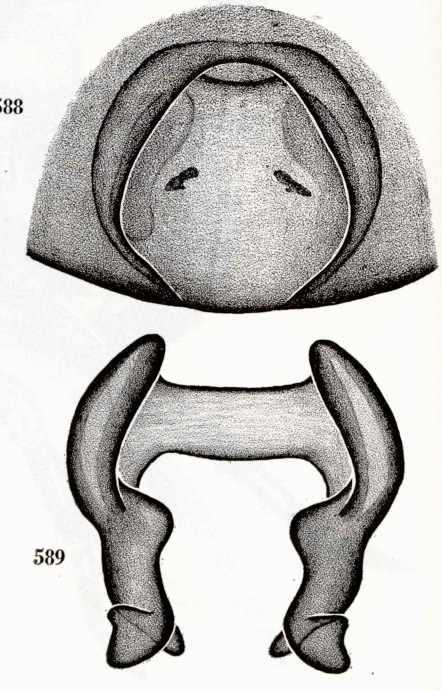
Abdomen Posterior margin of cribellum sclerotized but spinning fields appear to be lacking.

Types Holotype female and allotype male. South Westland. Taumaka, Open Bay Islands. In axils of *Freycinetia banksii*, 20.viii.1970, D. S. Horning Jr (Otago Museum). Paratype female, same data.



586

587



588

589

Figs. 586-589 *Dunstania hesperis* n.sp. Fig. 586 Ventral view of male palp. Fig. 587 Tibial processes of male palp. Fig. 588 Epigynum. Fig. 589 Internal genitalia.

Dunstania salmoni n.sp.

Figs. 590-591

FEMALE

Measurements

	Carapace	length 1.60		width 1.20		
	Abdomen	length 2.50		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.20	0.50	0.95	1.00	0.60	4.25
2	1.15	0.45	0.85	0.90	0.55	3.90
3	1.05	0.45	0.75	0.90	0.50	3.65
4	1.25	0.45	1.00	1.10	0.50	4.30
Palp	0.50	0.25	0.30		0.60	1.65

Colour Abdomen pale beneath grey with dark shading, especially on posterior slope. Pattern very indistinct. Pale area anteriorly followed by several chevrons. Ventral surface pale, very lightly shaded and with no distinct pattern.

Eyes Group occupies 4/5 of width of head. From in front anterior row procurved, almost straight by upper margins, and posterior row procurved. From above anterior row very slightly recurved and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 4.6.6.6. AME separated from each other and from ALE by 3/4 of diameter of an AME. Laterals almost touching. PME separated from each other by 3/4 and from PLE by diameter of an AME. MOQ wider behind than in front in ratio of 15.11 and longer than wide behind in ratio of 16.15. Height of clypeus 5/4 of diameter of an AME.

Sternum Longer than wide in ratio of 30.24. Posterior projection separates the posterior coxae by 7/10 of diameter of a coxa.

Maxillae Longer than wide in ratio of 13.10 and longer than the labium in ratio of 13.8.

Labium Wider than long in ratio of 10.8. Distal margin rounded.

Chelicerae Promargin of groove with three teeth, the median tooth being the largest. Retromargin with two teeth. Basal tooth prominent and as large as median tooth on promargin.

Abdomen Epigynum and internal genitalia as in Figs. 590, 591.

Type Holotype female. Nelson. Mt Arthur track, under logs, 3,600 ft, 24.i.1948, J. T. Salmon (Dominion Museum).

Dunstania montana n.sp.

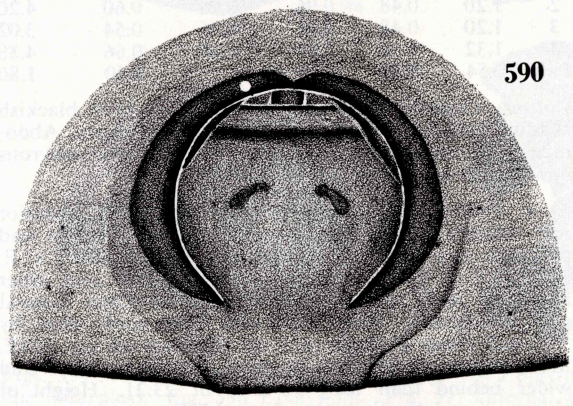
Figs. 511, 515, 594-595

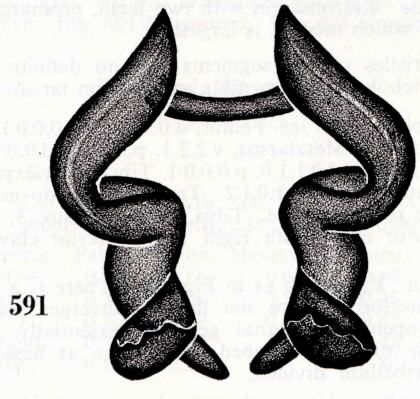
FEMALE

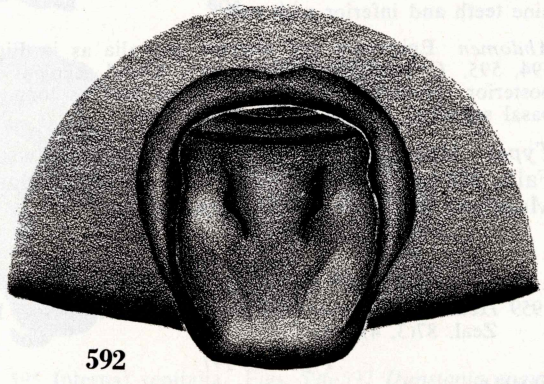
Measurements

	Carapace	length 1.70		width 1.20		
	Abdomen	length 2.50		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.30	0.50	1.10	1.05	0.65	4.60
2	1.25	0.50	0.95	0.90	0.50	4.10
3	1.15	0.45	0.80	0.90	0.50	3.80
4	1.40	0.45	1.00	1.10	0.50	4.45
Palp	0.50	0.25	0.30		0.60	1.65

Colour Carapace very pale yellow becoming slightly darker anteriorly where it has dark netlike markings. The pairs of anterior and lateral eyes on dark spots and







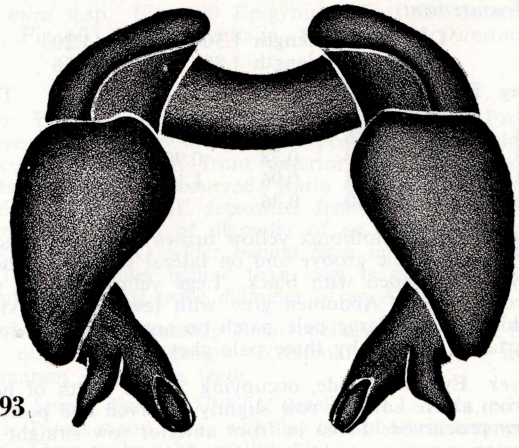


Fig. 590-591 *Dunstania salmoni* n.sp. Fig. 590 Epigynum. Fig. 591 Internal genitalia. Figs. 592-593 *Dunstania hinawa* n.sp. Fig. 592 Epigynum. Fig. 593 Internal genitalia.

each PME on a black spot pointed fore and aft. Chelicerae of same shade as head but bosses paler. Legs pale yellow, without bands. Sternum shaded black with the dark posterior pointed sector conspicuous because of a pale margin. Median anterior region of abdomen with a pale area indented laterally, followed by six pale chevrons which decrease in size posteriorly. Ventral surface of the abdomen has three pairs of pale spots bounded on each side by a pale band. Anterior spinnerets black and posterior pair pale.

Carapace Thoracic patches as in Fig. 515, and profile as in Fig. 511.

Eyes Relatively large. The group occupies 3/4 of width of head. From in front anterior row procurved by lower margins and from above the posterior row is procurved. Ratio of AME.ALE.PME.PLE = 4.6.6.6. AME separated from each other and from ALE by a distance equal to 3/4 of diameter of an AME. Laterals narrowly separated. PME separated from each other and from PLE by 5/4 of diameter of an AME. MOQ wider behind than in front in ratio of 17.11 and longer than wide behind in ratio of 18.17. Height of clypeus 5/4 of diameter of an AME.

Chelicerae Promargin with three teeth and retromargin with two of which basal tooth is larger.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, d.0.1. p.1.1. r.0. Trichobothria. Tibia, pro 3, retro 2. Tarsus, 1.1.1 and a tarsal organ. Claw with nine teeth.

Legs Spines dark and fairly stout. First leg. Femur, prolateral spine present, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, v.0.2.2. p.1.1. r.0.1. d.1.0. Metatarsus, v.2.2 and subwhorl of 5, p,r.1.0. Second leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, v.0.2.2. p,r.1.1. d.1.0. Metatarsus, v.2.2 and subwhorl of 5, p,r,d.1.0. Calamistrum occupies about 1/3 of length of segment. Trichobothria. First leg. Tibia, p.3, r.4. Metatarsus and tarsus, 3. Superior claws with nine teeth and inferior with two.

Abdomen Epigynum and internal genitalia as in Figs. 594, 595. Cribellum as in Fig. 585. Distal segment of posterior spinnerets conical and about half as long as basal segment.

Types Holotype female. Taranaki. Dawson Falls, Mt Egmont, 22.ii.1967, C. L. Wilton (Otago Museum). Paratype female, same data.

Dunstania angustiae (Marples)

1959 *Ixeuticus angustiae*, Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 342.

Figs. 596-597

FEMALE

Measurements

	Carapace		length 1.50		width 1.20	
	Abdomen		length 1.80		width 1.56	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.20	0.48	1.08	0.96	0.60	4.32
2	1.14	0.48	0.84	0.90	0.60	3.96
3	1.08	0.48	0.78	0.90	0.60	3.84
4	1.26	0.48	0.96	1.14	0.54	4.38
Palp	0.54	0.30	0.36		0.60	1.80

Colour Cephalothorax yellow brown with dark shading around thoracic groove and on lateral surfaces of head. Eyes surrounded with black. Legs yellowish with pale brown bands. Abdomen grey with few dark markings, which leave a large pale patch on antero-median dorsal surface followed by three pale chevrons.

Eyes Eyegroup wide, occupying 5/6 of width of head. From above anterior row slightly recurved and posterior row procurved. From in front anterior row straight and posterior row procurved. Ratio of AME.ALE.PME.PLE = 5.10.8.10. AME separated from each other by 5/5 and from ALE by 4/5 of diameter of an AME. Laterals contiguous. PME separated from each other and from PLE by 7/5 of diameter of an AME. MOQ wider behind than in front in ratio of 23.15 and wider behind than long in ratio 23.21. Height of clypeus equal to diameter of an AME.

Chelicerae Retromargin with two teeth, promargin with three of which median is largest. Carina extends from basal promarginal tooth to base of chelicera.

Palp All of segments with bristles.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.0.2.2. p.0.1.1. d.0.1.0. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2- Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.0.1.2. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.1. r.0.1.2. Trichobothria. First leg. Tibia, 1.1. Metatarsus, 4. Tarsus, 3. Other legs, Tibia, 2.1.1. Metatarsus and tarsus, 3. Superior claws of legs 1 and 2 with 11 teeth, of legs 3 and 4 with six. Inferior claw with two teeth.

Abdomen Epigynum large, similar to *nuntia* but median opening broader and anterior ridge much wider (Fig. 596). Internal genitalia as in Fig. 597. Cribellum large and divided.

Type Holotype female. Canterbury. Arthurs Pass, iv.1953, R. R. Forster (Otago Museum).

Dunstania nuntia (Marples)

1959 *Ixeuticus nuntius*, Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 343.

Figs. 598-599

FEMALE

Measurements

	Carapace		length 1.62		width 1.08	
	Abdomen		length 1.92		width 1.32	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.26	0.54	1.14	1.02	0.66	4.62
2	1.20	0.48	0.96	0.96	0.60	4.20
3	1.20	0.48	0.84	0.96	0.54	3.02
4	1.32	0.54	1.08	1.20	0.66	4.80
Palp	0.54	0.24	0.42		0.60	1.80

Colour Cephalothorax pale brown with faint blackish shading around eyes. Legs uniform pale yellow. Abdomen pale with blackish shading forming five chevrons on postero-dorsal surface of abdomen.

Eyes From above anterior row recurved and posterior row straight. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE. PME.PLE = 5.10.9.10. AME separated from each other and from ALE by 3/5 of diameter of an AME. Lateral eyes contiguous. PME separated from each other by 5/5 and from PLE by 6/5 of diameter of an AME. MOQ wider behind than in front in ratio of 23.13 and wider behind than long in ratio of 23.21. Height of clypeus equal to diameter of an AME.

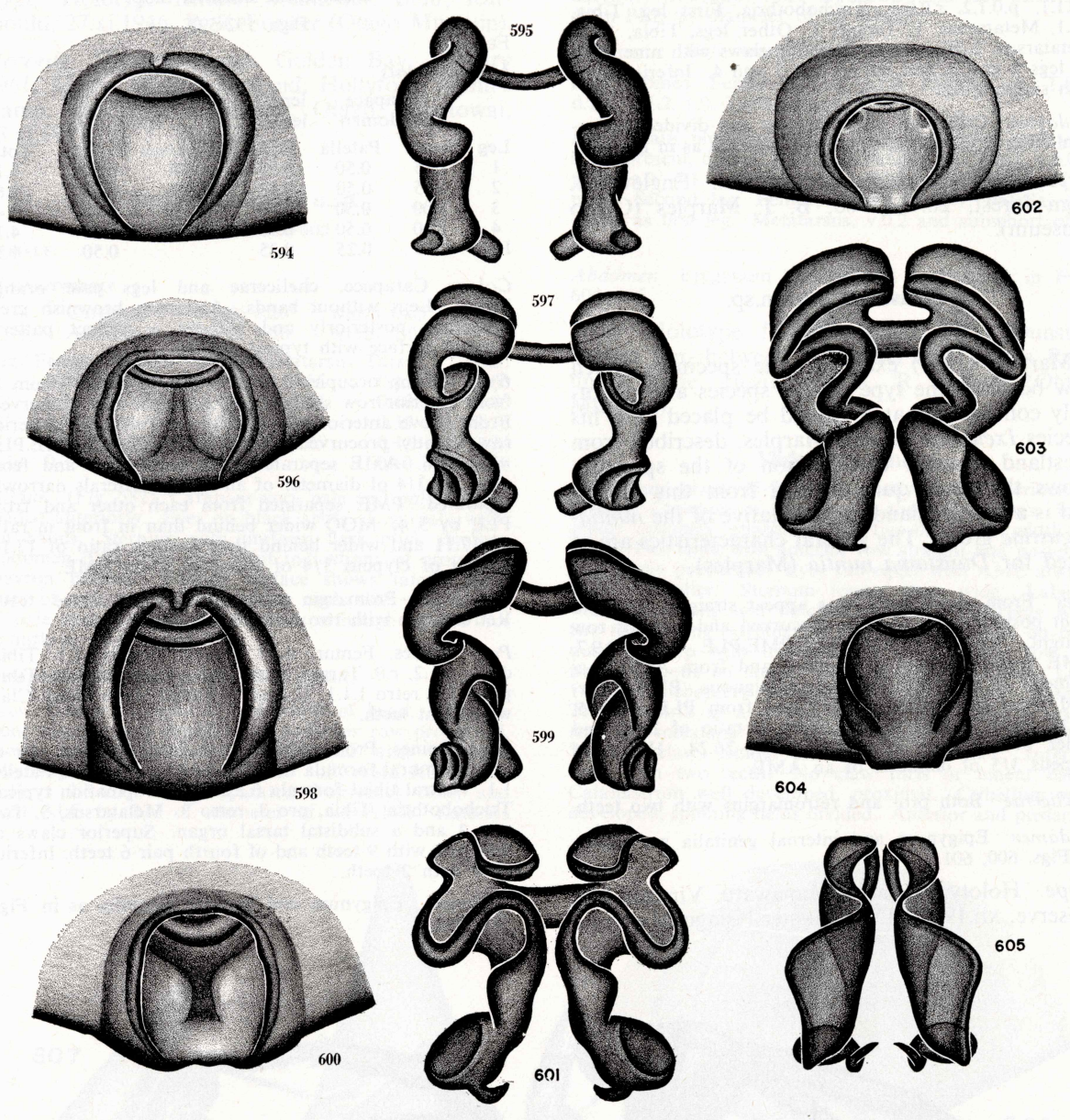
Chelicerae Retromargin with two teeth, promargin with three, of which median is largest.

Palp Bristles on all segments but no definite spines. Single trichobothrium on tibia and two on tarsus.

Legs Spines. First leg. Femur, d.0.1.1.0. p,r.0.0.0.1. Tibia, v.0.2.1. p.1.1.1. Metatarsus, v.2.2.1. p,r.0.1.1. d.0.0.1. Second leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, v.0.1.2. p,r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Trichobothria do not form a double row on tibiae. Tibia, 2. Metatarsus, 3. Tarsus, 3. Superior claws with eight teeth, inferior claws with two.

Abdomen Epigynum as in Fig. 598. There is a narrow ridge anteriorly where the flange converges leaving a narrow opening. Internal genitalia essentially tubular with pair of small bilobed diverticulae at base. (Fig. 599). Cribellum divided.

Type Holotype female. Westland. Mount Davie, near Greymouth, i.1950, R. R. Forster (Otago Museum).



Figs. 594-595 *Dunstania montana* n.sp. Fig. 594 Epigynum. Fg. 595 Internal genitalia. Figs. 596-597 *Dunstania angustiae* (Marples). Fig. 596 Epigynum. Fig. 597 Internal genitalia. Figs. 598-599 *Dunstania nuntia* (Marples). Fig. 598 Epigynum. Fig. 599 Internal genitalia. Figs. 600-601 *Dunstania mira* n.sp. Fig. 600 Epigynum. Fig. 601 Internal genitalia. Figs. 602-603 *Dunstania hova* n.sp. Fig. 602 Epigynum. Fig. 603 Internal genitalia. Figs. 604-605 *Dunstania kochi* n.sp. Fig. 604 Epigynum. Fig. 605 Internal genitalia.

Dunstania hova n.sp.

Figs. 602-603

FEMALE

Measurements

	Carapace	length 1.08		width 0.84		
	Abdomen	length 1.38		width 0.90		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.84	0.36	0.66	0.66	0.48	3.00
2	0.78	0.36	0.60	0.54	0.48	2.76
3	0.72	0.30	0.48	0.54	0.42	2.46
4	0.90	0.36	0.66	0.72	0.48	3.12
Palp	0.42	0.18	0.24		0.36	1.20

Colour Carapace and appendages pale yellow brown. Abdomen grey with from six-seven indistinct blackish chevrons down dorsal surface of which anterior three are broken mesially.

Eyes Eyegroup occupies 7/10 of width of head. From above anterior row straight and posterior row slightly procurved. From in front anterior row straight and posterior strongly procurved. Ratio of AME.ALE.PME PLE= 3.8.6.7. AME separated from each other and from ALE by 2/3 of diameter of an AME. Laterals contiguous. MOQ wider behind than in front in ratio of 16.8 and wider behind than long in ratio of 16.15. Height of clypeus twice diameter of an AME.

Chelicerae Boss extends down chelicera as a ridge for one quarter of its length. Retromargin with two and promargin with three teeth.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.0.1. Tarsus many. Tibia with five trichobothria arranged 2.2.1. Claw with eight small teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.0.0.1. p.1.0.0. Metatarsus, v.0.2.1. p,r.0.0.2. Second leg.

Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v,p.0.0.1. Metatarsus, v.0.1.1. p.0.1.2. r.0.0.2. Trichobothria. First leg. Tibia, 2.2.1. Metatarsus, 1. Tarsus, 3. Other legs, Tibia, 1.1.2. Metatarsus, 2. Tarsus, 3. Superior claws with nine teeth on legs 1 and 2, and six on legs 3 and 4. Inferior claw with single tooth.

Abdomen Cribellum rather narrow and divided. Epigynum large (Fig. 602) and internal genitalia as in Fig. 603.

Type Holotype female. Taranaki. Englewood, from forest, 28.viii.1960, B. J. Marples (Otago Museum).

Dunstania mira n.sp.

Figs. 600-601

Marples (1959) examined the specimen which now becomes the type of this species and doubtfully concluded that it should be placed with his species *Ixeuticus nuntius* Marples, described from Westland. Further examination of the specimen shows that it is quite distinct from this species and is a North Island representative of the *nuntia-angustiae* group. The general characteristics are as listed for *Dunstania nuntia* (Marples).

Eyes From above both rows appear straight. From in front posterior row slightly procurved and anterior row straight. Ratio of AME.ALE.PME.PLE = 5.10.9.7. AME separated from each other and from ALE by a diameter of an AME. Laterals contiguous. PME separated from each other by 8/5 and from PLE by 5/5. MOQ wider behind than in front in ratio of 26.15 and wider behind than long in ratio of 26.24. Height of clypeus 3/5 of diameter of an AME.

Chelicerae Both pro- and retromargins with two teeth.

Abdomen Epigynum and internal genitalia are shown in Figs. 600, 601.

Type Holotype female. Manawatu. Vinegar Hill Reserve, xii.1948, R. R. Forster (Otago Museum).

Dunstania hinawa n.sp.

Figs. 592-593

FEMALE

Measurements

Carapace length 1.50 width 1.10
Abdomen length 2.20 width 1.35

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.15	0.50	0.95	0.90	0.60	4.10
2	1.05	0.50	0.80	0.80	0.50	3.65
3	1.00	0.50	0.70	0.75	0.45	3.40
4	1.20	0.50	0.95	1.00	0.50	4.15
Palp	0.45	0.25	0.35		0.50	1.55

Colour Carapace, chelicerae and legs pale orange brown. Legs without bands. Abdomen brownish grey, darkening posteriorly and without a distinct pattern. Ventral surface with typical pattern.

Eyes Group occupies 7/9 of width of head. From in front anterior row straight and posterior row procurved. From above anterior row slightly recurved and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 4.6.6.6. AME separated from each other and from ALE by 3/4 of diameter of an AME. Laterals narrowly separated. PME separated from each other and from PLE by 5/4. MOQ wider behind than in front in ratio of 17.11 and wider behind than long in ratio of 17.16. Height of clypeus 3/4 of diameter of an AME.

Chelicerae Promargin with carina and three teeth. Retromargin with two teeth, basal quite large.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia. d.1.1. p.1.2. r.0. Tarsus, numerous. Trichobothria. Tibia, pro 1.1.1, retro 1.1.1. Tarsus, 0. Tarsal organ distal. Claw with eight teeth.

Legs Spines. Prolateral spine on femur of first pair of legs. Femoral formula for all legs d.1.1.1. p,r.0.1. Patella, 1.1. Ventral tibial formula 0.2.2. Other spination typical. Trichobothria. Tibia, pro 3, retro 3. Metatarsus, 3. Tarsus, 3 and a subdistal tarsal organ. Superior claws of first pair with 9 teeth and of fourth pair 6 teeth. Inferior claw with 2 teeth.

Abdomen Epigynum and internal genitalia as in Figs. 592, 593.

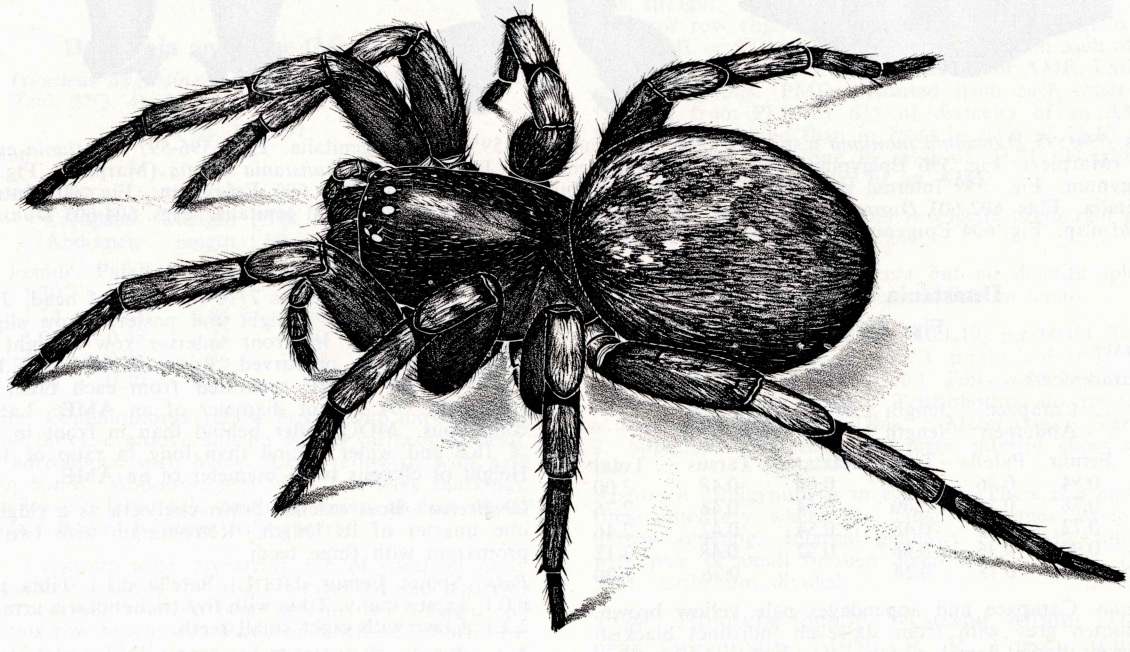


Fig. 606 *Makora mimica* n.sp. female.

Type Holotype female. Southland. Bluff, leaf-mould, 27.xi.1946, R. R. Forster (Otago Museum).

Records Stewart Island. Golden Bay, January 1961, M. N. Watt. Fiordland. Hollyford, Gunn's Camp, 18.v.1960, J. Winter. Otago. Papatowai, 23.xi.1957, B. J. Marples.

Dunstania kochi n.sp.

Figs. 582, 604-605

FEMALE

Measurements

Carapace	length 1.20	width 0.85	
Abdomen	length 1.50	width 1.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.85	0.35	0.70	0.65	0.45	3.00
2	0.75	0.35	0.60	0.55	0.40	2.65
3	0.75	0.35	0.50	0.55	0.35	2.50
4	0.95	0.40	0.75	0.75	0.40	3.25
Palp	0.35	0.20	0.25		0.40	1.20

Colour (Fig. 582). Carapace very pale and only slightly shaded anteriorly. Eyes on black spots. Legs pale without bands. Sternum with uniform dark olive shading. Abdomen dark with very faint indications of cross and chevron pattern. Ventral surface shows faintly three pairs of pale spots bordered on each side with a row of pale spots. Anterior spinnerets although shaded not as dark as surrounding area.

Carapace Thoracic patches very small.

Eyes Group occupies 2/3 of width of head. From in front anterior row straight and posterior row procurved. From above anterior row recurved and posterior row slightly procurved. Ratio of AME.ALE.PME. PLE = 3.5.4.5. AME separated from each other and from ALE by 2/3 of diameter of an AME. Laterals narrowly separated. PME separated from each other and from PLE by diameter of an AME.

Chelicerae Both margins with three teeth.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, d.1.1. p.1.2. r.0. Tarsal organ present.

Legs Hairs plumose. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.0. Patella, 0.1. Tibia, v.0.0.2. p.1.1. r.0. d.1.0. Metatarsus, v.0.2 and subwhorl of 5, p,r.0. Second leg. Femur, d.1.1.1. p,r.0.1. Patella, 0.1. Tibia, as first leg. Metatarsus, v.0.2 and subwhorl of 5, p.1. r.0.

Abdomen Epigynum and internal genitalia as in Figs. 604, 605.

Type Holotype female. Otago. Near Dunstan Downs Stn, between Omarama and Lindis Pass, under stone, 26.vii.1967, R. R. Forster (Otago Museum).

Makora n.gen.

Medium sized (5-7mm in body length) cribellate spiders. Carapace of female with thoracic patches. Eye-group occupies approximately two-thirds of width of head. Two rows with anterior row straight and posterior row gently procurved. Eyes sub-equal with AME always slightly smaller. Sternum longer than wide. Labium wider than long and notched at base. Chelicerae with two teeth along retromargin and from two-three on promargin. Palp with trichobothria in a double row on tibia but none on tarsus. Claw strongly pectinate. Legs 1423. Trochanters notched. Plumose hairs present. Trichobothria in a double row on tibiae and a single row on metatarsi and tarsi. Tarsal organ subdistal. Superior claws similar and strongly pectinate. Inferior claw with two teeth. No claw tufts or tenent hairs. Calamistrum well developed, proximal. Cribellum well developed, spinning fields divided. Anterior and posterior

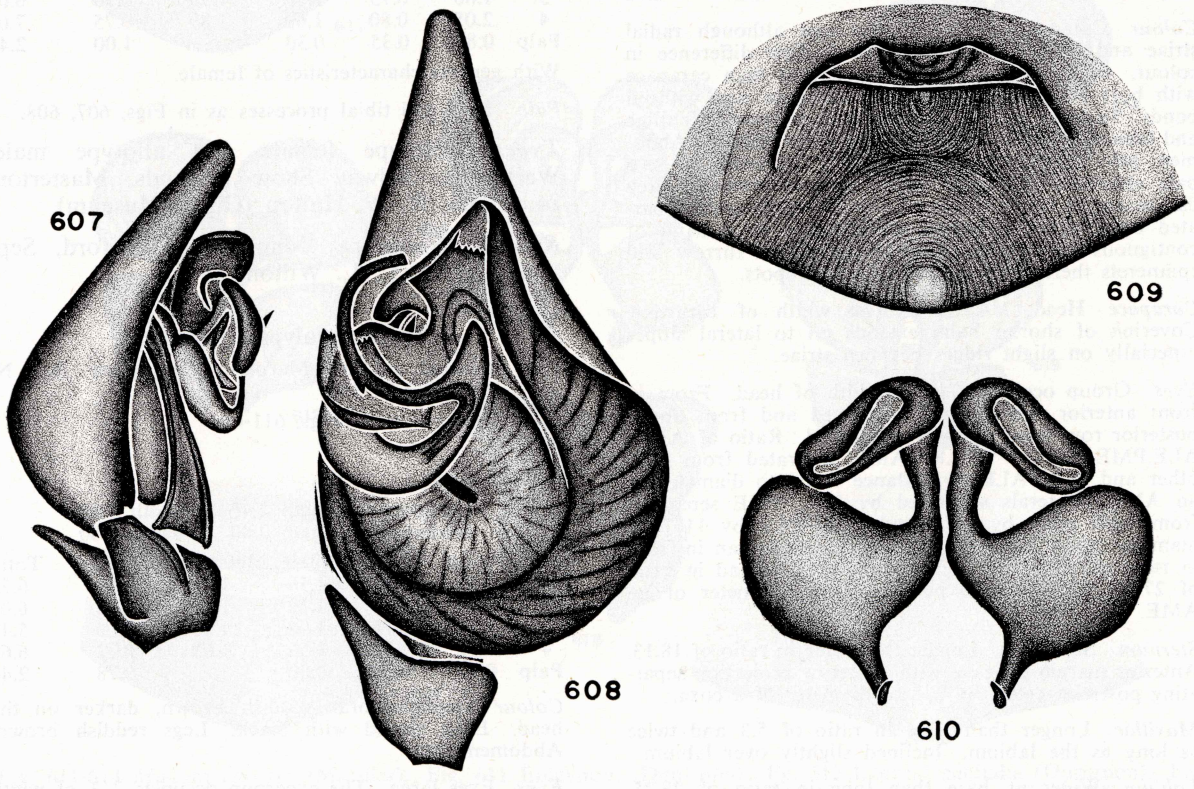


Fig. 607-610 *Makora figurata* n.sp. Fig. 607 Retrolateral view of male palp. Fig. 608 Ventral view of male palp. Fig. 609 Epigynum. Fig. 610 Internal genitalia.

pairs of spinnerets of equal length. Genitalia as in Fig. 609 with surface finely grooved in whorls and a median anterior opening. The embolus originates from the mid retrolateral surface of bulb and is sharply bent. Conductor a large concave structure. Median apophysis in form of a large thin plate (Fig. 608).

Type species *Makora figurata* n.sp.

The species described by Marples (1959) as *Ixeuticus calypso* is placed in this genus. Both male and female were described but the male specimen was apparently lost before the paper was published. It is presumed that the specimen described and figured by Marples came from Central Otago. The figures of the palp show many similarities to *figura'a* in the shape of the tibial processes and the position of the structures of the bulb. Unfortunately lack of an illustration of the ventral aspect does not permit any close comparisons.

Makora is most closely related to *Dunstania* from which it is readily separated by the form of the epigynum and internal genitalia.

Makora figurata n.sp.

Figs. 607-610

FEMALE

Measurements

	Carapace	length 3.25		width 2.00		
	Abdomen	length 3.50		width 2.50		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.95	0.90	1.70	1.70	0.90	7.15
2	1.90	0.90	1.45	1.50	0.75	6.50
3	1.80	0.80	1.25	1.40	0.70	5.95
4	2.10	0.95	1.55	1.70	0.75	7.05
Palp	0.80	0.40	0.60		0.90	2.70

Colour Carapace orange brown and although radial striae and head are darker there is little difference in colour. Chelicerae glossy brown, darker than carapace with boss paler. Legs similar to carapace and without bands. Sternum pale brown, darker at margins. Maxillae and labium bright brown becoming white distally. Abdomen pale on antero-median surface followed by two pale chevrons, otherwise upper surface brownish grey darkening on lower slopes. Ventral surface grey, separated from lateral surfaces on each side by a band of contiguous pale spots. Between epigastric furrow and spinnerets there are four pairs of pale spots.

Carapace Head 3/4 of greatest width of carapace. Covering of shorter hairs extends on to lateral slopes especially on slight ridges between striae.

Eyes Group occupies 7/9 of width of head. From in front anterior row slightly procurved and from above posterior row more strongly procurved. Ratio of AME. ALE.PME.PLE = 7.8.8.8. AME separated from each other and from ALE by distance equal to diameter of an AME. Laterals separated by 3/7. PME separated from each other by 10/7 and from PLE by 11/7 of diameter of an AME. MOQ wider behind than in front in ratio of 26.21 and longer than wide behind in ratio of 27.26. Height of clypeus equal to diameter of an AME.

Sternum Scutiform. Longer than wide in ratio of 18.13. Anterior margin concave with posterior projection separating posterior coxae by 2/5 of diameter of a coxa.

Maxillae Longer than wide in ratio of 5.3 and twice as long as the labium. Inclined slightly over labium.

Labium Wider at base than long in ratio of 28.25. Slight notches at base and distal margin slightly emarginate.

Chelicerae Viewed laterally longer than wide in ratio of 21.20. Three teeth on promargin and two on retromargin.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d.1.1. p.1 basal and 1.1 distal. r.0. A number of spines on tarsus. Trichobothria. Tibia, pro-row 3, retro-row 4. Eight or nine teeth on the claw.

Legs 1423. The short adpressed hairs are strongly ciliate or plumose. Spines moderately long and strong and obtusely pointed. Spines. First leg. Femur, prolateral spine is present, d.1.1.1. p,r.0.1. Patella, 1.1, short bristles. Tibia, v.1.2.2. p.1.1.1. r.1.1.0. d.1 (short bristle). Metatarsus, v.2.2 and a subwhorl of 5, p.1. r.1. Second leg. Femur, d.1.1.1. p,r.1.1. Patella, d.1.1 (bristle). Metatarsus, v.2.2 and a subwhorl of 5, p.1.2. r.0.1. Third leg. Femur, d.1.1.1. p.1.1. r.0.1. Patella, d.1.1. Tibia, v.0.2.2. p,r,d.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1.2. r.1.1. Fourth leg. Femur, d.1.1.1. p,r.0.1. Patella, d.1.1. Tibia, v.1.1.1. p,r,d.1.1. Metatarsus, v.1.2 and a subwhorl of 5, p.1.1. r.1 calamistrum 1. Trichobothria. First leg. Tibia, pro-row 4 on the basal quarter, retro-row 5 reaching to mid-point. Metatarsus, 4. Tarsus, 5. Fourth leg. Tibia, pro-row 1.2.1.1. Retro-row 5. Metatarsus, 5. Tarsus, 5. Tarsal organ distal to trichobothria. Nine teeth on the superior claw of first leg and seven on fourth leg. Interior claw with two teeth. Calamistrum occupies 0.45 of length of metatarsus.

Abdomen Epigynum and internal genitalia as in Figs. 609, 610. Cribellum divided, six times as wide as long, 6/7 of width of anterior spinnerets. Anterior spinnerets separated by 1/5 of diameter of an anterior spinneret.

MALE

Measurements

	Carapace	length 2.75		width 1.90		
	Abdomen	length 2.60		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.95	0.80	1.75	1.80	0.95	7.25
2	1.90	0.80	1.50	1.65	0.80	6.65
3	1.80	0.75	1.30	1.50	0.70	6.05
4	2.05	0.80	1.60	1.80	0.75	7.00
Palp	0.80	0.35	0.30		1.00	2.45

With general characteristics of female.

Palp Bulb and tibial processes as in Figs. 607, 608.

Types Holotype female and allotype male. Wairarapa. Solway Show Grounds, Masterton, 24.ix.1966, R. W. Hutton (Otago Museum).

Record Wairarapa. Mangareia, Bideford, September 1946, C. L. Wilton.

Makora calypso (Marples)

1959 *Ixeuticus calypso,* Marples. Trans. Roy. Soc. N. Zeal. 87(3,4): 346.

Figs. 611-614

FEMALE

Measurements

	Carapace	length 2.40		width 1.68		
	Abdomen	length 2.40		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.92	0.84	1.56	1.56	0.84	6.72
2	1.80	0.84	1.32	1.32	0.72	6.00
3	1.74	0.78	1.08	1.20	0.60	5.40
4	1.92	0.72	1.56	1.68	0.72	6.60
Palp	0.72	0.36	0.60		0.78	2.46

Colour Cephalothorax reddish brown, darker on the head. Eyes ringed with black. Legs reddish brown. Abdomen grey.

Eyes Eyes large. The eyegroup occupies 2/3 of width of head. From above anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE

= 11.12.12.11. AME separated from each other by 9/11 and from ALE by 6/11 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 13/11 and from PLE by 12/11. MOQ wider behind than in front in ratio of 37.31 and wider behind than long in ratio of 37.33. Height of clypeus 8/11 of diameter of an AME.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, d.1.0.0. p.1.0.2. Tarsus, v.0.1.1.0.1. p.2.1.2.1. r.1.0.0.1.0. Tarsal claw with eight teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Tibia, v.0.2.2. p.1.1.1. r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.0.2.2. p,r.0.1.1. Metatarsus, v.2.2.1. p,r.1.1.1. d.1.1.2. Trichobothria. First leg. Tibia, 2.2.2.1. Metatarsus, 4. Tarsus, 3. Fourth leg. Tibia, 2.2.2.2.1. Metatarsus, 2. Tarsus, 4. Calamistrum extends over a little more than one half of metatarsus. Superior claws with eight, inferior with two teeth.

Abdomen Epigynum large (Figs. 611, 613). Internal genitalia simple, consisting of pair of globular vesicles and pair of simple tubes which open anteriorly (Figs. 612, 614).

MALE

Marples (1959) gives a description of a single male specimen but this specimen has been lost. The general characters appear to be the same as in the female. The cribellum and calamistrum are not functional. The measurements given by Marples are as follows:

Measurements

Carapace	length 2.44		width 1.78	
Abdomen	length 2.22		width 1.72	

Leg	Femur	Patella and Tibia	Metatarsus	Tarsus	Total
1	1.78	2.50	1.78	1.00	7.06
2	1.78	2.33	1.56	0.94	6.61
3	1.61	1.94	1.44	0.94	5.66
4	1.94	2.33	1.72	0.78	6.77
Palp	0.83	0.56		1.17	2.56

Type Holotype female. Otago. Wanaka, January 1955, T. G. Marples (Otago Museum).

Records Duntroon to Hakataramea, 5.viii.1948, B. J. Marples. Pipikaretu, B .J. Marples.

Makora detrita n.sp.

Figs. 615, 616

FEMALE

Measurements

Carapace	length 2.10	width 1.50	
Abdomen	length 2.60	width 1.75	

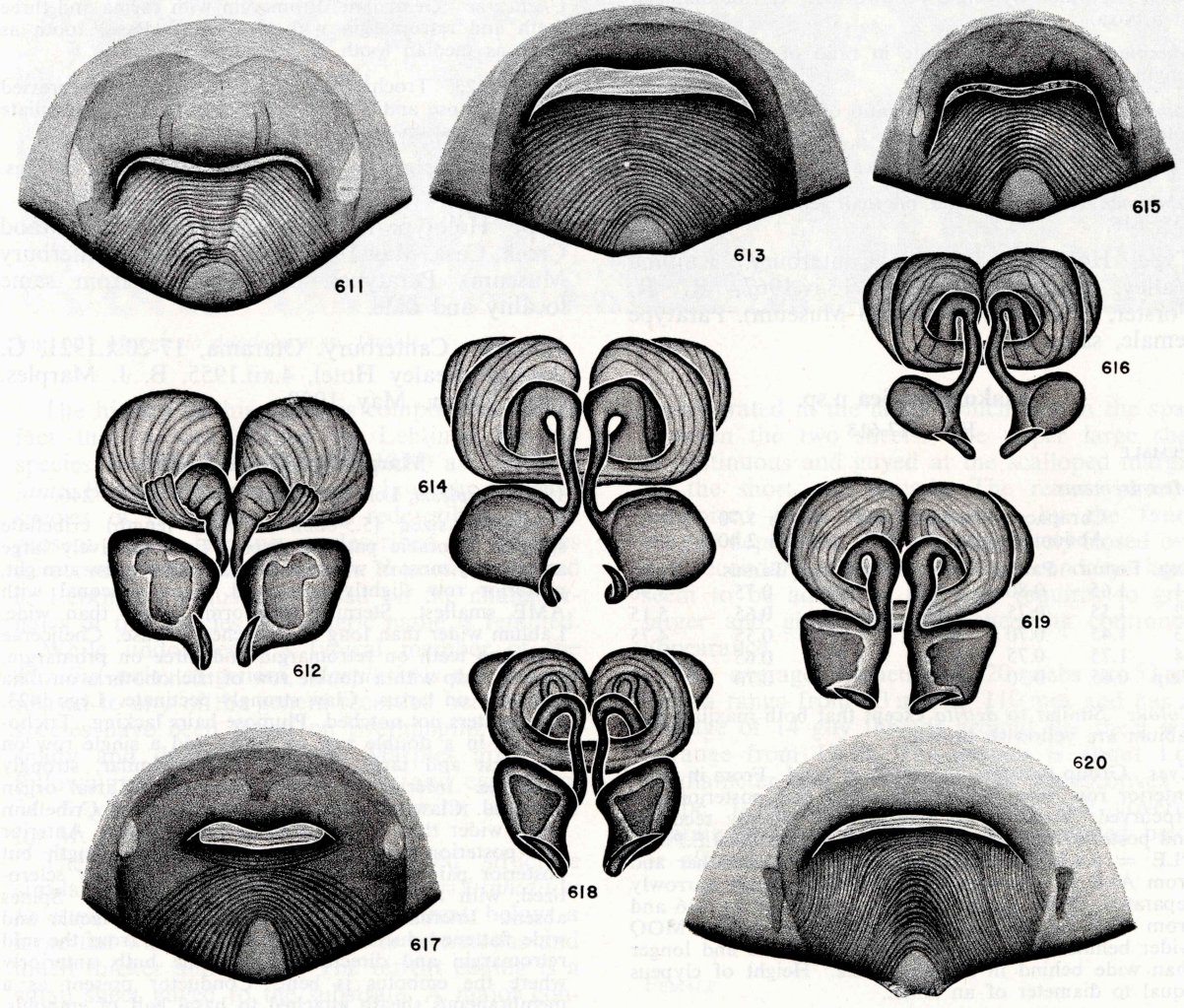


Fig. 611-614 *Makora calypso* (Marples). Fig. 611 Epigynum (Duntroon). Fg. 612 Internal genitalia (Duntroon). Fig. 613 Epigynum (Wanaka). Fig. 614 Internal genitalia (Wanaka). Figs. 615-616 *Makora detrita* n.sp. Fig. 615 Epigynum. Fig. 616 Internal genitalia. Figs. 617-618 *Makora mimica* n.sp. Fig. 617 Epigynum. Fig. 618 Internal genitalia. Figs. 619-620 *Makora diversa* n.sp. Fig. 619 Epigynum. Fig. 620 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.40	0.60	1.20	1.15	0.70	5.05
2	1.30	0.60	0.95	1.00	0.55	4.40
3	1.15	0.60	0.80	0.90	0.50	3.95
4	1.40	0.60	1.00	1.10	0.55	4.65
Palp	0.55	0.25	0.40		0.55	1.75

Colour carapace pale orange brown with scattered dark shading which becomes more obvious anteriorly. Chelicerae slightly darker with shading on mid anterior surface. Legs pale yellowish orange without bands. Sternum shaded dark but densely spattered with pale spots. Maxillae yellowish orange. Labium much darker. The abdomen has an ill-defined pale cross anteriorly. Lateral and posterior slopes quite dark. Ventral surface patterned as in *figurata*.

Eyes Group occupies 5/7 of width of head. From in front anterior row slightly procurved and posterior row procurved. From above anterior row very slightly recurved and posterior row procurved but not as much as *diversa*. Ratio of AME.ALE.PME.PLE = 5.7.6.7. AME separated from each other by a distance equal to, and from ALE by 4/5 of the diameter of an AME. Laterals narrowly separated. PME separated from each other by 7/5 and from PLE by 9/5. MOQ wider behind than in front in ratio of 19.15 and longer than wide behind in ratio of 20.19. Height of clypeus equal to diameter of an AME.

Sternum Longer than wide in ratio of 50.39. Posterior coxae separated by slightly more than 1/3 of diameter of a coxa.

Maxillae Longer than wide in ratio of 5.3 and twice length of labium.

Labium Wider than long in ratio of 5.4. Distal margin rounded.

Chelicerae, palp and legs Typical.

Abdomen Epigynum and internal genitalia as in Figs. 615, 616.

Type Holotype female. Canterbury. Kaituna Valley, Banks Peninsula, 13.iv.1967, R. R. Forster, C. L. Wilton (Otago Museum). Paratype female, same data.

Makora minica n.sp.

Figs. 617-618

FEMALE

Measurements

Carapace	length 2.40	width 1.70	
Abdomen	length 3.00	width 2.40	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.65	0.80	1.40	1.30	0.75	5.90
2	1.55	0.75	1.10	1.10	0.65	5.15
3	1.45	0.70	0.95	1.10	0.55	4.75
4	1.75	0.75	1.25	1.35	0.65	5.75
Palp	0.65	0.30	0.45		0.70	2.10

Colour Similar to *detrita* except that both maxillae and labium are yellowish brown.

Eyes Group occupies 2/3 width of head. From in front anterior row very slightly procurved and posterior row procurved. From above anterior row slightly recurved and posterior row procurved. Ratio of AME.ALE.PME.PLE = 6.8.7.7. AME separated from each other and from ALE by diameter of an AME. Laterals narrowly separated. PME separated from each other by 8/6 and from PLE by 10/6 of diameter of an AME. MOQ wider behind than in front in ratio of 22.18 and longer than wide behind in ratio of 23.22. Height of clypeus equal to diameter of an AME.

Type Holotype female. Otago. Waipori Gorge, 8.xii.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Makora diversa n.sp.

Figs. 619-620

FEMALE

Measurements

Carapace	length 2.60	width 1.90	
Abdomen	length 4.25	width 3.10	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.85	0.85	1.60	1.50	0.90	6.70
2	1.75	0.80	1.30	1.35	0.75	5.95
3	1.65	0.70	1.10	1.25	0.35	5.05
4	1.85	0.85	1.40	1.55	0.45	6.10
Palp	0.75	0.35	0.50		0.80	2.40

Colour Carapace and chelicerae orange brown. Legs paler and without bands. Sternum pale yellowish brown with a very narrow dark marginal band. Abdomen brownish grey with only a slight trace of pattern.

Eyes Group occupies 2/3 of width of head. From in front anterior row straight and posterior row procurved. From above anterior row slightly recurved and posterior row moderately procurved. Ratio of AME.ALE.PME.PLE = 6.8.7.8. AME separated from each other and from ALE by diameter of an AME. Laterals narrowly separated. PME separated from each other by 8/6 and from the PLE by 12/6. MOQ wider behind than in front in ratio of 22.18 and longer than wide behind in ratio of 23.22. Height of clypeus equal to diameter of an AME.

Chelicerae Geniculate. Promargin with carina and three teeth and retromargin with two teeth. Basal tooth as large as median tooth of promargin.

Legs 1423. Trochanters slightly notched. Adpressed hairs plumose and a thick covering of upstanding ciliate hairs. Spination similar to *figurata*.

Abdomen Epigynum and internal genitalia as in Figs. 619, 620.

Type Holotype female. Canterbury. Ribbonwood Creek, Cass, May 1954, R. R. Forster (Canterbury Museum). Paratypes. Two females from same locality and date.

Records Canterbury. Otarama, 17-20.x.1921, G. Archey. Bealey Hotel, 4.xii.1955, B. J. Marples. Lake Ohau, May 1958,

Marplesia Lehtinen 1967

1967 *Marplesia*, Lehtinen. Ann. Zool. Fenn. 4: 246.

Medium sized (5.5-6mm in body length) cribellate spiders. Thoracic patches absent. Eyes relatively large and occupy most of width of head. Anterior row straight, posterior row slightly procurved. Eyes subequal with AME smallest. Sternum scutiform, longer than wide. Labium wider than long and notched at base. Chelicerae with two teeth on retromargin and three on promargin. Female palp with a double row of trichobothria on tibia but none on tarsus. Claw strongly pectinate. Legs 1423. Trochanters not notched. Plumose hairs lacking. Trichobothria in a double row on tibiae and a single row on metatarsi and tarsi. Superior claws similar, strongly pectinate. Inferior claw with two teeth. Tarsal organ subdistal. Claw tufts and tenent hairs lacking. Cribellum much wider than long. Spinning field divided. Anterior and posterior pairs of spinnerets of equal length but posterior pair more slender. Epigynum strongly sclerotized, with a pair of deep cavities anteriorly. Spines absent. Internal genitalia with paired receptacula and wide flattened ducts. Embolus originating from the mid retromargin and directed beneath the bulb anteriorly where the embolus is bent. Conductor present as a membraneous sheath attached to basal half of embolus. Median apophysis absent but there is a prominent prolateral process.

Type species *Marplesia dugdalei* n.sp.



Fig. 621 *Marplesia dugdalei* n.sp. female.

The history of this genus is complicated by the fact that it was erected by Lehtinen for the species described by Marples (1959) as *Ixeuticus janus* Bryant. *I. janus* Bryant is however a typical species of *Neoramia* and is redescribed in the present paper. The species described by Marples is recorded below as *Marplesia dugdalei* n.sp. and as Lehtinen's genus was based on the characteristics of this species the generic name is retained.

While undoubtedly a typical member of the *Maniho* series of genera, *Marplesia* is not directly related to any of the genera recorded below. Both species have been found on overhanging rock in shady and damp situations. Marples gives the following description of the webs and eggsacs of *M. dugdalei* and Wilton noted a similar structure for *M. pohara.*

The web is a mushroom shaped structure similar to that of *Amarara fera* (=*Stiphidium facetum* Simon) with a smaller retreat below a large flat web. The upper sheet is continuous and much thicker and denser. The retreat ceiling is a small sheet guyed to the substrate. A major contrast is shown in the position of the spider which sits on the lower sheet, head down, rather than on the cliff face or of the cocoons which are incorporated in the tangle which fills in the space between the two sheets. The upper large sheet is continuous and guyed at the scalloped margins by the short guy threads. The retreat sheet is supported from the main web by the funnel shaped depression which is completely closed over by secondary layers. These secondary layers seem to be added as the web requires to grow larger and give the upper sheet its continuous appearance.

The average diameter of 20 webs is 53 mm with a range from 13 mm to 110 mm and has an average of 14 guy threads around the sheet with a range from 10-19. The cocoon is about 1 cm in diameter and is biconvex to planoconvex in shape. It is made of thin white silk covering containing some debris, and is suspended below or affixed to the upper sheet.

Marplesia dugdalei n.sp.

Figs. 621-625

FEMALE

Measurements

Carapace	length 2.52	width 2.16
Abdomen	length 4.20	width 3.36

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.52	0.90	2.34	2.16	1.14	9.06
2	2.34	0.84	1.92	1.92	0.96	7.98
3	2.16	0.78	1.56	1.92	0.84	6.76
4	2.34	0.84	1.98	2.16	1.02	8.34
Palp	0.84	0.36	0.60		0.90	2.70

Colour (Fig. 621). Carapace pale straw yellow, darkening to reddish brown on head and median surface of thoracic region. Abdomen uniform grey.

Carapace Numerous short hairs on both head and thorax and a series of longer hairs down median surface of head.

Eyes Eyes large and occupy 7/8 of width of head. From above anterior row straight and posterior row slightly procurved. From in front anterior row slightly recurved. Ratio of AME.ALE.PME.PLE = 10.14.11.14. AME separated from each other by 6/10 and from ALE by 5/10 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 10/10 and from PLE by 11/10. MOQ wider behind than in front in ratio of 15.13 and as long as wide behind. Clypeus narrow, height 3/10 of diameter of an AME.

Sternum Longer than wide in ratio of 14.11. Anterior margin broadly indented. Lateral margins evenly curved, undulating. Posterior projection bluntly pointed, separating coxae 4 by a distance equal to 5/8 of width of a coxa.

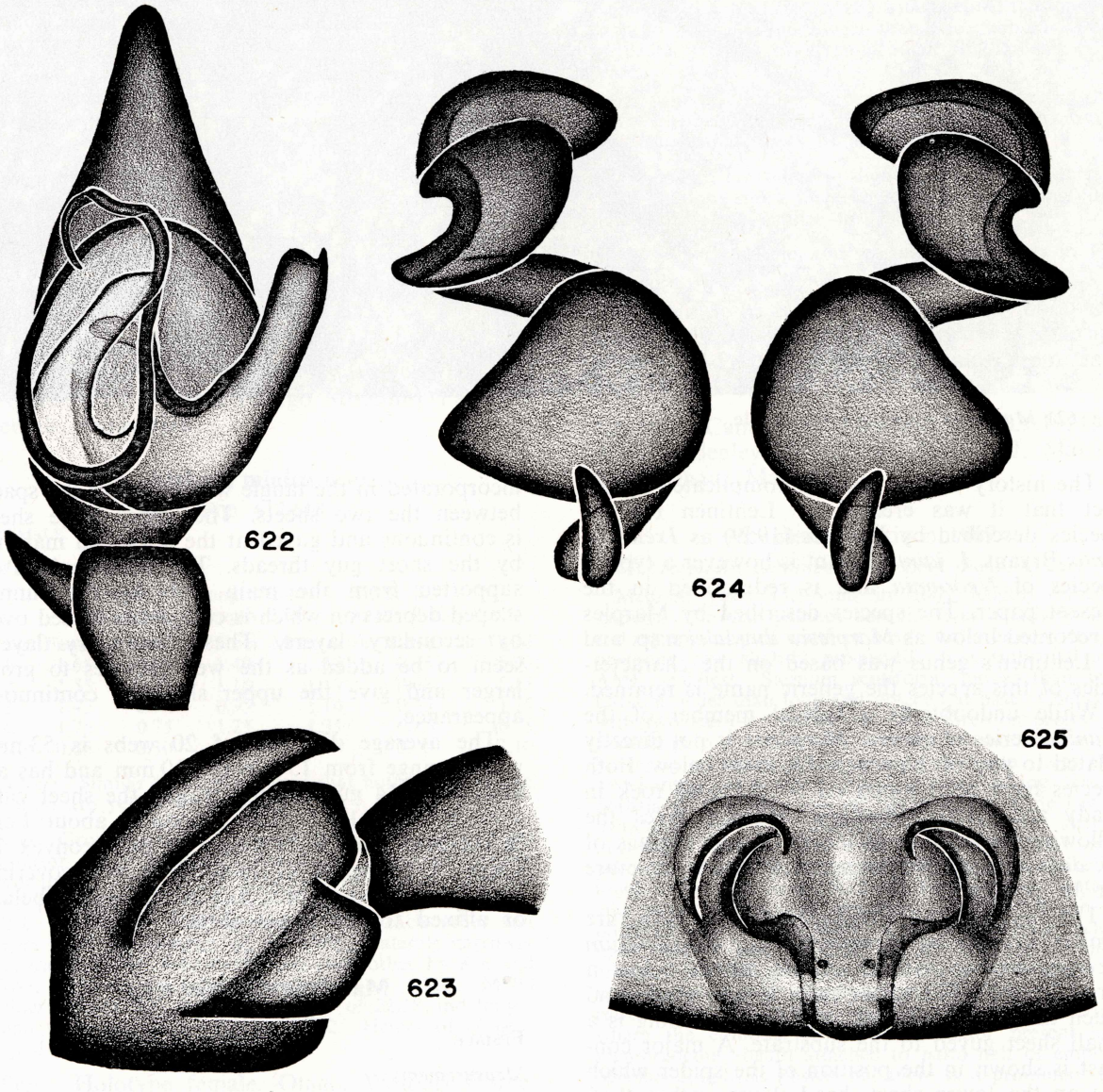
Maxillae Longer than wide in ratio of 11.9. Lateral margins straight sub-parallel. Anterior margin slightly oblique.

Labium Notched at base. Lateral margins gently curved. Anterior margin slightly indented. Wider than long in ratio of 7.6.

Chelicerae Retromargin with two teeth, promargin with three of which the median is largest. A carina extends from proximal promarginal tooth to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Tibia, p.1.1.1. Tarsus, v,p,r,d.1.1.1. Tibia with seven trichobothria arranged 2.2.2.1.

Legs 1423. Spines. First leg. Femur, d.0.1.1.0. p.0.0.1.0. r.0.0.1.1. Tibia, v.0.2.0. Metatarsus, v.2.2.1. p,r.0.0.1. Second leg. Femur, d.0.1.1.0. p.0.0.0.1. r.0.0.1.1. Tibia, v.1.2.0. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.1. r,d.0.0.1. Third leg. Femur, d.0.1.1.0. p.0.0.0.1. r.0.0.1.1. Tibia, v.0.2.2.



Figs. 622-625 *Marplesia dugdalei* n.sp. Fog. 622 Ventral view of male palp. Fg. 623 Tibial processes of male palp Fig. 624 Internal genitalia. Fig. 625 Epigynum.

r.0.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. Fourth leg. Femur, d.0.1.1.0. r.0.0.0.1. Tibia, v.1.1.2. p,r.0.1.1. Metatarsus, v.1.1.1.1. p.0.1.0.2. r.1.0.1.2. Trichobothria. First leg. Tibia, 1.1. Metatarsus, 3. Tarsus, 5. Second leg. Tibia, 1.2.1.1.1. Metatarsus, 4. Tarsus, 3. Third leg. Tibia, 2.2.1.1.1. Metatarsus and tarsus, 4. Fourth leg. Tibia, 2.2.2.1.2.1. Metatarsus, 1.2. Tarsus, 4. Subdistal tarsal organ present. Superior claws with nine, inferior claws with two teeth.

Abdomen Cribellum large and divided. Posterior spinnerets longer and more slender than anterior pair. Epigynum large (Fig. 625). Internal genitalia simple consisting of a pair of globular vesicles opening anteriorly through a pair of tubular ducts (Fig. 624).

MALE

Measurements

	Carapace		length 2.05		width 1.60	
	Abdomen		length 2.50		width 1.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.45	0.80	2.50	2.40	1.25	9.40
2	2.30	0.80	2.10	2.15	1.05	8.40
3	2.15	0.75	1.80	2.00	0.95	7.65
4	2.35	0.75	2.10	2.45	1.05	8.70
Palp	0.65	0.30	0.30		0.80	2.05

With same general characteristics as female.

Palp Bulb and tibial processes as in Figs. 622, 623.

Legs Distal portion of metatarsus curved sinuously on all legs.

Type Holotype female. Canterbury. Hanging Rock, May 1955, B. J. Marples. Plesiotype male. Same locality as holotype, 1960, 60.44, B. J. Marples (Otago Museum).

Records Mt Misery, Cass, moss, 23.v.1954, J. S. Dugdale. Coopers Creek, October 1953, R.R.F. Oaro Stream, Kaikoura, June 1952, R.R.F. Kennedy's Bush, Christchurch, 26.vi.1949, R.R.F. This is the species described by Marples (1959) as *Ixeuticus janus* Bryant. It is however very different from Bryant's species which is now placed in *Neoramia*.

Marplesia pohara n.sp.

Figs. 626-630

FEMALE

Measurements

Carapace	length 2.5	width 2.0
Abdomen	length 3.1	width 2.3

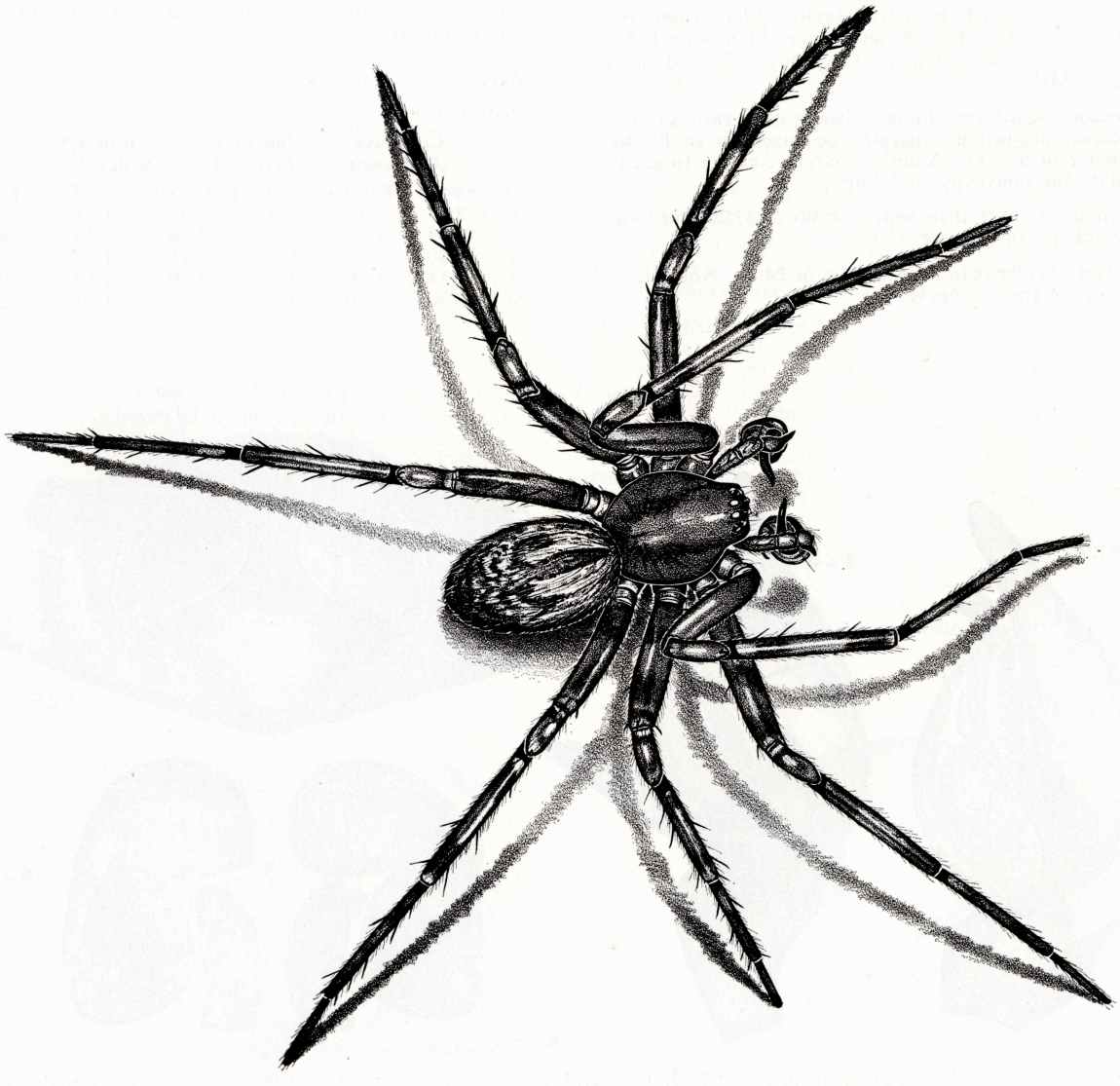


Fig. 626 *Marplesa pohara* n.sp.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.60	1.00	2.45	2.25	1.20	9.50
2	2.40	0.90	2.05	2.00	1.00	8.35
3	2.10	0.85	1.70	1.85	0.90	7.40
4	2.40	0.90	2.05	2.30	1.00	8.65
Palp	0.85	0.45	0.65		0.95	2.90

Colour Carapace pale cream, darkening slightly on anterior portion. Upper slopes, but not the summit, of thorax shaded with black which extends forward as a short band on each side of head. Eyes are individual black patches. Chelicerae pale brown with bosses slightly paler but not conspicuous. Legs pale with dark bands which are more obvious on posterior pairs. Sternum pale cream shaded with black especially posteriorly. Maxillae pale brown and labium darker brown but becoming much paler distally. Abdomen with a pattern as in Fig. 626. Ventral surface pale, shaded with black.

Carapace Width of head 5/8 of thorax. Fovea longitudinal, short, relatively deep and situated at summit and upper region of posterior slope. Radial striae faintly discernible.

Eyes Group occupies 2/3 of width of head. From in front anterior row slightly procurved and from above posterior row procurved. Ratio of AME.ALE.PME.PLE = 7.9.9.10. AME separated from each other by 6/7 and from ALE by 4/7 of diameter of an AME. Laterals separated by 2/7. PME separated from each other by 7/7 and from PLE by 10/7. MOQ wider behind than in front in ratio of 25.20 and longer than wide behind in ratio of 26.25. Height of clypeus 9/7 of diameter of an AME.

Sternum Scutiform. Longer than wide in ratio of 70.55. Posterior projection separates posterior coxae by half diameter of a coxa. Anterior margin concave to accommodate the convexity of labium.

Maxillae Longer than wide in ratio of 37.22 and longer than labium in ratio of 37-19.

Labium Wider than long in ratio of 24.19. Not notched. Anterior margin concave.

Chelicerae Basal carina terminates at the first tooth of the three contiguous teeth on promargin of groove. Of these median tooth largest. Retromargin with two even teeth, almost as large as median tooth on promargin.

Palp Spines. Femur, d.1.1.1. Patella, 1.1. Tibia, d.1.1. p.1.2. r.1 distal. Tarsus with numerous spines. Trichobothria. Tibia, two rows of even length each with 5. Claw with eleven teeth.

Legs Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.1.1. Patella, 1.1. Tibia, v. 0.2.0. p.0.0.1. r.0. d.1 basal (bristle). Metatarsus, v.2.2.3. p,r.0. Second leg. Femur, d.1.1.1. p,r.1.1. Patella, 1.1. Tibia, v.0.2.0. p,r.1.1. d.1 basal. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1 median. Calamistrum occupies 0.4 of length of segment. Trichobothria. First leg. Tibia, pro-row 4 situated on basal quarter, retro-row 5 extending to midpoint of segment. Metatarsus, 4. Tarsus, 6. Fourth leg tibia with a pro- and retro-row of 5 of almost equal length. Tarsal organ present on all tarsi. Superior claws with nine teeth, inferior claw with two teeth.

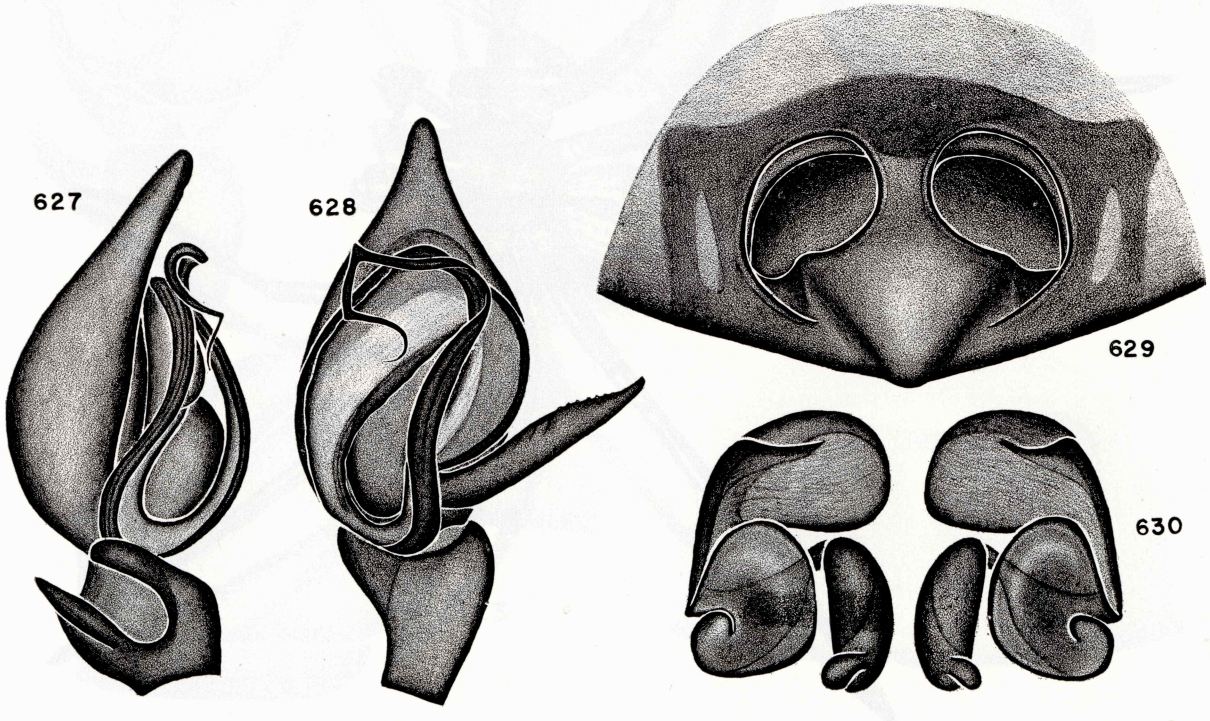
Abdomen Epigynum and internal genitalia as in Figs. 629, 630. The size and depth of the pair of pits situated anteriorly on epigynum are a feature of this species. Cribellum strongly divided. Ratio width to length 27.7, occupies 5/7 of width of spinnerets. Anterior spinnerets separated from each other by 1/3 of diameter of spinneret. Posterior spinnerets slightly longer and much more slender than anterior pair and distal segment distinctly conical.

MALE

Measurements

Carapace length 2.5 width 1.8
Abdomen length 2.7 width 1.7

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.65	0.9	2.50	2.55	1.35	9.95
2	2.55	0.85	2.30	2.40	1.20	9.30
3	2.30	0.80	1.90	2.25	1.05	8.30
4	2.55	0.80	2.25	2.60	1.10	9.30
Palp	0.90	0.40	0.40		1.10	2.80



Figs. 627-630 *Marplesia pohara* n.sp. Fig. 627 Retrolateral view of male palp. Fig. 628 Ventral view of male palp. Fig. 629 Epigynum. Fig. 630 Internal genitalia.

Eyes Group occupies about 4/5 of width of head. From in front anterior row straight by upper margin of eyes. Ratio of AME.ALE.PME.PLE = 6.9.9.9. AME separated from each other by 5/6 and from ALE by 3/6 of diameter of an AME. Laterals separated by 1/6. PME separated from each other by 6/6 and from PLE by 8/6. MOQ wider behind than in front in ratio of 24.17 and as long as wide behind. Height of clypeus 8/6 of diameter of an AME.

Palp Tibia and bulb as in Figs. 627, 628.

Types Holotype female and allotype male. Nelson. On rock face in forest, Pohara Beach, Golden Bay, 9.iii.1967, C. L. Wilton (Otago Museum).

Records Nelson. Same locality and date as types, immature female, C.L.W.

Waterea n.gen.

Medium sized (body length 5mm) cribellate spiders. No thoracic patches. Eye group occupying two-thirds of width of head. Both rows more or less straight. AME distinctly smaller than remaining eyes which are sub-equal. Sternum scutiform, longer than wide. Labium as long as wide and notched at base. Chelicerae with two teeth on retromargin and five on promargin. Female palp with trichobothria in a double row on tibia and a single row on tarsus. Claw strongly pectinate. Legs 1423. Trochanters notched. Plumose hairs present. Trichobothria in double row on tibiae and single row on metatarsi and tarsi. Superior claws similar and strongly pectinate. Inferior claw with three teeth. Tarsal organ subdistal. Claw tufts and tenent hairs absent. Calamistrum well developed, proximal. Cribellum well developed. Spinning fields divided. Posterior pair of spinnerets slightly longer than anterior pair. Epigynum strongly sclerotized, with strong pair of spinous processes which originate anteriorly and extend back to furrow. Single deep median depression. Internal genitalia with receptacula and short convoluted ducts.
Male not known.

Type species *Waterea cornigera* n.sp.

This genus seems to belong with the *Maniho* series but positive placement will need to wait on examination of the male genitalia.

Waterea cornigera n.sp.

Figs. 631-632

FEMALE

Measurements

Carapace	length 2.40	width 1.65
Abdomen	length 2.90	width 2.30

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.45	0.70	2.45	Missing		
2	2.05	0.70	1.80	1.65	1.10	7.30
3	1.85	0.60*	1.45	1.55	0.95	6.40
4	2.25	0.70	2.00	2.10	1.10	8.15
Palp	0.85	0.35	0.55		1.00	2.75

Colour Carapace pale yellowish orange with shading on the upper slopes but unshaded on summit between PME and fovea. Legs with bands. Sternum, maxillae and labium yellow brown with mottled shading. Abdomen in poor condition, light brownish grey and showing no pattern.

Carapace Head 5/8 of width of thorax and without thoracic patches.

Eyes Group occupies 2/3 of width of the head. From in front anterior row straight and posterior row procurved. From above both anterior and posterior rows very slightly recurved. Ratio of AME.ALE.PME.PLE = 4.7.6.7. AME separated from each other by 4/4 and from ALE by 3/4 of diameter of an AME. Laterals narrowly separated. PME separated from each other and from PLE by 6/4. MOQ wider behind than in front in ratio of 18.12 and wider behind than long in ratio of 18.17. Height of clypeus 9/4 of diameter of an AME.

Sternum Longer than wide in ratio of 9.8. Anterior margin broadly indented. Posterior projection gently tapered to a point between posterior coxae which are separated by 2/3 of diameter of a coxa.

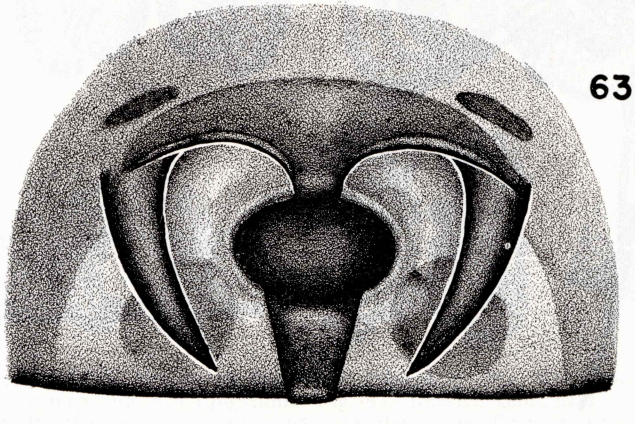
Maxillae Longer than wide in ratio of 5.3 and twice length of labium.

Labium As wide as long. Notched at base. Lateral margins only slightly converging and distal margin indented.

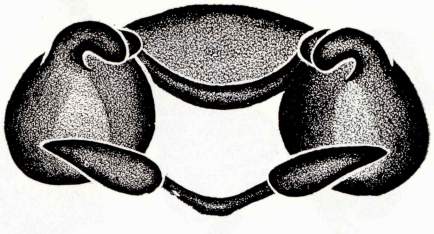
Chelicerae Porrect. Promargin with five teeth and a carina. Retromargin with two teeth.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1.0. r.0. Tarsus with numerous spines and a row of four trichobothria. Claw with seven teeth.

Legs Trochanters notched. Plumose hairs present. Spines rather small and pale. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.1.1. Patella, 0. Tibia, v.2.2.2. p,r.0.1. d.0. Second leg. Femur, d.1.1.1. p,r.1.1. Patella, 0. Tibia, v.1.2.2. p,r.1.1. d.0. Metatarsus, v.1.2 and subwhorl of 5, p.1.1. r.0.1. Third leg. Femur, d.1.1.1. p,r.1.1. Patella, 0.1. Tibia, v.1.1.2. p,r,d.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p,r.1.1. Fourth leg. Femur, d.1.1.1. p.0.1. r.0.0. Patella, 0.1. Tibia, v.1.1.0. p,r,d.1.1. Metatarsus, v.1.2 and subwhorl of 5, p.1.1. r.1 calamistrum 1. Calamistrum of fine hairs, in a single closely spaced row occupying less than a quarter of length of segment. Trichobothria. Second leg. Tibia, p.1. r.2. Metatarsus, 4. Tarsus, 3. Superior claws with six teeth, inferior claw with three teeth.



631



632

Figs. 631-632 *Waterea cornigera* n.sp. Fig. 631 Epigynum. Fig. 632 Internal genitalia.

Abdomen Sub-globular in shape. Posterior spinnerets slightly longer than anterior pair. Distal segment conical and half length of basal segment. Cribellum divided and spinning fields well separated. Epigynum and internal genitalia as in Figs. 631, 632.

Type Holotype female. Te Aroroa, East Cape, December 1948, R. K. Dell (Dominion Museum).

Reinga n.gen.

Medium to large (6.5-12.5mm in body length) cribellate spiders. Eyegroup compact, occupying approximately one half of width of head. Anterior row straight. Posterior row gently recurved. AME and PME of similar size while lateral eyes are distinctly large. Sternum, longer than wide. Labium notched at base, longer than wide. Chelicerae with boss Retromargin with two and promargin with seven teeth. Legs 4123. Trochanters slightly notched. No plumose hairs. Trichobothria in a double row on tibiae and a single row on metatarsi and tarsi. Superior claws similar, strongly pectinate. Inferior claw with two teeth. Tarsal organ subdistal. Female palp. with trichobothria in a double row on the tibia. Claw strongly pectinate. Calamistrum well developed, proximal. Cribellum much wider than long, deeply notched posteriorly. Spinning field well developed, divided. Epigynum with a pair of stout spines and a median oval or rectangular thinly sclerotized area. internal genitalia with distinct receptacula and stout ducts which may be convoluted.

Type species *Reinga media* n.sp.

One of the species, *R. aucklandensis* (Marples), was originally placed in the Australian and Pacific *Syrorisa* which is characterized by the large number of cheliceral teeth and possesses a seemingly similar epigynum. However from the figures given by Berland (1924) this genus lacks the paired spines characteristic of *Reinga* and is unlikely to be closely related to it.

Reinga aucklandensis (Marples) 1959

1959 *Syrorisa aucklandensis,* Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 353.

Figs. 634-635

FEMALE

Measurements

Carapace	length 3.06		width 2.06	
Abdomen	length 3.56		width 2.56	

Leg	Femur	Patella and Tibia	Metatarsus	Tarsus	Total
1	2.61	3.22	2.03	1.39	9.25
2	2.28	2.61	1.72	1.11	7.72
3	2.00	2.20	1.61	1.00	6.81
4	2.56	3.06	2.22	1.06	8.90
Palp	1.17	1.11		1.22	3.50

Colour Carapace yellow with a grey crescent anterior to thoracic groove, directed anteriorly and with further indistinct sooty marks at bases of legs and in eye region. Eyes surrounded with black. Abdomen grey with white markings. A grey stripe on the mid-dorsal surface with two pairs of white markings forming a y pattern, followed by three pairs of dark chevrons and alternately three white chevrons. Lateral surface of adbomen grey mottled with white. Ventral surface grey with a white line bordering each side. Spinnerets grey. Sternum yellow, speckled with black, denser on the margins. Legs yellow, strongly ringed with grey. Chelicerae orange.

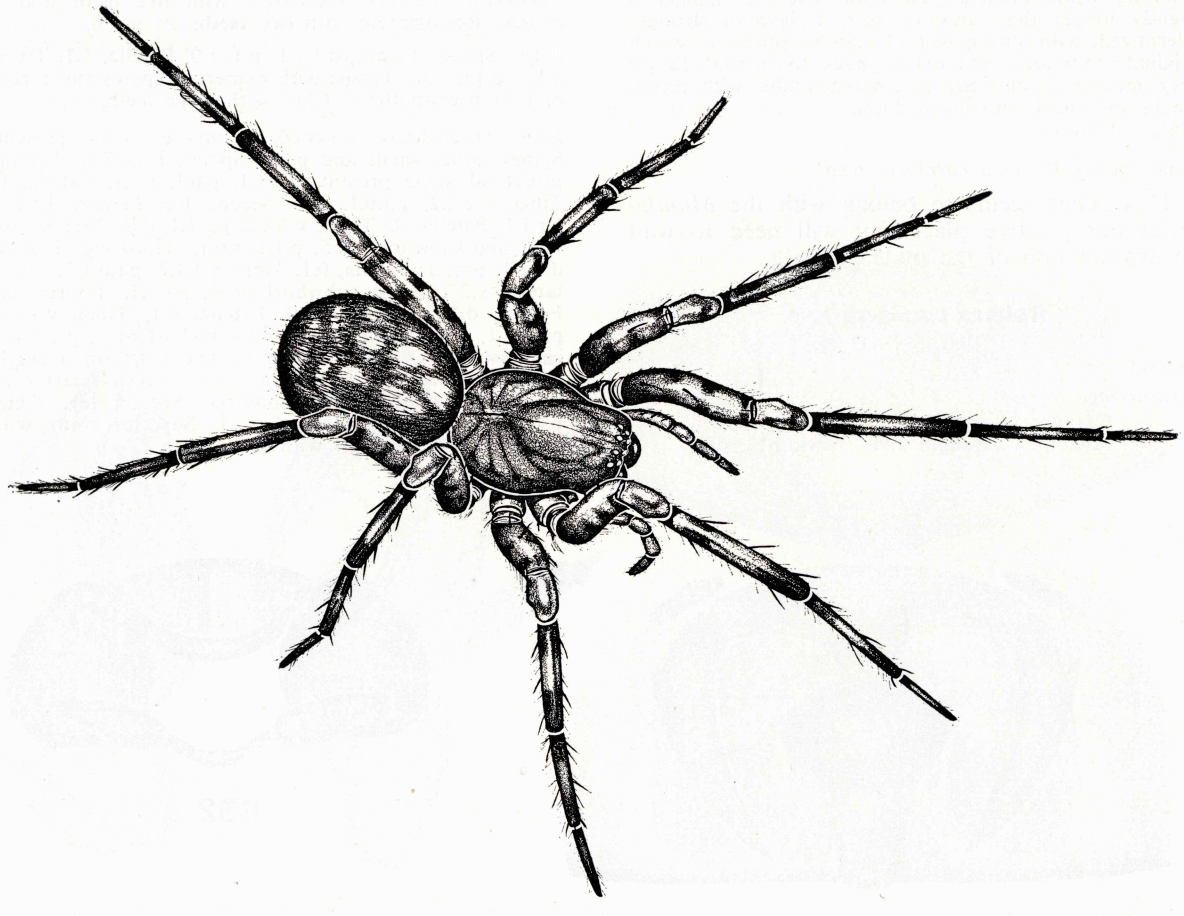


Fig. 633 *Reinga apica* n.sp. female.

Carapace Rather elongate. Thoracic portion elliptical with posterior margin straight. Head region distinct and elongate.

Eyes From above anterior row recurved and posterior row procurved. From in front anterior row straight and posterior row recurved. Ratio of AME.ALE.PME.PLE = 3.4.3.5. AME separated from each other and from the ALE by 2/3 of diameter of an AME. Lateral eyes contiguous. PME separated from each other and from the PLE by a distance equal to 4/3. MOQ wider behind than in front in ratio of 10.8 and wider behind than long in ratio of 10.9. Height of clypeus equal to diameter of an AME.

Sternum Scutiform, longer than wide in the ratio of 5.4 Anterior margin straight, extending over the entire width of sternum. Lateral margins gently undulating. Posterior projection sharp, separating coxae 4 by 3/5 of width of a coxa.

Maxillae Lateral margins divergent, wider at tip than base in the ratio of 5.3.

Labium Notched at the base. Lateral margins slightly convergent, anterior margin indented. Twice as wide at the base as long.

Chelicerae Slender. Retromargin with two teeth, promargin with seven. A carina extends down ventral surface from the proximal promargin tooth.

Palp Spine. Femur. d.0.1.1.1. Patella, d.0.1. Tibia, p.1.1.11. r.1.0.0. Tarsus many. Claw straight, with 10 teeth. Tibia with three trichobothria arranged 1.2.

Legs Spines. First leg. Femur, d.0.1.1.0.1. p.0.0.0.0.0.1. Tibia, v.2.2.1. p,r.1.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Second leg. Femur, d.0.1.1.0.1. p.0.1.0.0.1. r.0.0.0.0.1. Tibia, v.2.2.1. p,r.1.0.1. d.0.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Third and fourth legs. Femur, d.0.1.1.0.1. p.0.0.1.0.1. r.0.0.0.0.1. Patella, d.0.1. Tibia, v.2.1.1. p,r.1.0.1. d.0.0.1. Metatarsus, v.2.2.2. p,r.0.1.2. Trichobothria few. First leg. Tibia, 2.1.1. Metatarsus, 2. Tarsus, 3. Tibia of legs 2-4 with 2.1. Metatarsus of fourth leg with single trichobothrium. Tarsal organ absent. Superior claws with ten, inferior with two teeth.

Abdomen Cribellum relatively small, with notch on postero-median surface and divided. Epigynum and internal genitalia as in Figs. 634, 635.

Type Holotype female. Auckland District, v.1951, B. J. Marples (Otago Museum).

Reinga grossa n.sp.

Figs. 636-638

FEMALE

Measurements

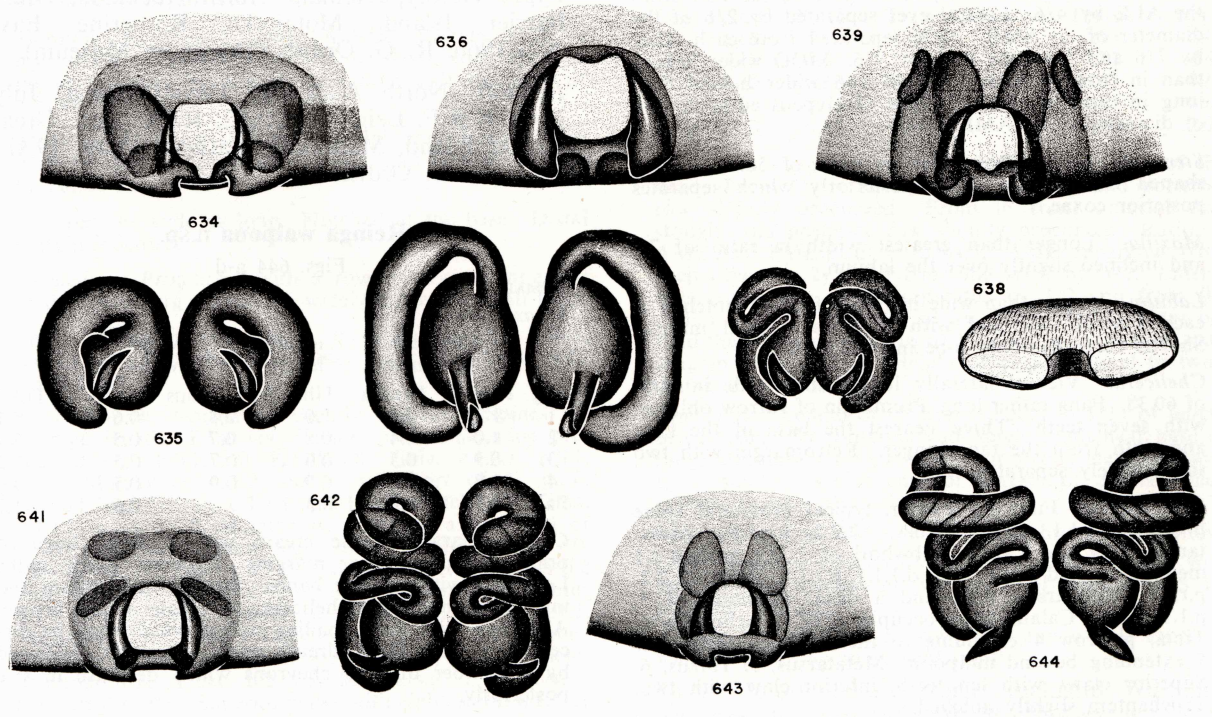
Carapace	length 6.40		width 4.00	
Abdomen	length 6.00		width 3.70	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.45	2.00	5.30	4.90	3.00	20.65
2	4.75	1.75	4.00	4.00	2.15	16.65
3	4.30	1.80	3.50	3.75	2.00	15.35
4	5.15	1.95	4.75	4.90	2.25	19.00
Palp	2.50	1.00	1.50		2.75	7.75

Colour Carapace yellowish brown with dark shading on lateral surfaces of head and lower lateral slopes of thorax. Legs with dark bands. Abdomen with typical pattern proximally but a series of transverse zigzag pale bands on posterior slope.

Eyes Ratio of AME.ALE.PME.PLE = 10.15.12.15. AME separated by distance equal to their diameter and from the ALE by 11/10. PME separated from each other by 18/10 and from PLE by 22/10. MOQ wider behind than in front in ratio of 42.30 and wider behind than long in ratio of 42.40. Height of clypeus equal to 23/10 of diameter of an AME.

Chelicerae Promargin with six teeth and an additional two small teeth situated at inner side of the base of second tooth.



Figs. 634-635 *Reinga aucklandensis* (Marples). Fig. 634 Epigynum. Fig. 635 Internal genitalia. Figs. 636-638 *Reinga grossa* n.sp. Fg. 636 Epigynum. Fig. 637 Internal genitalia.Figs. 639-640 *Reinga apica* n.sp. Fig. 639 Epigynum. Fig. 640 Internal genitalia. Figs. 641-644 *Reinga media* n.sp. Fig. 641 Epigynum (Leigh). Fig. 642 Internal genitalia (Leigh). Fig. 642 Epigynum (Great Barrier Is.). Fig. 644 Internal genitalia (Great Barrier Is.).

Abdomen Epigynum and internal genitalia as in Figs. 636, 637.

Type Holotype female. Three Kings Is., Great Is., under stone, November 1970, J. C. Watt (Entomology Divn, D.S.I.R.).

Records Same data as holotype. Three Kings Is., Southwest Island, under stones near summit, 13.i.1951, E. G. Turbott.

Reinga apica n.sp.

Figs. 633, 639-640

FEMALE

Measurements

	Carapace		length 4.1		width 2.8	
	Abdomen		length 4.8		width 3.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.5	1.4	3.3	3.1	1.9	13.2
2	3.2	1.3	2.5	2.4	1.6	11.0
3	2.8	1.2	2.2	2.3	1.2	9.7
4	3.5	1.3	3.0	3.1	1.4	12.3
Palp	1.5	0.6	1.0		1.7	4.8

Colour Carapace pale orange brown, darkening slightly anteriorly. Chelicerae and anterior portion of head darker, lateral condyles paler. Legs yellowish brown with dark bandings. Sternum yellow brown, darker at margins. Maxillae and labium orange brown with white distal margins. Abdomen dark brown with a pale pattern as in Fig. 633. Ventral surface dark, bordered on each side by a pale band. Pair of pale spots immediately behind the furrow followed by several pairs of smaller spots.

Carapace Width of head 0.74 of carapace.

Eyes The group occupies slightly over half width of head. From in front anterior row straight and from above posterior row very slightly recurved. Ratio of AME.ALE.PME.PLE = 6.7.6.7. AME separated from each other by distance equal to their radius and from the ALE by 4/6. Lateral eyes separated by 2/6 of the diameter of an AME. PME separated from each other by 7/6 and from the PLE by 9/6. MOQ wider behind than in front in ratio of 19.15 and wider behind than long in ratio of 19.18. Height of clypeus equal to 9/6 of diameter of an AME.

Sternum Longer than wide in ratio of 56.42. Shield shaped with narrow point posteriorly which separates posterior coxae.

Maxillae Longer than greatest width in ratio of 7.4 and inclined slightly over the labium.

Labium Longer than wide in ratio of 20.18, notched at each side at base and with a concave distal margin. Shorter than maxillary lobe in ratio of 20.35.

Chelicerae Viewed laterally longer than wide in ratio of 60.38. Fang rather long. Promargin of furrow oblique, with seven teeth. Three nearest the base of the fang and sixth from the fang longer. Retromargin with two small widely separated teeth.

Legs Spines. First leg. Femur, typical prolateral spine present, d.1.1.1. p,r.0.1. Tibia, v.2.2.2. p,r.1.1.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1 median r.1 median. Second leg. Femur, d.1.1.1. p,r.1.1. Tibia, v.1.2.2. p,r.1.1. Metatarsus, v.2.2 and a distal subwhorl of 5, p.1.1. r.1.1. Calamistrum occupies 0.27. Trichobothria. Tibia, pro-row 4 extending to the midpoint, retro-row 5 extending beyond midpoint. Metatarsus, 5. Tarsus, 6. Superior claws with ten teeth, inferior claw with two. Trochantera slightly notched.

Abdomen Cribellum divided, four times as wide as long, width slightly less than 4/5 of anterior spinnerets. Anterior spinnerets separated by about a 1/5 of diameter of a spinneret. Posterior spinnerets narrower, slightly longer and distal segment cone shaped. Epigynum and internal genitalia as in Figs. 639, 640.

Palp *Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, d,p.1.1. r.0. Few spines on tarsus. Trichobothria on tibia in two rows of three. Claw with ten teeth.

Type Holotype female. North Auckland. Cape Reinga, 7.i.1967, R. R. Forster, D. R. Forster (Otago Museum).

Records Female and two immature specimens from same locality.

Reinga media n.sp.

Figs. 641-644

FEMALE

Measurements

	Carapace		length 4.8		width 3.5	
	Abdomen		length 5.5		width 3.5	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.6	1.5	3.4	3.2	2.0	13.7
2	3.3	1.5	2.7	2.6	1.6	11.7
3	3.0	1.4	2.2	2.4	missing	
4	3.6	1.5	3.1	missing		
Palp	1.7	0.8	1.1		2.0	5.6

Eyes Ratio of AME.ALE.PME.PLE = 9.12.10.12. AME separated from each other by a distance equal to 7/9 and from the ALE by 12/9 of diameter of an AME. PME separated from each other by 14/9 and from PLE by 20/9. MOQ wider behind than in front in ratio of 34.25 and as wide behind as long. Height of clypeus twice diameter of an AME.

Chelicerae Promargin with six teeth and an additional small tooth at the base of inner side of second tooth at proximal end of groove.

Abdomen Epigynum and internal genitalia as in Figs. 641-644.

Type Holotype female. North Auckland. Great Barrier Island. Motaireke, Katherine Bay, 20.iv.1966, R. G. Ordish (Dominion Museum).

Records North Auckland. Cuvier Island, July 1943, R.R.F. Leigh, 11.i.1962, R. K. Dell. Great Barrier Island, Motaireke, Katherine Bay, 19.xi.-1964, R. G. Ordish.

Reinga waipoua n.sp.

Figs. 644 a-d

FEMALE

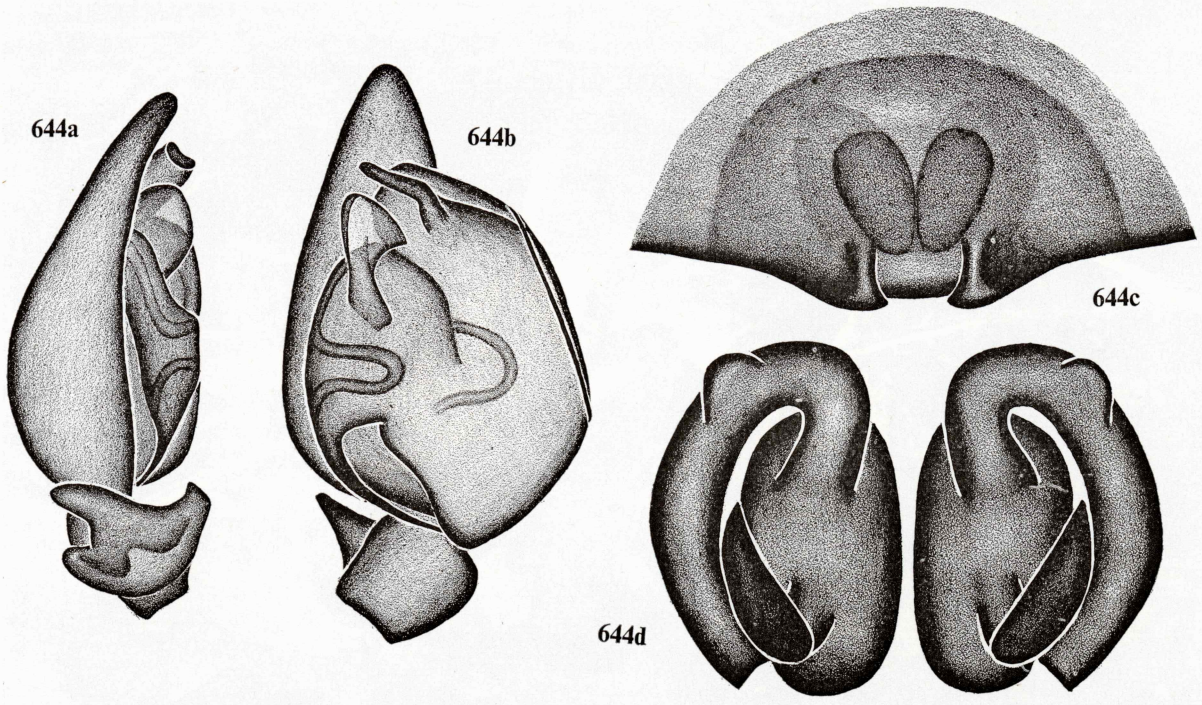
Measurements

	Carapace		length 1.5		width 1.1	
	Abdomen		length 1.5		width 1.0	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.2	0.5	1.0	0.8	0.6	4.1
2	1.0	0.4	0.8	0.7	0.5	3.4
3	0.9	0.5	0.6	0.7	0.5	3.2
4	1.2	0.5	0.9	0.9	0.5	4.0
Palp	0.5	0.3	0.3		0.6	1.7

Colour Carapace pale cream with a slight tinge of orange about anterior margins. Eyes on black spots. Legs pale without dark bands. Sternum pale cream and maxillae, labium and chelicerae very pale orange brown. Abdomen with dark shading within which may be discerned a pale St. Andrew's cross anteriorly, followed by a number of pale chevrons which decrease in size posteriorly.

Carapace Width of head 5/7 of carapace.

Eyes The group occupies 5/8 of the width of the head. From in front anterior row straight and from above



Figs. 644 a-d *Reinga waipoua* n.sp. Fig. 644a Retrolateral view of male palp. Fig. 644b Ventral view of male palp. Fig. 644c Epigynum. Fig. 644d Internal genitalia.

posterior row straight. Ratio of AME.ALE.PME.PLE = 3.5.4.5. AME separated from each other by 3/3 and from the ALE by 2/3 of diameter of an AME. Laterals contiguous. PME separated by 4/3 and from the PLE by 5/3 of diameter of an AME. MOQ wider behind than in front in ratio of 14.8 and wider behind than long in ratio of 14.12. Height of clypeus equal to 5/3 of diameter of an AME.

Sternum As wide as long. Anterior margin more or less straight. Posterior projection short and separates posterior coxae by slightly less than half diameter of a coxa.

Maxillae Inclined slightly over labium. Longer than wide in ratio of 26.16 and longer than labium in ratio of 26.15.

Labium As wide as long. Notched at the base. Distal margin indented.

Chelicerae Promargin with a row of seven contiguous teeth. Retromargin with two widely separated small teeth.

Palp Spines. Femur, d.0.1.1. p,r.0. Patella, 0.1. Tibia, p,d.1.1. r.0. Trichobothria. Tibia, p.1. r.1.1.1. Claw with seven teeth.

Legs Fourth trochanter slightly notched. Spines of average length. First leg. Femur, prolateral spine present, d.1.1.1. p.0.1. r.0. Patella, 0. Tibia, v.1.2.1. p.0.1. r.d.0. Metatarsus, v.1.2 and a subwhorl of 5, p,r.0. Second leg. Femur, d.1.1.1. p.0.1. r.0. Patella, 0. Tibia, v.1.1.1. p.1.1. r,d.0. Metatarsus, v.1.2 and a subwhorl of 5. p,r.1 median. Third leg. Femur, d.1.0.1. p.0.1. r.0. Patella, 0.1. Tibia, v.0.1.2. p,d,r.1.1. Metatarsus, v.0.2 and subwhorl of 5, p.0.2. r.0.1. Fourth leg. Femur, d.1.0.1. p.0. r.0.1. Patella, 0. Tibia, v.1.1.2. p,r,d.1.1. Metatarsus, v.2.2 and a subwhorl of 5, p.1.2. r.1 calamistrum 1. Calamistrum occupies about 1/3 of segment. Trichobothria. Tibia, p.2. r.3. Metatarsus, 2. Tarsus, 2 and tarsal organ. Superior claws with eight teeth, inferior claw with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 644 c, d. Posterior margin of cribellum pointed and medially notched. Spinning fields oval and well separated about same length as anterior pair but much more slender. Distal segment of posterior spinneret 1/3 of length of basal segment and conical.

MALE

Measurements

Carapace length 2.20 width 1.40
Abdomen length 2.20 width 1.20

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.65	0.70	1.48	1.33	0.95	6.09
2	1.43	0.65	1.13	1.05	0.73	4.99
3	1.30	0.63	0.98	1.10	0.63	4.64
4	1.65	0.75	1.45	1.50	0.73	6.08
Palp	0.80	0.48	0.44		1.00	2.72

Eyes The eyegroup occupies 3/5 of the width of the head. From above anterior row recurved and posterior row slightly procurved. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 2.5.4.5. AME separated from each other by 2/2 and from the ALE by 3/2. Lateral eyes contiguous. PME separated by 3/2 and from the PLE by 5/2 of diameter of an AME. MOQ wider behind than in front in ratio of 11.6 and wider behind than long in ratio of 11.9. Height of clypeus equal to twice diameter of an AME.

Chelicerae Length of chelicerae equal to 5/11 of length of carapace. Retromargin with single tooth near base of fang. Promargin with row of four strong teeth followed by a small tooth at anterior margin of carina which extends to base of chelicera.

Palp As in Figs. 644 a, b. Cymbium broad and shallow.

Legs Superior claws with 12 teeth. Inferior claw with two teeth. Calamistrum with row of twelve hairs on proximal surface.

Abdomen Cribellum narrow, two and a half times as wide as long. Spinning field small.

Type Holotype male. North Auckland. Waipoua, leaflitter, January 1952, W. R. McGregor (Otago Museum). Allotype female. Omahutu Kauri forest, 335 m, 25.ii.1967, K. A. J. Wise (Auckland Museum).



Fig. 645 *Mamoea rufa* (Berland) female with eggsac.

Mamoea n.gen.

Large (7-12mm in body length) ecribellate spiders. Eyegroup occupying little more than one half of the width of the head. Eyes in two more or less straight rows. AME equal in size to PME or slightly smaller. Lateral eyes distinctly larger. Sternum scutiform, as long as or longer than wide. Labium with basal notch, longer than wide. Chelicerae with boss. Retromargin with 3-5 and promargin with from 4-10 teeth. Legs 1423 or 4123. No plumose hairs. Tibiae and metatarsi of first two pairs with two rows of up to five stout spines on ventral surfaces. Trochantera with shallow notches. Trichobothria numerous. Double row on tibiae and a single row on metatarsi and tarsi. Thick scopula of short hairs on ventral surface of the tarsi and disto-ventral surfaces of metatarsi of third and fourth pairs of legs. Preening combs lacking. Superior claws similar, strongly pectinate. Inferior claw smooth. Claw tufts and tenent hairs lacking. Spinnerets relatively small and compact. Anterior and posterior pairs of equal length. Colulus small, conical, closely clothed with hairs. Epigynum strongly sclerotized, usually with a pair of spines. Internal genitalia with small receptacula and convoluted ducts (Fig. 650). Embolus strongly filiform. Originating prolaterally and directed across to retrolateral surface before twisting forward to meet conductor. Conductor divided distally with embolus following outer branch (Fig. 648). Median apophysis well developed as a membranous structure which is never hooked. The median apophysis is lacking in the *bicolor* group of species.

Type species *Rubrius rufus* Berland 1931.

This genus includes some of the commonest and most conspicuous forest floor spiders. Only four species have been recorded previously. Three (*bicolor, rufa* and *mandibularis*) were originally placed in *Rubrius* while *pilosa* was placed in *Cambridgea.* The genus is very distinctive and cannot be confused with any other New Zealand genera, although in general appearance it may be mistaken in the field for *Amphinecta* which is often found associated with it. The spiders are usually found beneath and inside rotten logs or under stones on the forest floor although some have been recorded from tunnels in the ground. This latter occurrence would seem however to be fortuitious. Some species extend into the subalpine of the South Island. A small web is constructed but this may only function as a retreat. Young spiders have been found occupying cylindrical tubes, open at each end. The eggsac is purse-shaped and is hung from the substrate where the spider is found. Because these spiders are readily trapped in pitfalls and are undoubtedly active on the forest floor at night it is thought that most prey is captured by hunting.

Mamoea rufa (Berland) 1931

Figs. 645-649

1931 *Rubrius rufus,* Berland. Rec. Cant. Mus. 3(6): 361.

MALE

Measurements

Carapace	length 5.95	width 4.25
Abdomen	length 5.44	width 3.57

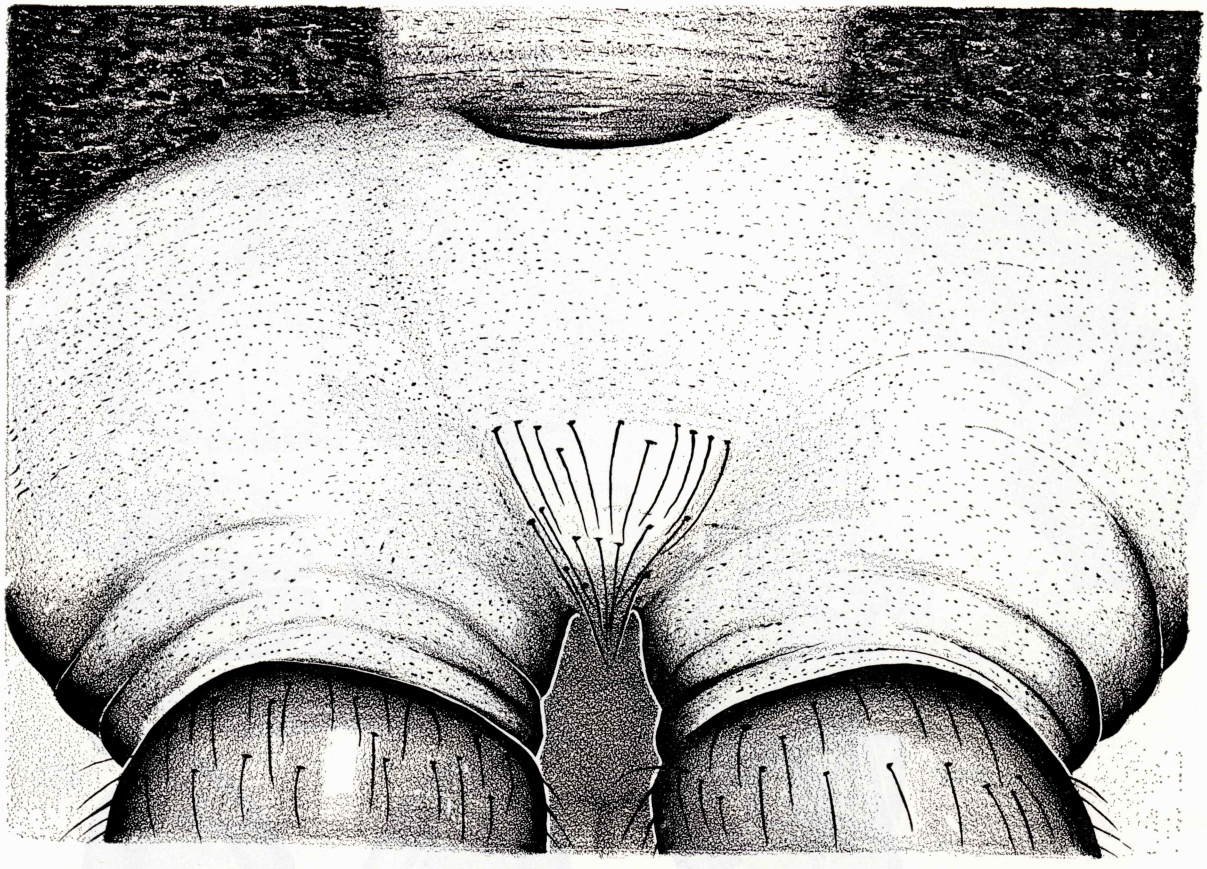


Fig. 646 *Mamoea rufa* (Berland) Colulus and base of anterior spinnerets.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.42	2.21	4.93	3.91	2.38	17.85
2	4.25	2.04	3.57	3.57	2.04	15.47
3	3.74	1.70	2.89	3.40	1.19	12.92
4	3.91	2.04	4.25	5.10	2.04	17.34
Palp	2.55	1.02	0.85		2.38	6.80

Colour Head region of cephalothorax dark red brown. Thoracic region paler with four streaks radiating out from fovea. Legs yellow brown with a few darker patches. Dorsal surface of abdomen heavily shaded but seven transverse bands and chevrons visible on the posterior portion separated by distinct pale areas. Ventral surface of adbomen with a distinct median longitudinal band and a few scattered dark patches.

Eyes Eyegroup occupies 2/5 of width of head. Ratio of AME.ALE.PME.PLE = 5.6.5.6. AME separated from each other by 4/5 and from the ALE by 6/5 of the diameter of an AME. Lateral eyes separated by 2/5. PME separated from each other by 7/5 and from the PLE by 9/5. MOQ wider behind than in front and wider behind than long in ratio of 17.14. Height of clypeus equal to 3/5 of diameter of an AME.

Chelicerae Retromargin with three, promargin with six teeth.

Legs Tibia on first leg v.2.2.2.2.2. Tibia of second leg v.2.2.2.2. Metatarsus of both first and second legs v.2.2.2.

Palp Palp as in Figs. 647, 648. Bulb extends back over tibia. Median apophysis small and finger-like as in *grandiosa*. Embolus slightly curved.

FEMALE

Measurements

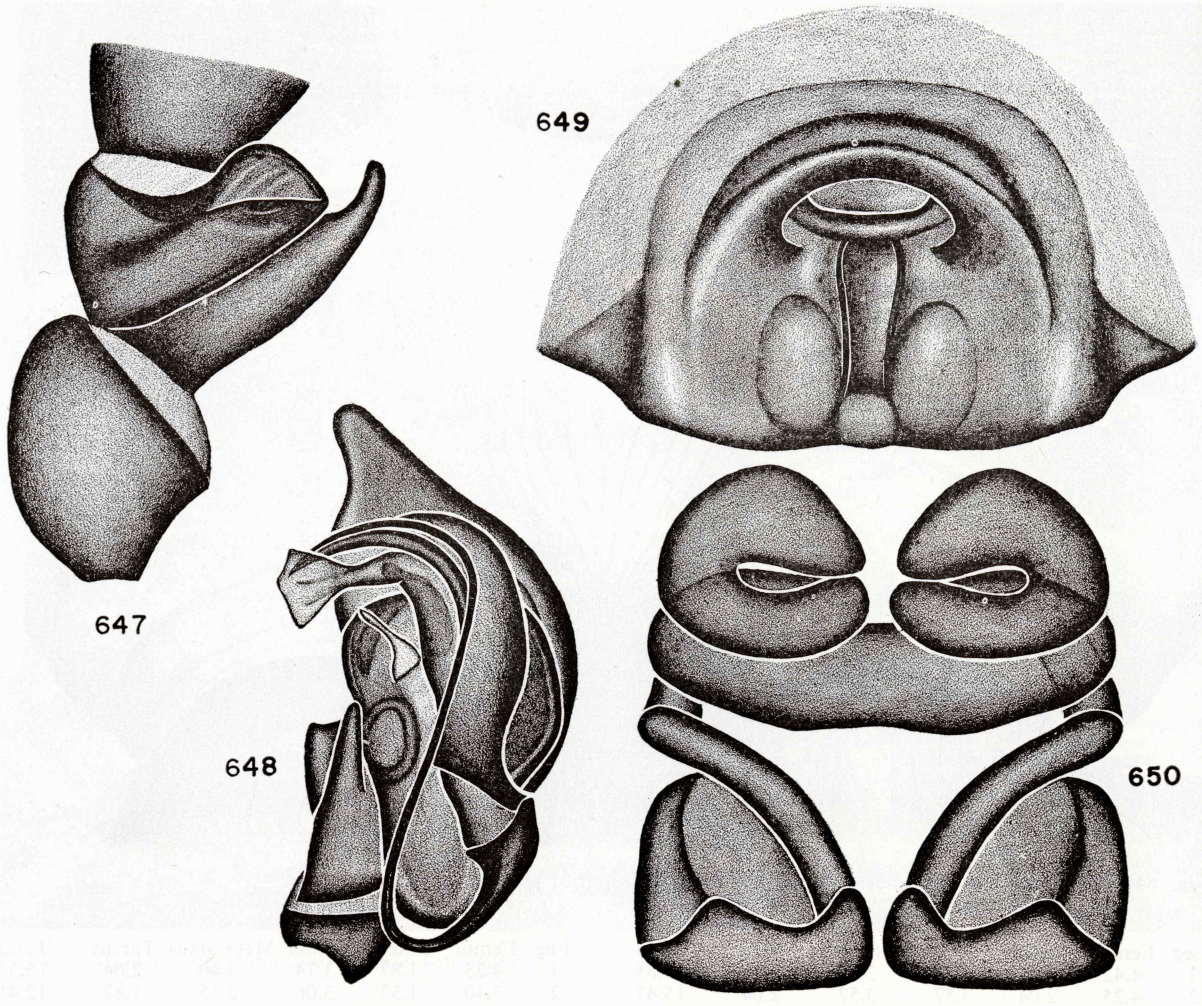
Carapace	length 5.78	width 4.08
Abdomen	length 5.95	width 4.25

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.25	1.87	3.74	3.40	2.04	15.30
2	3.40	1.53	3.06	2.55	1.87	12.41
3	3.40	1.36	2.89	2.72	1.70	12.07
4	4.42	1.87	4.76	4.93	2.04	18.02
Palp	2.04	1.02	1.53		2.04	7.13

Female similar to male in most characters. Four pairs of spines on ventral surface of tibia of first leg but otherwise spination as in male. Epigynum heavily sclerotized, as in Fig. 649.

Type Holotype female. Bluff. Hillside, 19.iii.-1923, G. Archey (Canterbury Museum).

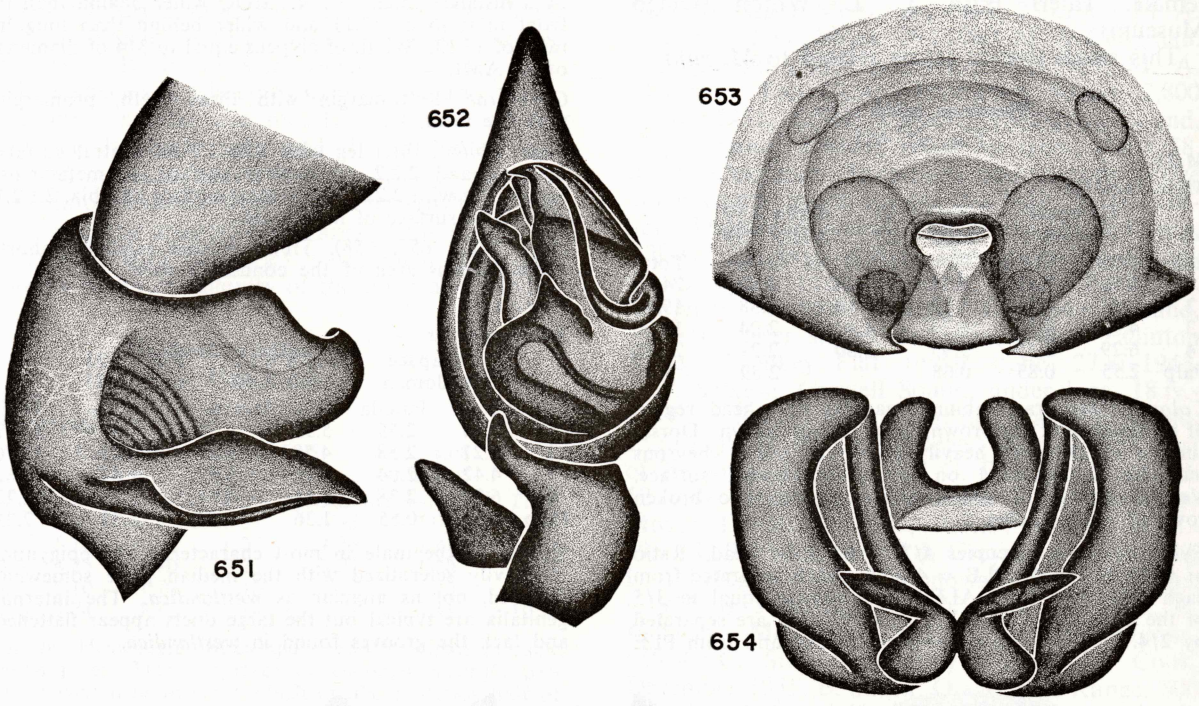
Records Otago. Papatowai, 19.i.1955, 23.ii.1952, B. J. Marples. 11.i.1961, R. R. Forster. Swampy Summit, Dunedin, in burrow in peat, 11.xi.1966, E. Cutler. Waipori Gorge, 18.xi.1966, R.R.F., C.L.W. Waipori Gorge, 8.xii.1966, R.R.F., C.L.W. Akatore, 16.iv.1966, C.L.W. Ross Creek, Dunedin, burrow in ground, B. E. Sutherland. Ross Creek, Dunedin, 28.i.1966, J. Sutherland. Bush near Taieri Mouth, Waihola Road, 26.xi.1966, C.L.W. Plant Reserve, Balclutha, 20.xi.1958, 21.iv.1966, R.R.F. Catlins, near Puketiro Road Jnt, 31.viii.1966, C.L.W. High Top, Silver Peaks, near Dunedin, 11.i.1970, J. Panting. Bull Creek, 14.v.1967, R. W. Hutton, C.L.W. Mt Watkin, 1,500 ft, 24.xii.1955, B. J. Marples. Flagstaff, Dunedin, pitfall traps, 29.xi.1970, 6.xii.1970, 27.xii.1970, 3.i.1971, 7-12.ii.1971, 21.iii.1971, 3.iv.1971, 11-29.iv.1971, C.L.W. Leith Saddle, Dunedin, pitfall traps, R.R.F. 17.i.1967, 25.i.1967, 20.v.1967, 17.iii.1967,



Figs. 647-650 *Mamoea rufa* (Berland). Fig. 647 Tibial processes of male palp. Fig. 648 Ventral view of male palp. Fig. 649 Epigynum. Fig. 650 Internal genitalia.

10.i.1968. Opoho Bush, Cemetery Road, Dunedin, pitfall traps, C.L.W. 10-17.xi.1970, 17-23.xi.1970, 23-30.xi.1970, 7-14.xii.1970, 14-21.xii.1970, 21-28.xii.1970, 28.xii.1970-4.i.1971, 28.xii.1970, 4.i.-1971, 4-11.i.1971, 11-18.i.1971, 18-25.i.1971, 25-31.i.1971, 1-8.ii.1971, 8-28.ii.1971, 1-15.v.1971. Central Otago pitfall trap survey all C.L.W. Pitfall Station 4. Summit Taieri Ridge-Deep Dell Fillyburn, 9.ii.1968, 18.iv.1968, 12.ix.1968, 27.i.1969, 16.ii.1969, 17.iv.1969. Pitfall Station 21, Highway 85 near Mt Swinburn, 14.iii.1968. Rock and Pillar Range Ecological Survey, J. Child. Station N2, East of Summit Rock, 2,000 ft, 18.xii.1968, 29.i.-1969, 18.i.1969, 10.iii.1969. Station S3, West of Middlemarch, Shady Gully, 3,000 ft, 8.ii.1969. Station S7, West of Middlemarch, 3,500 ft, 8.ii.-1969. Foot of Tor, Station S5, West of Middlemarch, 3,500 ft, 31.xii.1968, beside stream. Station N5, 1 mile south of Summit Rock, 8.ii.1969 at Ski Hut, 4,500 ft, Cushion vegetation. Station N6, half mile north of Summit Rock at Geography Stn, 31.xii.1968, 4.500 ft, cushion vegetation. Station S6, West of Middlemarch, 3,500 ft, among Tors, 31.xii.1968. Black Umbrella Range, Hakarere Stn, 3,000 ft, 12.ii.1963, W. Ramsay. Double Hill, Waitati, November 1961, W. Poppelwell. Dunedin Botanical Gardens, 12.i.1960, J. Kikkawa. Signal Hill, Dunedin, under logs and stones, 1.ii.1958, R.R.F. Opoho Bush, Dunedin, January 1946, J. M. Smith. Croydon Bush, Gore, 17.ii.1966, R.R.F., C.L.W. Tapanui, November 1958, R.R.F. Blue Mountains, Tapanui, tussock above Whisky Valley, 26.ii.1966, J. Sutherland. Canterbury, Peel Forest, 20.i.1951, R.R.F. Southland. Otautau Beech Forest, under logs, 13.iv.1963, R.R.F. Monowai, 14.i.1971, R.R.F. Waimeamea Road, Orepuki, 26.xi.1970, C.L.W., R.R.F. Colac Bay area, 24.xi.970, R.R.F., C.L.W. Between Lake George and Orepuki, 21.v.1962, B. J. Marples.

This species was described by Berland from Campbell Island but it appears that a tube of spiders collected from the port of Bluff while awaiting the sailing of the expedition ship was sent to Berland along with the Campbell Island material. The type locality is Bluff and the genus is not recorded south of Stewart Island. The species ranges over the southern portion of the east coast of the South Island.



Figs. 651-654 *Mamoea unica* n.sp. Fig. 651 Tibial processes of male palp. Fig. 652 Ventral view of male palp. Fig. 653 Epigynum. Fig. 654 Internal genitalia.

Mamoea unica n.sp.

Figs. 651-654

MALE

Measurements

Carapace	length 3.30	width 2.50	
Abdomen	length 3.75	width 2.10	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.05	1.30	3.35	3.00	1.45	12.15
2	2.50	1.15	2.20	2.25	1.15	9.25
3	2.15	1.05	1.70	2.10	0.95	7.95
4	2.95	1.10	2.70	3.20	1.25	11.20
Palp	1.25	0.50	0.50		1.50	3.75

Colour Carapace pale orange yellow with lateral surfaces of the head, upper lateral surfaces and posterior slope shaded with black but without black shading on lateral margins. Sternum pale cream with dark shading on posterior projection and on areas adjacent to each of the coxae. Abdomen pale cream with a few dark flecks on lateral surfaces. A dark median band becomes a herringbone pattern on the posterior half. On each side of ventral surface a dark band extends between book-lung openings and spinnerets. Bands curved so that the convexities of curves are towards each other. Posteriorly bands connected to each other by a triangular dark patch just in front of spinnerets.

Eyes Group occupies 3/5 of width of head. From above the posterior row straight and anterior row slightly recurved. From in front both rows procurved. Ratio of AME.ALE.PME.PLE = 5.7.6.6. AME separated from each other and from ALE by a distance equal to 3/5 of diameter of an AME. Laterals separated by 3/5. PME separated from each other and from the PLE by 6/5. MOQ wider behind than in front in ratio of 18.13 and wider behind than long in ratio of 18.16. Height of clypeus equal to 9/5 of diameter of an AME.

Sternum Scutiform. Anterior margin straight. Posterior projection separates posterior coxae by half diameter of a coxa.

Maxillae Longer than wide in the ratio of 26.14 and twice length of labium.

Labium Wider than long in ratio of 14.13. Notched on each side at base. Distal margin indented.

Chelicerae Promargin with carina and four teeth. Retromargin with three teeth.

Palp Tibial processes and bulb as in Figs. 651, 652. Trichobothria. Tibia, in three rows, p. 2, d,r.4. Cymbium, 4.

Legs All trochanters notched. Ventral surfaces of tarsi lightly scopulate. Spines. First leg. Femur, d.1.1.0. p.0.1. r.0. Tibia, v.2.1.2.2.2.2.0. p,r.0. Metatarsus, v.1.2.2.0. p,r.0.0.1. Second leg Femur, same as first leg Tibia, v.1.2.2.2.2. p.0.1.1. r.0. Metatarsus, v.2.1.2.0. p.1.1.2. r.0.1.1. Trichobothria. First leg. Tibia, two rows of 4. Metatarsus, 7. Tarsus, 6. Superior claws with nine teeth, inferior claw with two teeth, the basal one smaller.

Abdomen Colulus conical with from ten to twelve setae. Posterior spinnerets as long as anterior spinnerets but more slender.

FEMALE

Measurements

Carapace	length 3.50	width 2.60	
Abdomen	length 5.20	width 3.50	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.00	1.25	2.90	2.15	1.30	10.60
2	2.55	1.20	2.20	2.00	1.05	9.00
3	2.35	1.15	1.75	2.10	0.95	8.30
4	3.15	1.20	2.95	3.30	1.15	11.75
Palp	1.20	0.60	0.95		1.30	3.05

Eyes Group occupies 3/5 of width of head. From in front both rows procurved and from above straight. Ratio of AME.ALE.PME.PLE = 5.7.6.7. AME separated from each other and from the ALE by a distance equal to diameter of an AME. Laterals separated by 4/5 PME separated from each other and from the PLE by 9/5. MOQ wider behind than in front in ratio of 21.15 and wider behind than long in ratio of 21.17. Height of clypeus equal to 11/5 of diameter of an AME.

Types Holotype male. Croydon Bush, Gore, 19.ii.1966, R. R. Forster, C. L. Wilton. Allotype

female. Taieri Bush, C. L. Wilton (Otago Museum).

This small species seems related to *M. rufa*.

Mamoea otira n.sp.

Figs. 655-658

MALE

Measurements

	Carapace		length 5.95		width 4.59	
	Abdomen		length 6.29		width 3.74	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.80	2.21	7.31	5.44	2.89	24.65
2	5.44	2.21	5.27	4.59	2.38	19.69
3	4.93	1.87	3.74	4.42	2.04	17.00
4	6.29	2.55	5.95	6.80	2.21	23.80
Palp	2.55	0.85	0.68		2.89	6.97

Colour Chelicerae, labium, maxillae and head region of carapace dark red brown. Legs orange brown. Dorsal surface of abdomen heavily pigmented but 6 chevrons may be distinguished on the postero-dorsal surface. Ventral surface of abdomen cream with two broken rows of dark patches.

Eyes Eyegroup occupies 4/7 of width of head. Ratio of AME.ALE.PME.PLE = 4.6.5.6. AME separated from each other and from ALE by a distance equal to 3/5 of the diameter of an AME. Lateral eyes are separated by 2/4. PME separated from each other and from PLE by a distance equal to 7/4. MOQ wider behind than in front in ratio of 17.11 and wider behind than long in ratio of 17.13. Width of clypeus equal to 3/4 of diameter of an AME.

Chelicerae Retromargin with three teeth, promargin with five teeth.

Legs Spines. First leg with 2.2.1.1.2 on ventral surface of tibia and 2.2.2 on ventral surface of metatarsus. Second leg with 2.2.2.2 on ventral surface of tibia, 2.1.2.1 on ventral surface of metatarsus.

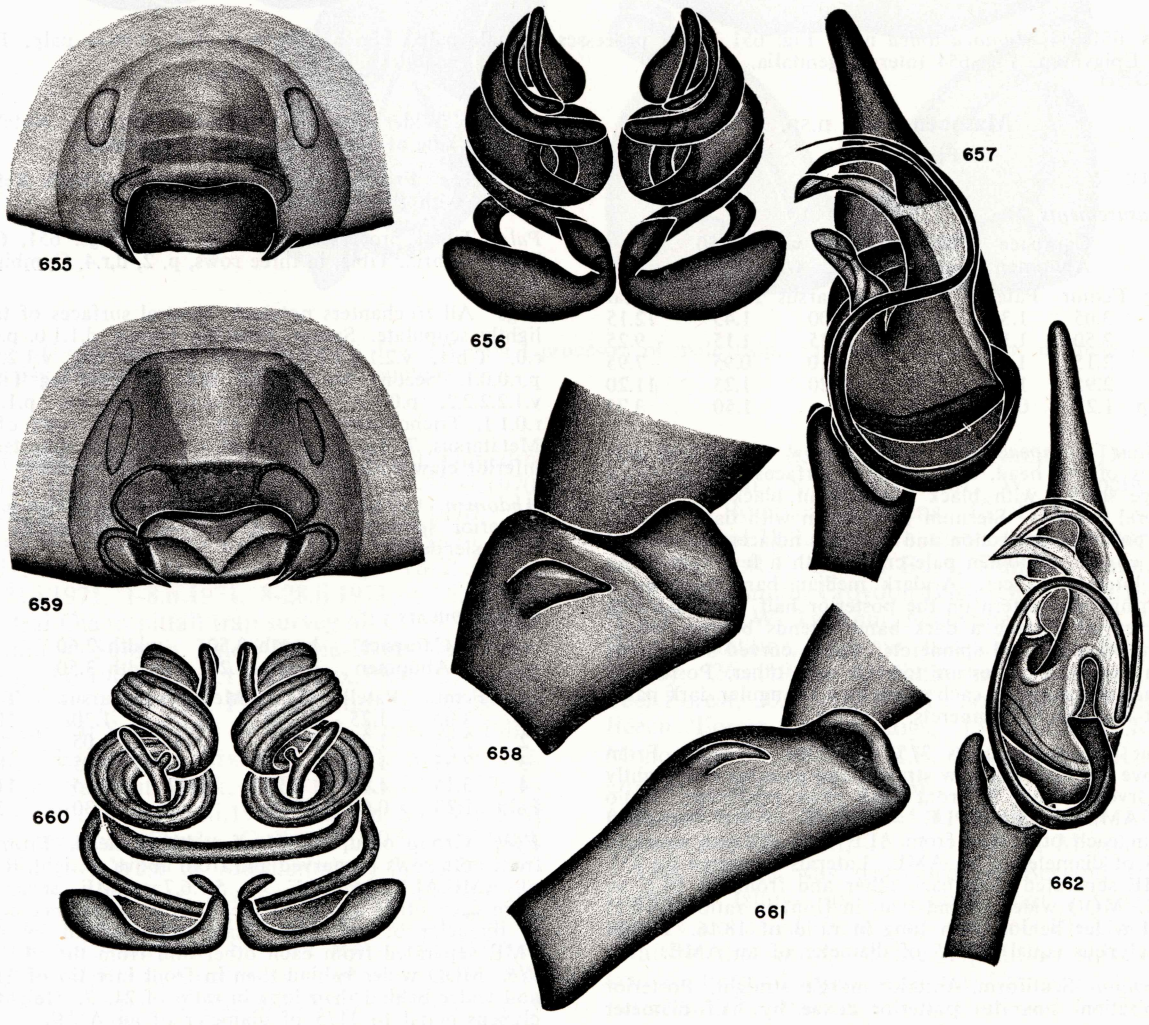
Palp (Figs. 657, 658). Tibial process relatively short. Membraneous area of the conductor short.

FEMALE

Measurements

	Carapace		length 6.12		width 4.25	
	Abdomen		length 8.84		width 4.25	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.44	2.55	5.95	4.76	2.55	23.97
2	5.27	2.38	4.59	4.25	2.21	18.70
3	4.42	2.04	2.72	3.57	1.87	14.62
4	6.29	2.38	5.61	5.61	2.38	22.27
Palp	2.55	0.85	1.36		2.55	7.31

Similar to the male in most characters. The epigynum is heavily sclerotized with the median plate somewhat rounded, not as angular as *westlandica*. The internal genitalia are typical but the large ducts appear flattened and lack the grooves found in *westlandica*.



Figs. 655-658 *Mamoea otira* n.sp. Fig. 655 Epigynum. Fig. 656 Internal genitalia. Fig. 657 Ventral view of the male palp. Fig. 658 Tibial processes of male palp. Figs. 659-662 *Mamoea westlandica* n.sp. Fig. 659 Epigynum. Fig. 660 Internal genitalia. Fig. 661 Tibial processes. Fig. 662 Ventral view of male palp.

Types Holotype male, allotype female. Westland. Kelly's Range, Otira, 4,000 ft, under stones, 26.iv.1956, R. R. Forster (Otago Museum).

This species is related to *westlandica* and *florae*. The three species are readily separated by the form of the male palp and the epigynum and internal genitalia which form a series of progressive simplifications from south to north. In the male palp the membraneous area of the conductor is reduced with the series *westlandica, otira* and *flora* as is the complexity of the internal genitalia.

Mamoea westlandica n.sp.

Figs. 659-662

MALE

Measurements

Carapace	length 5.95		width 4.08		
Abdomen	length 6.80		width 4.08		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.95	2.55	7.31	5.95	3.06	24.82
2	5.10	1.87	4.25	4.25	2.21	17.68
3	4.25	1.70	3.23	3.91	1.70	14.79
4	5.10	1.70	5.10	4.25	1.70	17.85
Palp	3.74	1.36	1.19		4.42	10.71

Colour Head region of carapace reddish brown, thoracic region paler. Dorsal surface of abdomen strongly patterned with median band which on the posterior half of surface extends laterally to form five pairs of chevrons. Pale areas on the lateral margin of median band enclosed by distinctive chevrons. Ventral surface of abdomen creamy white with few scattered black patches. Chelicera, labium and maxillae dark reddish brown. Sternum orange brown with darker chocolate shading along outer surfaces. Legs reddish brown with dark patches.

Eyes Eyegroup occupies half of diameter of head. From above both rows are straight. Ratio of AME.ALE. PME.PLE = 5.7.5.6. AME separated from each other and from ALE by a distance equal to 3/5 of diameter of an AME. Lateral eyes separated by 3/5. PME separated from each other by 7/5 and from the PLE by 8/5. MOQ wider behind than in front and wider behind than long in ratio of 17.13. Height of clypeus 4/5 of diameter of an AME.

Chelicerae Strong with a prominent lateral boss. Retromargin with four teeth, promargin with 10 teeth. The fang is long.

Legs Metatarsus of first leg with v.1.2.2.2.1 spines. Second leg with v.2.2.2 on both tibia and metatarsus.

Palp (Figs. 661-662). Retrolateral tibial process spiniform. Embolus strong and widely curved so that base is visible beyond cymbium when viewed retrolaterally. Conductor with large membraneous sheath.

FEMALE

Measurements

Carapace	length 5.95		width 4.08		
Abdomen	length 6.12		width 3.91		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.59	2.04	4.42	3.91	2.21	17.17
2	3.91	2.04	3.40	3.23	1.70	14.28
3	3.06	1.36	2.72	2.89	1.53	11.56
4	4.93	2.04	4.59	4.59	1.87	18.02
Palp	2.38	0.85	1.70		2.38	7.31

General characters similar to the male. Epigynum as in Figs. 659. Internal genitalia consist of a broad, flattened duct coiled around the more slender duct returning to basal vesicle. This thinner duct with a small accessory lobe near the mid length. External opening from an oval opening in the transverse portion of the larger duct.

Types Holotype male, allotype female. Fiordland. Lake Te Au, south arm of Te Anau, 12.i.-1953, R. R. Forster (Otago Museum).

Records Lake Monk, dry bark, 23.i.1960, M. A. Chapman. Lake Monk, 29.i.1960, M. A. Chapman. Lake Monk, under fallen log, 17.i.1960, M. A. Chapman. Top Camp, Thompson Sound, 2,800 ft, 18.i.1958, E. G. Turbott. Thompson Sound, Upper camp, 2,800 ft, moss on trees, 20.i.1958, R. A. Chapman. Thompson Sound, tops above upper camp, under stones, 19.i.1958, E. G. Turbott. Thompson Sound, tops above Upper Camp, 3,200 ft, 21.i.1958, R.R.F. Thompson Sound, tops above upper camp, 3,000 ft, 21.i.1958, R. A. Chapman. Kakapo Ridge, Thompson Sound, 3,400 ft, under stones, 21.i.1958, R.R.F. Eglinton Valley, Monkey Flat, under stone, 27.xii.1943, J. T. Salmon. Caswell Sound, under logs, 18.iv.-1949, R.R.F. Leslie Clearing, Caswell Sound, 15.iii.1949, R. K. Dell. Rugged Burn Valley, west of Te Anau, 15-18.ii.1953, G. Ramsay. Westland. 12 mile Greymouth, 20.i.1950, L. P. Hughson. Mount Davie, 24.i.1950, R.R.F. Moana, 10.iii.-1950, R.R.F. Marsden Rd, Greymouth, 1.xi.1950, L. P. Hughson. Near Monowai, above bushline, v.1953, B. J. Marples. Fox's Ck, 4.v.1956, L. R. Jackson. Moana, 10.iii.1950, R.R.F. Moana, i.1954, C. Sinclair. Godley Valley, Mt Cook, December 1955, B. Smirk. Otago. Pisa Range, 300 ft, below Lake McKay, 5,300 ft, 24.i.1970, D. R. Forster.

Mamoea maorica n.sp.

Figs. 663-666

FEMALE

Measurements

Carapace	length 3.74		width 2.72		
Abdomen	length 4.93		width 2.72		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.06	0.85	3.06	2.38	1.38	10.73
2	2.38	1.19	2.38	2.21	1.19	9.35
3	2.38	1.02	2.04	2.04	0.68	8.16
4	3.23	1.02	2.72	3.57	1.53	12.07
Palp	1.53	0.51	1.02		1.53	4.59

Colour Head region of carapace pale reddish brown with grey shading on lateral surfaces. Thoracic region yellow brown. Chelicerae, labium and maxillae reddish brown. Sternum orange brown with darker marginal shading. Legs yellow brown with bands of darker shading. Abdomen cream with dark median longitudinal band on dorsal surface which has a pale median area to half way where it is expanded laterally over posterior half into six or seven chevrons. Three parallel longitudinal bands extend down ventral surface with two outer bands joining posteriorly in front of spinnerets.

Eyes Eyegroup occupies 2/3 of width of head. From above both rows are straight. Ratio of AME.ALE.PME. PLE = 4.5.4.5. AME separated from each other and from ALE by 2/4 of the diameter of an AME. Lateral eyes separated by a distance equal to 3/4. PME separated from each other by 4/4 and from the PLE by 5/4. MOQ wider behind than in front in ratio of 14.10 and wider behind than long in ratio of 14.11. Height of clypeus equal to 3/4 of diameter of an AME.

Chelicerae Retromargin with three, promargin with five teeth.

Legs First leg with v.2.2.2.2.2.1 spines on tibia and v.2.2.2 on metatarsus. Second leg with v.2.2.2.2.1 on tibia and v.2.2.2 on metatarsus.

Abdomen Epigynum strongly sclerotized with a prominent median lobe (Fig. 663). Internal genitalia relatively simple as in Fig. 664.

MALE

Measurements

	Carapace	length 3.74		width 2.72	
	Abdomen	length 3.91		width 2.38	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.74	1.36	4.42	3.74	1.70	14.96
2	3.23	1.19	3.06	2.55	1.70	11.73
3	2.55	0.85	2.04	3.74	1.02	10.20
4	3.40	1.02	3.06	3.40	1.36	12.24
Palp	1.70	0.51	0.51		1.70	4.42

Similar to the female. The palp is shown in Figs. 665, 666. Tibial process strongly developed. Embolus relatively short and not strongly curved.

Types Holotype female, Wellington. Keith George Park, Silverstream, 21.v.1950, R. R. Forster. Allotype male, same locality, 6.i.1955, A. Richards (Dominion Museum).

Records Wellington. Kapiti Is., v.1947, R.R.F. Kapiti Is., 13.xii.1958, J. Kikkawa. Kapiti Is., 20.x.1946, M. Ross. Karori, under stones, 18.vi.-1942, R.R.F. Karori, 16.vi.1942, R.R.F. Waikanae, foliage, 3.i.1948, R.R.F. Tararua Ranges, Field's Hut, 7.xii.1952, B. A. Holloway. Taranaki. Mt Egmont, above Stratford House, 23.iii.1969, R.R.F., C.L.W. Manawatu, Waituna West, 27.v.-1967, R. W. Hutton. Wairarapa, Mangareia, 10.i.1958, C.L.W. Mangareia, November 1957, C.L.W.

Mamoea florae n.sp.

Figs. 667-670

MALE

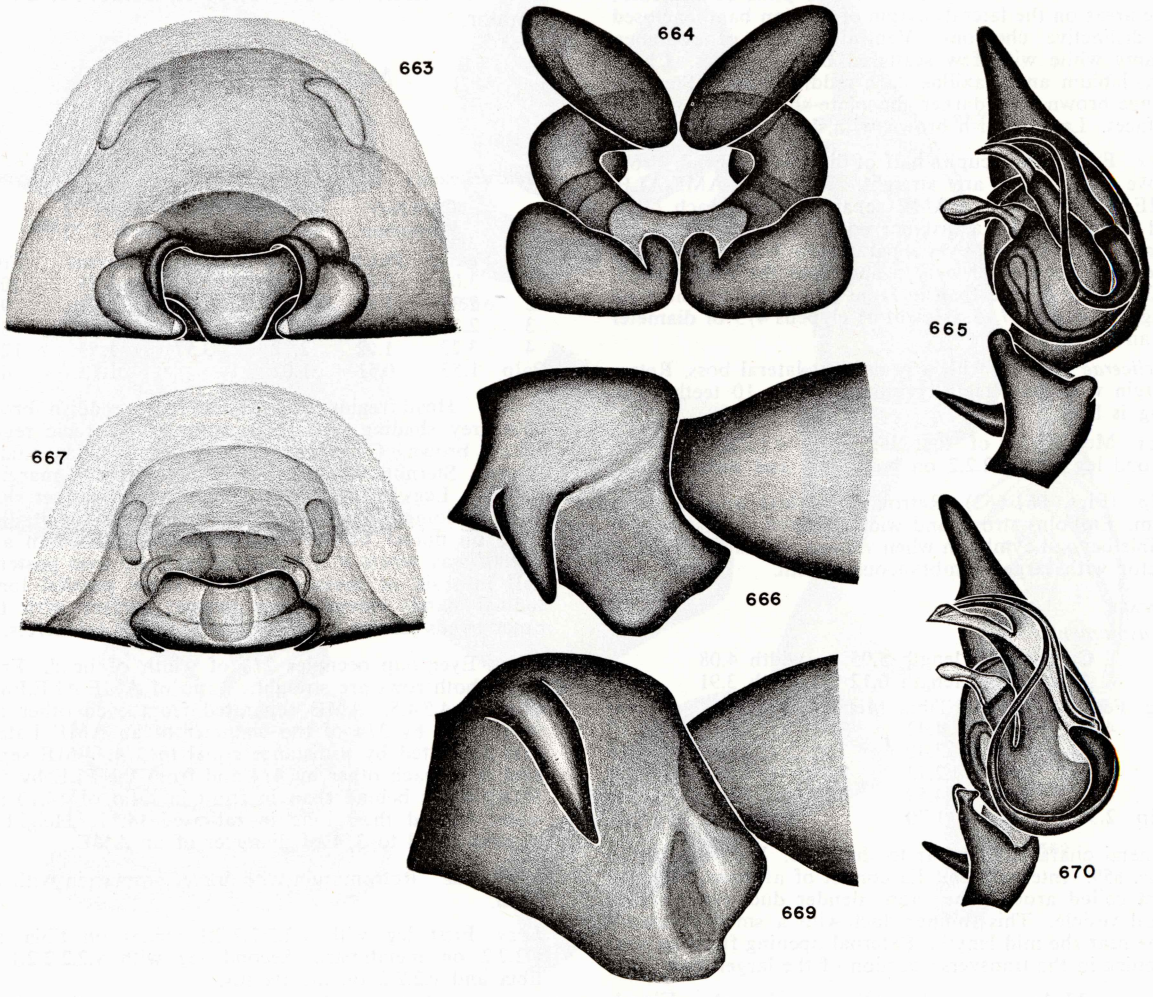
Measurements

	Carapace	length 4.59		width 3.57	
	Abdomen	length 5.10		width 3.06	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.57	1.36	5.10	4.25	2.04	16.32
2	2.89	1.19	3.23	3.23	1.70	12.24
3	2.72	1.02	2.21	2.72	1.19	9.86
4	4.25	1.53	3.57	3.91	1.19	14.45
Palp	1.87	0.68	0.51		2.38	5.44

Colour Carapace and chelicerae dark red brown. Legs yellow brown. Dorsal surface of abdomen with five chevrons on posterior half.

Eyes Eyegroup occupies 3/5 of width of head. Ratio of AME.ALE.PME.PLE = 4.5.4.5. AME separated from each other and from the ALE by a distance equal to 3/4 of diameter of an AME. Lateral eyes separated by the same distance. PME separated from each other by a distance equal to 7/4 and from the PLE by 6/4. MOQ wider behind than in front in ratio of 15.11 and wider behind than long in ratio of 15.13. Height of clypeus equal to 3/4 of diameter of an AME.



Figs. 663-670 *Mamoea maorica* n.sp. Fig. 663 Epigynum. Fig. 664 Internal genitalia. Fig. 665 Ventral view of male palp. Fig. 666 Tibial processes of male palp. Figs. 667-670 *Mamoea florae* n.sp. Fig. 667 Epigynum. Fig. 668 Internal genitalia. Fig. 669 Tibial processes of male palp. Fig. 670 Ventral view of male palp.

Chelicerae Retromargin with three widely separated teeth. Promargin with a single tooth near the base of the fang and four further teeth at proximal margin of the groove.

Legs First leg with v.2.2.2.2.2 spines on tibia and v.2.2.2 spines on metatarsus. Second leg with v.1.2.2.2.2.1 spines on tibia and v.2.2.2 spines on metatarsus.

Palp The form of the palp is shown in Figs. 669, 670.

FEMALE

Measurements

Carapace length 5.10 width 4.08
Abdomen length 6.80 width 4.25

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.42	1.87	5.10	3.91	2.21	17.51
2	4.08	1.87	3.74	3.40	1.70	14.79
3	3.40	1.36	3.23	3.06	1.53	12.58
4	3.06	1.70	4.59	5.10	1.70	16.15
Palp	1.87	0.68	1.53		2.21	6.29

Similar to the male in most characters. There is an extra pair of spines on ventral surface of tibiae of first and second pairs of legs. Epigynum and internal genitalia as in Figs. 667, 668.

Types Holotype male. Nelson. Mount Arthur Tableland, 4,600 ft, under logs, 20.ii.1946, J. T. Salmon. Allotype female. Mt Arthur Tableland, 22.i.1948, R. R. Forster (Dominion Museum).

Records Nelson. Canaan Track, 25.ix.1948, R. A. Cumber. Canaan, Takaka Hill, 3.ii.1963, G. Ramsay. Flora Track, under logs, 5.iv.1946, R.R.F. Lower Flora Track, under log, 20.i.1948, R.R.F. Flora Hut, under logs, 22.i.1948, R.R.F. Leslie River Track, under logs, 24.i.1948, R. K. Dell. Leslie Valley Track, under log, 24.i.1948, R.R.F. Buller Gorge, 14.viii.1963, B. J. Marples. Wairoa Gorge, Nelson, March 1966, C.L.W. Mt Arthur Tableland, 22.i.1948, R.R.F. Mount Arthur Track, 3,500 ft, under log, 22.i.1948, R.R.F. Mt Arthur Tableland, 4,600 ft, under logs, 20.ii.1946, J. T. Salmon. North Branch of Riwaka, 22.vi.1965, C.L.W. Mt Balloon, 4,400 ft, under stone, 26.i.1948, R.R.F. Takaka Hill, under logs, 2,600-3,000 ft, 10.v.1950, J. Marston.

Mamoea rakiura n.sp.

Figs. 671-675

MALE

Measurements

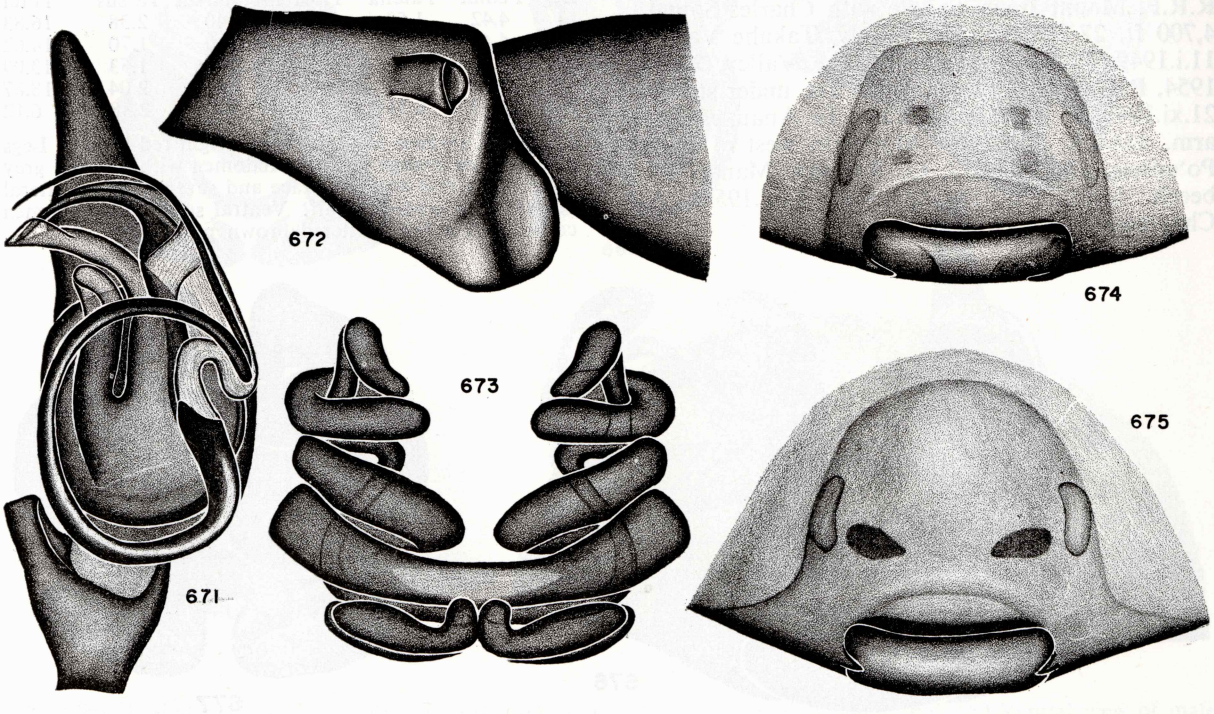
Carapace length 5.95 width 3.91
Abdomen length 5.10 width 3.23

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.59	1.19	4.76	3.91	1.70	16.15
2	3.91	1.70	3.23	3.23	1.70	13.77
3	3.06	1.70	2.55	2.89	1.53	11.73
4	4.59	1.87	4.25	4.42	1.70	16.83
Palp	2.38	1.02	0.85		3.23	7.48

Colour Carapace dark reddish brown, somewhat lighter on thoracic region. Legs yellow brown with faint markings. Sternum reddish brown with marginal shading. Dorsal surface of abdomen heavily shaded with black but with from 5 to 6 transverse bands on posterior half. Ventral surface cream apart from two broken longitudinal bands.

Eyes Eyegroup occupies 4/9 of diameter of head. From above both rows are straight. Ratio of AME.ALE.PME. PLE = 4.7.6.7. AME separated from each other and from the ALE by a distance equal to diameter of an AME. Lateral eyes separated by a distance equal to 2/4 of diameter of an AME. PME separated from each other by 6/4 and from the PLE by 9/4. MOQ wider behind than in front in ratio of 9.6 and wider behind than long in ratio of 9.7. Height of clypeus equal to 1/2 diameter of an AME.

Chelicerae Chelicerae furrow long. Four teeth on retromargin and eight on promargin.



Figs. 671-675 *Mamoea rakiura* n.sp. Fig. 671 Ventral view of male palp. Fig. 672 Tibial processes of male palp. Fig. 673 Internal genitalia. Fig. 674 Epigynum. Fig. 675 Epigynum (Otautau).

Legs Spines. Tibia of first leg v.2.2.2.2.2. Second leg v.2.2.2.2. Metatarsi of first and second pairs with v.2.2.2.

Palp (Figs. 671, 672) Tibial process short and excavated apically. Distal plate well developed. Embolus strongly curved.

FEMALE

Measurements

	Carapace		length 5.27		width 4.08	
	Abdomen		length 6.80		width 3.91	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.25	1.70	2.55	3.06	1.70	13.26
2	3.40	1.70	2.38	1.70	3.23	12.41
3	2.89	1.70	2.21	2.89	1.53	11.22
4	4.42	1.87	3.57	4.08	1.87	15.81
Palp	1.53	0.68	1.36		2.04	5.61

Similar to male. Epigynum relatively simple. (Figs. 674, 675). Internal genitalia as in Fig. 673.

Type Holotype male, allotype female. Southwest Stewart Is. Easy Cove, 26.i.1955, R. K. Dell, B. A. Holloway (Dominion Museum).

Records Stewart Island. Easy Cove, 26.i.1955, R. K. Dell, B. A. Holloway. Masons Bay, 14.iii.-1949, O. Allan. Ringaringa, under stones in splash zone, 12.x.1954, G. A. Knox. Lords River, northern entrance in *Senecio* shrub, 29.i.1955, R. K. Dell, B. A. Holloway. Bravo, under log, 23.xi.-1946, 23.xi.1946, R.R.F. Thief Point, Port Adventure, 22.i.1955, R. K. Dell, B. A. Holloway. Solander Is., Foveaux Strait, 20.v.1956, R. K. Dell. Southland. Otautau, under logs, 13.iv.1963, Rowallan Stm. Te Wae Wae Bay, 2.iii.1970, C.L.W. Tuatapere, 19.v.1962, B. J. Marples. Westland. Okarito, 17.xii.1949, R.R.F. Kokuputuki, November 1945, La Roche. Fiordland. Lake Manapouri, 12.ii.1946, R.R.F. Lake McKerrow, seaward end, 30.i.1955, R.R.F., J. S. Dugdale. Hollyford, Gunns Camp, 17.v.1960, J. Winter. Head of Chesterburn, 3,000-4,000 ft, 14-17.ii.1953, B. Wisely. Martins Bay, under logs, 28.i.1955, R.R.F. Mount Irene, Saddle with Charles Sound, 4,700 ft, 27-29.i.1953, B. Wisely. Takahe Valley, 11.i.1949, J. H. Sorensen. Takahe Valley, 20.ii.-1954, P. C. Bull. Grant-Talbot Pass, under stones, 21.xi.1943, J. T. Salmon. Lake Te Anau, middle arm, 4,000 ft, 22.v.1962. Mountain west of Lake Po'eriteri, 12-13.ii.1953, G. Ramsay. Manapouri, beech forest, in rotting log, 4.xii.1959, A. Chapman.

Mamoea montana n.sp.

Figs. 646-647

FEMALE

Measurements

	Carapace		length 4.30		width 3.20	
	Abdomen		length 5.40		width 3.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.40	1.70	3.15	2.70	1.65	12.60
2	3.00	1.50	2.50	2.35	1.40	10.75
3	2.50	1.50	2.15	2.60	1.20	9.95
4	3.55	1.65	3.40	4.00	1.45	14.05
Palp	1.55	0.85	1.15		1.70	5.25

Colour Carapace orange brown and slightly darker anteriorly. Partial dark bands on ventral surfaces of third and fourth pairs of legs. Abdomen brownish grey with dark longitudinal band on anterior surface followed by series of six dark chevrons. Ventral surface of abdomen pale and sparsely flecked.

Eyes Group occupies slightly more than half width of head. Ratio of AME.ALE.PME.PLE = 6.9.8.9. AME separated from each other by a distance equal to 3/6 and from ALE by 2/6 of diameter of an AME. PME separated from each other and from the PLE by 7/6. MOQ wider behind than in front in ratio of 23.15 and wider behind than long in ratio of 23.19. Height of clypeus equal to 8/6 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* are normal.

Legs and *palps* with normal spination.

Abdomen Epigynum and internal genitalia as shown in Figs. 676, 677.

Type Holotype female. Near Esquilant Bivouac, Rees Valley, 5,500 ft, in scree, 4.i.1972, Sue Forster (Otago Museum).

Mamoea grandiosa n.sp.

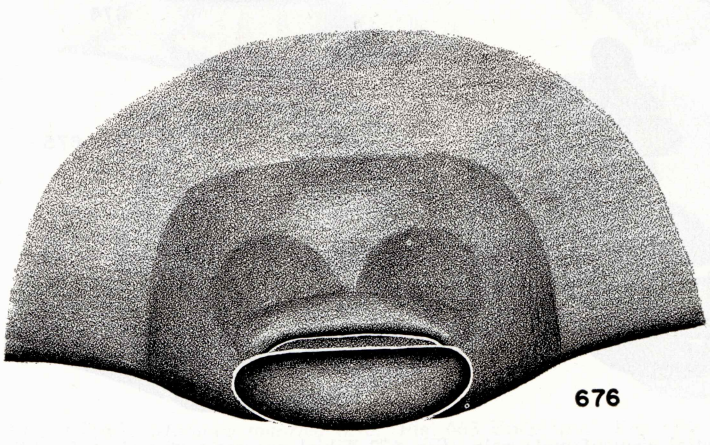
Figs. 678-681

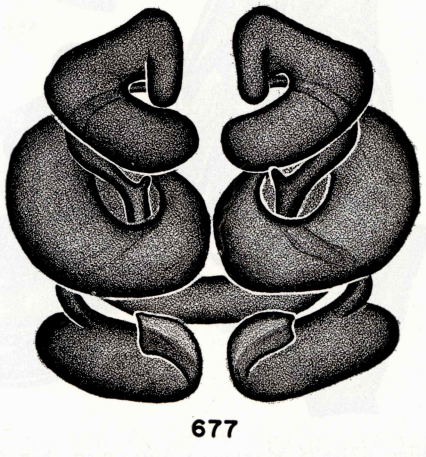
MALE

Measurements

	Carapace		length 5.95		width 5.10	
	Abdomen		length 5.95		width 5.10	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.42	1.53	5.10	3.40	2.38	16.83
2	4.42	1.19	3.91	4.30	1.70	14.62
3	3.91	1.19	2.89	3.57	1.53	13.09
4	5.61	1.53	4.42	5.27	2.04	18.87
Palp	2.55	0.51	0.68		2.38	6.12

Colour Carapace and chelicerae bright red brown. Legs and sternum orange brown. Abdomen with a broad grey band down mid-dorsal surface and seven pairs of lateral branches on posterior half. Ventral surface of abdomen cream with a few scattered brown patches.





Figs. 676-677 *Mamoea montana* n.sp. Fig. 676 Epigynum. Fig. 677 Internal genitalia.

Eyes Eyegroup occupies 5/9 of width of head. Ratio of AME.ALE.PME.PLE = 6.7.6.7. AME separated from each other by 3/6 and from the ALE by 4/6 of diameter of an AME. Lateral eyes separated by 3/6. PME separated from each other by 8/6 and from the PLE by 9/6. MOQ wider behind than in front in ratio of 20.15 and wider behind than long in ratio of 20.16. Height of clypeus equal to 5/6 of width of an AME.

Chelicerae Retromargin with four teeth, promargin with seven.

Legs Spines. First leg with v.2.2.2.2.1 on the tibia and v.2.2.1 on the metatarsus. Second leg with v.2.2.2.2 on the tibia and v.2.2.2 on the metatarsus.

Palp Tibial process in the form of a large excavated plate (Fig. 681). Bulb large and extends back beyond the tibia. Median apophysis small and digitiform.

FEMALE

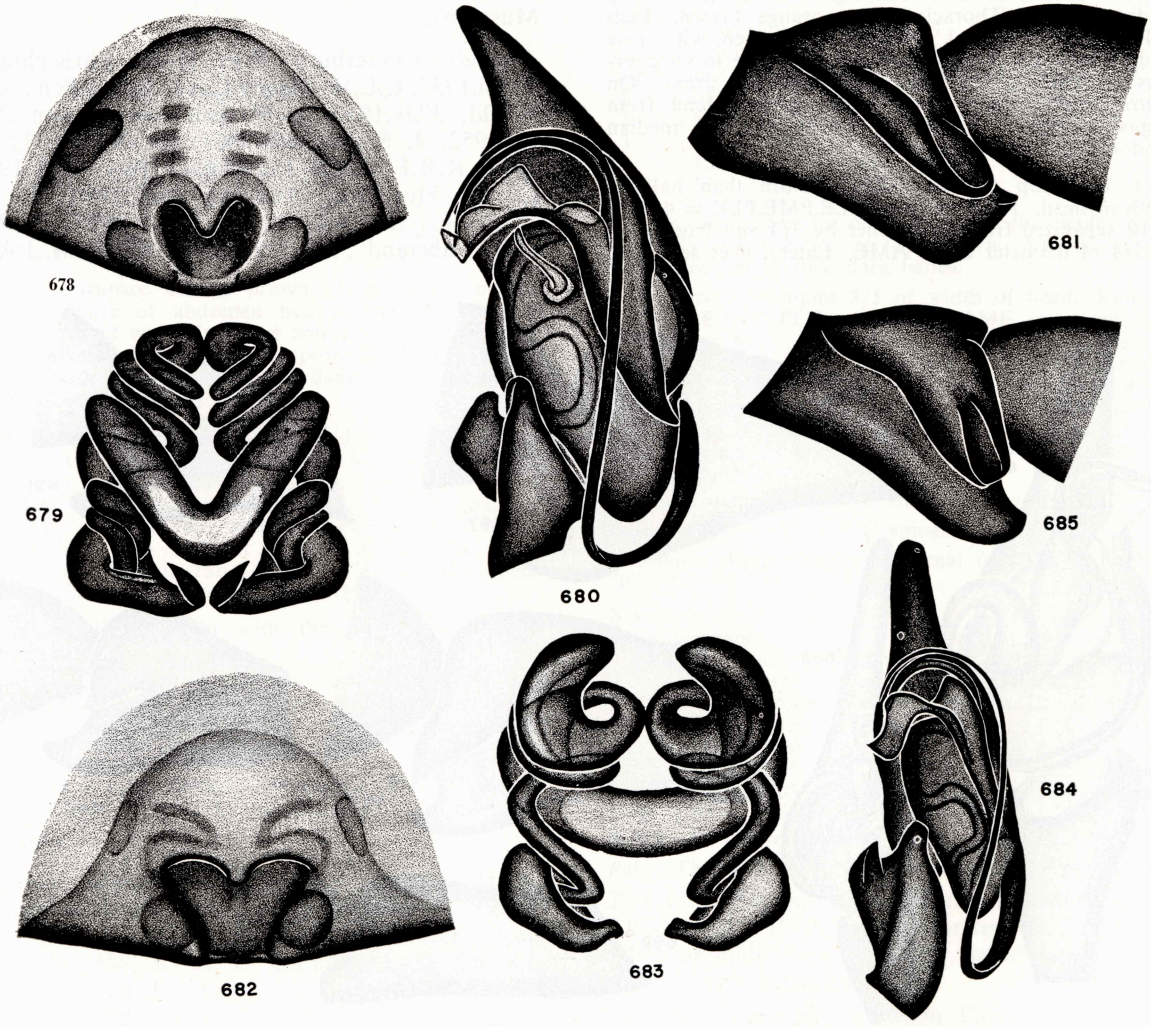
Measurements

	Carapace		length 5.44		width 4.25	
	Abdomen		length 6.29		width 4.42	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.59	1.70	3.74	2.72	1.87	14.62
2	4.08	1.70	3.57	2.89	1.53	13.77
3	3.40	1.70	2.38	2.72	1.70	11.90
4	4.25	1.70	3.91	5.10	1.70	16.66
Palp	2.55	0.68	1.53		1.70	6.46

Similar to the male. The epigynum is distinctive and as in Fig. 678. Internal genitalia as in Fig. 679.

Types Holotype male, allotype female. Southeast Stewart Is. Solomon Is., 25.i.1955, B. A. Holloway (Dominion Museum).

Records Stewart Is. Easy Cove, S.W. Stewart Island, 25.i.1955, R. K. Dell. Solomon Island, S.W. Stewart Island, 25.i.1955, B. A. Holloway. Oban, January 1956, I. Mannering. Stewart Island, 25.xi.1965, T. Bruce. Crooked Reach, Port Pegasus, 22.i.1955, R. K. Dell, B. A. Holloway. Hidden Island, 28.i.1955, R. K. Dell, B. A. Holloway. Rakeahua, under logs, 6.iv.1942, B. J. Marples. Thief Point, Port Adventure, 22.i.1955, R. K. Dell, B. A. Holloway. N.E. Long Island, off Stewart Island, under log in forest, 9.xi.1968, R. K. Dell. Pukewera Is., 24.i.1955, R. K. Dell, B. A. Holloway. Tommy Island, 31.viii.1948, R. K. Dell. Halfmoon Bay, April 1949, O. Allan. Raroa Reserve, 30.x.1948, R. K. Dell. Northern Section, Stewart Island, 24.i.1955, R. Hatcher. Horseshoe Bay, 21.xi.1946, R.R.F. Golden Bay, January 1961, M. N. Watt. Golden Bay, 25.xi.-



Figs. 678-681 *Mamoea grandiosa* n.sp. Fig. 678 Epigynum. Fig. 679 Internal genitalia. Fig. 680 Ventral view of male palp. Fig. 681 Tibial processes of male palp. Figs. 682-685 *Mamoea pilosa* (Bryant). Fig. 683 Internal gentiala. Fig. 684 Ventral view of male palp. Fig. 685 Tibial processes of male palp.

1961, R.R.F., 15.xi.1961, R.R.F. Big South Cape Island, 17.vii.1948, C. J. Lindsay. Big South Cape Is., base of tussock, 10.xi.1968, J. C. Watt. Big South Cape Is., 13.ii.1969, B. A. Kuschel. Maori Bay, 25.xi.1946, R.R.F. Head of Lords River, S.E. Stewart Is., 6.xi.1960, R. G. Ordish. Southland. Orepuki, 1,000 ft, 26.xii.1949, J. H. Sorensen. Otago. Tapanui, 25.i.1951, R.R.F.

Mamoea pilosa (Bryant)

1935 *Cambridgea pilosa,* Bryant. Rec. Cant. Mus. 4(2): 75.

Figs. 682-685

FEMALE

Measurements

	Carapace		length 4.76		width 4.25	
	Abdomen		length 6.29		width 4.25	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.74	1.70	3.57	3.06	1.53	13.60
2	3.40	1.53	2.72	2.55	1.53	11.73
3	2.89	1.70	2.04	2.55	1.19	10.37
4	3.74	1.70	3.57	3.40	1.53	13.94
Palp	1.87	0.85	1.19		1.70	5.61

Colour Chelicerae and head region of carapace dark reddish brown. Thoracic region orange brown. Legs yellow brown. Dorsal surface of abdomen with pale median band on anterior half and from five to six chevrons on posterior half, separated by pale areas. On ventral surface two curved dark bands extend from epigastric groove to midway where a single median band extends to spinnerets.

Eyes Eyegroup occupies slightly more than half of width of head. Ratio of AME.ALE.PME.PLE = 4.5.5.5. AME separated from each other by 3/4 and from ALE by 5/4 of diameter of an AME. Lateral eyes separated by 2/4. PME separated from each other by 6/4 and from the PLE by 7/4. MOQ wider behind than in front and wider behind than long in ratio of 16.11. Height of clypeus slightly less than diameter of an AME.

Chelicerae Retromargin with three, promargin with five teeth.

Legs Spines. First pair of legs with v.2.2.2.2.1 on the tibia and v.2.2.2 on the metatarsus. Second pair with v.1.2.2.2.1 on the tibia and v.2.2.2 on the metatarsus. Epigynum as shown in Fig. 682. Internal genitalia as in Fig. 683.

MALE

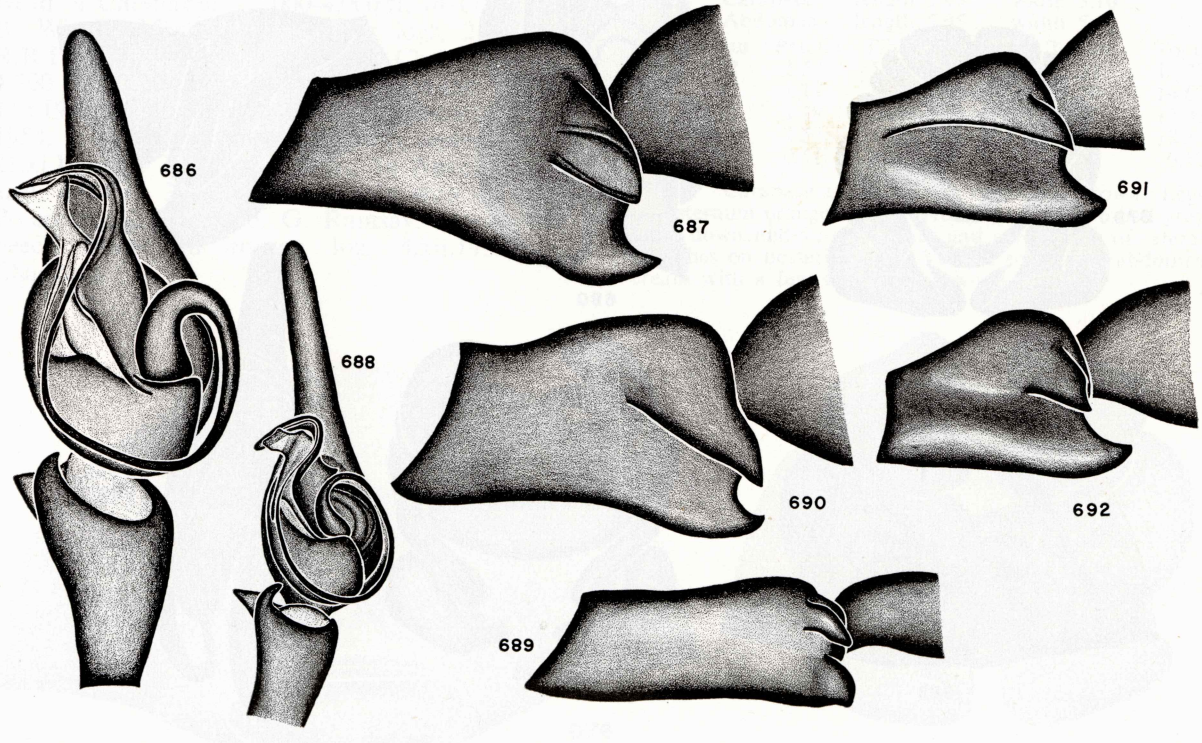
	Carapace		length 5.60		width 4.10	
	Abdomen		length 4.90		width 3.30	
1	4.80	2.15	4.45	3.60	2.05	17.05
2	4.00	1.90	3.45	3.20	1.80	14.30
3	3.60	1.80	2.70	3.35	1.35	12.80
4	4.70	2.00	4.00	5.00	1.70	17.40
Palp	2.35	0.90	0.60		2.00	5.85

Colour Resembles the female.

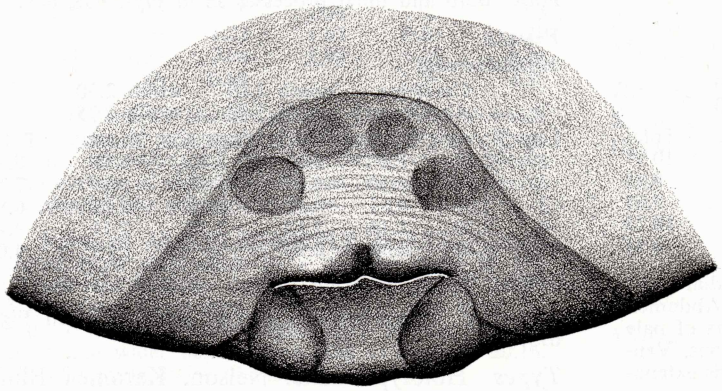
Palp The bulb and the tibial processes are shown in Figs. 684, 685.

Type Holotype female. Canterbury. Port Hills, Kaituna, 23.v.1929, G. A. Helson (Canterbury Museum).

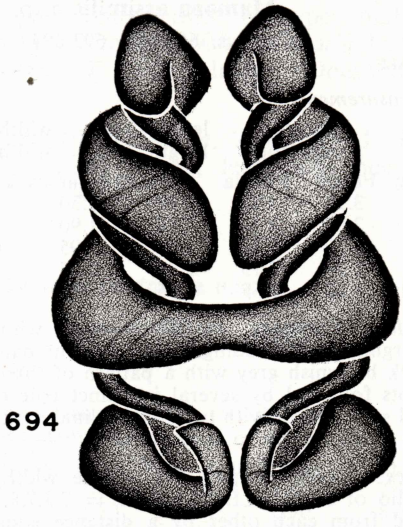
Records Canterbury. Port Hills, Christchurch, 20.xii.1937, C.L.W. Sleepy Cove, Banks Pen., leafmould, 30.iv.1950, L. P. Hughson. Pigeon Bay, 4.v.1952, J. S. Dugdale. Kaituna Valley, 11.xi.-1949, R.R.F. Little Fishermans Bay, 22.iv.1950, L. P. Hughson. Akaroa, 26.iv.1950, L. P. Hughson. Kaituna Valley, 13.iv.1967, R.R.F. "The Cabstand", Akaroa, 17.vi.1962, P. M. Johns.



Figs. 686-687 *Mamoea inornata* n.sp. Fig. 686 Ventral view of male palp. Fig. 687 Tibial processes of male palp. Figs. 688-689 *Mamoea assimilis* n.sp. Fig. 688 Ventral view of male palp. Figs. 690-692 Tibial processes of male palp. Fig. 690 *Mamoea bicolor* (Bryant). Fig. 691 *Mamoea monticola* n.sp. Fig. 692 *Mamoea hesperis,* n.sp.



693



694

Figs. 693-694 *Mamoea assimilis* n.sp. Fig. 693 Epigynum. Fig. 694 Internal genitalia.

Mamoea bicolor (Bryant) 1935

1935 *Rubrius bicolor*, Bryant. Rec. Cant. Mus. 4(2): 77.
Figs. 697-698

FEMALE

Measurements

Carapace length 4.25 width 2.89
Abdomen length 3.74 width 2.55

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.06	0.85	2.55	2.04	1.53	10.03
2	2.72	0.85	2.38	1.87	1.19	9.01
3	2.72	0.85	1.87	1.87	0.85	8.16
4	3.06	1.36	2.38	2.55	1.02	10.37
Palp	1.87	0.51	1.02		1.36	4.76

Colour Carapace orange brown. Legs yellow brown. Dorsal surface of abdomen heavily shaded with two pairs of round white spots on anterodorsal surface and five transverse pale bands on posterior half. Ventral surface with three longitudinal dark stripes of which the median is weakest.

Eyes Eyegroup occupies 4/9 of width of head. Ratio of AME.ALE.PME.PLE = 3.5.3.4. AME separated from each other by 2/3 and from ALE by 4/3 of diameter of an AME. Lateral eyes separated by 2/3. PME separated from each other by 6/3 and from PLE by 8/3. MOQ wider behind than in front in ratio of 12.8 and wider behind than long in ratio of 12.9. Height of clypeus equal to 2/3 of diameter of an AME.

Chelicerae Retromargin with three teeth, promargin with six.

Legs Tibia of first pair of legs with v.2.2.2.1 spines. Metatarsus of first pair of legs and tibia and metatarsus of second pair of legs with v.2.2.2. Epigynum as shown in Fig. 697. Internal genitalia as in Fig. 698.

Type Holotype female. Puysegur Point. Southland, xi.1921, R. S. Sutherland (Canterbury Museum).

Records Fiordland. Lake Monk, 16.i.1960, M. A. Chapman. Wilderness, 18.i.1946, R.R.F. Hollyford, Gunns Camp, 16.v.1960, J. Winter. Deep Cove, 4.i.1958, R. A. C. Cumber. Lake Te Au, 19.i.1953, R.R.F. Lake Te Au, 12-24.i.1953, R.R.F. Caswell Sound, 18.iv.1949, R.R.F. Thompson Sound, 2,800 ft, 23.i.1958, R. Chapman. Doubtful Sound, Halls Arm, 28.xi.1944, E. G. Turbott.

Mamoea inornata n.sp.

Figs. 686-687, 707-708

FEMALE

Measurements

Carapace length 2.65 width 2.00
Abdomen length 4.10 width 2.60

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.05	0.92	1.80	1.55	1.00	7.32
2	1.82	0.87	1.43	1.35	0.88	6.35
3	1.62	0.80	1.05	1.50	0.75	5.72
4	2.12	0.88	1.80	2.20	1.00	8.00
Palp	1.15	0.50	0.75		1.05	3.45

Colour Resembles the other species of the bicolor group but only slight indication of pattern. Ventral surface with three longitudinal dark bands.

Eyes Group occupies 3/5 of width of head. Ratio of AME.ALE.PME.PLE = 4.5.5.5. AME separated from each other by 3/4 and from the ALE by a distance equal to the diameter of an AME. Laterals narrowly separated. PME separated from each other by 6/4 and from PLE by 8/4. MOQ wider behind than in front in ratio of 16.11 and wider behind than long in ratio of 16.14. Height of clypeus equal to 6/4 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

Legs and *palp* with typical spination.

Abdomen Epigynum and internal genitalia as in Figs. 707, 708.

MALE

Measurements

Carapace length 3.00 width 2.35
Abdomen length 3.50 width 2.25

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.00	1.15	3.00	2.50	1.50	11.15
2	2.25	1.00	1.95	1.75	1.25	8.20
3	2.00	0.95	1.35	1.80	0.85	6.95
4	2.50	1.05	2.10	2.60	1.00	9.25
Palp	1.65	0.60	0.50		1.75	4.50

Resembles the female.

Palp The bulb and tibial processes as in Figs. 686, 687.

Types Holotype female. Taranaki. Mt Egmont, 3,000 ft, 21.ii.1969, R. R. Forster, C. L. Wilton. Allotype male. From leaflitter, same data as holotype (Otago Museum).

Records Taranaki. Dawson Falls, Mt Egmont, 3,100 ft, 14-20.i.1955, G. Ramsay. Foot Mt Egmont near Stratford, leafmould, 21.iii.1969, R.R.F., C.L.W.

Mamoea assimilis n.sp.

Figs. 688-689, 693-694

MALE

Measurements

Carapace	length 3.50	width 2.60	
Abdomen	length 3.10	width 2.10	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.10	1.30	2.90	2.30	1.35	10.95
2	2.60	1.20	2.10	1.90	1.15	8.95
3	2.20	1.10	1.50	1.95	0.90	7.65
4	2.70	1.15	2.30	2.85	1.25	10.25
Palp	1.65	0.65	0.55		1.50	4.35

Colour Carapace reddish brown with radial and marginal dark shading. Legs without bands. Abdomen dark brownish grey with a pattern of three pairs of pale spots followed by several indistinct pale chevrons. Ventral surface pale with two longitudinal dark bands extending from furrow to spinnerets.

Eyes Group occupies 5/8 of the width of the head. Ratio of AME.ALE.PME.PLE = 7.8.7.8. AME separated from each other by a distance equal to 2/7 and from the ALE by 3/7 of diameter of an AME. PME separated from each other and from the PLE by 8/7. MOQ wider behind than in front in ratio of 22.16 and wider behind than long in ratio of 22.19. Height of clypeus equal to 10/7 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

Legs Spination typical.

Palp Bulb and tibial processes as in Figs. 688, 689.

FEMALE

Measurements

Carapace	length 3.40	width 2.50	
Abdomen	length 3.50	width 2.25	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.25	1.20	2.25	1.80	1.15	8.85
2	2.25	1.10	1.85	1.55	1.00	7.75
3	2.00	0.95	1.35	1.65	0.85	6.80
4	2.50	1.10	2.10	2.55	1.15	9.40
Palp	1.35	0.60	0.90		1.15	4.00

Similar to the male.

Abdomen Epigynum and internal genitalia as in Figs. 693, 694.

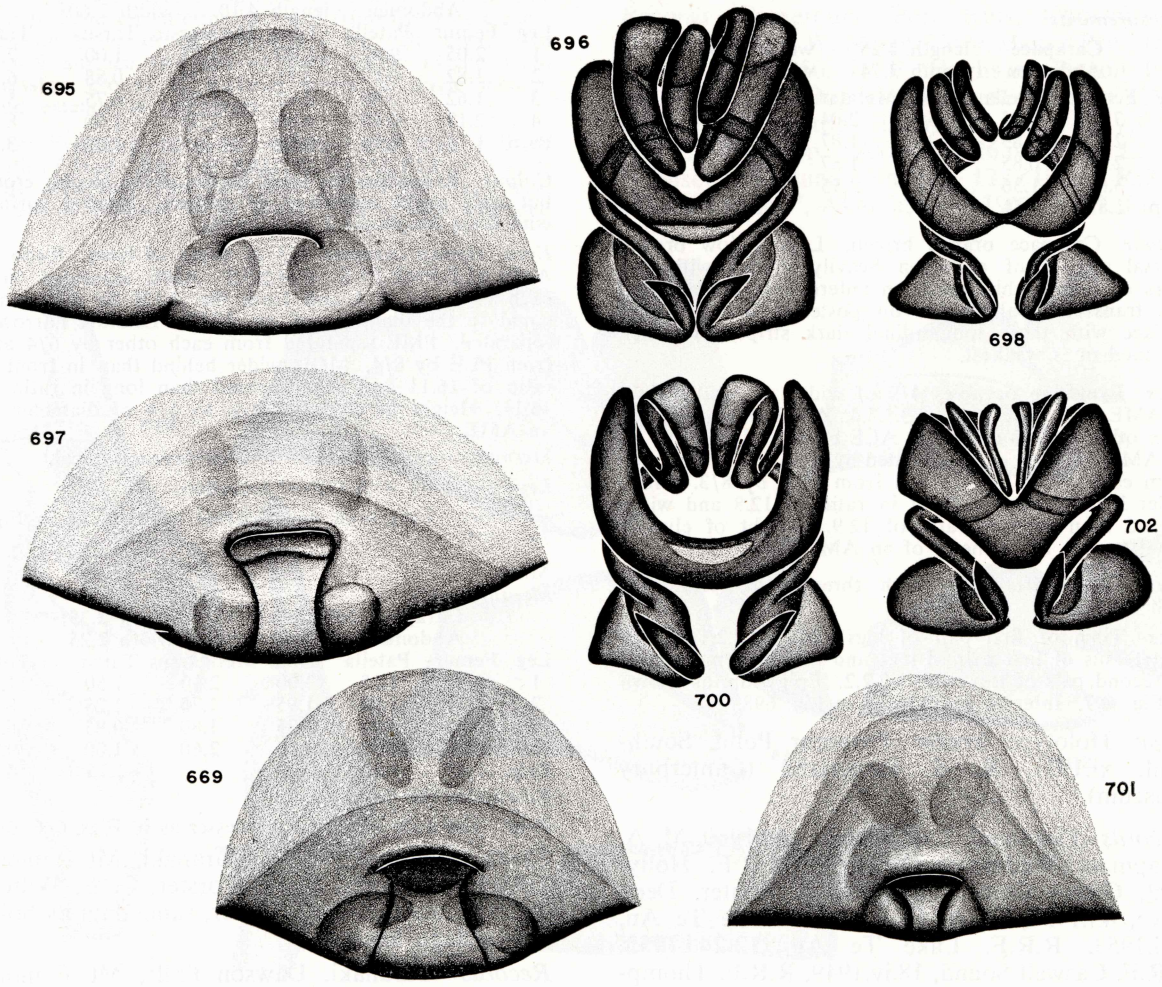
Types Holotype male. Nelson, Karamea Bluff, leafmould, 29.ix.1966, R.R.F., C.L.W. Allotype female. Nelson, Little Wanganui, leafmould, 29.ix.1966, R.R.F., C.L.W. (Otago Museum).

Mamoea hughsoni n.sp.

Figs. 695-696

Measurements

Carapace	length 3.10	width 2.30
Abdomen	length 4.00	width 2.60



Figs. 695-696 *Mamoea hughsoni* n.sp. Fig. 695 Epigynum. Fig. 696 Internal genitalia. Figs. 697-698 *Mamoea bicolor* (Bryant). Fig. 697 Epigynum. Fig. 698 Internal genitalia. Figs. 699-700 *Mamoea monticola* n.sp. Fig. 699 Epigynum. Fig. 700 Internal genitalia. Figs. 701-702 *Mamoea cantuaria* n.sp. Fig. 701 Epigynum. Fig. 702 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.30	1.05	2.05	1.65	1.20	8.25
2	2.05	1.00	1.65	1.50	1.05	7.25
3	1.70	0.90	1.25	1.65	0.80	6.30
4	2.45	1.05	2.00	2.50	1.05	9.05
Palp	1.25	0.55	0.80		1.20	3.80

Colour Typical of *bicolor* group. Abdomen brownish with two pairs of pale spots on mid-dorsal region. There are faint indications of chevrons on posterior slope. Ventral surface of abdomen pale and on each side merging gradually into adjacent surfaces.

Eyes Ratio of AME.ALE.PME.PLE = 5.7.7.7. AME separated from each other by a distance equal to 4/5 and from the ALE by 3/5 of diameter of an AME. PME separated from each other by 6/5 and from the PLE by 7/5. MOQ wider behind than in front in ratio of 20.14 and wider behind than long in ratio of 20.16. Height of clypeus twice diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.
Legs and *palps* with normal spination.

Abdomen Epigynum and internal genitalia as in Figs. 695, 696.

Type Holotype female. Westland. Marsden Rd, Greymouth, 1.xi.1950, L. R. Hughson (Canterbury Museum).

Mamoea monticola n.sp.

Figs. 691, 699-700

FEMALE

Measurements

Carapace length 2.80 width 2.10
Abdomen length 3.00 width 1.95

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.05	0.90	1.80	1.55	1.00	7.30
2	1.85	0.90	1.45	1.35	0.90	6.45
3	1.60	0.85	1.05	1.45	0.70	5.65
4	2.10	0.85	1.75	2.25	0.95	7.90
Palp	1.10	0.50	0.65		1.05	3.30

Colour Carapace reddish brown with some radial shading. Abdomen brownish with a pattern consisting of a pale median band on anterior portion followed by a series of seven pale chevrons, the first of these with a pale spot at each extremity. Ventral surface of the abdomen pale with three indistinct dark bands.

Eyes Group occupies 4/7 of the width of the head. Ratio of AME.ALE.PME.PLE = 3.5.5.5. AME separated from each other by distance equal to and from the ALE by 4/3 of the diameter of an AME. PME separated from each other by 7/3 and from the PLE by 6/3. MOQ wider behind than in front in ratio of 17.9 and wider behind than long in ratio of 17.13. Height of clypeus equal to 7/3 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

Legs and *palps* with normal spination.

Abdomen Epigynum and internal genitalia as in Figs. 699, 700.

MALE

Measurements

Carapace length 2.70 width 2.05
Abdomen length 2.85 width 1.80

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.50	1.00	2.50	2.00	1.30	9.30
2	1.90	0.90	1.60	1.45	1.00	6.85
3	1.60	0.80	1.15	1.50	0.75	5.80
4	2.20	0.95	1.85	2.25	1.00	8.25
Palp	1.40	0.60	0.45		1.45	3.90

Similar to the female.

Palp The median apophysis is very small and membraneous. Tibial processes as in Fig. 691.

Types Holotype female and allotype male. Nelson. Mt Arthur Track, 3,600 ft, *Olearia* leafmould, 22.i.1948, J. T. Salmon (Dominion Museum).

Records Nelson. Flora Saddle, 23.ii.1946, J. T. Salmon. Leslie Valley Track, leafmould beech forest, 23.i.1948, R.R.F.

Mamoea cantuaria n.sp.

Figs. 701-702

FEMALE

Measurements

Carapace length 2.80 width 2.20
Abdomen damaged

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	1.00	1.80	1.65	1.00	7.55
2	1.90	0.95	1.50	1.35	0.90	6.60
3	1.65	0.85	1.10	1.55	0.70	5.85
4	2.25	1.00	1.80	2.35	0.95	8.35
Palp	1.15	0.50	0.70		1.15	3.50

Colour As the abdomen is damaged it is not possible to note the pattern.

Eyes Ratio of AME.ALE.PME.PLE = 4.6.6.6. AME separated from each other and from ALE by 3/4 of diameter of an AME. PME separated from each other and from the PLE by 6/4. MOQ wider behind than in front in ratio of 18.11 and wider behind than long in ratio of 18.13. Height of clypeus 10/4 of diameter of an AME.

Most of the characters are normal for the group.

Abdomen Epigynum and internal genitalia as in Figs. 701, 702.

Type Holotype female. Canterbury. Ashley Gorge, north side of river, 29.xii.1957, R. L. C. Pilgrim (Otago Museum).

Mamoea hesperis n.sp.

Figs. 692, 702-704

FEMALE

Measurements

Carapace length 2.90 width 2.10
Abdomen length 2.90 width 2.00

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	0.95	1.70	1.50	0.95	7.20
2	1.80	0.95	1.40	1.30	0.90	6.35
3	1.55	0.85	1.00	1.40	0.70	5.50
4	2.10	0.95	1.70	2.05	0.90	7.70
Palp	1.20	0.50	0.75		0.95	3.40

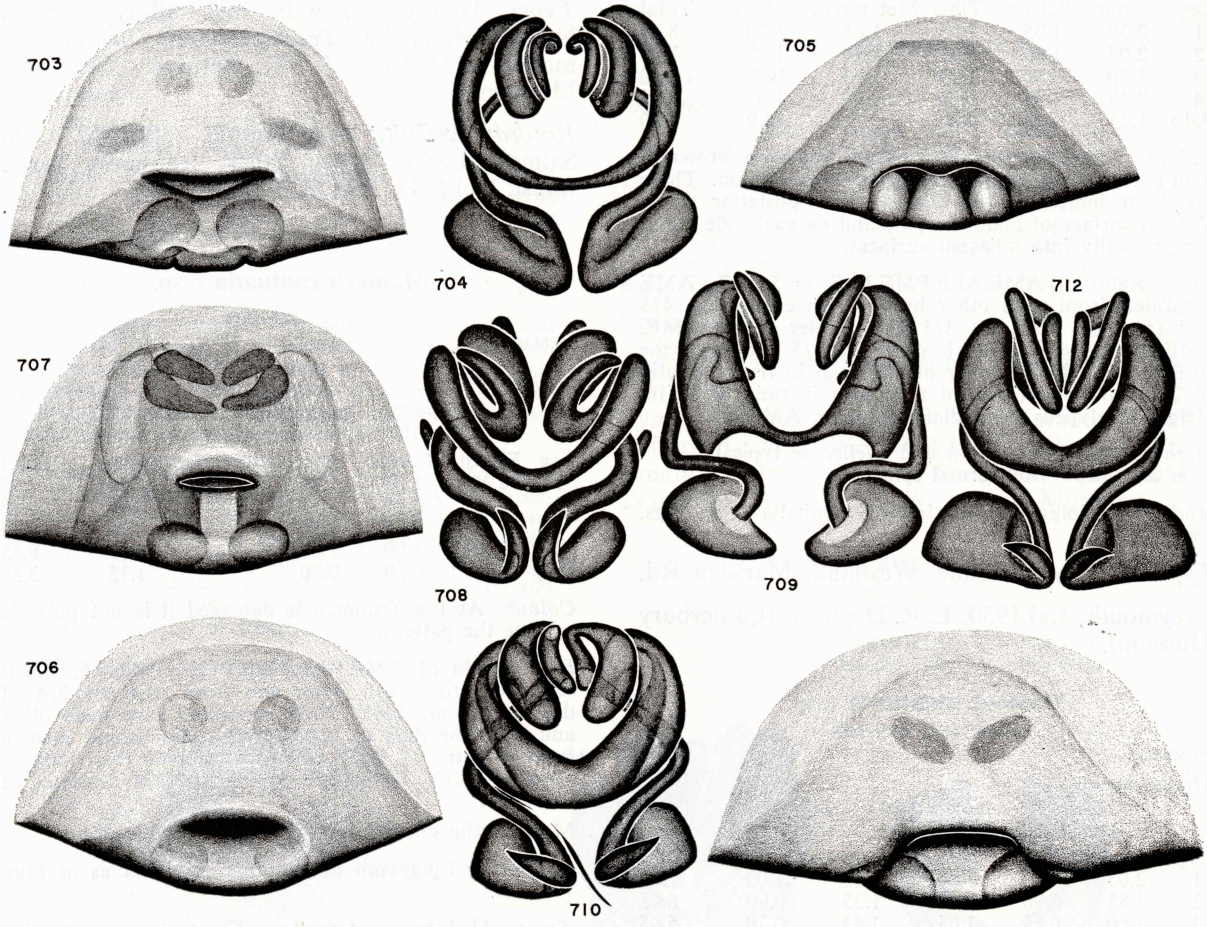
Colour Carapace reddish brown with slight radial shading. Abdomen very dark with hardly any pattern. Ventral surface of abdomen pale with three dark longitudinal bands.

Eyes Ratio of AME.ALE.PME.PLE = 4.6.4.5. AME separated from each other and from ALE by 3/4 of diameter of an AME. PME separated from each other and from the PLE by 6/4. MOQ wider behind than in front in ratio 14/9 and wider behind than long in ratio 14.11. Height of clypeus equal to 9/4 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

Legs and *palps* with normal spination.

Abdomen Epigynum and internal genitalia as in Figs. 703, 704.



Figs. 703-704 *Mamoea hesperis* n.sp. Fig. 703 Epigynum. Fig. 704 Internal genitalia. Figs. 705-706 *Mamoea mandibularis* (Bryant). Fig. 705 Epigynum. Fig. 706 Internal genitalia. Figs. 707-708 *Mamoea inornata* n.sp. Fig. 707 Epigynum. Fig. 708 Internal genitalia. Figs. 709-712 *Mamoea cooki* n.sp. Fig. 709 Epigynum (Stephens Isl). Fig. 710 Internal genitalia (Stephens Is.). Fig. 711 Epigynum (Curious Cove).

MALE

Measurements

Carapace length 2.50 width 2.00
Abdomen length 2.50 width 1.70

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.40	0.95	2.25	1.85	1.25	8.70
2	1.90	0.85	1.60	1.45	1.05	6.85
3	1.60	0.75	1.10	1.55	0.70	5.70
4	2.20	0.85	1.80	2.20	1.05	8.10
Palp	1.25	0.50	0.40		1.35	3.50

Similar to the female.

Palp Tibial processes as in Fig. 692. Minute membraneous median apophysis present.

Types Holotype female. Westland. Camerons, leafmould, 5.ix.1950, R. Chapman. Allotype male. Westland. Kokopotuki, October 1946, A. W. Parrott (Otago Museum).

Records Westland. Lake Moana, near lake outlet, leaflitter from miro-kamahi scrub, 10.ix.1957, W. C. Clark. Camerons, 29.ix.1966, R.R.F., C.L.W.

Mamoea mandibularis (Bryant)

1935 *Rubrius mandibularis*, Bryant. Rec. Cant. Mus. 4(2): 78.

Figs. 705-706

FEMALE

Measurements

Carapace length 3.57 width 2.55
Abdomen length 4.42 width 2.55

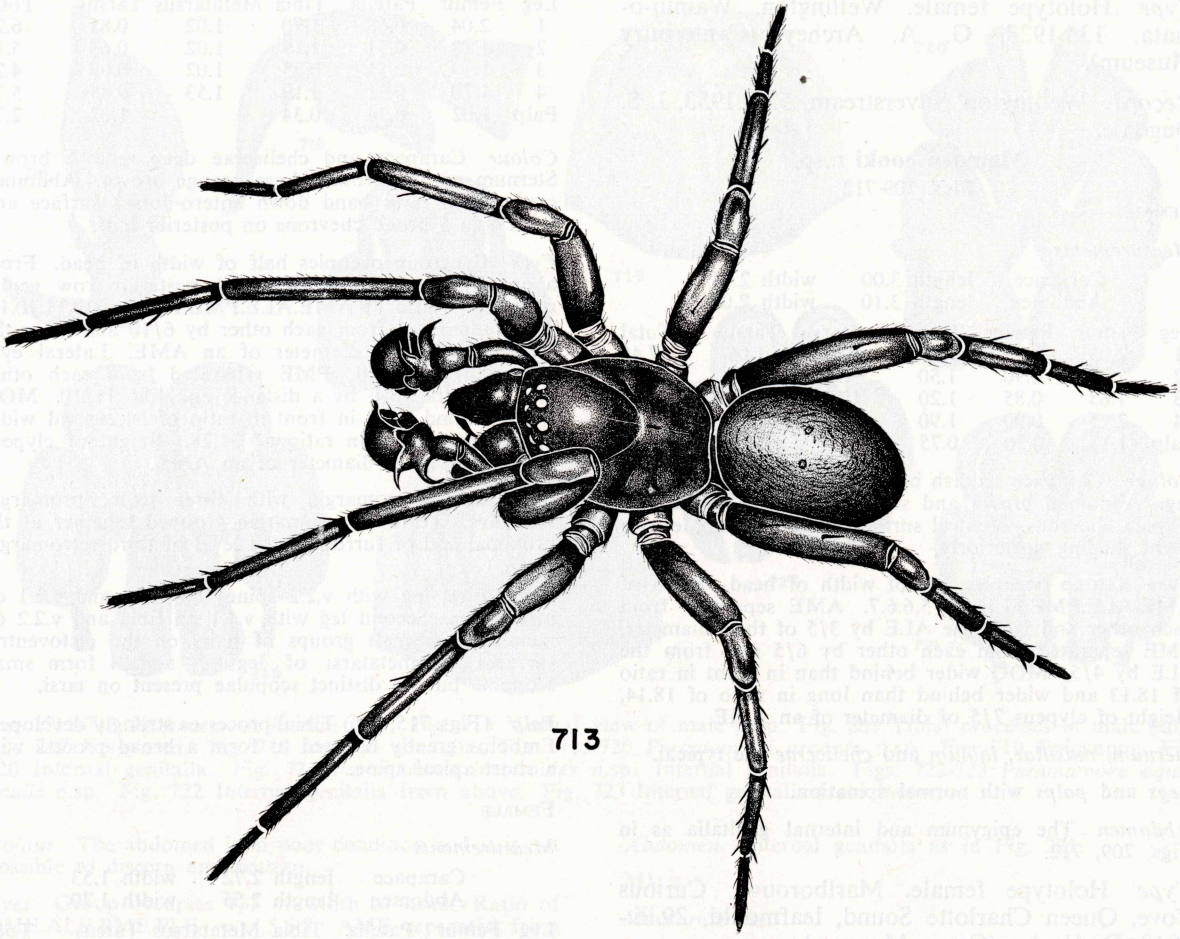
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.72	0.85	2.38	1.53	1.19	8.67
2	2.38	0.85	1.70	1.70	1.02	7.65
3	2.38	0.85	1.53	1.53	1.02	7.31
4	2.89	0.85	2.89	2.55	1.53	10.71
Palp	1.36	0.68	1.19		1.02	4.25

Colour Carapace and legs yellow brown. Dorsal surface of abdomen heavily pigmented but chevrons distinguished by four or five pairs of transverse pale areas. Ventral surface with three longitudinal dark bands.

Eyes Eyegroup occupies slightly more than half of width of head. Ratio of AME.ALE.PME.PLE = 4.5.5.4. AME separated from each other by 2/4 and from ALE by 4/4 of diameter of an AME. Laterals separated by 1/4. PME separated from each other and from the PLE by 5/4. MOQ wider behind than in front in ratio of 15/10 and wider behind than long in ratio of 15.11. Height of clypeus slightly less than diameter of an AME.

Chelicerae Retromargin with five teeth. Promargin with seven.

Legs Spines. First leg with v.2.2.2.1 on tibia and v.2.2.2 on metatarsus. Second leg with v.1.1.2.1 on tibia and v.2.2.2 on metatarsus. Epigynum as in Fig. 705. Internal genitalia as in Fig. 706.



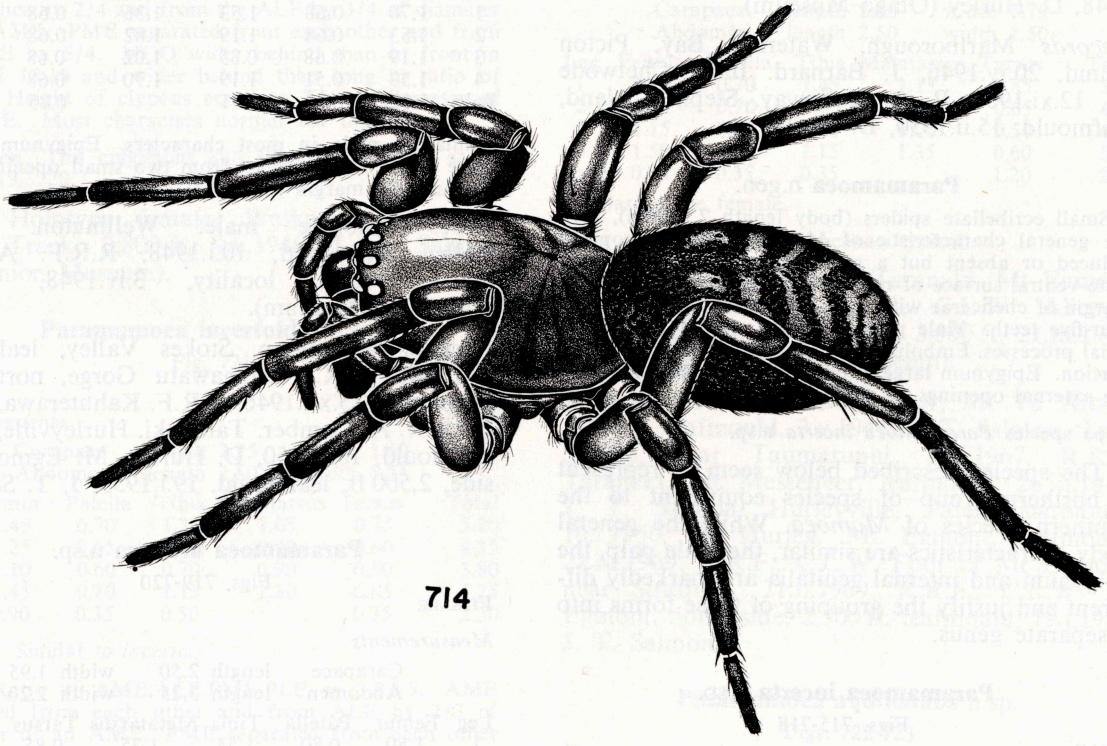


Fig. 713 *Paramamoea waipoua* n.sp. male.

Fig. 714 *Paramamoea parva* n.sp. female.

Type Holotype female. Wellington. Wainui-o-mata, 13.i.1923, G. A. Archey (Canterbury Museum).

Record Wellington. Silverstream, 5.xii.1953, J. S. Dugdale.

Mamoea cooki n.sp.

Figs. 709-712

FEMALE

Measurements

	Carapace	length 3.00		width 2.15		
	Abdomen	length 3.10		width 2.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.05	0.90	1.85	1.55	1.05	7.40
2	1.90	0.90	1.50	1.35	1.00	6.65
3	1.65	0.85	1.20	1.50	0.75	5.95
4	2.15	0.90	1.90	2.25	1.00	8.20
Palp	1.15	0.50	0.75		1.00	3.40

Colour Carapace reddish brown with slight radial shading. Abdomen brown and shiny with slight indications of pale chevrons. Ventral surface of abdomen pale with slight shading posteriorly.

Eyes Group occupies 3/5 of width of head. Ratio of AME.ALE.PME.PLE = 5.6.6.7. AME separated from each other and from the ALE by 3/5 of their diameter. PME separated from each other by 6/5 and from the PLE by 4/5. MOQ wider behind than in front in ratio of 18.13 and wider behind than long in ratio of 18.14. Height of clypeus 7/5 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* are typical.

Legs and *palps* with normal spination.

Abdomen The epigynum and internal genitalia as in Figs. 709, 712.

Type Holotype female. Marlborough. Curious Cove, Queen Charlotte Sound, leafmould, 29.iii.-1948, D. Hurley (Otago Museum).

Records Marlborough. Waterfall Bay, Picton Sound, 20.iv.1946, J. Barnard. Inner Chetwode Is., 12.xi.1961, B. A. Holloway. Stephen Island, leafmould, 15.ii.1950, D. Hurley.

Paramamoea n.gen.

Small ecribellate spiders (body length 2.5-7mm), with the general characteristic of *Mamoea*. Tarsal scopulae reduced or absent but a small scopula present on the disto-ventral surface of metatarsi of legs 3 and 4. Retromargin of chelicerae with three and promargin with from four-five teeth. Male palp with very strongly developed tibial processes. Embolus stout with a short distal spinous portion. Epigynum large, present as a smooth plate with the external openings on the anterior surface.

Type species *Paramamoea incerta* n.sp.

The species described below seem to represent a northern group of species equivalent to the southern species of *Mamoea*. While the general body characteristics are similar, the male palp, the epigynum and internal genitalia are markedly different and justify the grouping of these forms into a separate genus.

Paramamoea incerta n.sp.

Figs. 715-718

MALE

Measurements

	Carapace	length 2.21		width 1.53		
	Abdomen	length 2.55		width 1.53		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.04	0.68	1.70	1.02	0.85	6.29
2	1.70	0.51	1.19	1.02	0.68	5.10
3	1.19	0.51	0.85	1.02	0.68	4.25
4	1.70	0.51	1.19	1.53	0.85	5.78
Palp	1.02	0.34	0.34		1.02	2.72

Colour Carapace and chelicerae deep reddish brown. Sternum orange brown. Legs orange brown. Abdomen cream with faint band down antero-dorsal surface and from 4 to 5 broad chevrons on posterior half.

Eyes Eyegroup occupies half of width of head. From above anterior row straight but posterior row gently recurved. Ratio of AME.ALE.PME.PLE = 10.11.10.11. AME separated from each other by 6/10 and from the ALE by 8/10 of diameter of an AME. Lateral eyes separated by 3./10. PME separated from each other and from the PLE by a distance equal to 11/10. MOQ wider behind than in front in ratio of 31.26 and wider behind than long in ratio of 31.28. Height of clypeus equal to 8/10 of diameter of an AME.

Chelicerae Retromargin with three teeth, promargin with five. Teeth on promargin grouped together at the proximal end of furrow at the level of third retromargin tooth.

Legs First leg with v.2.2 spines on tibia and v.2.1 on metatarsus. Second leg with v.1.1 on tibia and v.2.2 on metatarsus. Small groups of hairs on the distoventral surfaces of metatarsi of legs 3 and 4 form small scopulae but no distinct scopulae present on tarsi.

Palp (Figs. 715, 716) Tibial processes strongly developed. Embolus greatly reduced to form a broad process with a short apical spine.

FEMALE

Measurements

	Carapace	length 2.72		width 1.53		
	Abdomen	length 2.55		width 1.70		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.70	0.68	1.53	1.36	0.68	5.95
2	1.53	0.68	1.19	1.02	0.68	5.10
3	1.19	0.68	0.85	1.02	0.68	4.42
4	1.53	0.51	1.19	1.70	0.68	5.61
Palp	1.02	0.34	0.51		0.85	2.72

Similar to male in most characters. Epigynum a very large plate, smooth apart from two small openings near the anterior margin (Fig. 717).

Types Holotype male. Wellington. Stokes Valley, leafmould, 10.i.1948, R.R.F. Allotype female, same locality, 3.iv.1948, R.R.F. (Dominion Museum).

Records Wellington. Stokes Valley, leafmould, 10.i.1948, R.R.F. Manawatu Gorge, north end, leafmould, 15.xii.1946, R.R.F. Kahuterawa, 27.iv.-1961, R. A. Cumber. Taranaki. Hurleyville, Patea, leafmould, 10.i.1950, D. Hurley. Mt Egmont, nth side, 2,500 ft, leafmould, 19.i.1955, J. T. Salmon.

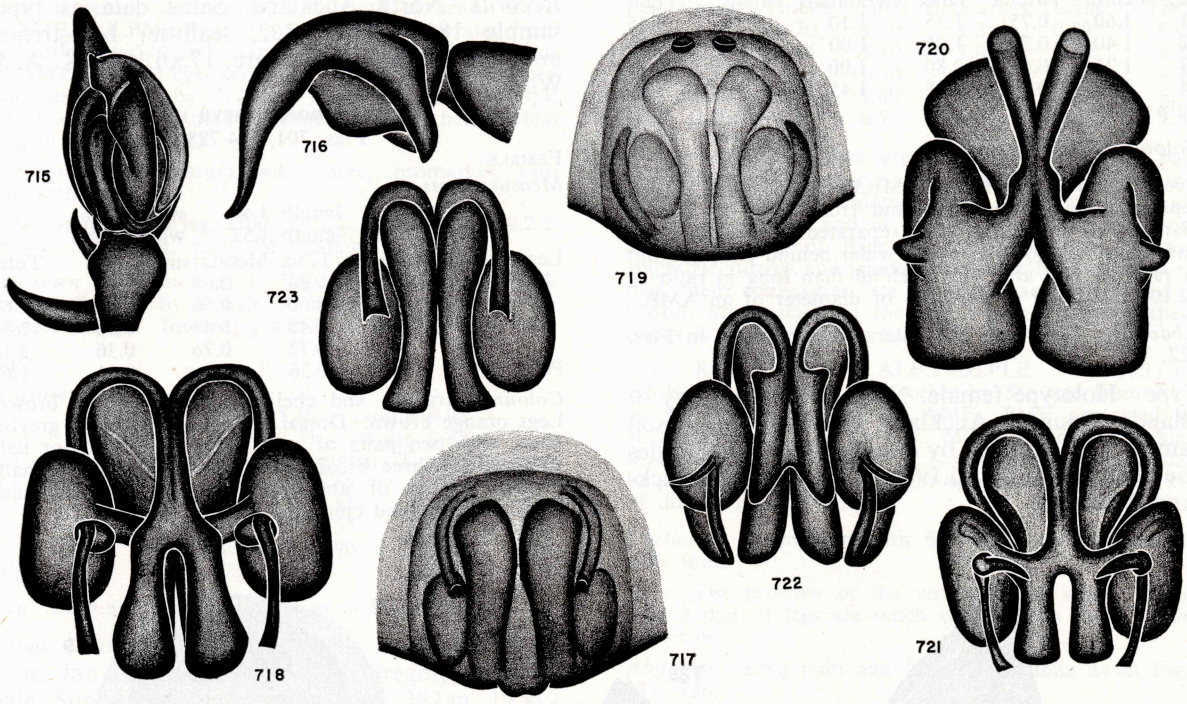
Paramamoea urewera n.sp.

Figs. 719-720

FEMALE

Measurements

	Carapace	length 2.50		width 1.95		
	Abdomen	length 3.25		width 2.20		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.80	0.80	1.55	1.35	0.85	6.35
2	1.55	0.75	1.15	1.15	0.75	5.35
3	1.35	0.75	0.90	1.15	0.60	4.75
4	1.75	0.80	1.45	1.70	0.75	6.45
Palp	1.05	0.40	0.65		0.90	3.00



Figs. 715-718 *Paramamoea incerta* n.sp. Fig. 715 Ventral view of male palp. Fig. 809 Tibial processes of male palp. Fig. 717 Epigynum. Fig. 718 Internal genitalia. Figs. 719-720 *Paramamoea urewera* n.sp. Fig. 719 Epigynum. Fig. 720 Internal genitalia. Fig. 721 *Paramamoea incertoides* n.sp. Internal genitalia. Figs. 722-723 *Paramamoea aquilonalis* n.sp. Fig. 722 Internal genitalia from above. Fig. 723 Internal genitalia from below.

Colour The abdomen is in poor condition and it is not possible to discern any pattern.

Eyes Group occupies 4/7 or width of head. Ratio of AME.ALE.PME.PLE = 4.5.5.5. AME separated from each other by 2/4 and from the ALE by 3/4 of diameter of an AME. PME separated from each other and from the PLE by 5/4. MOQ wider behind than in front in ratio of 15.10 and wider behind than long in ratio of 15.13. Height of clypeus equal to 7/4 of diameter of an AME. Most characters normal for the genus.

Abdomen The epigynum and internal genitalia as in Figs. 719, 720.

Type Holotype female. Waikaremoana. Ngamoka Track, 2,800 ft, 9.v.1946, J. T. Salmon (Dominion Museum).

Paramamoea incertoides n.sp.

Fig. 721

FEMALE

Measurements

Carapace	length 2.25	width 1.60	
Abdomen	length 2.50	width 1.75	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.45	0.70	1.25	1.05	0.75	5.20
2	1.25	0.65	0.95	0.90	0.60	4.35
3	1.10	0.60	0.70	0.90	0.50	3.80
4	1.45	0.70	1.15	1.30	0.65	5.25
Palp	0.90	0.35	0.50		0.75	2.50

Colour Similar to *incerta.*

Eyes Ratio of AME.ALE.PME.PLE = 3.5.5.5. AME separated from each other and from ALE by 2/3 of diameter of an AME. PME separated from each other and from PLE by 5/3. MOQ wider behind than in front in ratio of 13.10. Height of clypeus twice diameter of an AME.

Most characters normal for the genus.

Abdomen Internal genitalia as in Fig. 721.

MALE

Measurements

Carapace	length 2.40	width 1.75	
Abdomen	length 2.50	width 1.50	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.60	0.70	1.45	1.15	0.85	5.75
2	1.35	0.70	1.05	0.95	0.65	4.70
3	1.15	0.65	0.75	1.00	0.50	4.05
4	1.50	0.75	1.15	1.35	0.60	5.35
Palp	0.95	0.35	0.35		1.20	2.85

Similar to the female.

Palp Bulb and tibial processes typical.

Types Holotype female. Taranaki. Mt Egmont, 3,500 ft, 21.iii.1969, R.R.F., C.L.W. Allotype male. Taranaki. Mt Egmont, 3,000 ft, 21.iii.1969, R.R.F., C.L.W. (Otago Museum).

Records Auckland. Bold Spur, Mt Te Aroha, 1,000 ft, leafmould, 3.v.1944, J. T. Salmon. Tuna Saddle, near Taumarunui, 10.i.1967, R.R.F. Taranaki. Mt Messenger, leafmould, 26.iii.1948, J. T. Salmon. Hurleyville, Patea, leafmould, 10.i.1950, D. Hurley. Mt Egmont, leafmould, 21.iii.1969, R.R.F., C.L.W. Foot of Mt Egmont, near Stratford, 21.ii.1969, R.R.F., C.L.W. Mt Egmont, north side, 2,500 ft, leafmould, 19.i.1955, J. T. Salmon.

Paramamoea aquilonalis n.sp.

Figs. 722-723

FEMALE

Measurements

Carapace	length 2.50	width 1.75
Abdomen	length 2.60	width 1.65

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.60	0.75	1.35	1.10	0.75	5.55
2	1.40	0.70	1.05	1.00	0.65	4.80
3	1.25	0.65	0.80	1.00	0.50	4.20
4	1.55	0.70	1.25	1.45	0.70	5.65
Palp	0.95	0.40	0.55		0.75	2.65

Colour Pattern typical.

Eyes Ratio of AME.ALE.PME.PLE = 3.4.4.4. AME separated from each other and from ALE by 2/3 of diameter of an AME. PME separated from each other and from PLE by 4/3. MOQ wider behind than in front in ratio of 12.8 and wider behind than long in ratio of 12.10. Height of clypeus 7/3 of diameter of an AME.

Abdomen Epigynum and internal genitalia as in Figs. 722, 723.

Type Holotype female. North Auckland, Bay of Islands County, Auckland Museum plant/soil sample 172, leaflitter by swamp forest, three miles south of Paihia, 18.xii.1966, K. A. J. Wise (Auckland Museum).

Records North Auckland. Same data as type, sample 184. Sample 162, leaflitter by stream, mixed forest east of Waikare, 17.xii.1966, K. A. J. Wise.

Paramamoea parva n.sp.

Figs. 704, 724-728

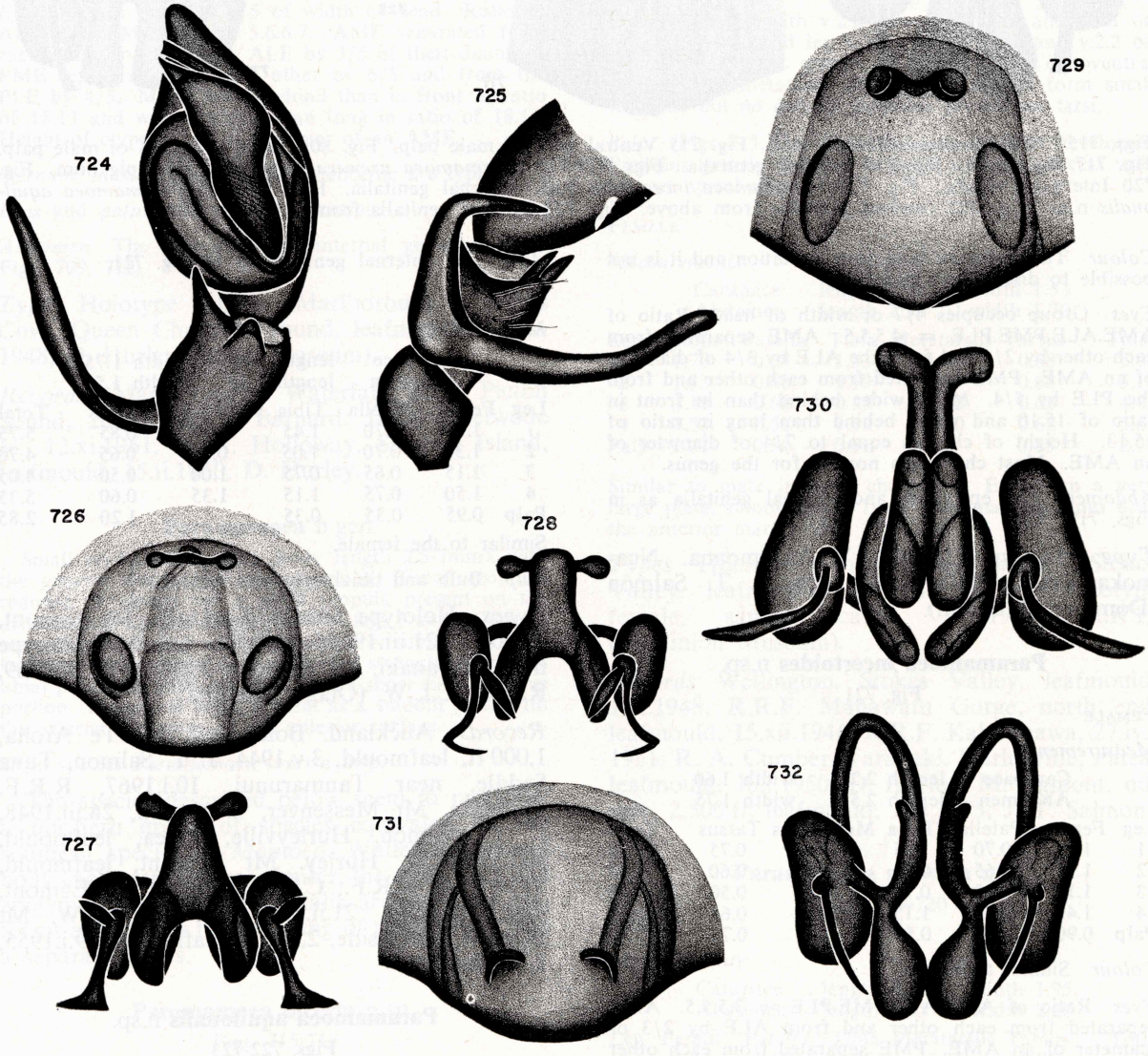
FEMALE

Measurements

Carapace length 1.40 width 0.96
Abdomen length 1.52 width 0.96

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.96	0.40	0.84	0.68	0.44	3.32
2	0.72	0.40	0.60	0.56	0.36	2.64
3	0.68	0.36	0.48	0.48	0.36	2.36
4	0.92	0.40	0.72	0.76	0.36	3.16
Palp	0.64	0.16	0.36		0.44	1.60

Colour Carapace and chelicerae dark reddish brown. Legs orange brown. Dorsal surface of abdomen greyish black with two pairs of white patches on anterior half followed by three broad white bands on posterior half. Ventral surface of abdomen cream with a triangular black patch behind epigynum.



Figs. 724-728 *Paramamoea parva* n.sp. Fig. 724 Ventral view of male palp. Fig. 725 Tibial processes of male palp. Fig. 726 Epigynum. Fig. 727 Internal genitalia (Russell). Fig. 728 Internal genitalia (Mangamuka Hills). Figs. 729-730 *Paramamoea arawa* n.sp. Fig. 729 Epigynum. Fig. 730 Internal genitalia. Figs. 731-732 *Paramamoea tuna* n.sp. Fig. 731 Epigynum. Fig. 732 Internal genitalia.

Eyes Eyegroup occupies 4/7 of width of head. Ratio of AME.ALE.PME.PLE = 4.6.6.6. AME separated from each other by 5/4 and from ALE by 3/4 of diameter of an AME. Lateral eyes separated by 2/4. PME separated from each other by 7/4 and from the PLE by 6/4. MOQ wider behind than in front and wider behind than long in ratio of 19.13.

Chelicerae Retromargin with three, promargin with four teeth.

Legs Spines. First leg. Tibia, v.1.2.2. Metatarsus, v..2.2.2. Second leg. Tibia, v.1.1. Metatarsus, v.1.2.2.

Abdomen Epigynum as in Fig. 726. There is a large opening flanked by a pair of small openings near the anterior margin. Internal genitalia as in Figs. 727, 725.

MALE

Measurements

	Carapace	length 1.40		width 0.95		
	Abdomen	length 1.35		width 0.85		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.95	0.40	0.80	0.65	0.50	3.30
2	0.80	0.40	0.60	0.55	0.45	2.80
3	0.70	0.40	0.45	0.55	0.30	2.40
4	0.90	0.40	0.75	0.90	0.45	3.40
Palp	0.55	0.20	0.20		0.65	1.60

Palp Bulb and tibial processes as in Figs. 724, 725.

Types Holotype female. North Auckland. Waipoua, January 1952, W. R. McGregor, Allotype male. Summit of Mangamuka Hill, 382 m, 19.xi.-1966, sample 96, K. A. J. Wise (Auckland Museum).

Records Tutamoe, Whangarei, leaflitter, 16.i.-1949, K. Lee.

Paramamoea arawa n.sp.

Figs. 729-730

FEMALE

Measurements

	Carapace	length 2.90		width 2.10		
	Abdomen	length 3.00		width 1.85		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	0.95	1.85	1.55	1.00	7.45
2	1.80	0.85	1.45	1.30	0.85	6.25
3	1.55	0.80	1.05	1.30	0.65	5.35
4	2.00	0.85	1.65	1.95	0.90	7.35
Palp	1.25	0.50	0.70		1.00	3.45

Colour Abdomen pale grey dorsally but darker posteriorly. A pair of muscle spots on the fore part followed by two large pale spots and a series of four pale chevrons. Ventral surface of abdomen pale.

Eyes Ratio of AME.ALE.PME.PLE = 8.13.12.13. AME separated from each other by a distance equal to their diameter and from the ALE by 7/8. PME separated from each other and from the PLE by 12/8. MOQ wider behind than in front in ratio of 36.24 and wider behind than long in ratio of 36.30. Height of clypeus equal to 20/8 of diameter of an AME.

Chelicerae Promargin of groove with five teeth and retromargin with three.

Abdomen Epigynum and internal genitalia as in Figs. 729, 730.

Type Holotype female. Rotoehu, near Rotorua, leaf mould, 20.i.1952, A. J. Thornton (Dominion Museum).

Paramamoea pandora n.sp.

Figs. 733-736

FEMALE

Measurements

	Carapace	length 2.30		width 1.65		
	Abdomen	length 2.60		width 1.65		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.75	0.70	1.50	1.25	0.80	6.00
2	1.50	0.65	1.20	1.05	0.70	5.10
3	1.25	0.65	0.80	1.05	0.50	4.25
4	1.60	0.70	1.40	1.65	0.75	6.10
Palp	0.90	0.35	0.55		0.80	2.60

Colour Abdomen dark grey on upper surface. A pair of muscle spots anteriorly are followed by two chevrons. Ventral surface of abdomen pale, extending in places to lateral surfaces and in some specimens visible from above. A pair of dark longitudinal bands between epigastric furrow and spinnerets. These bands curved so that their convexities are towards each other and a broken area occurs in the mid region. Between these bands is another broken band.

Eyes Ratio of AME.ALE.PME.PLE = 8.11.11.11. AME separated from each other by 5/8 and from ALE by 3/8 of diameter of an AME. PME separated by 10/8 and from PLE by 8/8. MOQ wider than behind than in front in ratio of 32.21 and wider behind than long in ratio of 32.26. Height of clypeus equal to 11/8 of diameter of an AME.

Chelicerae Promargin with five teeth and retromargin with four.

Legs The pro-row of the ventral tibial spines of the second pair of legs are much shorter than those of the retro-row.

Abdomen Epigynum and internal genitalia as in Figs. 735, 736.

MALE

Measurements

	Carapace	length 2.30		width 1.70		
	Abdomen	length 2.30		width 1.60		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.95	0.80	1.85	1.55	0.95	7.10
2	1.55	0.75	1.30	1.20	0.75	5.55
3	1.30	0.70	0.85	1.20	0.50	4.55
4	1.70	0.75	1.45	1.75	0.70	6.35
Palp	0.90	0.30	0.35		1.10	1.65

Abdomen There is a brownish, sclerite-like band on the fore part of dorsal surface.

Types Holotype female. North Auckland. Forest remnant, 3 miles south-east of Umuwhao, 183 m, North Cape area, 24.ii.1967, Auckland Museum plant/soil sample 236, leaflitter, K. A. J. Wise. Allotype male. North Auckland. Forest remnant, Umuwhao, 610 m, North Cape area, 22.ii.1967, Auckland Museum plant/soil sample 217, leaflitter, K. A. J. Wise (Auckland Museum).

Paramamoea waipoua n.sp.

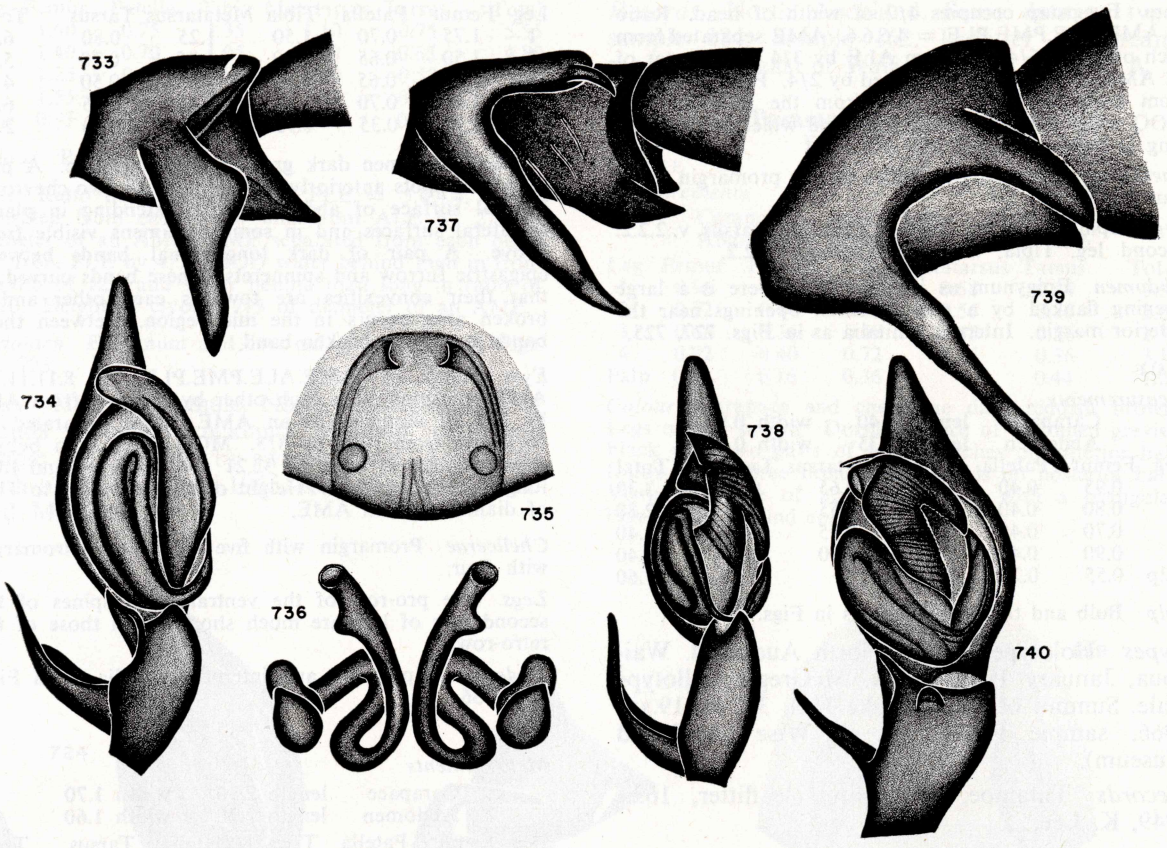
MALE

Measurements

	Carapace	length 3.55		width 2.60		
	Abdomen	length 3.20		width 2.10		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.30	1.15	3.20	2.90	1.75	12.30
2	2.75	1.15	2.25	2.20	1.45	9.80
3	2.25	1.05	1.70	2.20	1.00	8.20
4	3.00	1.10	2.50	3.10	1.50	11.20
Palp	1.75	0.50	0.80		1.75	4.80

Colour (Fig. 713) Abdomen dark grey with a pale area forming a band on anterior half of dorsal surface. Ventral surface of the abdomen pale grey without pattern.

Eyes Ratio of AME.ALE.PME.PLE = 10.13.11.13. AME separated from each other by 5/10 and from ALE by 4/10 of diameter of an AME. PME separated from each other and from the PLE by 11/10. MOQ wider behind than in front in ratio of 33.25 and wider behind than long in ratio of 33.27. Height of clypeus 22/10 of diameter of an AME.



Figs. 733-736 *Paramamoea pandora* n.sp. Fig. 733 Tibial processes of male palp. Fig. 734 Ventral view of male palp. Fig. 735 Epigynum. Fig. 736 Internal genitalia. Figs. 737-738 *Paramamoea waipoua* n.sp. Fig. 737 Tibial processes of male palp. Fig. 738 Ventral view of male palp. Figs. 739-740 *Paramamoea paradisica* n.sp. Fig. 739 Tibial processes of male palp. Fig. 740 Ventral view of male palp.

Chelicerae Promargin with eight teeth and retromargin with five.

Palp Bulb and tibial processes as in Figs. 737, 738.

Type Holotype male. North Auckland. Waipoua Forest, 7.i.1967, R.R.F., D. R. Forster (Otago Museum).

Paramamoea paradisica n.sp.

Figs. 739-740

MALE

Measurements

	Carapace		length 4.00		width 2.85	
	Abdomen		length 3.50		width 2.40	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.90	1.25	2.60	2.10	1.60	10.45
2	2.60	1.10	2.05	1.90	1.40	9.05
3	2.20	1.15	1.55	1.90	1.05	7.85
4	2.90	1.20	2.35	2.85	1.30	10.60
Palp	1.60	0.65	0.75		1.75	4.75

Colour The abdomen is not well preserved but does not appear to have a pattern. There is a brownish sclerite-like band proximally.

Eyes Ratio of AME.ALE.PME.PLE = 7.9.7.8. AME separated from each other and from ALE by 4/7 of diameter of an AME. PME separated from each other by the diameter of an AME and from the PLE by 9/7 of that distance. MOQ wider behind than in front in ratio of 21.18 and wider behind than long in ratio of 21.20. Height of clypeus 10/7 of diameter of an AME.

Chelicerae Promargin with six teeth and retromargin with four even teeth.

Palp Bulb and tibial processes as in Figs. 739, 740.

Type Holotype male. North Auckland. Trounson Park, kauri forest, December 1967 (Otago Museum).

Paramamoea insulanus n.sp.

Figs. 741-744

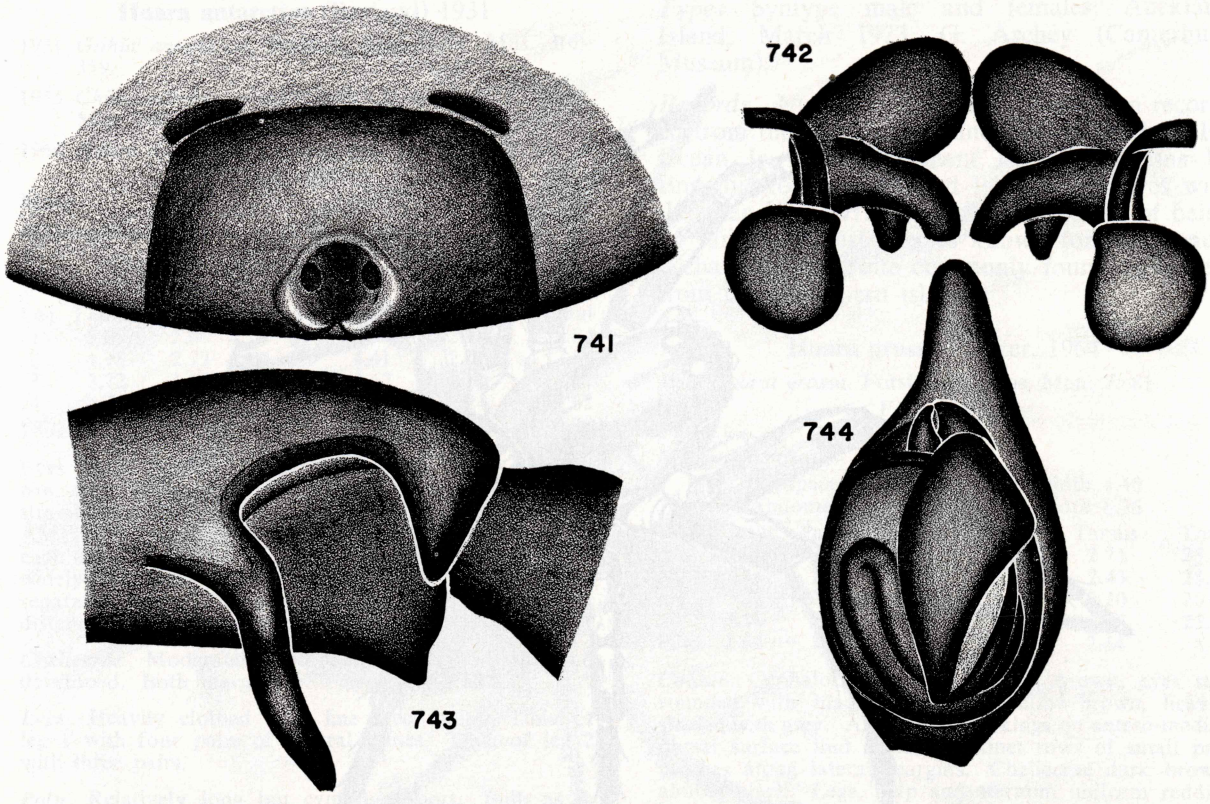
FEMALE

Measurements

	Carapace		length 3.60		width 2.60	
	Abdomen		length 3.50		width 2.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.60	1.20	2.10	2.05	1.10	9.05
2	2.10	1.10	1.65	1.60	0.90	7.35
3	1.70	1.10	1.15	1.55	0.60	6.10
4	2.40	1.15	2.00	2.35	0.90	8.80
Palp	1.55	0.65	1.00		1.10	4.30

Colour Abdomen dark grey. Dorsal pattern composed of pair of white spots in front of the muscle spots followed by a pair of larger spots and a series of four white chevrons. Ventral surface of abdomen pale, with pale extensions on to lateral surfaces. From the epigastric furrow a pair of converging dark bands do not reach more than a third of distance between the groove and spinnerets. From the spinnerets a pair of diverging and rather broken dark bands meet the dark lateral surfaces medially. There is a dark area just in front of the spinnerets between these latter bands.

Eyes Ratio of AME.ALE.PME.PLE = 5.8.6.7. AME separated from each other by 3/5 and from the ALE by distance equal to their diameter. PME separated from each other by 6/5 and from the PLE by 9/5. MOQ wider behind than in front in ratio of 18.13 and wider behind than long in ratio of 18.15. Height of clypeus 8/5 of diameter of an AME.



Figs. 741-744 *Paramamoea insulanus* n.sp. Fig. 741 Epigynum. Fig. 742 Internal genitalia. Fig. 743 Tibial processes of male palp. Fig. 744 Ventral view of male palp.

Chelicerae Promargin with seven teeth. Retromargin with four, three distally which decrease in size towards base of fang and a small one at basal end of groove.

Abdomen Epigynum and internal genitalia as in Figs. 741, 742.

MALE

Measurements

	Carapace	length 3.75		width 2.75		
	Abdomen	length 3.50		width 2.10		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.10	1.35	3.15	2.75	1.40	11.75
2	2.40	1.10	1.95	1.85	1.05	8.35
3	1.95	1.05	1.20	1.70	0.75	6.65
4	2.50	1.15	2.10	2.50	1.00	9.25
Palp	1.95	0.75	0.95		1.25	4.90

Palp Bulb and tibial processes as in Figs. 743, 744.

Types Holotype female. Three Kings Islands. Tasman Valley, November 1970, G. W. Ramsay. Allotype male. Three Kings Islands. Castaway Camp, November 1970, G. W. Ramsay (Ent. Divn D.S.I.R.).

Huara Forster 1964

1964 *Huara*, Forster. Pac. Ins. Mon. 7: 80.

Small to large (2.5-15mm in body length) ecribellate spiders. Eyegroup occupying most of the width of the head. Two rows. Anterior row straight and posterior row definitely procurved. AME half or less than half width of the ALE. ALE and posterior eyes relatively large and subequal. Lateral eyes well separated. Labium notched at the base and wider than long. Chelicerae with boss. Retromargin with two teeth. Promargin with two or a single tooth. Legs 4123, strongly spined. Trichobothria in a double row on tibiae and a single row on metatarsi and tarsi. Tarsal organ situated behind the distal trichobothrium. Preening combs not present. Superior claws similar, strongly pectinate. Inferior claw smooth or with no more than two teeth. Claw tufts and tenent hairs absent. Female palp with trichobothria on tibia and tarsus. Claw pectinate. Six spinnerets. Anterior pair stouter than posterior pair but not markedly larger. Colulus distinct, setose. Epigynum with a distinct median distended plate on the posterior margin which is usually oval in shape with the ducts opening anteriorly from a shallow depression. Internal genitalia receptaculate. Ducts not convoluted, contained within the epigynal plate. Tibia of male palp with retrolateral processes. Bulb simple, with embolus, conductor and median epophysis. Embolus originating from the base on the prolateral margin, slender, spiniform, curving along the prolateral margin to rest distally on the conductor. Conductor a prominent T-shaped structure originating from near the base of the embolus. Median apophysis well developed, hooked apically.

Type species *Gohia antarctica* Berland 1931.

This genus is easily recognised by the relatively large eyes and well separated lateral eyes. The presence of trichobothria beyond the tarsal organ is unusual. The most distinctive feature separating this genus from the closely related genera *Rorea* and *Neororea* is the widely separated lateral eyes. These spiders construct weak and rather formless sheetwebs on the ground amongst debris. The egg-sacs are spherical with a thick covering of loose silk, and are guarded by the female spider in the web. *Huara grossa* known only from the Auckland Islands is doubtfully placed in this genus. Large size and heavy pigmentation seems to be characteristic of a number of the subantarctic spiders and it seems wise to leave this species in *Huara* in the meantime.

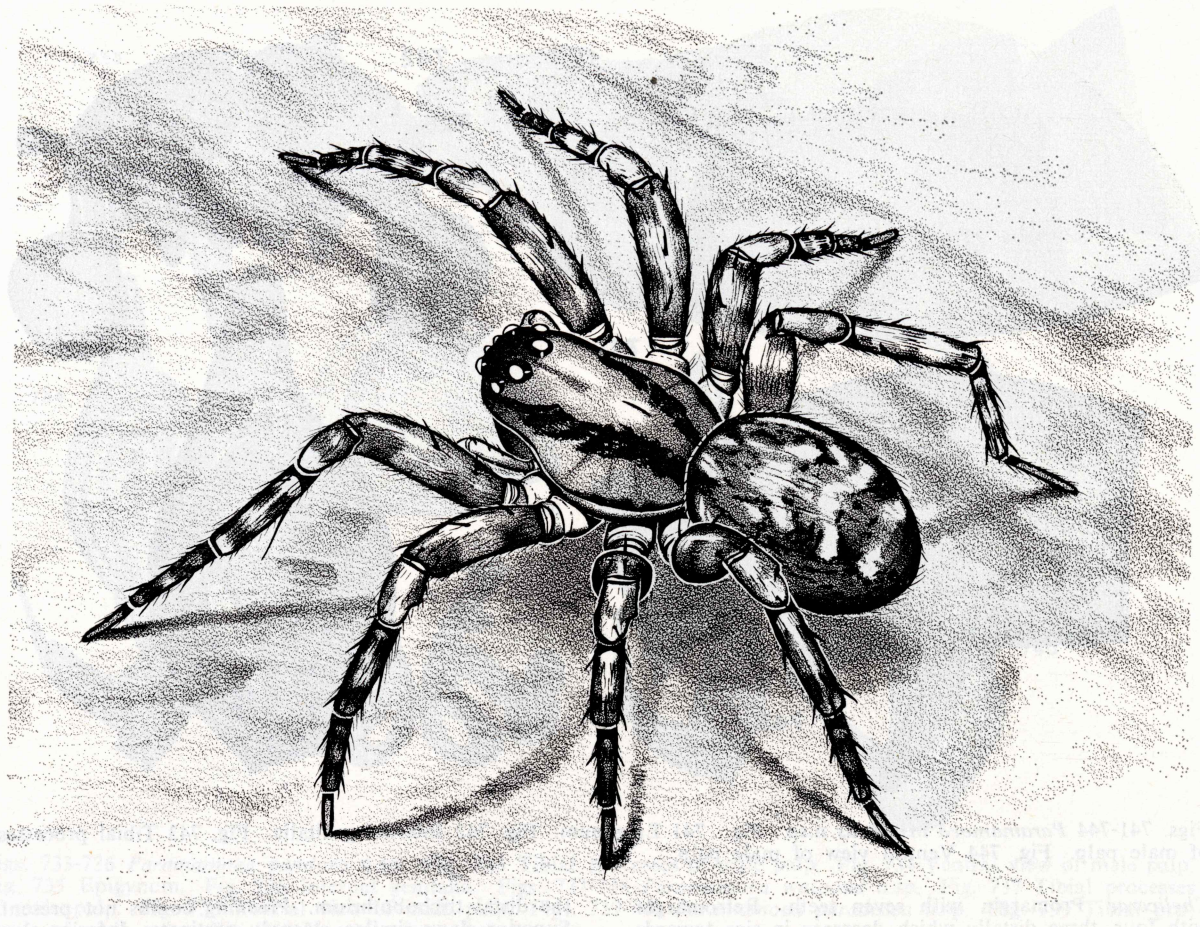
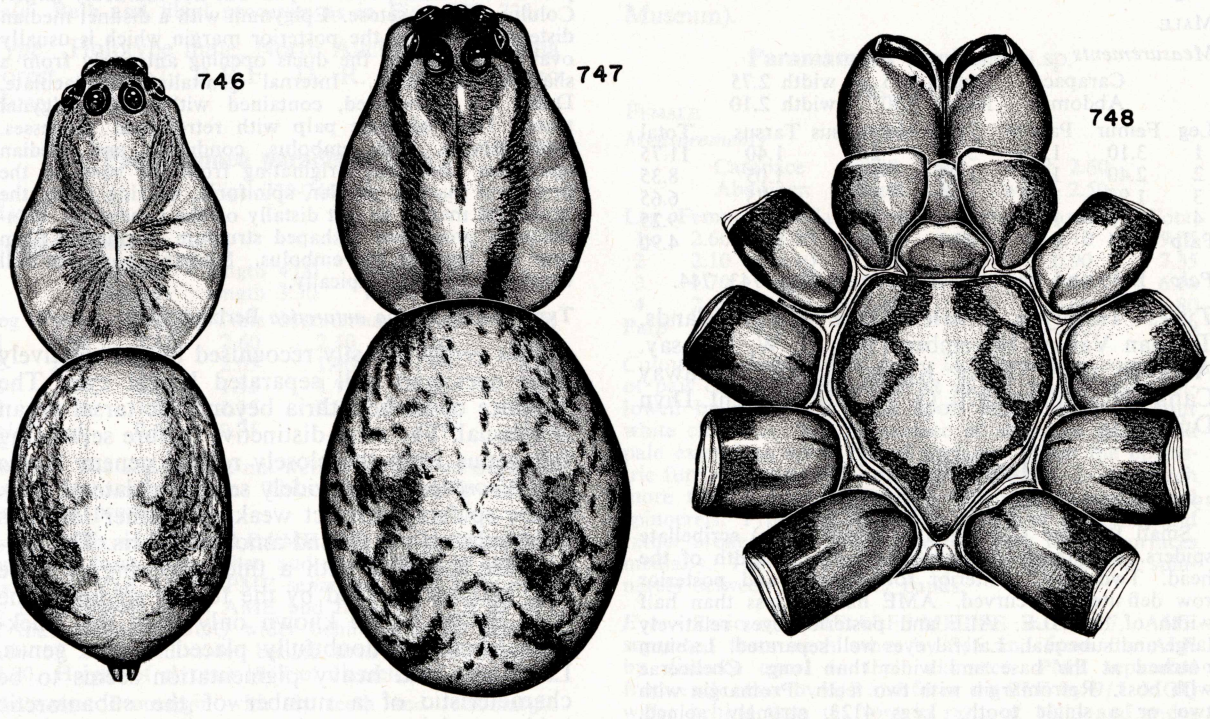


Fig. 745 *Huara inflata* n.sp. female.



Figs. 746-748 Dorsal surface of female. Fig. 746 *Huara chapmanae* n.sp. Fig. 747 *Huara hastata* n.sp. Fig. 748 *Huara hastata* n.sp. Sternum, showing pattern and mouthparts.

Huara antarctica (Berland) 1931

1931 *Gohia antarctica,* Berland. Rec. Cant. Mus. 3(6): 359.

1955 *Chiracanthium antarcticum,* Forster. Rec. Dom. Mus. 2(6): 177.

1964 *Huara antarctica,* Forster. Pac. Ins. Mon. 7: 81. Figs. 749-752

MALE

Measurements

Carapace	length 5.00		width 3.75	
Abdomen	length 5.00		width 3.36	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.00	2.00	7.34	5.36	2.14	21.84
2	4.75	2.77	4.36	4.41	2.08	17.37
3	3.72	1.54	3.00	3.62	1.59	13.47
4	4.75	2.83	3.89	5.00	3.24	27.62
Palp	2.31	0.74	1.72		1.51	6.28

Eyes Area between eyes black. From above anterior row almost straight but from in front anterior row straight and posterior row strongly procurved. Ratio of AME.ALE.PME.PLE = 1.3.4.6. AME separated from each other and ALE by twice their diameter. Laterals widely separated by five times diameter of an AME. PME separated from each other and from PLE by a similar distance. MOQ four times as wide behind as in front.

Chelicerae Moderately porrect. Lateral boss well developed. Both margins with two strong teeth.

Legs Heavily clothed with fine erect hairs. Tibia of leg 1 with four pairs of ventral spines. Tibia of leg 2 with three pairs.

Palp Relatively long but cymbium short. Bulb as in Fig. 749 and tibial processes as in Fig. 750.

FEMALE

Similar to the male. Epigynum and internal genitalia as in Figs. 751, 752.

Types Syntype male and females. Auckland Island, March 1923, G. Archey (Canterbury Museum).

Records Numerous specimens have been recorded from the Auckland Islands including Rose Is., Ocean Is., Disappointment Is., and Adams Is. Endemic to the Auckland Islands. It shares with the even larger *H. grossa* the distinction of being by far the largest species known for this genus, a characteristic quite commonly found in spiders from these southern islands.

Huara grossa Forster, 1964

1964 *Huara grossa,* Forster. Pac. Ins. Mon. 7: 81. Figs. 734-737

FEMALE

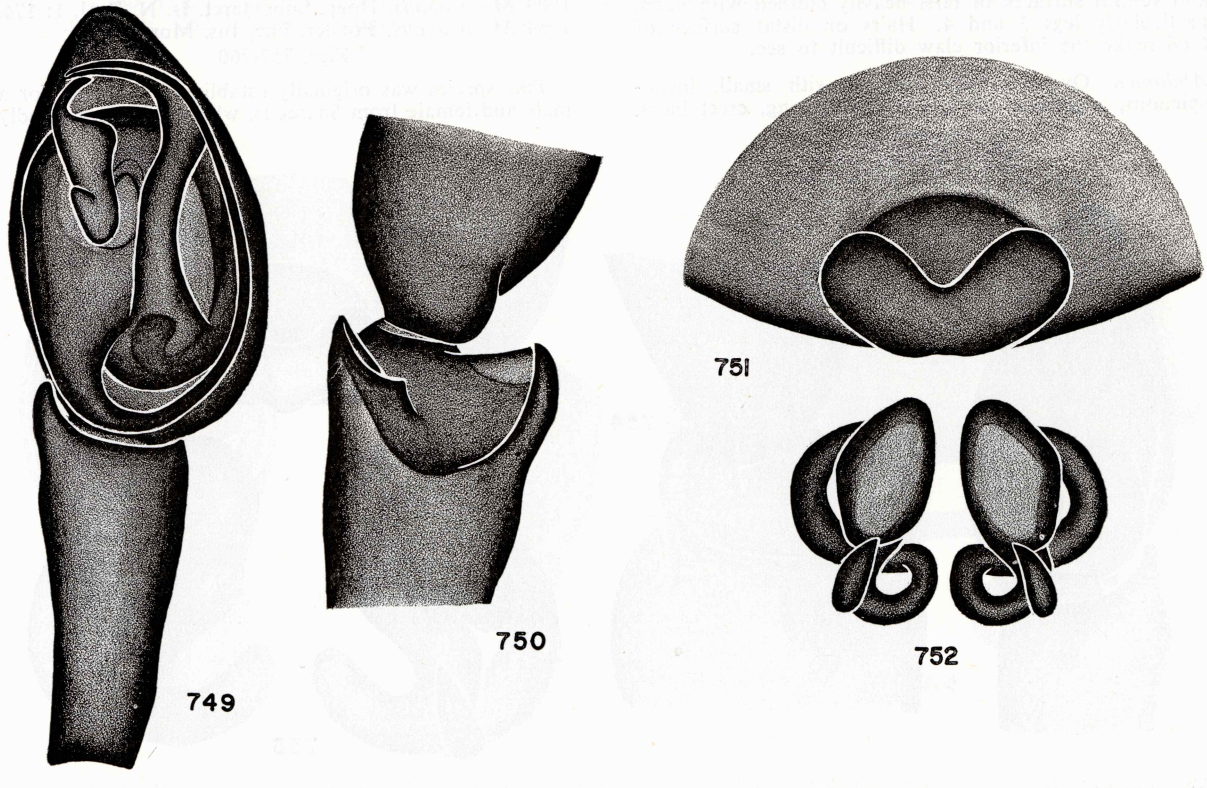
Measurements

Carapace	length 7.48		width 4.40	
Abdomen	length 9.71		width 8.36	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.04	3.08	7.06	5.72	2.71	25.61
2	6.16	2.83	6.16	5.61	2.43	23.19
3	5.72	2.64	4.40	5.72	2.20	20.68
4	6.16	2.64	7.06	7.04	3.08	25.98
Palp	2.64	1.32	1.95		2.64	8.55

Colour Cephalothorax deep reddish brown, eyes surrounded with black. Abdomen yellow-brown, heavily shaded with grey. A few pale markings on antero-median dorsal surface and rather indistinct rows of small pale patches along lateral margins. Chelicerae dark brown, almost black. Legs, palp and sternum uniform reddish brown.

Carapace Width of head region only 4/7 width of thorax. Lateral margins almost parallel. Thoracic region widest between the second pair of legs. Fovea long and narrow, not deep.



Figs. 749-752 *Huara antarctica* (Berland). Fig. 749 Ventral view of male palp. Fig. 750 Tibial processes of male palp. Fig. 751 Epigynum. Fig. 752 Internal genitalia.

Eyes Eyegroup relatively compact, taking up 5/8 width of head. From above anterior row straight and posterior row recurved. From in front anterior row slightly procurved and posterior row strongly procurved. Eyegroup on a low swelling which projects forward over clypeus. Ratio of AME.ALE.PME.PLE = 7.22.25.25. AME separated by 5/7 and from ALE by 10/7 of diameter of an AME. ALE and PME separated from each other by 8/7 while the PME are separated from each other by 15/7 and from PLE by 10/7. MOQ wider behind than in front in ratio of 65.19 and longer than wide in front in ratio of 54.19.

Chelicerae Stout, swollen on proximal anterior surface of basal segment and with a prominent lateral boss. Two strong teeth on each margin and a thick scopula behind promargin. There is a further scopula on the retrolateral surface but more proximal.

Labium Slightly longer than wide, notched proximally, lateral margins converging slightly anteriorly. Anterior margin incurved.

Maxillae Lateral margins relatively straight but diverging so that distal width is greater. Longer than wide in ratio of 11.7. A thick scopula on inner distal margin with apical hairs longer and forming a tuft.

Sternum Longer than wide in ratio of 8.7. Almost oval in outline, indented anteriorly.

Palp Spines. Femur, d.1.1.1. Tibia and tarsus, d.2.0.0. p.2.2.2. r.1.1.1.2. Single row of 5 trichobothria on tibia. Claw with single row of five strong teeth.

Legs Spines. Leg 1. Femur, d.0.1.1.0. p.0.0.0.2. Tibia, v.2.1.2.2. p.0.0.1.1. Leg 2. Femur, d.2.2.1.0. Tibia, v.2.2.2.0.1. p.0.1.0.1.0. Metatarsus, d,r.0.0.1. v.2.2.2. p.0.1.1. Leg 3. Femur, d.2.2.3. Tibia, d.1.0.1. p,r.0.1.1. v.2.1.2. Metatarsus, d.0.1.1.1. p,r.1.1.1. v.2.2.2. Leg 4. Femur, d.1.1.3. Tibia, d.0.1. p,r.1.1. v.2.1.2. Metatarsus, d.1.1.2. p,r.1.1.1. v.2.2.2. Trichobothria. Leg 1. Tibia, 1.1.1. Metatarsus, 8. Tarsus, 6. Legs 2-4. Tibia, 2.2.2.2.1. Metatarsus and tarsus, 9. Superior claws with 11 long teeth. Inferior claw small, smooth. Disto-ventral surfaces of metatarsi and ventral surfaces of tarsi heavily clothed with hairs, particularly legs 3 and 4. Hairs on distal surface of tarsi make the inferior claw difficult to see.

Abdomen Ovoid, closely clothed with small, inconspicuous, adpressed hairs, and fewer, long, erect hairs. Epigynum as in Fig. 755. Internal genitalia simple as in Fig. 756. Spinnerets short and squat. Colulus distinct, triangular, closely clothed with short hairs.

MALE

Measurements

Carapace length 5.72 width 4.40
Abdomen length 6.61 width 3.52

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	6.16	2.20	4.93	5.94	2.64	21.87
2	4.84	1.96	3.96	5.09	1.96	17.81
3	4.84	1.94	3.76	4.40	1.47	16.41
4	4.86	1.52	5.28	5.28	2.64	19.58
Palp	2.83	1.09	1.76		1.35	7.03

Similar to female. Palp as in Figs. 753, 754.

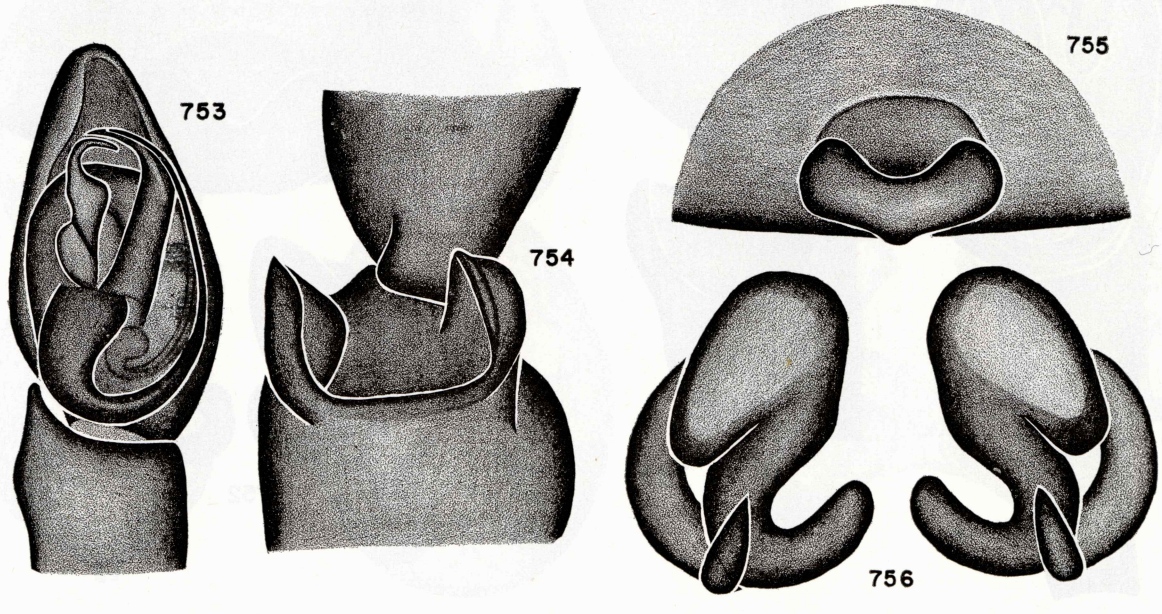
Types Holotype male, allotype female. Auckland Is., Ocean Is., 3.i.1963, J. C. Yaldwyn (Dominion Museum).

Records Auckland Island, No. 1 station, 25.ii.-1943. Tucker Point, Port Ross, 28.i.1966, R. G. Ordish. Ocean Is., 20.ii.1966, C. Clark. Ocean Is., under logs and *Stilbocarpa,* 28.xii.1962, P. M. Johns, Ewing Is., 18.i.1966, R. G. Ordish. Ewing Is., on *Olearia* at night eating weta, 14.i.1963, P. M. Johns. Ewing Is., under logs on forest floor, 12.xi.1954, E. S. Gourlay. Ewing Is., 27.xii.1962, L. J. Dumbleton. Ewing Is., under log, 3 ft above high water, 27.xii.1962, G. A. Knox. Adams Is., Magnetic Cove, 4.ii.1966, K. A. J. Wise. West end Adams Is., 22.i.1966, P. Rickwood. Magnetic Cove, base of *Chianachloa antarctica* tussock, with eggsac, 29.i.1966, K. A. J. Wise. Adam Is., 28.vii.-1944, M. G. Easton. French Is., 21.i.1966, under stones, R. G. Ordish. Rose Island, under stones in black-backed gull colony, 8.i.1963, G. A. Knox.

Huara ovalis (Hogg) 1909

1909 *Myro ovalis,* Hogg. Subantarct. Is. N. Zeal. 1: 174.
1964 *Myro ovalis,* Forster. Pac. Ins. Mon. 7: 73.
Figs. 757-760

This species was originally established by Hogg for a male and female from Snares Is. which differed markedly

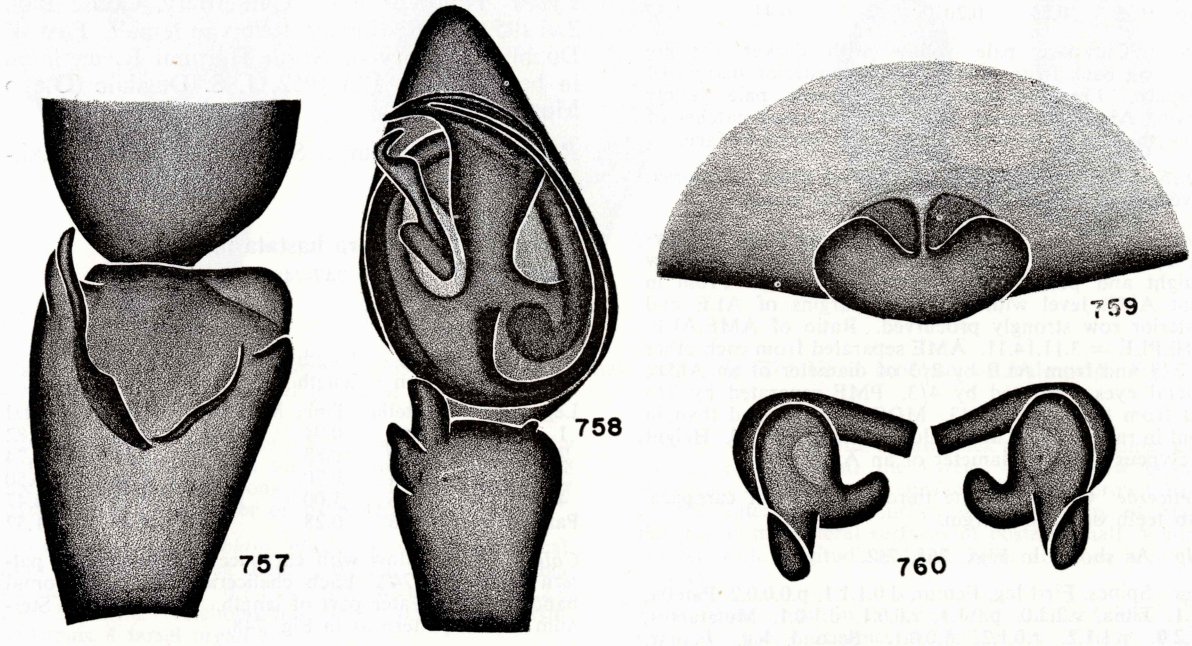


Figs. 753-756 *Huara grossa* Forster. Fig. 753 Ventral view of male palp. Fig. 754 Tibial processes of male palp. Fig. 755 Epigynum. Fig. 756 Internal genitalia.

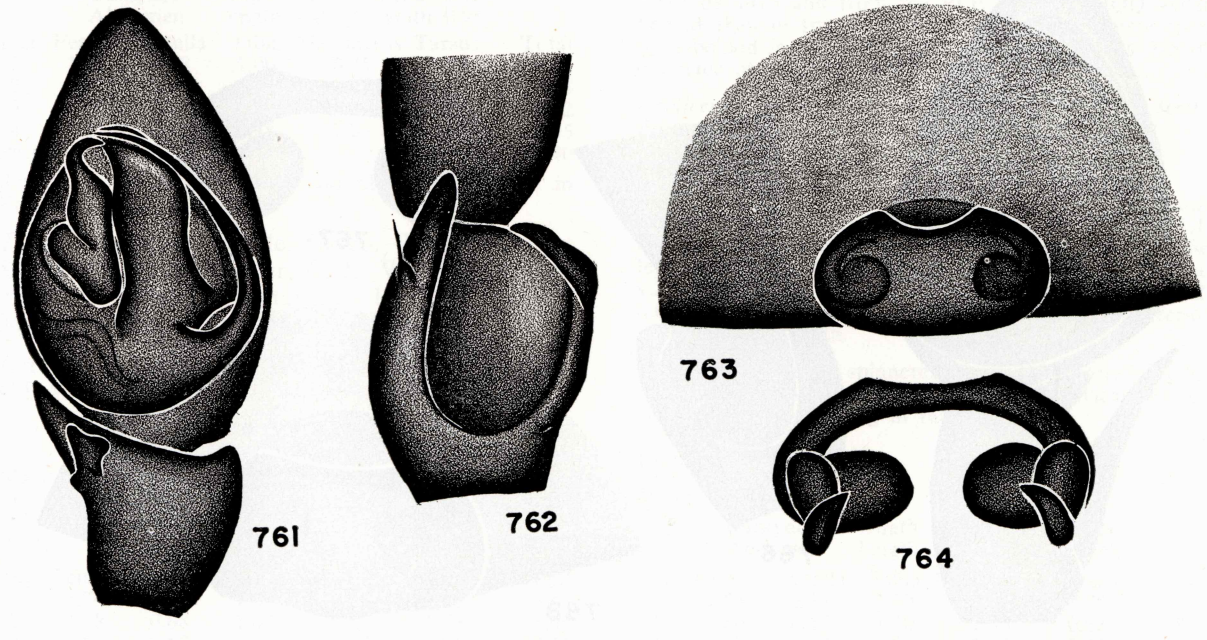
in a number of characters. This discrepancy had been pointed out previously (Forster, 1964) but at that time only the very poorly preserved type material was available. Since that time a further male associated with a typical female from the Snares was examined and figured by one of us but this pair is unavailable at the present time to prepare a detailed description. Drawings of the male palp included below (Figs. 757, 758) establish that this species is correctly placed in *Huara*.

The eyes of the female type are as follows: Ratio of AME.ALE.PME.PLE = 4.11.11.11. AME separated from each other and from ALE by the diameter of an AME. Lateral eyes separated by a distance equal to 6/4 of this diameter. PME separated from each other by 8/4 and from the PLE by 3/4. MOQ wider behind than in front in ratio of 30.10 and longer than wide in front in ratio of 31.10. Second pair of legs with four pairs of ventral spines on tibia and three pairs on metatarsus.

Type Lectotype female, Snares Is. (Otago Museum).



Figs. 757-760 *Huara ovalis* (Hogg). Fig. 757 Tibial processes of male palp. Fig. 758 Ventral view of male palp. Fig. 759 Epigynum. 760 Internal genitalia.



Figs. 761-764 *Huara pudica* n.sp. Fig. 761 Ventral view of male palp. Fig. 762 Tibial processes of male palp. Fig. 763 Epigynum Fig. 764 Internal genitalia.

Huara pudica n.sp.

Figs. 761-762

MALE

Measurements

	Carapace		length 1.52		width 1.12	
	Abdomen		length 1.48		width 0.96	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.33	0.50	1.18	1.08	0.65	4.74
2	1.20	0.48	1.00	1.03	0.60	4.31
3	1.18	0.50	0.83	1.03	0.55	4.09
4	1.43	0.50	1.13	1.40	0.68	5.14
Palp	0.56	0.20	0.20		0.41	1.37

Colour Carapace pale yellow with darker shading extending back from lateral eyes to posterior margin of carapace. Legs, sternum and chelicerae pale yellow brown. Abdomen cream with scattered small patches of black shading, more widely spaced on dorsal surface.

Carapace Width of the head 9/14 of width of thorax. Fovea deep, with outer margins slightly raised.

Eyes Eyes ringed with black. Eyegroup large, occupying 3/4 of width of head. From above anterior row straight and posterior row gently procurved. From in front AME level with posterior margins of ALE and posterior row strongly procurved. Ratio of AME.ALE. PME.PLE = 3.11.14.11. AME separated from each other by 3/3 and from ALE by 2/3 of diameter of an AME. Lateral eyes separated by 4/3. PME separated by 7/3 and from the PLE by 2/3. MOQ wider behind than in front in ratio of 35.9 and as long as wide behind. Height of clypeus 11/3 of diameter of an AME.

Chelicerae Chelicerae one third of length of carapace. Two teeth on each margin.

Palp As shown in Figs. 761, 762.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. Patella, d.1.1. Tibia, v.2.2.0. p.0.1.1. r.0.0.1. d.1.0.1. Metatarsus, v.2.2.0. p.1.1.2. r.0.1.2. d.0.0.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. p.0.1.1. r.0.0.2. d.1.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.1. Trichobothria. Tibia, 1.2.1.1.1. Metatarsus, 3. Tarsus, 4. Tarsal organ on mid-surface of tarsi. Superior claws with eight teeth. Inferior claws with two long teeth. There is a group of bristles on distal quarter of ventral surface of fourth metatarsus.

Abdomen Posterior pair of spinnerets as wide as anterior pair but only 2/3 as long. Colulus distinct, evenly curved posteriorly.

FEMALE

A single female with most of the legs missing appears to belong to this species. Epigynum and internal genitalia as in Figs. 763, 764.

Types Holotype male. Canterbury. Goose Bay, 2.vi.1952, R. R. Forster. Allotype female. East of Doghill, tributary of North Hurunui River, moss in beech forest, 12.v.1952, J. S. Dugdale (Otago Museum).

Records Canterbury. Staveley, leaflitter, 2.xi.-1970, C.L.W.

Huara hastata n.sp.

Figs. 747-748, 765-768

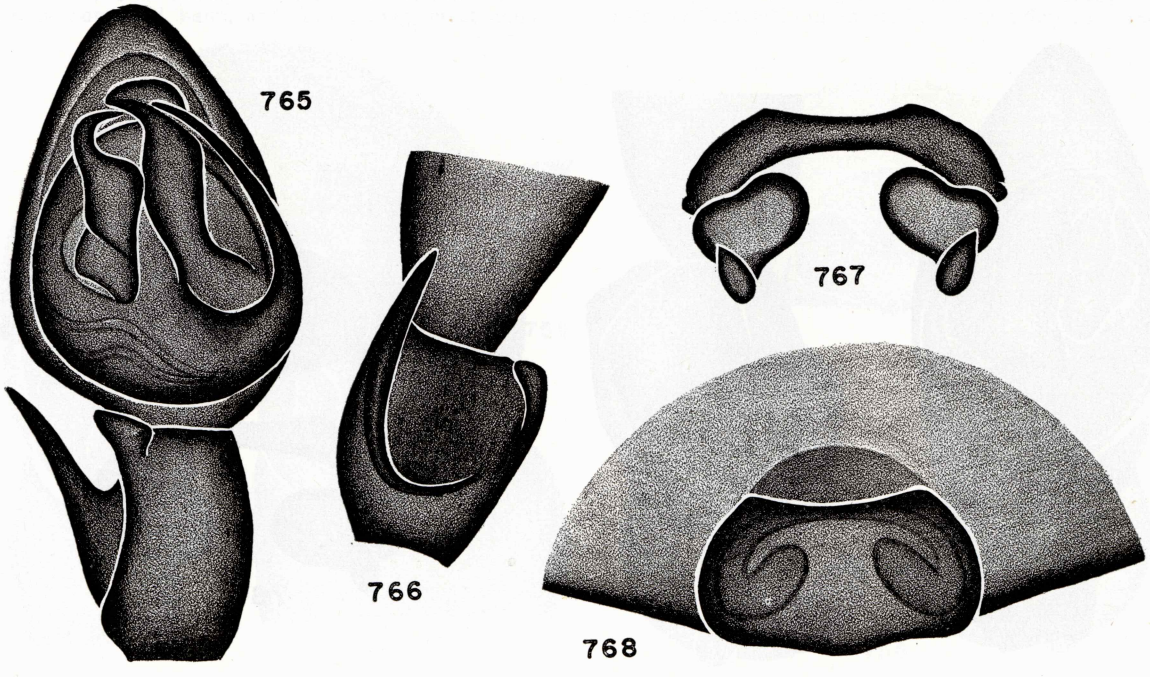
FEMALE

Measurements

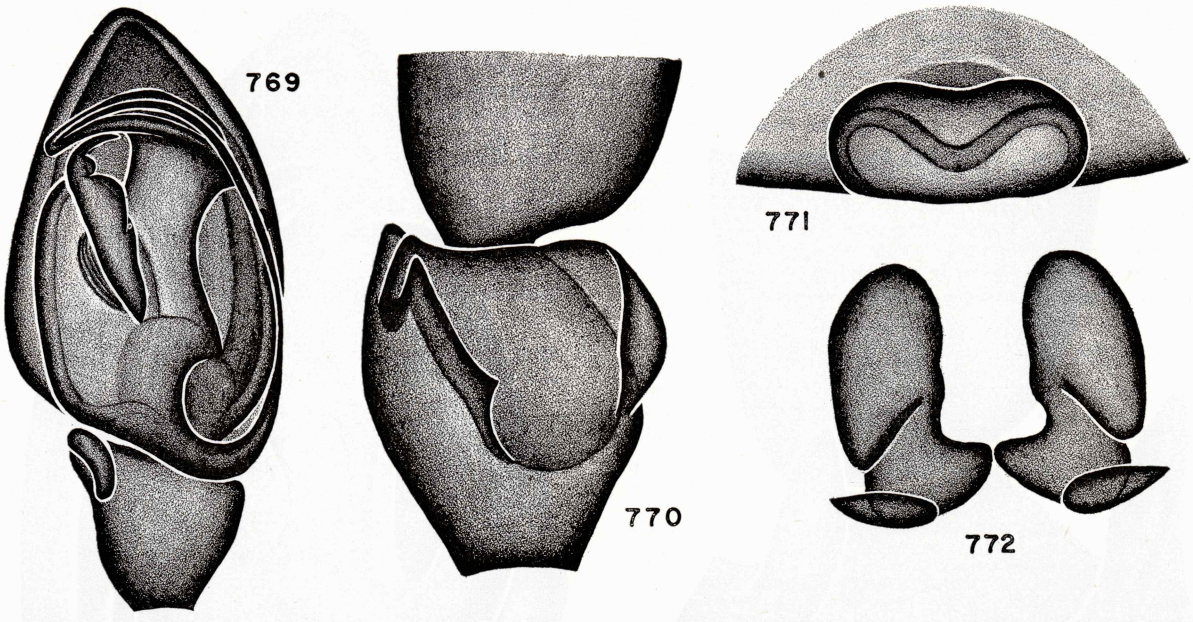
	Carapace		length 1.43		width 1.06	
	Abdomen		length 2.00		width 1.54	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.10	0.50	0.94	0.86	0.42	3.82
2	1.08	0.50	0.83	0.83	0.50	3.74
3	1.02	0.44	0.70	0.88	0.46	3.50
4	1.26	0.46	1.00	1.15	0.60	4.47
Palp	0.50	0.26	0.28		0.48	1.52

Colour Pale yellow with carapace and abdominal pattern as in Fig. 747. Each chelicera with black frontal band for the greater part of length. Legs banded. Sternum with a pattern as in Fig. 748.

Eyes Group occupies 8/11 of width of head. Ratio of AME.ALE.PME.PLE = 3.11.11.11. AME separated from each other by 2/3 and from ALE by 1/3 of diameter of an AME. Laterals separated by 5/3. PME



Figs. 765-768 *Huara hastata* n.sp. Fig. 765 Ventral view of male palp. Fig. 766 Tibial processes of male palp. Fig. 767 Internal genitalia. Fig. 768 Epigynum.



Figs. 769-772 *Huara mura* n.sp. Fig. 769 Ventral view of male palp. Fig. 770 Tibial processes of male palp. Fig. 771 Epigynum. Fig. 772 Internal genitalia.

separated from each other by 5/3 and from PLE by 4/3. MOQ wider behind than in front in ratio of 31.8 and wider behind than long in ratio of 31.27. Height of clypeus 16/3 of diameter of an AME.

Sternum, maxillae, labium, chelicerae and *palp* typical. *Legs* Spines. First leg. Femur, d.1.1.1. p.0.1. r.0. Tibia, v.2.1.2. p.0.0.1. r.0. d.1.1 (short). Metatarsus, v.2.2.0. p.1.1.2. r.0.1.2. Trichobothria. Tibia, p,r.3. Metatarsus, 3. Tarsus, 1 tarsal organ 1.

Abdomen Colulus relatively large and dome-shaped. Posterior spinnerets slightly smaller than anterior pair. Epigynum and internal genitalia as in Figs. 767, 768.

MALE

Measurements

	Carapace		length 1.35		width 1.10	
	Abdomen		length 1.40		width 0.95	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.12	0.48	1.00	0.95	0.80	4.35
2	1.05	0.45	0.85	0.85	0.55	3.75
3	1.00	0.42	0.70	0.90	0.50	3.52
4	1.27	0.45	0.98	1.25	0.60	4.55
Palp	0.50	0.20	0.25		0.45	1.40

Similar to the female. Bulb and tibial processes as in Figs. 765, 766.

Types Holotype female. Otago. Waipori Gorge, 8.xii.1966, R. R. Forster, C. L. Wilton. Allotype male. Southland. Tuatapere, 19.v.1962, B. J. Marples (Otago Museum).

Record Southland. Lake Hauroko, 11.iii.1970, C.L.W.

Huara mura n.sp.

Figs. 769-772

MALE

Measurements

	Carapace		length 1.98		width 1.52	
	Abdomen		length 1.80		width 1.24	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.70	0.65	1.65	1.58	0.85	6.43
2	1.58	0.68	1.43	1.48	0.78	5.95
3	1.58	0.63	1.18	1.45	0.68	5.52
4	1.83	0.68	1.50	1.85	0.80	6.66
Palp	0.72	0.32	0.28		0.56	1.88

Colour Carapace with broad black patch extending back from eyes to behind the fovea. Legs yellow brown. Abdomen cream. Dorsal surface with pale brown band on the antero-median surface and two pairs of black patches on mid-lateral surfaces of posterior half. Ventral surface with longitudinal black band down each lateral surface.

Eyes Eyes ringed with black and enclosed area also dark. Eyegroup occupies the full width of head. From above anterior row straight and posterior row slightly procurved. From in front anterior row straight but posterior row strongly procurved. AME level with posterior margins of ALE. Ratio of AME.ALE.PME.PLE = 5.16.12.12. AME separated by 3/5 and from ALE by 4/5 of diameter of an AME. Lateral eyes separated by twice diameter of an AME. PME separated from each other by 14/5 and from the PLE by 8/5. MOQ wider behind than in front in ratio of 36.13 and longer than wide behind in ratio of 43.36. Height of clypeus 9/5 of diameter of an AME.

Chelicerae Boss small. Retromargin with two teeth. Promargin with a single tooth.

Palp As in Figs. 769, 770.

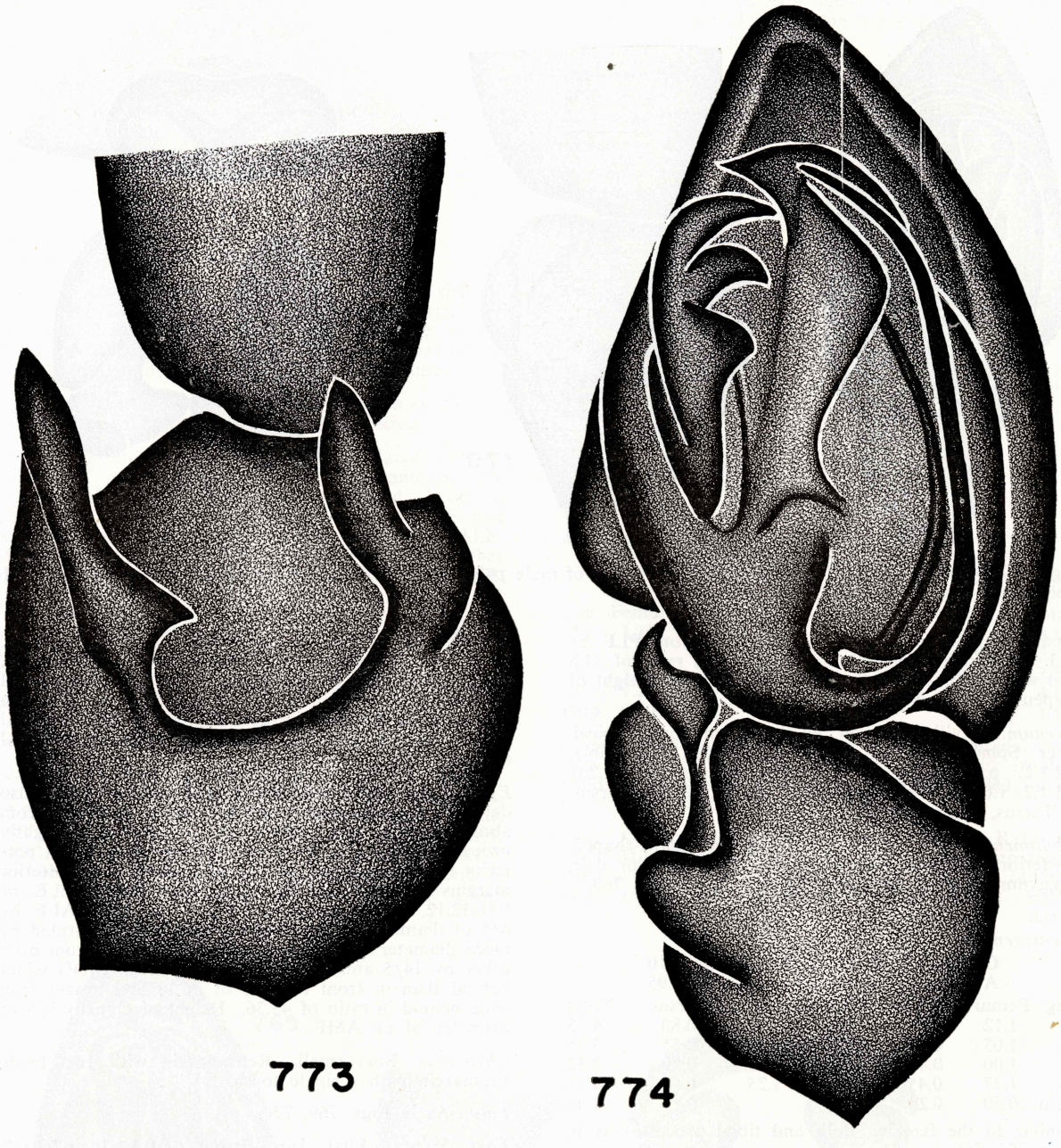
Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.0.1. Tibia, v.1.2.2.2. p.0.0.0.1. r.0.0.1.1. d.1.0.0.1. Metatarsus, v.2.2.0. p,r.1.1.2. d.0.1.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.1. Superior claws with from 7-8 teeth. Inferior claw with two teeth.

Abdomen Anterior spinnerets larger than posterior pair. Colulus well developed flattened, posterior margin evenly curved, wider than long in ratio of 8.5.

FEMALE

Measurements

	Carapace		length 2.22		width 1.60	
	Abdomen		length 2.00		width 1.42	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.55	0.68	1.50	1.38	0.75	5.86
2	1.60	0.68	1.30	1.33	0.68	5.59
3	1.58	0.65	1.13	1.38	0.63	5.37
4	1.78	0.68	1.50	1.75	0.60	6.31
Palp	0.70	0.38	0.43		0.70	2.21



Figs. 773-774 *Huara kikkawai* n.sp. Fig. 773 Tibial processes of male palp. Fig. 774 Ventral view of male palp.

Colouration similar to male but abdominal markings darker. Eyes similar but posterior eyes relatively larger so that the proportions of MOQ differ. Ratio of AME. ALE.PME.PLE = 5.15.16.15. MOQ wider behind than in front in ratio of 48.13 and wider behind than long in ratio of 48.38. Chelicerae with two teeth on both margins

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.0. Trichobothria. Tibia, 2.1.2.2. Tarsus, 1.1.1. Claw with five teeth. Epigynum and internal genitalia as in Figs. 771, 772.

Types Holotype male, allotype female. Fiordland. Lake Te Au, near south arm of Lake Te Anau, 12-24.i.1953, R. R. Forster (Otago Museum).

Huara kikkawa n.sp.

Figs. 773-774

MALE

Measurements

Carapace	length 2.23		width 1.60		
Abdomen	length 1.86		width 1.32		

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.83	0.75	1.78	1.55	0.83	6.74
2	1.75	0.70	1.53	1.45	0.80	6.23
3	1.70	0.70	1.45	1.50	0.73	6.08
4	1.95	0.73	1.63	1.90	0.93	7.14
Palp	0.84	0.24	0.32		0.80	2.20

Colour Type pale and probably recently moulted. Eye region black with broad brown band extending back to near posterior margin of carapace. Legs pale yellow,

darkening distally. Abdomen cream with faint indications of darker shading on dorsal and lateral surfaces.

Eyes Eyegroup placed in an oval black area, which extends behind the eyes, and occupies 3/4 of the head. From above anterior row slightly recurved and posterior row straight. From in front anterior row straight and posterior row procurved. Ratio of AME.ALE.PME.PLE = 7.15.12.16. AME separated by 4/7 and from ALE by 3/7 of diameter of an AME. Lateral eyes separated by 2/7. PME separated from each other by 6/7 and from PLE by 4/7. MOQ wider behind than in front in ratio of 30.18 and longer than wide behind in ratio of 39.30. Height of clypeus equal to 8/7 of the diameter of an AME.

Chelicerae Length equal to 3/11 of carapace. Retromargin with two teeth. Promargin with a single tooth.

Palp As shown in Figs. 773, 774.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.0.1. Tibia, v.2.2.1. p.1.0.1.1. r.0.0.1.1. d.0.0.0.1. Metatarsus, v.2.2.0. p.1.1.2. r.0.1.2. d.0.1.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.2.2. p,r.0.0.1.1. d.1.0.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.1.1.1. Trichobothria. Tibia, 2.2.1.2.1. Metatarsus, 3. Tarsus, 5. Superior claws with eight teeth. Inferior claw smooth.

Abdomen Colulus small with few hairs.

Type Holotype male. Stewart Is., Freshwater River, manuka bark, 20.ii.1959, J. Kikkawa, M. A. Chapman (Otago Museum).

Huara decorata n.sp.

Figs. 775-778

FEMALE

Measurements

Carapace	length 1.65		width 1.10	
Abdomen	length 1.42		width 1.03	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.25	0.50	1.10	1.00	0.57	4.42
2	1.15	0.50	0.95	0.95	0.55	4.10
3	1.12	0.48	0.75	1.00	0.50	3.85
4	1.37	0.50	1.00	1.35	0.65	4.87
Palp	0.55	0.27	0.30		0.50	1.62

Colour The pattern on the carapace is intermediate between those figured for *chapmanae* and *hastata*. The sternal pattern has more shading than that shown in Fig. 745 and has pale "cells" opposite each of the third pair of coxae as well as those opposite the coxae of first and second pairs of legs.

Eyes Ratio of AME.ALE.PME.PLE = 5.11.11.11. AME separated from each other and from ALE by 2/5 of diameter of an AME. Laterals separated from each other by 6/5. PME separated from each other by 7/5 and from PLE by 4/5. MOQ wider behind than in front in ratio of 29.12 and longer than wide behind in ratio of 34.29. Height of clypeus 13/5 of diameter of an AME.

Sternum, maxillae, labium, chelicerae and *palp* typical.

Legs Spination. First leg. Femur, prolateral spine present, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, v.2.1.2.0. p.0.1.1. r.0.0.1. d.1.1. Metatarsus, v.2.2.1. p,r.0.1.2.

Abdomen Epigynum and internal genitalia as in Figs. 777, 778.

MALE

Measurements

Carapace	length 1.60		width 1.17	
Abdomen	length 1.40		width 0.80	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.25	0.50	1.15	1.10	0.65	4.65
2	1.25	0.50	1.00	1.10	0.62	4.47
3	1.20	0.48	0.82	1.07	0.55	4.12
4	1.40	0.50	1.10	1.35	0.65	5.00
Palp	0.55	0.20	0.25		0.55	1.55

Similar to the female in appearance.

Palp Bulb and tibial processes as in Figs. 775, 776.

Types Holotype female, allotype male. Canaan Track, Nelson, 15.v.1965, M. Luxton (Otago Museum).

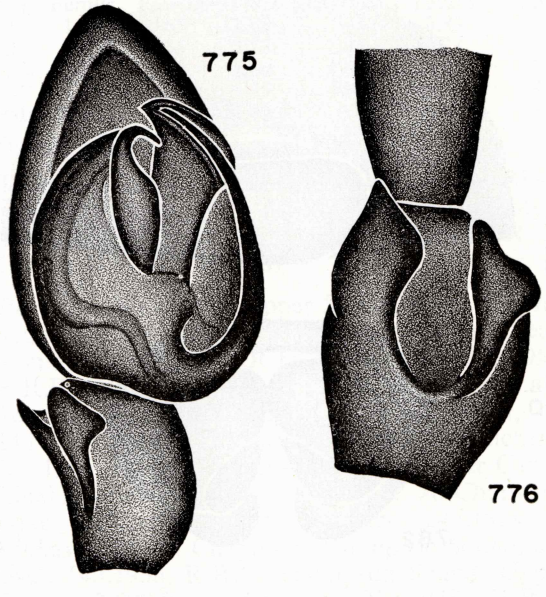
Huara inflata n.sp.

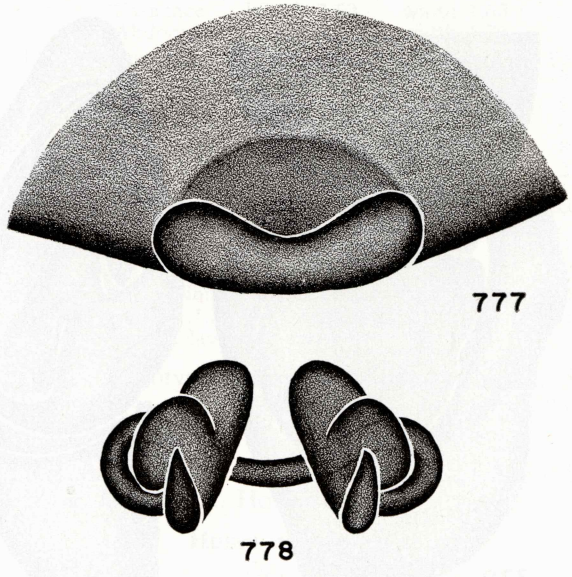
Figs. 745, 779-782

FEMALE

Measurements

Carapace	length 1.80	width 1.24	
Abdomen	length 2.62	width 1.74	





Figs. 775-778 *Huara decorata* n.sp. Fig. 775 Ventral view of male palp. Fig. 776 Tibial processes of male palp. Fig. 777 Epigynum. Fig. 778 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.38	0.58	1.25	1.10	0.65	4.96
2	1.33	0.58	1.08	1.13	0.58	4.70
3	1.25	0.55	0.90	1.13	0.55	4.38
4	1.50	0.55	1.15	1.50	0.75	5.45
Palp	0.60	0.25	0.43		0.45	1.73

Colour (Fig. 745) Carapace with brown patch extending from eyes to behind fovea, leaving a pale band on the lateral margins of head and lateral and posterior margins of thorax. Legs yellow brown. Abdomen cream with irregular black markings on dorsal surface.

Eyes Eyegroup occupies 5/7 of width of head and slightly overhangs the clypeus. From above anterior row straight and posterior row procurved. From in front the rows appear the same but posterior row more strongly procurved. Ratio of AME.ALE.PME.PLE = 4.15.11.15. AME separated from each other and from ALE by 5/4 of diameter of an AME. Lateral eyes separated by 7/4. PME separated from each other by 9/4 and from PLE by 8/4. MOQ wider behind than in front in ratio of 31.13 but longer than wide behind in ratio of 40-31. Height of clypeus 5/4 of diameter of an AME.

Chelicerae Length equal to 2/5 of the carapace. Boss small. Both margins with two teeth.

Palp Spines. Femur, d.0.0.1.1. Patella, d.1.1. Tibia, p.1.0. Trichobothria. Tibia, 1.2.2.2.1. Tarsus, 1.1.1.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2.0. p.0.1.0.1. r.0.0.0.1. Metatarsus, v.2.2.0. p.1.1.2. r.1.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2.0. p.0.1.0.1. r.0.0.0.1. d.1.0.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.1. Trichobothria. Tibia, 2.1.1.1. Metatarsus, 3. Tarsus, 4. Superior claws with from 8-9 teeth. Inferior claw with 2 teeth.

Abdomen Anterior and posterior spinnerets equal in length. Colulus well developed, clothed with hairs. Epigynum and internal genitalia as in Figs. 781, 782.

MALE

Similar to female. Palp as in Figs. 779, 780.

Type Holotype female. Westland. Okarito, 7.xii.-1949, R. R. Forster. Allotype male. Between Fox and Franz Josef, 27.ix.1966, R.R.F., C.L.W. (Otago Museum).

Records Westland. 5 miles west of Otira, 29.ix.-1966, R.R.F., C.L.W. Pukekura, August 1952, M. Warren.

Huara chapmanae n.sp.

Figs. 783-786

FEMALE

Measurements

Carapace	length 2.20		width 1.60	
Abdomen	length 2.20		width 1.48	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.68	0.73	1.53	1.45	0.78	6.17
2	1.65	0.70	1.33	1.43	0.78	5.89
3	1.60	0.68	1.13	1.48	0.70	5.59
4	1.85	0.70	1.43	1.88	0.90	6.76
Palp	0.80	0.35	0.48		0.78	2.41

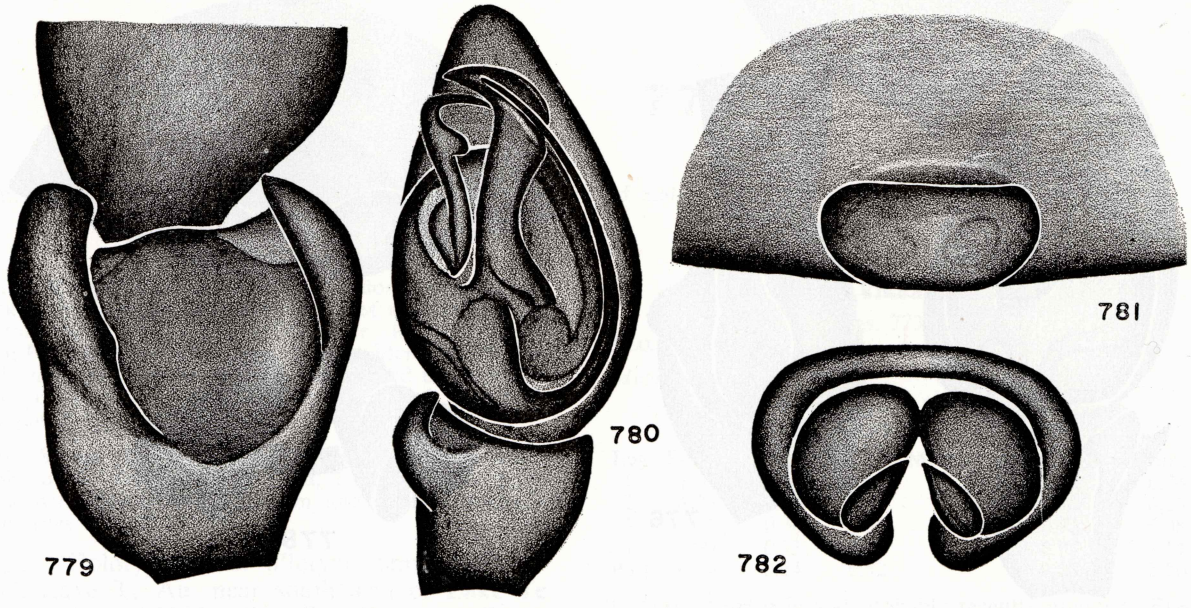
Colour Carapace with a broad brown band covering the head and extending back beyond the fovea leaving a paler area around lateral and posterior surfaces of thoracic region. Legs pale yellow with few brown bands. Abdomen cream with black shading down lateral surfaces leaving a pale median band on both dorsal and ventral surfaces.

Eyes Eyegroup occupies 4/5 of width of head. Eyes ringed with black pigment. From above anterior row slightly recurved and posterior row slightly procurved. From in front AME level with posterior margin of ALE. Posterior row procurved. Ratio of AME.ALE.PME.PLE = 4.21.18.18. AME separated from each other and from the ALE by the diameter of an AME. Laterals separated by 9/4. PME separated from each other by 11/4 and from the PLE by 4/4. MOQ wider behind than in front in the ratio of 47.42. Height of clypeus four times diameter of an AME.

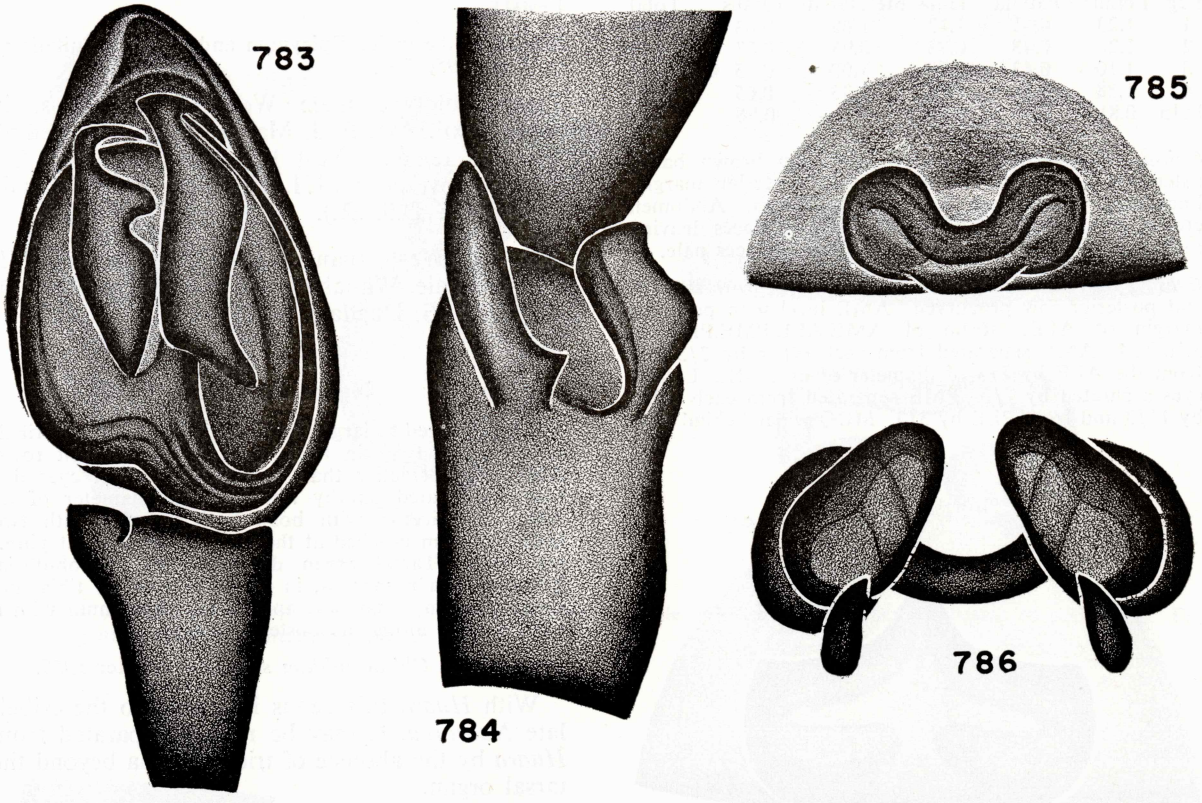
Chelicerae One half of length of carapace. Both margins with two teeth.

Palp Spines. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.0.0. Trichobothria. Tibia, 2.2.2.1.1. Tarsus. 4. Claw with six teeth which increase in length distally.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Tibia, v.2.2.2.2. p.0.1.1.0. r.1.1.1.0. d.0.0.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.0.1. Second leg. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.2.2. p,r.0.1.1.0. d.1.0.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.1.



Figs. 779-782 *Huara inflata* n.sp. Fig. 779 Tibial processes of male palp. Fig. 780 Ventral view of male palp. Fig. 781 Epigynum. Fig. 782 Internal genitalia.



Figs. 783-786 *Huara chapmanae* n.sp. Fig. 783 Ventral view of male palp. Fig. 784 Tibial processes of male palp. Fig. 785 Epigynum. Fig. 786 Internal genitalia.

Trichobothria. Tibia, 2.2.2.1.1. Metatarsus, 4. Tarsus, 6. Superior claws with from 8-9 teeth. Inferior claw with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 785, 786. Anterior pair of spinnerets larger than posterior pair. Colulus well developed and clothed with hairs.

MALE

	Carapace	length 2.00		width 1.48		
	Abdomen	length 2.00		width 1.40		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.63	0.65	1.58	1.53	0.83	6.22
2	1.58	0.65	1.38	1.45	0.78	5.84
3	1.50	0.65	1.10	1.43	0.68	3.36
4	1.75	0.65	1.35	1.88	0.83	6.46
Palp	0.80	0.28	0.40		0.88	2.36

Similar to female. Palp as in Figs. 783, 784.

Types Holotype female. Fiordland. Spey River, rotting log, 21.ii.1959, M. A. Chapman. Allotype male. Caswell Sound, Stillwater, 11.iv.1949, R. R. Forster (Otago Museum).

Records Fiordland. Upper Stillwater R., Caswell Sound, iii.1949, B. Wisely. Caswell Sound, leaf-mould, 18.iv.1949, R.R.F. Deep Cove, 25.i.1958, R.R.F. Deep Cove, moss, 25.i.1958, R.R.F. Lake Te Au, near south arm of Lake Te Anau, 12-24.i.1953, R.R.F. Homer Forks, moss and lichens, 22.i.1946, R.R.F. Thompson Sound, Upper Camp, 2,800 ft, moss on trees, 20.i.1958, R. A. Chapman. Lake McKerrow, in mossy bark, 24.i.1959, J. Kikkawa, M. A. Chapman. Thompson Sound, sea level, 14.i.1958, R.R.F. Thompson Sound, Upper Camp, 2,800 ft, under log, 22.i.1958, R.R.F. Thompson Sound, 19.i.1958, 2,800 ft, R.R.F. Gertrude Cirque, Homer, under moss, on tree trunk, 28.xii.1944, J. T. Salmon. Lower Hollyford Valley, Avalanche Creek Track, leaflitter, 12.i.-1971, R.R.F.

Huara dolosa n.sp.

Figs. 791-792

FEMALE

Measurements

	Carapace	length 2.60		width 1.60		
	Abdomen	length 2.78		width 1.79		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.00	0.88	1.90	1.63	0.78	7.19
2	2.00	0.88	1.63	1.55	0.80	6.86
3	1.95	0.80	1.40	1.68	0.75	6.58
4	2.28	0.83	1.88	2.15	0.93	8.07
Palp	0.83	0.40	0.50		0.83	2.56

General structure and colour similar to *chapmanae* except for a median dark band on proximo-dorsal surface of abdomen. Epigynum and internal genitalia as in Figs. 791, 792. Palpal spines. Femur, d.0.1.1.1. p.r.0.0.0.1. Patella, d.1.1. Tibia, p.d.1.0. Seven trichobothria on the tibia arranged 1.1.2.2.1. Tarsus with 1.1.1 and subdistal tarsal organ. Claw with five teeth.

Type Holotype female. Fiordland. Caswell Sd, under logs, 18.iv.1949, R. R. Forster (Otago Museum).

Records Stewart Is., Mokinui Is., 28.i.1955, R. K. Dell, B. A. Holloway.

Huara marplesi n.sp.

Figs. 793-796

MALE

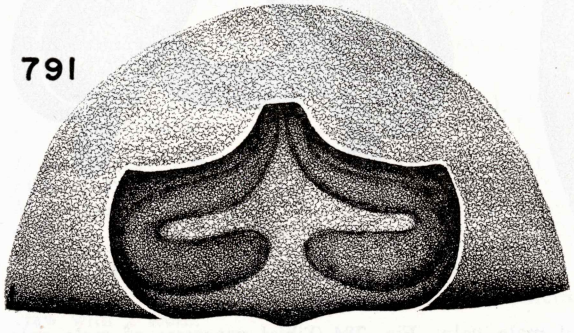
Measurements

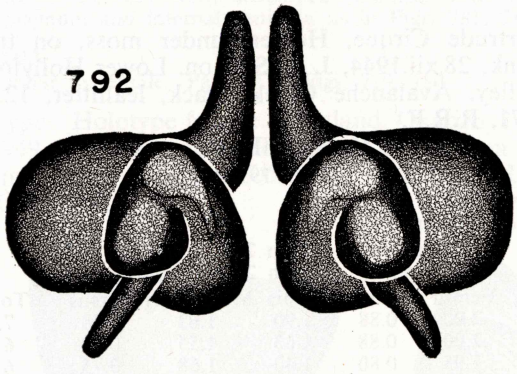
Carapace	length 1.80	width 1.20
Abdomen	length 1.04	width 0.81

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.23	0.45	1.13	1.00	0.63	4.44
2	1.20	0.48	0.93	0.95	0.63	4.19
3	1.10	0.43	0.78	1.00	0.55	3.86
4	1.38	0.48	1.08	1.33	0.65	4.92
Palp	0.81	0.23	0.29		0.86	2.19

Colour Carapace pale yellow with two brown bands extending back from lateral eyes to posterior margin. Legs pale yellow with few dark markings. Abdomen cream with black shading on lateral surfaces leaving median area on both dorsal and ventral surfaces pale.

Eyes From above and in front anterior row straight and posterior row procurved. AME level with posterior margin of ALE. Ratio of AME.ALE.PME.PLE = 3.10.9.14. AME separated from each other by 3/3 and from the ALE by 2/3 of diameter of an AME. Lateral eyes separated by 7/3. PME separated from each other by 11/3 and from PLE by 3/3. MOQ wider behind than





Figs. 791-792 *Huara dolosa* n.sp. Fig. 791 Epigynum. Fig. 792 Internal genitalia.

in front in ratio of 29.9 and longer than wide behind in ratio of 33.29. Height of clypeus four times diameter ot AME.

Chelicerae One quarter of length of carapace. Retromargin with two teeth, promargin with a single tooth.

Palp As in Figs. 793, 794.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.1.2.0. p.0.0.1.1. r,d.0.0.0.1. Metatarsus, v.2.2.0. p.1.1.2. r.0.1.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.0. p.1.2.1. r.0.0.1. d.1.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. d.0.1.1. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 4. Tarsus, 5. Superior claws with from 7-8 teeth. Inferior claw with two teeth.

Abdomen Anterior pair of spinnerets contiguous, equal in length to posterior pair. Colulus twice as wide as long, posterior margin evenly curved.

FEMALE

Similar to the male. Epigynum and internal genitalia as in Figs. 795, 796.

Type Holotype male Westland nr. Ross, in forest, 7.xii.1955, B. J. Marples (Otago Museum). Allotype female. West Inangahua, Fletcher Ck, 200 m, November 1971, leaflitter, J. S. Dugdale (Ent. Divn D.S.I.R.).

Records West Inangahua, Colls Ck, xi.1971, J. S. Dugdale. Wallaby Ck, Mawhero State Forest, iv.1971, J. S. Dugdale.

Neororea n.gen.

Medium sized to large (body length 4.5-8.5mm) ecribellate spiders. Eyes in two more or less straight rows. AME much smaller than the PME. Lateral eyes distinctly separated but by less than the diameter of an AME. Chelicerae with boss, both margins with two teeth. Labium notched at the base. Legs without plumose hairs. Tarsal organ distal to the trichobothria. Trichobothria numerous, in a double row on tibia and single row on metatarsus and tarsus. Epigynum with a narrow plate along the posterior margin.

Type species *Chiracanthium sorenseni* Forster 1955.

With *Huara* this genus is related to the cribellate *Neororea*. It may be readily separated from *Huara* by the absence of trichobothria beyond the tarsal organ.

Neororea sorenseni (Forster) 1955

1955 *Chiracanthium sorenseni*, Forster. Rec. Dom. Mus. 2(4): 179.

1964 *Huara sorenseni*, Forster. Pac. Ins. Mon. 7: 81.

Figs. 797-800

FEMALE

Measurements

Carapace	length 3.72		width 2.33	
Abdomen	length 4.79		width 3.76	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.43	1.22	2.31	2.00	1.41	9.47
2	2.18	1.12	1.86	1.63	1.39	8.18
3	2.18	1.09	1.62	1.59	1.18	7.66
4	2.72	1.22	2.76	2.46	1.39	10.55
Palp	1.21	0.62	0.71		1.24	3.78

Colour Cephalothorax, and legs uniform pale brown without markings. Abdomen very pale brown with a row of short white chevrons along the mid-dorsal surface.

Eyes Group occupies almost one half of width of head. Ratio of AME.ALE.PME.PLE = 4.9.8.11. AME separated from each other by 5/4 and from ALE by the diameter of an AME. PLE separated from ALE by 3/4 and from PME by 7/4. PME separated from each other by 10/4. MOQ wider behind than in front in ratio of 26.13 and longer than wide in front in ratio of 22.13.

Chelicerae Lateral boss well developed. Two teeth on each margin.

Labium As wide as long. Lateral margins parallel. Notched at the base.

Sternum Scutiform, pointed behind where coxae 4 are separated by one third of their width.

Legs Spines. Leg 1. Femur, d.1.1.1. p.0.0.2. Tibia, v.2.2.2.1. Metatarsus, v.2.2.0. p.1.1.2. r.0.1.2. Leg 2. Femur, d.1.1.1. p.0.0.1. Tibia, v.2.2.2. p.1.1.0. Metatarsus, d.0.0.1. v.2.2.1. Leg 3. Femur, d.1.1.1. p.0.1.1. Tibia, d.0.1.0. v.1.1.1. p,r.1.1.0. Metatarsus, d.0.1.2. v.2.1.1.

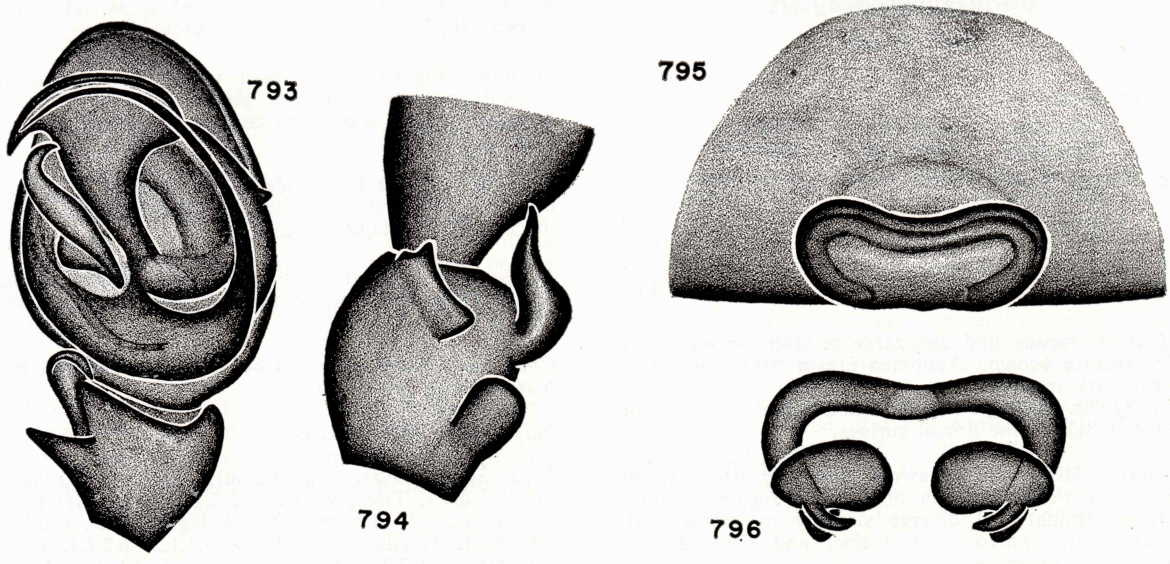
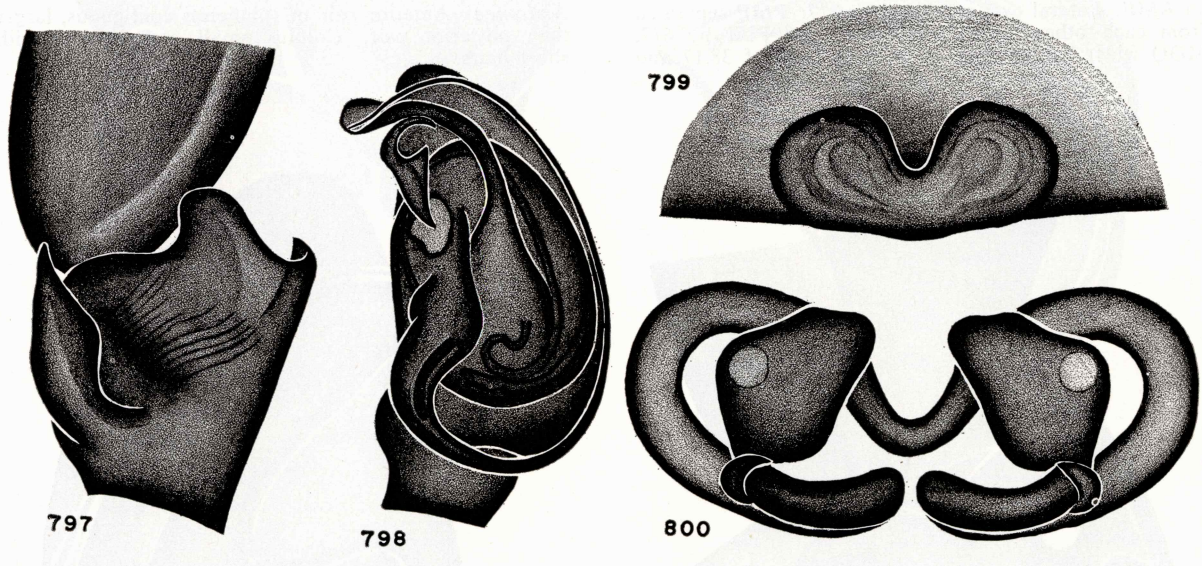


Fig. 793-796 *Huara marplesi* n.sp. Fig. 793 Ventral view of male palp. Fig. 794 Tibial processes of male palp. Fig. 795 Epigynum. Fig. 796 Internal genitalia.



Figs. 797-800 *Neororea sorenseni* (Forster). Fig. 797 Tibial processes of male palp. Fig. 798 Ventral view of male palp. Fig. 799 Epigynum. Fig. 800 Internal genitalia.

p,r.1.1.2. Leg 4. Femur, d.1.1.1. p.0.0.1. Tibia, d.1.0.1.0. Metatarsus, d.2.1.2. v.2.2.1. p,r.1.1.1. Trichobothria. Tibia, 2.2.2.2.1. Metatarsus, 7. Tarsus, 5. Superior claws with from 12-14 teeth. Inferior claw with a single tooth.

Abdomen Epigynum and internal genitalia as in Figs. 799, 800. Posterior pair of spinnerets more slender than anterior spinnerets and slightly longer. Colulus flat and clothed with fine hairs.

MALE

Similar to female. The palp is shown in Fig. 797, 798.

Types Holotype male and allotype female. Auckland Is., Port Ross, under timber, 27 May 1947, J. H. Sorensen (Dominion Museum).

Records The majority of the records are from the main Auckland Island but the species has also been recorded from Enderby Island. A single record from Campbell Island (Forster, 1955) would seem to be of a mislabelled specimen as this species has not been collected from this island since and it is unlikely that such a large spider would have been overlooked.

Neororea homerica n.sp.

Figs. 801-802

MALE

Measurements

Carapace	length 2.51	width 1.84	
Abdomen	length 2.28	width 1.54	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.85	0.88	1.58	1.68	1.08	7.07
2	1.78	0.83	1.38	1.53	1.00	6.52
3	1.75	0.68	1.38	1.63	0.88	6.32
4	2.05	0.78	1.63	1.95	1.00	7.41
Palp	0.76	0.24	0.21		0.96	1.97

Colour Carapace and chelicerae reddish brown. Legs paler reddish brown. Abdomen cream with a broad V shaped dark area on antero-dorsal surface and three pairs of irregular dark patches on mid-lateral surfaces of posterior half of the dorsal surface.

Carapace Head region narrow anteriorly where width equals one third of width of thoracic region. Lateral margins straight and diverge strongly to merge with thorax. Fovea narrow but distinct and situated near mid-point of carapace

Eyes Each eye ringed with black pigment and area enclosed by the eyes dark. Eyegroup occupies the full width of head. From above anterior row straight and posterior row slightly procurved. From in front both rows appear strongly procurved. Ratio of AME.ALE. PME.PLE = 7.12.14.17. AME separated from each other by 3/7 and from the ALE by 7/7 of diameter of an AME. Lateral eyes separated by 3/7. PME separated from each other by 10/7 and from the PLE by 6/7. MOQ wider behind than in front in ratio of 38.17 and wider behind than long in ratio of 38.34. Height of clypeus 10/7 of diameter of an AME.

Sternum Slightly longer than wide. Anterior margin straight and lateral margins gently undulate. Posterior projection sharp separating coxa 4 by 1/3 of width of a coxa.

Maxillae Longer than wide in the ratio of 5.3. Outer margins gently curved. Scopula well developed, extending over 2/3 of anterior surface.

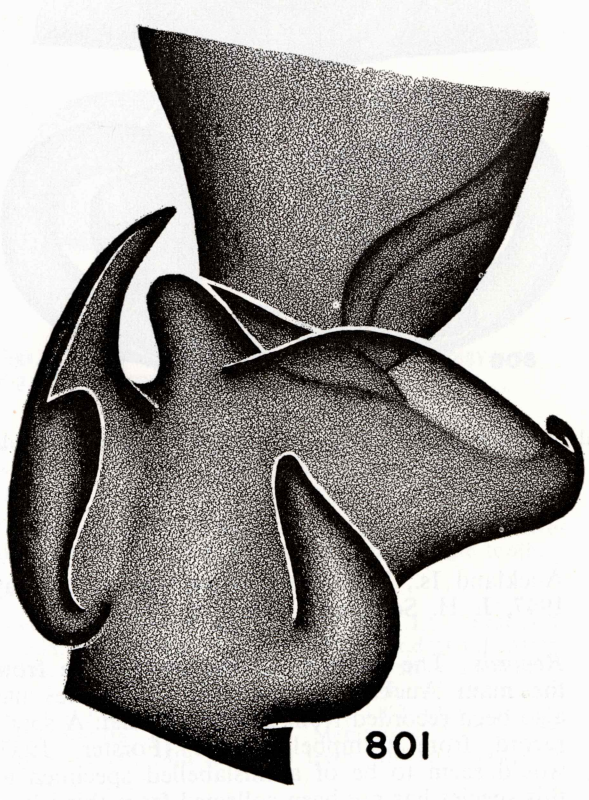
Labium Notched at the base. Lateral margins straight and convergent. Anterior margin straight. Wider than long in ratio of 7.5.

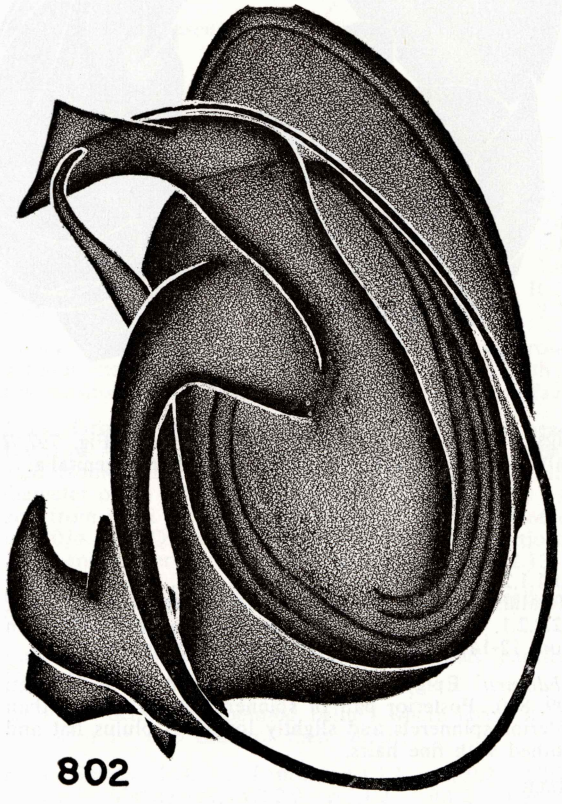
Chelicerae Short, only 1/4 of length of carapace. Both margins with two teeth.

Palp As in Figs. 801, 802.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v.1.1.2. p.2.2.1. r.1.0.1. Metatarsus, v.2.2.1. p.0.1.2. d.0.1.0. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v.1.1.2. p.2.2.1. r.0.1.2. Metatarsus, v.2.2.1. p.2.2.2. r.0.2.2. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.0.1.1. r.1.1.1. d.0.0.1. Metatarsus, v.2.2.1. p,r.2.2.2. d.1.0.0. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.0.1.1. r.1.1.1. d.0.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Trichobothria. Tibia, 2.2.2.1.1. Metatarsus, 4. Tarsus, 5. Superior claws with from 11-13 teeth. Inferior claw with 3 teeth.

Abdomen Anterior pair of spinnerets contiguous, larger than posterior pair. Colulus small and clothed with short hairs.





Figs. 801-802 *Neororea homerica* n.sp. Fig. 801 Tibial processes of male palp. Fig. 802 Ventral view of male palp.

Type Holotype male. Fiordland. Homer Tunnel, 24.iv.1949, R. R. Forster (Dominion Museum).

Rorea n.gen.

Very small (body length 1.5-2mm) cribellate spiders. Eyes in two more or less straight rows. AME very small. Lateral eyes subcontiguous. Chelicerae with boss, retromargin with two and promargin with from 4-5 teeth. Labium notched at the base. Legs without plumose hairs. Tarsal organ distal to the trichobothria. Trichobothria in a double row on the tibia and a single row on the metatarsus and tarsus. Few on metatarsus and tarsus. Epigynum with a small oval plate along the posterior margin.

Type species *Rorea aucklandensis* n.sp.

This genus is very closely related to the ecribellate *Neororea* and more distantly to *Huara*. It may be readily separated from *Neororea* by the much smaller size and the more numerous teeth on the promargin of the chelicerae.

Rorea aucklandensis n.sp.

Figs. 805-806

FEMALE

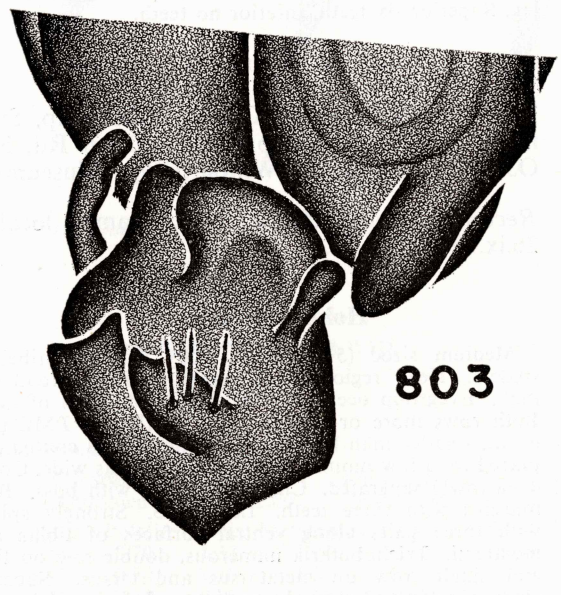
Measurements

Carapace	length 0.79	width 0.59	
Abdomen	length 0.93	width 0.52	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.64	0.28	0.54	0.45	0.36	2.27
2	0.57	0.23	0.39	0.43	0.27	1.89
3	0.54	0.23	0.36	0.41	0.27	1.81
4	0.72	0.30	0.54	0.55	0.36	2.47
Palp	0.36	0.14	0.18		0.28	0.96

Colour Cephalothorax and appendages pale yellow. Abdomen heavily shaded with black forming an indistinct chevron pattern on posterior half of dorsal surface.

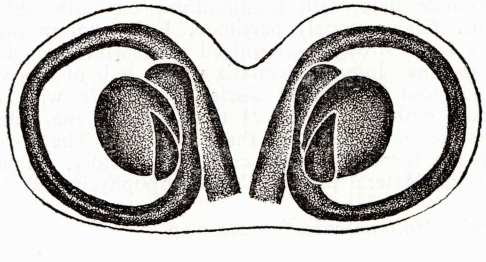
Eyes From in front anterior row straight and posterior row gently procurved. Ratio of AME.ALE.PME.PLE = 1.4.4.4. AME separated from each other and from the ALE by the diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by two and a half and from PLE by twice the diameter of an



803

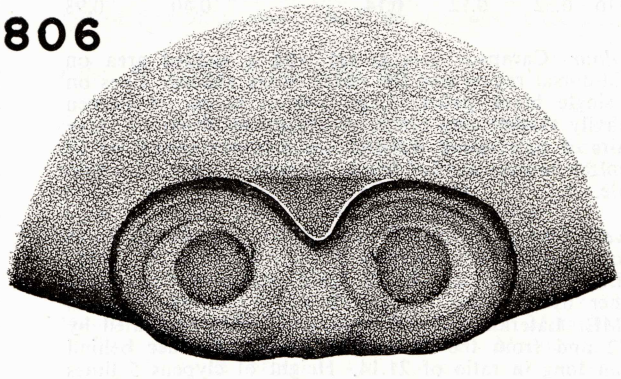


804



805

806



Figs. 803-804 *Rorea otagoensis* n.sp. Fig. 803 Tibial processes of male palp. Fig. 804 Ventral view of male palp.
Figs. 805-806 *Rorea aucklandensis* n.sp. Fig. 805 Epigynum. Fig. 806 Internal genitalia.

AME. MOQ wider behind than in front in ratio of 21.6 and longer than wide in front in ratio of 18.6. Height of clypeus twice the diameter of an AME.

Sternum Scutiform. Longer than wide in ratio of 11.9.

Labium Notched at the base. Wider than long in ratio of 11.5.

Chelicerae Lateral boss present. Promargin with four, retromargin with two teeth.

Legs Superior claws with from 5-6 teeth. Inferior with a single tooth. Tarsal organ at 3/4 of length of tarsus. Spines. First leg. Femur, d.1.1.0. Patella, d.0.1. Tibia, v.2.2.0. Metatarsus, v.2.2.1. Second leg, Femur, d.1.1.0. Patella, d.0.1. Tibia, v.1.1.0. p.0.0.1. Metatarsus, v.2.2.1. Trichobothria similar on all legs. Tibia, 1.2.1.1. Metatarsus, 3. Tarsus, 2. Calamistrum proximal, with seven hairs.

Abdomen Cribellum relatively large, twice as wide as long. Posterior margin evenly curved and without median notch. Spinning field large, divided. Anterior pair of spinnerets separated by 2/3 of width of a spinneret. Epigynum in the form of a reniform plate. Internal genitalia as shown in Fig. 805.

Type Holotype female. Auckland Island. Hooker Hills, 90-300 m, 11.i.1963, K. A. J. Wise, ex moss *Dicranoloma billardiera* (Ent. Divn D.S.I.R.).

There seems little doubt that this species is closely related to *otagoensis* which is known only from males. Both the male and female genitalia show close affinity with the typical ecribellate species of *Huara* and apart from the presence of cribellum and calamistrum are only separated by their extremely small size and other minor characters.

Rorea otagoensis n.sp.

Fig. 803-806

MALE

Measurements

Carapace length 0.84 width 0.62
Abdomen length 1.00 width 0.60

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.66	0.28	0.56	0.46	0.38	2.34
2	0.56	0.30	0.42	0.40	0.36	2.04
3	0.50	0.24	0.34	0.38	0.30	1.76
4	0.64	0.28	0.52	0.50	0.38	2.32
Palp	0.32	0.12	0.14		0.40	0.98

Colour Carapace pale cream with a shaded area on mid-dorsal region and the radial striae shaded. Eyes on a single black patch. Legs without bands. Abdomen heavily shaded with black. Mid-dorsally there are three pairs of pale spots. Epigastrium pale but remainder of ventral surface shaded black. Cribellum and spinnerets pale.

Eyes Group occupies 7/10 of width of head. From in front and above both rows procurved. Ratio of AME. ALE.PME.PLE = 2.8.7.8. AME separated from each other by 3/2 and from ALE by 1/2 diameter of an AME. Laterals narrowly separated. PME separated by 7/2 and from the PLE by 2/2. MOQ wider behind than long in ratio of 21.14. Height of clypeus 5 times the diameter of AME.

Sternum Longer than wide in the ratio of 22.20. Almost oval with anterior margin indented. Posterior projection short and broadly rounded. Posterior coxae separated by diameter of a coxa.

Maxillae Inclined over the labium. Lateral margins parallel. Longer than wide in ratio of 10.6 and longer than the labium in ratio of 10.4.

Labium Wider than long in ratio of 7.4. Notched at base, sides converging and distal margin straight.

Chelicerae Promargin with five teeth and a carina and retromargin with two teeth.

Palp Bulb and tibial processes as in Figs. 803, 806.

Legs 1423. Spines and hairs ciliate. Spines. First leg. Femur, prolateral spine lacking, d.1.1.0. p.0.1. r.0. Patella, 1.1 (small). Tibia, v.2.2.0. p,r.0. d.1 small erect basal. Metatarsus, v.2.2.1. p,r.0. Second leg. Femur, d.1.1.0. p.0.1. r.0. Patella, 1.1 small. Tibia, v.1.1.0.p,r.0. d.1. Metatarsus, v.1.1.2. p.1. r.0. Third leg. Femur and patella as second leg. Tibia, v.0.1.2. p,r.0.1. d.1. Metatarsus, v.0 and subwhorl of 5, p.1. r.0. Fourth leg. Femur, d.1.1.0. p,r.0. Patella, 1.1. Tibia, v.1.1.2. p.0.1. r.1.1. d.1.0. Metatarsus, v.0.1 and subwhorl of 5, p.1. r.0. Calamistrum lacking. Trichobothria. First leg. Tibia, p,r.1.1. Metatarsus, 2. Tarsus, 2 and tarsal organ. Claws. First leg, superior ten teeth, inferior one tooth. Fourth leg. Superior six teeth, inferior no teeth.

Abdomen Cribellum may not be functional.

Type Holotype male. Otago. Pitfall trap, Summit Taieri Ridge, Deep Dell-Fillyburn Rd, S43-O33, 14.x.1968, C. L. Wilton (Otago Museum).

Record Otago. Pitfall trap, same locality, 26.ix.1968, C.L.W.

Holomamoea n.gen.

Medium sized (5-5.5mm in body length) ecribellate spiders. Head region of carapace relatively broad and high. Eyegroup occupying two thirds of width of head. Both rows more or less straight. AME and PME subequal, smaller than lateral eyes. Lateral eyes contiguous, placed on a low mound. Sternum as long as wide. Coxae 4 narrowly separated. Chelicerae stout, with boss. Both margins with three teeth. Legs 4123. Strongly spined with three pairs along ventral surfaces of tibiae and metatarsi. Trichobothria numerous, double row on tibia and single row on metatarsus and tarsus. Superior claws similar and strongly pectinate. Inferior claw with two teeth. Scopulae, claw tufts and tenent hairs lacking. Trochanters with shallow notches. Tarsal organ subdistal. Female palp with trichobothria on both tibia and tarsus. Claw strongly pectinate. Epigynum in the form of a large strongly sclerotized plate with a single anterior opening. Internal genitalia with a pair of receptacula and stout convoluted ducts. Male palp with a long slender embolus, coiled 2½ times around the bulb before resting on the end of the conductor. The conductor in the form of a tube cut longitudinally. Tibia with distal retrolateral process. Medan apophysis absent.

Type species *Holomamoea foveata* n.sp.

Holomamoea is related to *Huara* from which it is readily separated by the form of the genitalia. The male palp lacks a median apophysis.

The sole known species is restricted to the northern portion of the west coast of the South Island where it is common on the forest floor amongst leaflitter. It does not appear to construct a snare.

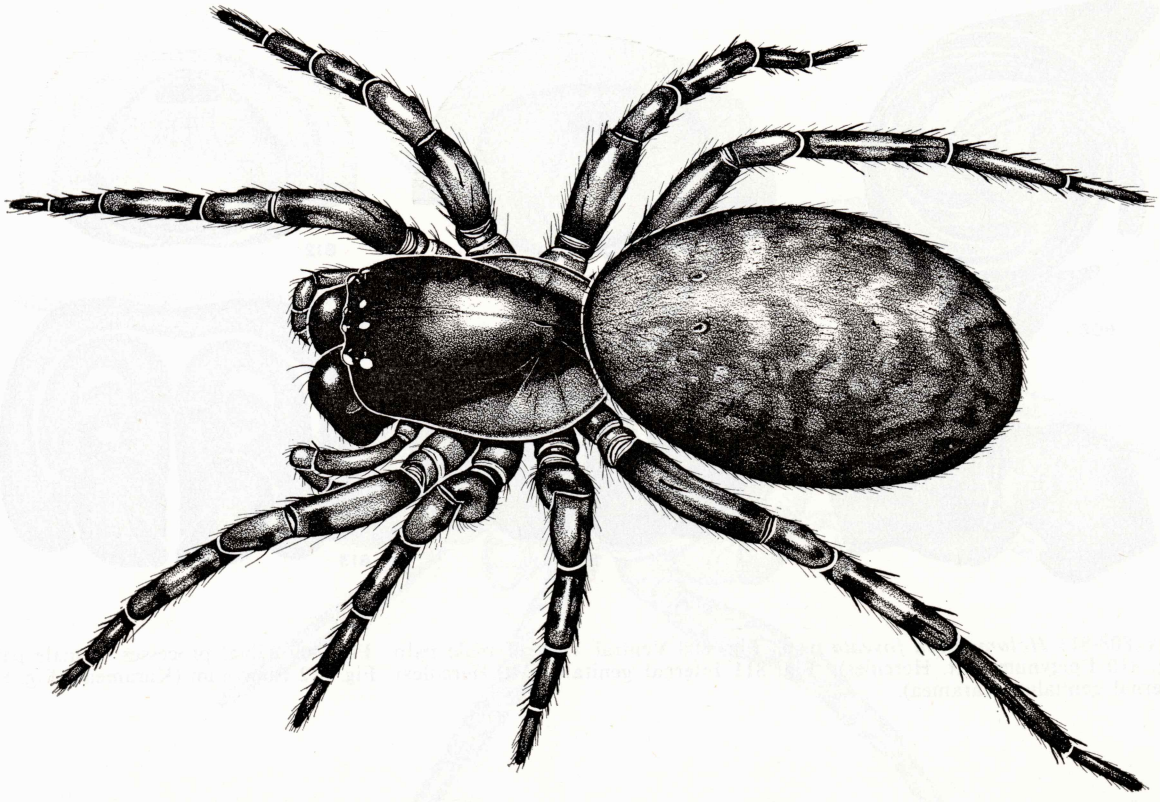


Fig. 807 *Holomamoea foveata* n.sp. female.

Holomamoea foveata n.sp.

Figs. 807-813

MALE

Measurements

Carapace	length 2.60	width 1.68	
Abdomen	length 2.60	width 1.68	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.55	0.70	1.33	1.20	0.80	5.58
2	1.43	0.70	1.10	1.08	0.68	4.99
3	1.35	0.70	0.88	1.18	0.58	4.69
4	1.68	0.75	1.30	1.70	0.68	6.11

Colour (Fig. 807) Head region reddish brown, paler medially. A further median brown band extends back from head region to posterior margin. Lateral surfaces of thoracic region yellow. Legs pale yellow brown. Chelicerae reddish brown. Abdomen heavily shaded with blackish brown.

Carapace Rather long and narrow. Width of head region 3/4 of width of thoracic region. Fovea short, on posterior slope of thoracic region.

Eyes Eyes ringed with black. Eyegroup occupies 2/3 of width of head. Lateral eyes are placed on a low tubercle. From above and from in front both rows appear straight. Ratio of AME.ALE.PME.PLE = 7.11.8.12. AME separated from each other by 8/7 and from the ALE by 15/7 of diameter of an AME. Lateral eyes contiguous. PME separated by 12/7 and from the PLE by 20/7. MOQ wider behind than in front and wider behind than long in ratio of 14.11. Height of clypeus 5/7 of diameter of an AME.

Sternum As long as wide. Anterior margin straight and lateral margins evenly curved. Posterior projection sharp and separates coxae 4 by one half of width of coxa.

Maxillae Lateral margins straight and parallel but distal portion curved in where the scopula is present. Longer than wide in ratio of 8.3.

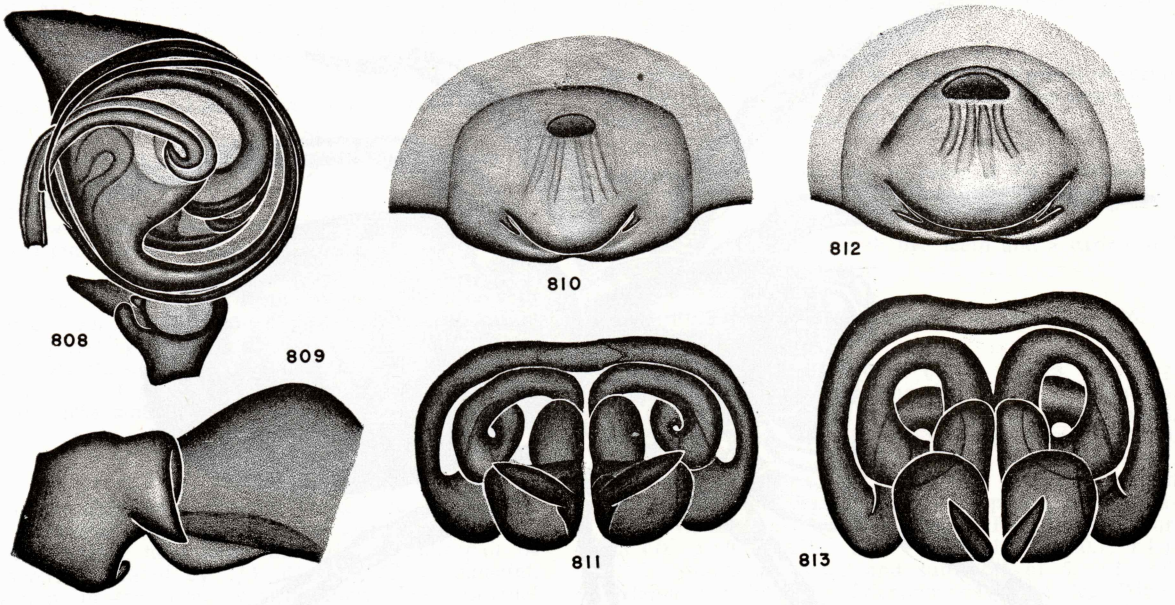
Labium Notched at the base. Lateral margins straight and convergent and anterior margin straight. Slightly longer than wide.

Chelicerae Swollen at base. Boss prominent. Length 1/3 of that of carapace. Both margins with three teeth.

Palp As shown in Figs. 808, 809.

Less Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, v.2.2.2. Metatarsus, v.2.2.1. p,r.0.0.1. Second leg. Femur, d.0.1.1.0. Tibia, v.1.2.2. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Third leg. Femur, d.0.1.1.1. p.0.0.1.1. Tibia, v.1.1.2. p,r.1.0.1. d.1.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Fourth leg. Femur, d.1.0.0.0. Tibia, v.2.1.2. p,r.0.1.1. d.1.1.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.1. Trichobothria: First leg. Tibia, 2.2.1.2.1. Metatarsus, 5. Tarsus, 4. Second leg. Tibia, 2.2.1.1. Metatarsus, 4. Tarsus, 4. Third leg. Tibia, 2.3.1.2.1. Metatarsus 4.. Tarsus, 3. Fourth leg. Tibia, 2.2.1.1.1. Metatarsus, 5. Tarsus, 4. Tarsal organ at 4/5 of each tarsus. Superior claws with from 8-9 teeth. Inferior claw with two teeth.

Abdomen Anterior and posterior pairs of spinnerets equal in length. Colulus relatively small.



Figs. 808-813 *Holomamoea foveata* n.sp. Fig. 808 Ventral view of male palp. Fig. 809 Tibial processes of male palp. Fig. 810 Epigynum (Mt. Hercules). Fig. 811 Internal genitalia (Mt. Hercules). Fig. 812 Epigynum (Karamea). Fig. 813 Internal genitalia (Karamea).

FEMALE

Measurements

Carapace length 2.40 width 1.60
Abdomen length 3.00 width 2.00

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.35	0.68	1.05	0.95	0.63	4.66
2	1.23	0.68	0.85	0.88	0.58	4.22
3	1.15	0.63	0.73	0.98	0.53	4.02
4	1.43	0.68	1.05	1.43	0.63	5.22
Palp	0.75	0.38	0.45		0.70	2.28

Four faint chevrons on dorsal surface of abdomen. Structure as in male. Epigynum and internal genitalia as in Figs. 810-813.

Palp Spines. Femur, d.0.0.0.1. Tibia, p.1.0. Trichobothria. Tibia, 2.2.1.1. Tarsus, 1.1.1. Claw small, with eight teeth.

Types Holotype male, allotype female. Westland. Little Wanganui, litter, 28.ix.1966, R.R.F., C.L.W. (Otago Museum).

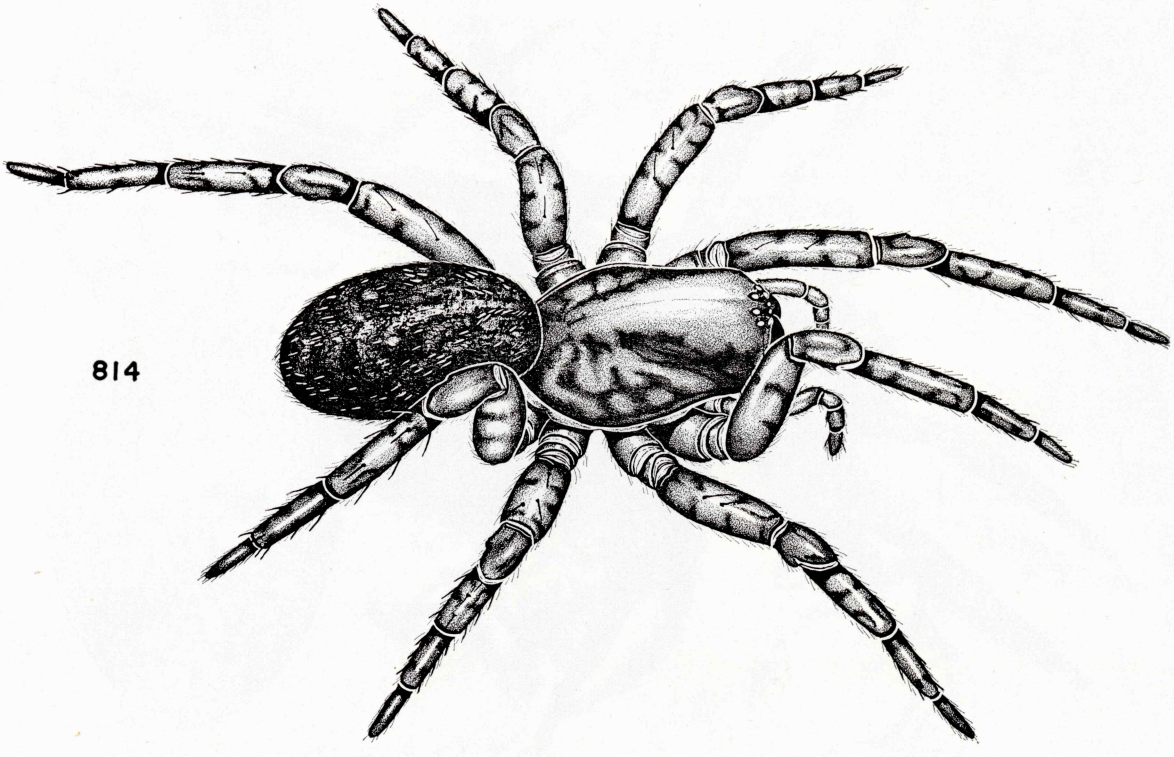
Records Westland near Moana, September 1958, R. L. Pilgrim. Moana, leaflitter, 10.iii.1950, R.R.F. Moana, 3.ix.1951, B. Wisely. Lake Mahinapua, 16.iii.1965, M. S. Luxton. Mt Davie, 18.i.1950, R.R.F. Greymouth, 4.iii.1950, L. P. Hughson. Clear Grey River, 16.iv.1949, F. W. Dukes. Blackball, 6.v.1950, L. P. Hughson. The Forks, Okarito, 19.xi.1955, R. A. Falla. Taipo River, 3.iii.1954, R. Jacobs. Fergusons Bush, Hokitika, 9.xii.1949, R.R.F. Fergusons Bush, 28.ix.1966, R.R.F., C.L.W. Mt Hercules, 29.ix.-1966, R.R.F., C.L.W. Karamea Bluff, 1,420 ft, 29.ix.1966, R.R.F., C.L.W. Oparara, 20.i.1950, R.R.F.

Family AMAUROBIIDAE Thorell

Until recently the Amaurobiidae along with the Dictynidae has served as a home for those three-clawed, generalized cribellate spiders which do not show any strongly divergent characters. Lehtinen (1967), having decided that the cribellate state could no longer be used to limit the family, recast the whole concept of this family, and included 71 genera which he divided into nine subfamilies. Of the genera placed in the Amaurobiidae, *Matachia, Paramatachia, Desis, Myro, Ommatauxesis, Gohia, Ixeuticus* and *Gasparia* are transferred by us to the Desidae which we include in the Dictynoidea. These spiders all possess a strongly developed, branched tracheal system. *Stiphidium, Cambridgea* and *Corasoides* we place in a new family Stiphidiidae. *Oramia* is considered to be a generalized Agelenid while *Amphinecta, Maniho, Marplesia* and *Huara* are placed in the new family Amphinectidae.

Leech (1972) in his revision of the Nearctic Amaurobiidae follows Lehtinen to some extent in including *Ixeuticus* in the subfamily Desinae within the Amaurobiidae. However while agreeing that the cribellate state need not be diagnostic for the family he did not accept the ecribellate genera listed by Lehtinen.

We consider that the family Amaurobiidae should be limited to those genera which have a simple tracheal system and which possess the variously shaped, but sclerotized, plate-like form of median apophysis. As far as we can ascertain all overseas genera which fall within this definition are cribellate. In New Zealand however, the group is ecribellate except for the single cribellate genus *Waitetola.*



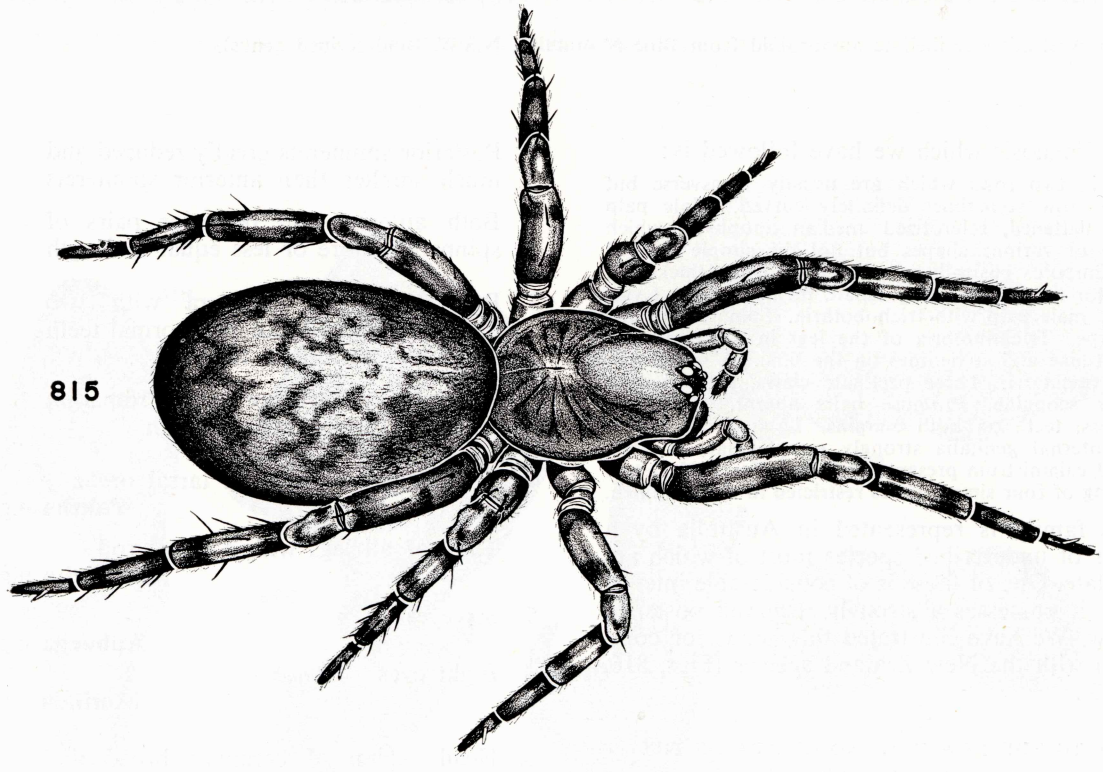


Fig. 814 *Pakeha subtecta* n.sp. female.

Fig. 815 *Otira liana* n.sp. female.



Fig. 816 Australian ecribellate amaurobiid from Blue Mountains, N.S.W. (undescribed genus).

The diagnosis which we have followed is:

Eyes in two rows which are usually transverse but posterior row sometimes definitely curved. Male palp with a flattened, sclerotized median apophysis which may be of various shapes but not the simple hooked form. Embolus basically spiniform but often thickened. Conductor usually relatively small, membraneous. Cymbium of male palp with trichobothria. Spination of the basic type. Trichobothria of the legs in a double row on the tibiae and sometimes on the tarsi. A single row on the metatarsi. Three pectinate claws, without claw tufts or scopulae. Plumose hairs absent. Chelicerae with boss, teeth on both margins. Labium notched at base. Internal genitalia strongly receptaculate. Cribellum and calamistrum present or absent. Tracheal system consisting of four simple tubes restricted to the abdomen.

This family is represented in Australia by a number of undescribed species most of which are ecribellate. One of these is of considerable interest in that it possesses a strongly recurved posterior eye row. We have illustrated this genus for comparison with the New Zealand species (Figs. 816, 820-823).

KEY TO THE NEW ZEALAND GENERA OF THE FAMILY AMAUROBIIDAE

1. Cribellate, with plumose hairs **Waitetola** n.gen.

   Ecribellate and without plumose hairs 2

2. Posterior spinnerets greatly reduced and much smaller than anterior spinnerets 3

   Both anterior and posterior pairs of spinnerets more or less equal in length 6

3. Retromargin of chelicera with two teeth. Promargin with two normal teeth and a row of minute teeth 4

   Retromargin with four teeth. Promargin without a row of minute teeth 5

4. Tarsi of all legs with a tarsal organ **Pakeha** n.gen.

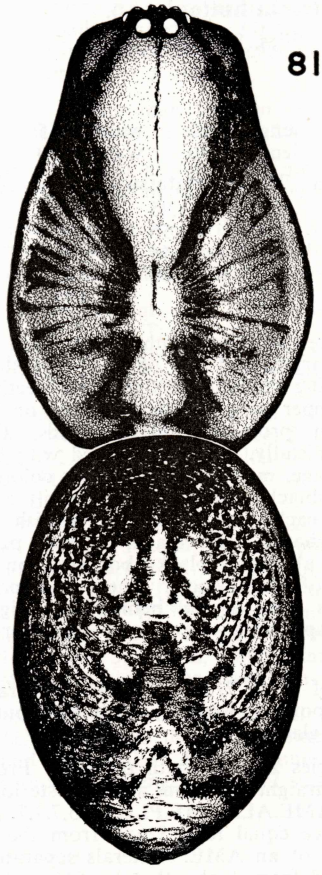
   Tarsi of all legs with a tarsal rod **Otira** n.gen.

5. Six eyes **Auhunga** n.gen.

   Eight eyes **Muritaia** n.gen.

6. Head region of carapace broad and very high. Eyes normal in size **Paravoca** n.gen.

   Carapace flattened. Eyes relatively small **Mala** n.gen.



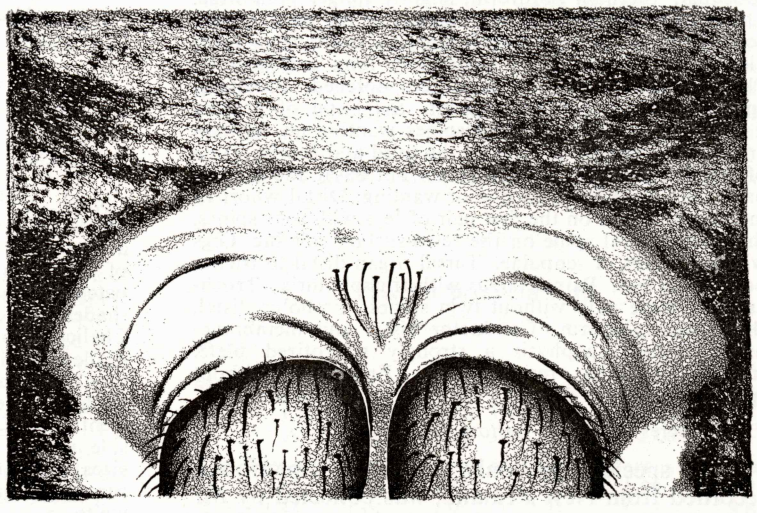


Fig. 817 *Pakeha protecta* n.sp. Dorsal view of body.

Fig. 818 *Pakeha maxima* n.sp. Colulus and base of anterior spinnerets, female.

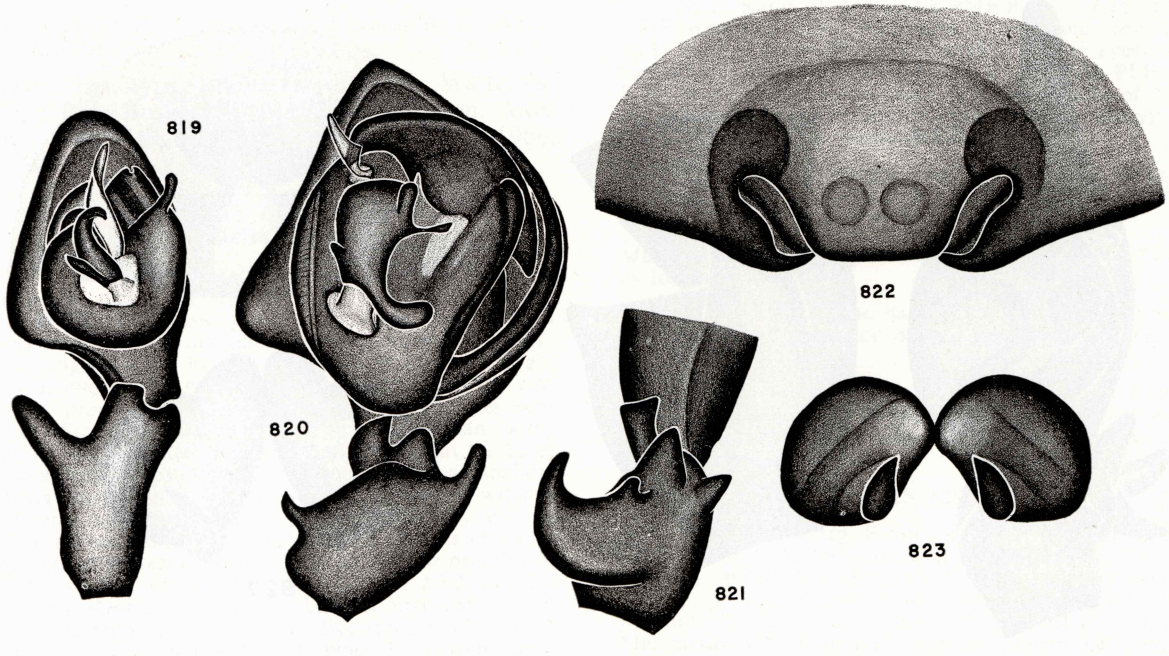


Fig. 819 Ventral view of male palp of *Amaurobius similis* (Blackwell) (England). Figs. 820-823 Structure of undescribed ecribellate amaurobiid from N.S.W. illustrated in Fig. 816. Fig. 820 Ventral view of male palp. Fig. 821 Tibial processes of male palp. Fig. 822 Epigynum. Fig. 823 Internal genitalia.

Waitetola n.gen.

Medium sized (body length c. 4.5mm) cribellate spiders. Eight eyes in two more or less straight rows occupying two-thirds of the width of the head. AME only slightly smaller than the rest of the eyes which are subequal. Sternum scutiform, slightly longer than wide. Labium as long as wide and notched at the base. Chelicerae with two teeth on both margins and further teeth along the furrow. Legs moderately long and slender. Plumose hairs present. Trochantera notched. Prolateral spine on the first femur present. Spination of femora d.1.1.1. p,r.0.1. Tibial dorsal spines wanting on the first and second legs but present on the third and fourth. Tibia of the first pair with v.2.2.2. spines but basal and median pairs may be reduced to one or wanting. Distal whorl of metatarsal spines on the first pair of legs with four spines, the dorso-lateral spine on the retro-surface missing. Legs without combs or scopulae. Tarsal organ distal to trichobothria on legs. Palpal tarsus with trichobothria. Trochanter of male palp without twin spines. Embolus distal, short and spiniform. Conductor distal and membraneous. Median apophysis a strongly sclerotized plate. Internal genitalia receptaculate. Epigynum without spines. Cribellum divided. Calamistrum proximal.

Type species *Waitetola huttoni* n.sp.

This species, the only cribellate amaurobiid recorded from New Zealand, was collected by Mr Russell Hutton after whom it is named. It is surprising that cribellates of this family are not more abundant in New Zealand as it is evident that the ecribellate genera recorded subsequently in this paper must have been derived from cribellate stock. *Waitetola* does not show any particular relationship to other New Zealand forms nor to genera recorded from other countries.

Nothing is known of the habits of the species described below except that it was found beneath logs on the forest floor.

Waitetola huttoni n.sp.

Figs. 824-827

FEMALE

Measurements

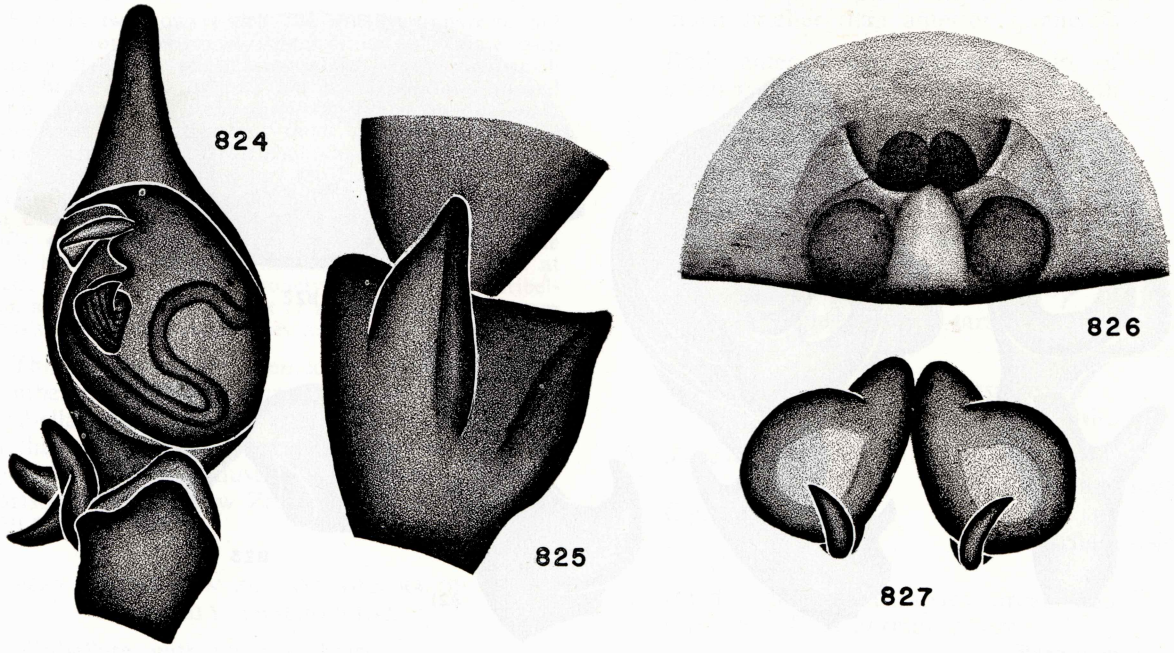
Carapace	length 2.20	width 1.65	
Abdomen	length 2.50	width 1.50	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.30	0.70	2.20	1.95	1.35	8.50
2	2.00	0.65	1.65	1.55	1.00	6.85
3	1.85	0.65	1.40	1.45	0.90	6.25
4	2.25	0.70	1.95	2.00	1.05	7.95
Palp	0.80	0.35	0.55		0.95	2.65

Colour Carapace yellow brown with rather broad black bands on lateral margins and one on each side starting at the eyes, traversing the upper slopes and meeting at cf fovea on the upper posterior slope. Eyes on black patches. Legs with prominent black bands. Coxae shaded with black distally. Sternum shaded with black. Chelicerae pale orange, maxillae of a similar colour but shaded lightly with black. Labium more heavily shaded than maxillae but each has the typical whitish apex. Abdomen heavily shaded with black, without pattern. Ventral surface of abdomen black, bordered on each side with a series of white spots. There is a pair of sizeable white spots close to and behind the epigastric furrow. Anterior spinnerets black and posterior pair white.

Carapace Width of head 7/11 of width of carapace. Hairs on anterior portion, longer among eyes but rest of surface appears glabrous.

Eyes Group occupies 2/3 of width of head. From in front anterior row straight and from above posterior row straight. Ratio of AME.ALE.PME.PLE = 5.7.7.7. AME separated by distance equal to 4/5 and from the ALE by 3/4 of diameter of an AME. Laterals separated by 2/5. PME separated from each other by 5/5 and from PLE by 7/5. MOQ wider behind than in front in ratio of 19.14 and as wide behind as long. Height of clypeus equal to 9/5 of diameter of an AME.



Figs. 824-827 *Waitetola huttoni* n.sp. Fig. 824 Ventral view of male palp. Fig. 825 Tibial processes of male palp. Fig. 826 Epigynum. Fig. 827 Internal genitalia.

Sternum Longer than wide in ratio of 22.20. Anterior margin broadly indented. Posterior projection rather long, bluntly pointed and separates posterior coxae by 4/5 of diameter of a coxa.

Maxillae Longer than wide in the ratio of 20.13 and longer than labium in ratio of 20.12.

Labium As wide as long and notched at base. Sides rounded and distal margin indented.

Chelicerae Promargin with a carina and two teeth. Retromargin with two teeth. Within the furrow are three more teeth with median smallest.

Palp Spines. Femur, d.1.1.1. p.1. r.0. Patella, 1.1. Tibia, d.1.1. p.1.0. r.0. Trichobothria. Tibia, p.1.1. r.1.1.1. Tarsus, 4 and subdistal tarsal organ. Claw with seven teeth increasing in length distally on basal half.

Legs 1423. Trochanters notched. Hairs plumose. Spines relatively weak. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.0.1. Patella, 0. Tibia, v.0.2.2. p.0.1. r.0. d.0. Metatarsus, v.0.2.1. p.0.0.2. r.0.0.1. Second leg. Femur, d.1.1.1. p,r.0.1. Patella, 0. Tibia, v.1.2.2. p.1.1. r.0.1. Metatarsus, v.0.2.1. p,r.0.1.2. Third leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, v.1.1.2. p,r,d.1.1. Metatarsus, v.0.2.1. p,r.1.1.2. Fourth leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, same as third leg. Metatarsus, v.0.1.2.1. p.1.1.2. r.0.1.2 calamistrum 1. Calamistrum occupies about 1/3 of length. Trichobothria. Tibia, p.3. r.5. Metatarsus, 3. Tarsus, 5 and a tarsal organ. Superior claw with seven, inferior claw with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 826, 827. Cribellum divided. Spinning areas well separated and rectangular. Distal segment of posterior spinnerets about half length of basal segment and conical.

MALE

Measurements

	Carapace	length 1.85		width 1.55		
	Abdomen	length 1.50		width 1.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.50	0.70	2.50	2.35	1.55	9.60
2	2.10	0.65	1.80	1.75	1.10	7.40
3	1.90	0.60	1.45	1.70	1.00	6.65
4	2.35	0.65	2.10	2.20	1.20	8.50
Palp	0.85	0.25	0.35		0.90	2.35

Similar to female. Bulb and tibial processes of palp as in Figs. 824, 825.

Types Holotype female. Hawkes Bay. Waitetola, White Pine Bush, 7.ix.1968, R. W. Hutton. Allotype male. Hawkes Bay. Mahoe, 26.iii.1966, R. W. Hutton (Otago Museum).

Pakeha n.gen.

Medium sized to small (3.5-7.5mm in body length) ecribellate spiders. Dark shading on carapace broken posteriorly by narrow pale band which extends from fovea to posterior margin. Eyegroup compact usually occupying only one half or less of width of head. Eight eyes in two rows. Anterior row straight, posterior row slightly procurved. AME smallest, remaining eyes subequal. Sternum scutiform, slightly longer than wide. Labium usually as long as wide and notched at the base. Trochantera of posterior pairs of legs with broad shallow indentations. Femur of first pair of legs with or without prolateral spine. Spination of femora usually d.1.1.1. p,r.0.1, spines rather weak and aculeate. Spines on other segments of posterior pairs of legs strong and prominent. Ventral surface of first pair of legs with 2.2.2 or 2.2.0 spination. Dorsal surface of tibiae of first and second pairs each with one basal bristle-like spine but tibiae of third and fourth each with 1.1.1 spines, basal spine erect and aculeate. Distal whorl of spines on metatarsus of first pair reduced to two. Tarsal trichobothria, including those on palp in an alternately staggered double row. Tarsal organ distal to trichobothria. Distal trichobothrium of metatarsal row long and angularly bent. In addition to metatarsal row there is a trichobothrium posterior to row on distal half of segment. Preening combs are present on metatarsi of second, third and fourth pairs of legs. There are several short teeth on inferior tarsal claw. Superior claws strongly pectinate. Retromargin of cheliceral groove with two even teeth. Promargin often with group of minute teeth in addition to normal teeth. Trochanter of male palp with twin spines, or processes, on distal outer surface. Embolus stout and spiniform. Conductor distal, membraneous. Median apophysis a sclerotized plate. Internal genitalia receptaculate. Posterior pair of spinnerets greatly reduced. Colulus small, poorly delineated, with few hairs.

Type species *Pakeha protecta* n.sp.

Pakeha protecta n.sp.

Figs. 817, 828-831

MALE

Measurements

	Carapace	length 3.42		width 2.08		
	Abdomen	length 3.21		width 2.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.15	1.26	3.15	3.09	1.58	12.23
2	2.33	1.01	1.95	2.21	1.13	8.63
3	1.95	0.95	1.32	1.89	0.82	6.93
4	2.58	1.13	1.95	2.71	1.07	9.44
Palp	1.28	0.44	0.48		1.00	3.20

Colour (Fig. 817) Carapace yellow brown with dark brown bands extending back from outer margins of eyegroup to merge at fovea and continue back as a single median band to near posterior margin of carapace. Chelicerae reddish brown. Legs yellowish brown with darker bands. Abdomen heavily shaded with black.

Carapace Width of head 7/10 of width of thorax. Lateral margins of head straight and parallel extending back one quarter of length of carapace. Fovea relatively long with the margins slightly raised.

Eyes Eyegroup compact, occupying 3/7 of width of head. From above anterior row straight and posterior row gently procurved. From in front both rows appear procurved. Ratio of AME.ALE.PME.PLE = 6.15.12.16. AME separated from each other by 6/6 and from the ALE by 2/6 of width of an AME. Lateral eyes subcontiguous. PME separated by 12/6 and from PLE by 9/6. MOQ wider behind than in front in ratio of 18.9 and wider behind than long in ratio of 18.14. Height of clypeus equal to the diameter of an AME.

Sternum Anterior margin straight. Lateral margins gently undulate. Posterior projection short, separating coxae 4 by one third of width of a coxa.

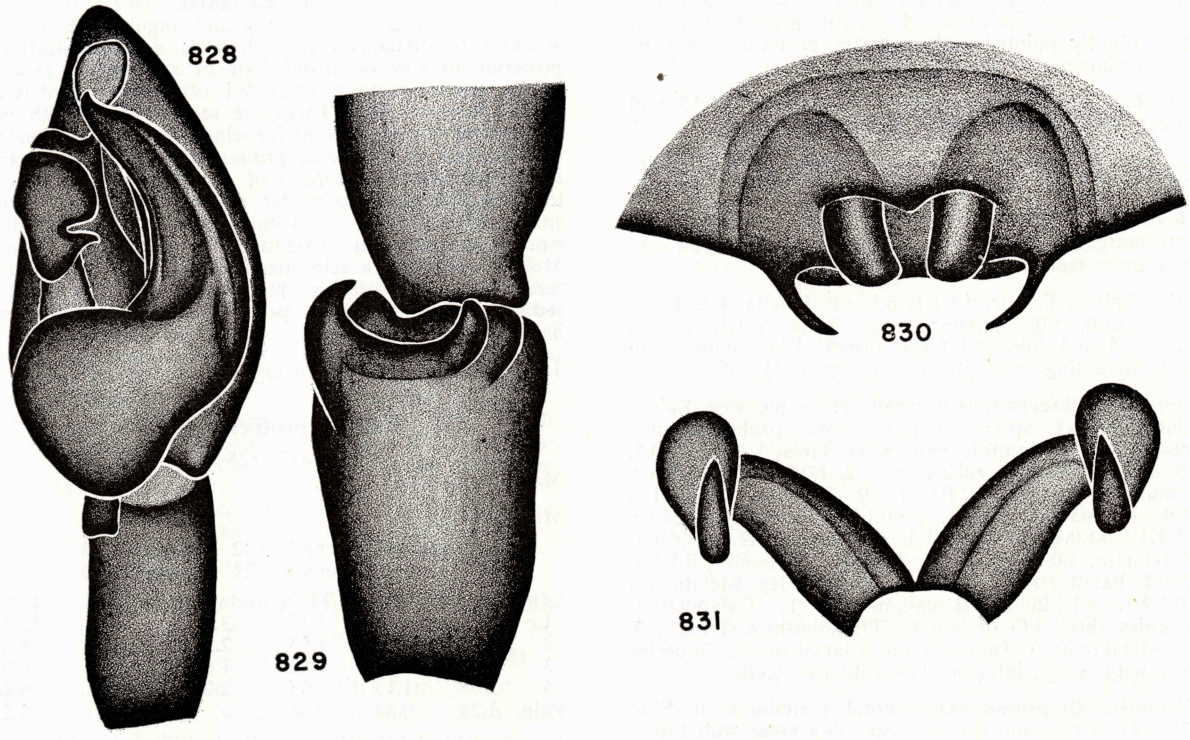
Maxillae Lateral margins straight and parallel. Twice as long as wide.

Labium Notched at the base. Lateral margins straight and convergent. Anterior margin indented. As long as wide.

Chelicerae Length equal to 7/17 of the carapace. Retromargin with two teeth. Promargin with five minute teeth followed by two normal teeth and a carina which extends to the base of chelicera.

Palp As shown in Figs. 828, 829.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.0.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.2. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.2. d.0.1.0. Third leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.2.1.2. p,r.1.1.1. d.0.1.1. Metatarsus, v.2.2.1. p,r.2.1.2. d.0.1.0. Fourth leg. Femur, d.0.1.1.1. Patella, d.0.1. Tibia, v.2.1.2. p,r,d.1.1.1. Metatarsus, v.2.2.1. p,r.2.1.2. d.0.1.0. Metatarsal comb on legs 2-4 with five, six and twelve bristles respectively. Tricho-



Figs. 828-831 *Pakeha protecta* n.sp. Fig. 828 Ventral view of male palp. Fig. 829 Tibial processes of male palp. Fig. 830 Epigynum. Fig. 831 Internal genitalia.

bothria. First leg. Tibia, 1.1.2.1.1.1.1. Metatarsus, 5. Tarsus, 7. Second leg. Tibia, 1.3.2.1.1.1.1. Metatarsus, 5 Tarsus, 7. Third leg. Tibia, 2.1.2.2.1. Metatarsus, 4. Tarsus, 6. Fourth leg. Tibia, 2.2.2.1.1. Metatarsus, 2.1.1.1.1. Tarsus, 6. Tarsal organ sub-distal. Superior claws with 7 teeth. Inferior claw with two small teeth on legs 1 and 2 and three on legs 3 and 4.

Abdomen Posterior pair of spinnerets very slender and small. Colulus small and clothed with hairs.

FEMALE

Measurements

Carapace	length 3.41	width 2.28	
Abdomen	length 3.20	width 2.16	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.18	1.13	1.70	1.50	0.88	7.39
2	1.75	1.03	1.30	1.33	0.75	6.16
3	1.70	0.90	1.05	1.53	0.73	5.91
4	2.30	1.08	1.78	2.23	0.88	8.27
Palp	1.20	0.48	0.58		0.93	3.19

Similar to male. Epigynum and internal genitalia as in Figs. 830, 831.

Types Holotype male. Otago. Mount Cargill, above Leith Saddle, 25.xii.1949, B. J. Marples. Allotype female. Mt Cargill, 3.ix.1950, B. J. Marples (Otago Museum).

Records Opoho Bush, Dunedin (pitfall), C.L.W. 10-17.xi.1970, 17-23.xi.1970, 30.xi.1970-7.xii.1970, 7-14.xii.1970, 14-21.xii.1970, 21-28.xii.1970, 28.xii.1970-4.xi.1971, 4-11.i.1971, 18-25.i.i1971, 25-31.i.1971, 1-15.iii.1971, March-April 1971. Leith Saddle, Dunedin (pitfall), R.R.F. 20.ii.1967, 17.vi.1967. Flagstaff, Dunedin (pitfall), C.L.W. 27.xii.1970-3.i.1971, 3-10.i.1971, 23-31.i.1971. Leith Saddle (pitfall), R.R.F. 4.xii.1966, 19.xii.1966, 22.xii.1966, 10.i.1967, 17.i.1967, 25.i.1967, 20.v.1967, 2.iv.1967, 17.vi.1967, 5.viii.1967, 23.xii.1967, 30.xii.1967, 20.i.1968. Above Leith Saddle, Mt Cargill, Dunedin (bush), 25.xii.1949, B. J. Marples. Leith Saddle, 10.i.1968, R.R.F. Whare Flat, Dunedin, forest, 4.i.1966, C.L.W. Mt Mira, Dunedin, 16.iv.1966, J. Sutherland. Waitati Valley, Otago, 30.iv.1966, C.L.W. School Ck, Dunedin, leafmould, 12.ii.1966, J. Sutherland. Ross Creek, Dunedin, leafmould, 29.i.1966, J. Sutherland. Fraser's Road, Dunedin, 7.v.1966, C.L.W., Opoho Bush, Dunedin, pitfall, 11-18.i.1971, C.L.W. Horsetrough Elbow, Dunedin, Waitati old road, 5.vi.1966, C.L.W. Sullivan's Dam, October 1965, R.R.F. Evansdale Glen, 11.vi.1966, C.L.W. Port Chalmers-Longbeach Rd, 1,000 ft, above Deborah Bay, 5.vi.1966, C.L.W.

Pakeha minima n.sp.

Figs. 832-836

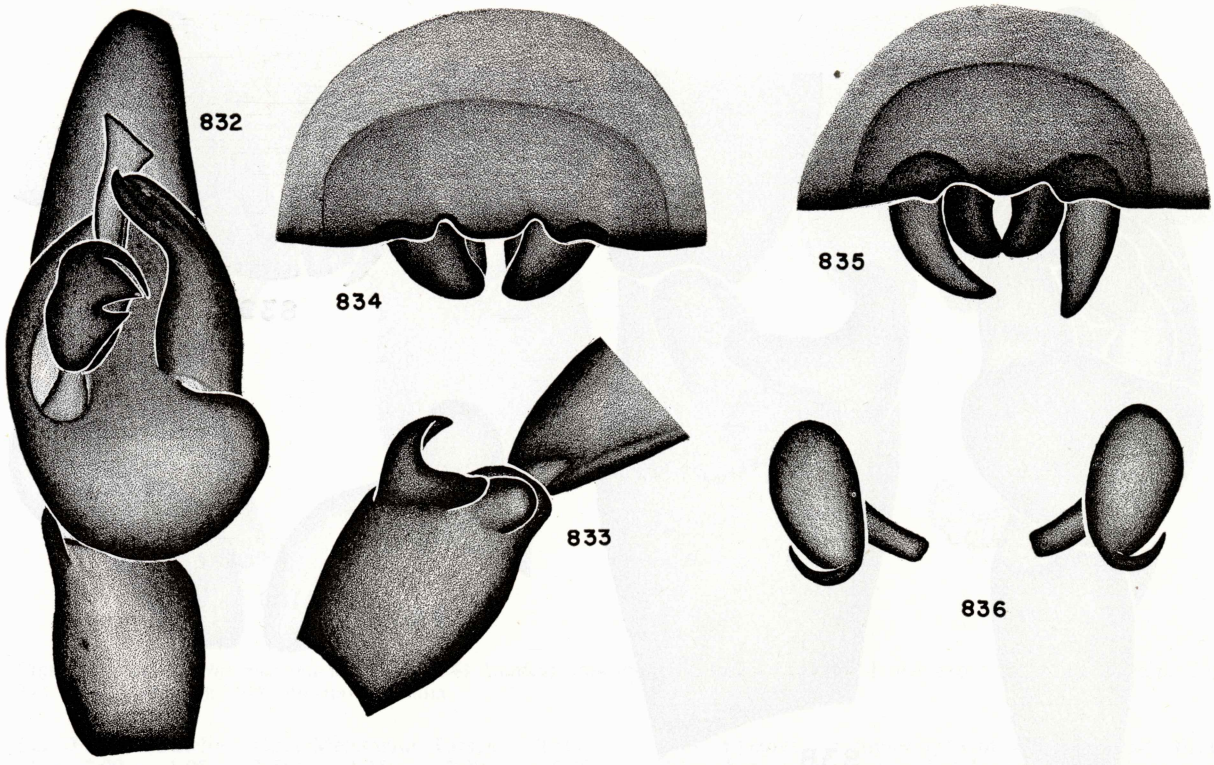
MALE

Measurements

Carapace	length 2.75	width 1.95	
Abdomen	length 2.55	width 1.65	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.50	0.95	2.55	2.50	1.30	9.80
2	1.95	0.95	1.60	1.80	1.00	7.30
3	1.60	0.80	1.10	1.60	0.75	5.85
4	2.20	0.90	1.65	2.15	1.00	7.90
Palp	1.10	0.40	0.40		0.80	2.70

Colour Carapace rather strongly shaded. Cervical bands continue past the fovea on each side to posterior margin. Legs conspicuously banded. Sternum heavily shaded with irregularly shaped pale area mid anteriorly. Abdomen with a brown tinge anteriorly. Black markings tend to make a pattern on anterior surface and posterior slope rather pale.



Figs. 832-836 *Pakeha minima* n.sp. Fig. 832 Ventral view of male palp. Fig. 833 Tibial processes of male palp. Fig. 834 Epigynum. z Fig. 835 Epigynum with plug. Fig. 836 Internal genitalia.

Eyes Group occupies half width of head. Ratio of AME.ALE.PME.PLE = 3.5.5.5. AME separated from each other by 1/3 of diameter of an AME and twice that distance from ALE. PME separated from each other and from PLE by diameter of an AME. MOQ wider behind than in front in ratio of 13.7 and wider behind than long in ratio of 13.12. Height of clypeus equal to 9/3 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* are typical.

Palp Tibial processes and bulb as in Figs. 832, 833.

Legs 1423. Spines. First leg. Femur, prolateral spine present, d.1.1.0. p.0.1. r.0. Tibia, v.2.2.2. p,r.0. Metatarsus, v.2.2.0. p,r.0.0.1. Second leg. Femur, d.1.1.0. p.0.1. r.0. Tibia, v.2.2.2. p.0.1.1. r.0. Metatarsus, v.2.2.1. p.1.2.2. r.0.0.1.

FEMALE

Measurements

	Carapace	length 3.30		width 2.35		
	Abdomen	length 4.25		width 2.70		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.05	1.05	1.60	1.40	0.90	7.00
2	1.80	1.00	1.30	1.20	0.80	6.10
3	1.60	0.90	0.95	1.40	0.80	5.65
4	2.15	1.00	1.65	1.90	1.00	7.70
Palp	1.25	0.55	0.60		0.85	3.25

Similar in appearance to male except abdomen lacks brown tinge anteriorly.

Legs 4123. Spines. First leg. Tibia, v.2.2.1. p,r.0. Metatarsus, v.2.2.0. p,r.0.0.1.

Abdomen Epigynum and internal genitalia as in Figs. 834, 866. Fig. 835 shows the epigynum with protruding plugs which appear to develop after mating.

Types Holotype male. Otago. Pitfall trap S5, West of Middlemarch, 3,500 ft, damp situation beside stream, 31.xii.1968, J. Child. Allotype female. Otago. Pitfall trap N5, one mile south of Summit Rock Ski Hut, 4,500 ft, cushion vegetation, 20.x.1968, J. Child (Otago Museum).

Records Otago. Pitfall trap S1, west of Middlemarch, 800 ft, matagouri scrub, 16.xi.1968, J. Child. Plant Reserve, Balclutha, 21.iv.1966, R.R.F.

Pakeha media n.sp.

Figs. 837-840

FEMALE

Measurements

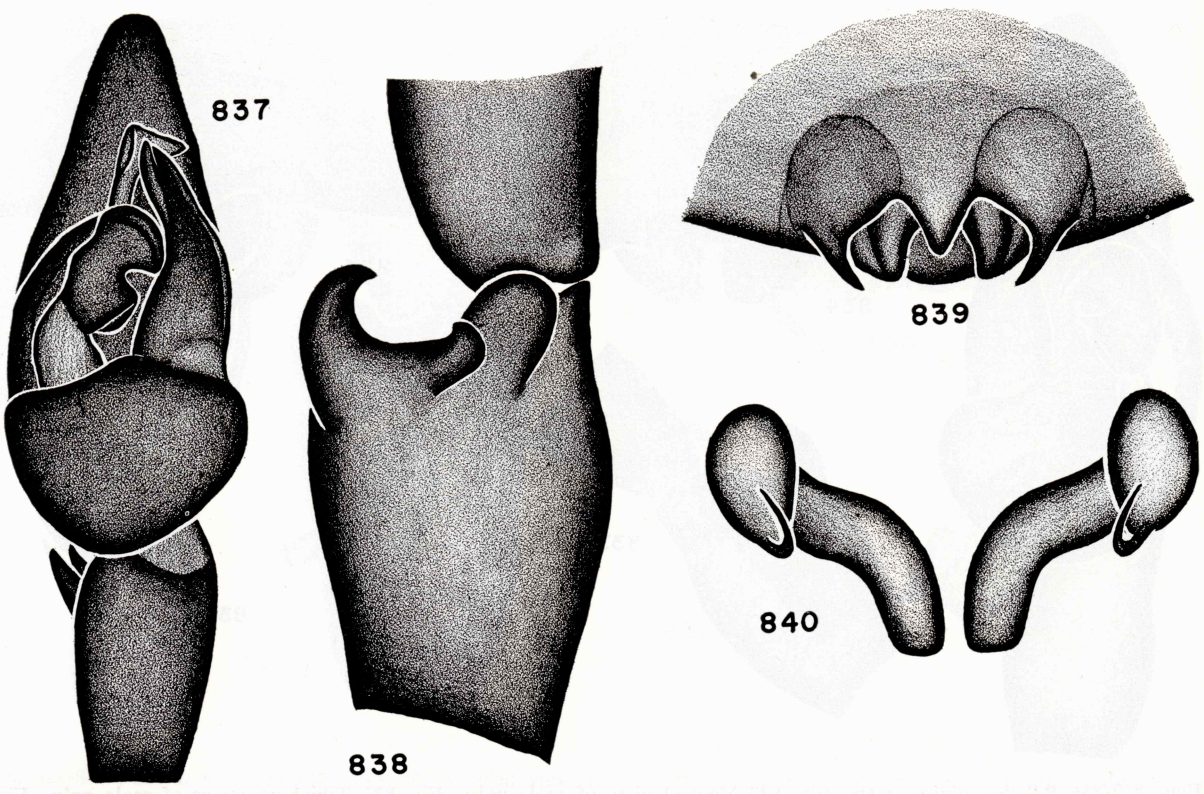
	Carapace	length 3.50		width 2.75		
	Abdomen	length 4.50		width 2.90		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.20	1.05	1.80	1.60	1.00	7.65
2	1.90	1.05	1.35	1.40	0.90	6.60
3	1.80	0.95	1.10	1.55	0.75	6.15
4	2.45	1.10	1.80	2.30	1.00	8.65
Palp	1.25	0.60	0.60		1.00	3.45

Colour Carapace with lateral surfaces shaded, heavier on cervical regions. Legs conspicuously banded. Sternum with median area pale and lateral and posterior regions shaded. Surface of abdomen with dark flecks. Dorsal pattern of oblique bars and chevrons composed of paler areas outlined with black.

Eyes Ratio of AME.ALE.PME.PLE = 4.6.6.7. AME separated from each other and from ALE by 2/4 of diameter of an AME. PME separated from each other by 5/4 and from PLE by 4/4. MOQ wider behind than in front in ratio of 17.10 and wider behind than long in ratio of 17.15. Height of clypeus equal to 11/4 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

Palp Trichobothria. Tibia, p,r.1.1.1.1. Tarsus, 1.2.2. Claw with five teeth.



Figs. 837-840 *Pakeha media* n.sp. Fig. 837 Ventral view of male palp. Fig. 838 Tibial processes of male palp. Fig. 839 Epigynum. Fig. 840 Internal genitalia.

Legs 4123. Spines. First leg. Femur, prolateral spine present, d.1.1.0. p.0.1. r.0. Tibia, v.2.2.2. p.0.1.1. r.0. Metatarsus, v.2.2.0. p.0.1.1. r.0.0.1. Trichobothria. Tibia, in two rows of 4. Metatarsus, 1.1.1.2.1. Tarsus, 1.1.2.2.1 and a subdistal tarsal organ. Superior claw with eight teeth and inferior with one.

Abdomen Epigynum and internal genitalia as in Figs. 834, 840.

MALE

Measurements

Carapace	length 3.50		width 2.45
Abdomen	length 3.00		width 1.75

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.35	1.25	3.40	3.40	1.55	12.95
2	2.50	1.20	2.15	2.45	1.25	9.55
3	2.20	1.10	1.40	2.25	1.00	7.95
4	2.80	1.10	2.25	3.00	1.10	10.25
Palp	1.50	0.60	0.60		1.05	3.75

Similar to the female.

Palp Tibial processes and bulb as in Figs. 837, 838. Trichobothria. Tibia in two rows each with 4. Cymbium 1.2.1.

Legs 1423. Spination similar to female.

Types Holotype female and allotype male. Otago. Catlins, moss, 20.xii.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Record Otago. Catlins, 31.viii.1966, R.R.F., C.L.W.

Pakeha maxima n.sp.

Figs. 841-844

MALE

Measurements

Carapace	length 2.90	width 2.15
Abdomen	length 2.50	width 1.55

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.00	1.00	1.70	1.60	1.00	7.30
2	1.75	0.90	1.30	1.35	0.90	6.20
3	1.55	0.80	1.00	1.35	0.75	5.45
4	2.00	0.90	1.50	1.95	0.95	7.30
Palp	1.60	0.70	0.50		1.00	3.80

Colour Carapace pale brownish yellow with dark shading on lateral surfaces. Cervical regions more heavily shaded. There is a break in shading extending from eye region along midline to petiolus. Legs conspicuously banded. Sternum with very light shading. Abdomen dark, without definite pattern.

Eyes Group occupies half width of head. From in front both rows strongly procurved. From above anterior row slightly and the posterior row more strongly procurved. Ratio of AME.ALE.PME.PLE = 3.5.5.6. AME separated from each other and from ALE by 2/3 of diameter of an AME. Laterals narrowly separated. PME separated from each other and from PLE by the diameter of an AME. MOQ wider behind than in front in ratio of 13.8 and wider behind than long in ratio of 13.12. Height of clypeus 7/3 of diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

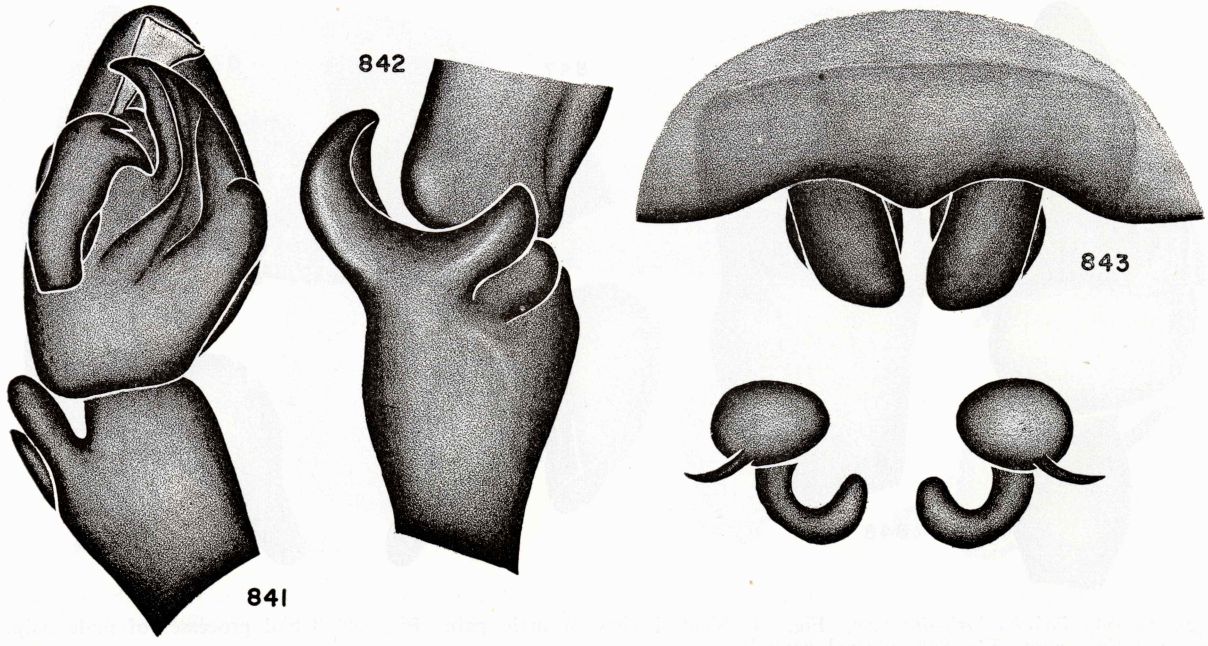
Palp Trichobothria. Tibia, 2.2.2.1. Cymbium, 1.2.1. The bulb and tibial processes are shown in Figs. 841, 842.

Legs 1-432. Spines. First leg. Femur, d.1.1.0. p.0.1. r.0. Tibia, v.2.2.0. p,r.0. Metatarsus, v.2.2.0. p,r.0.0.1. Trichobothria. Tibia, in two rows each with 4. Metatarsus, 1.1.1.1.2.1. Tarsus, 6. Superior claw with eight teeth and inferior claw with one tooth.

FEMALE

Measurements

Carapace	length 3.30	width 2.35
Abdomen	length 3.40	width 2.10



Figs. 841-844 *Pakeha maxima* n.sp. Fig. 841 Ventral view of male palp. Fig. 842 Tibial processes of male palp. Fig. 843 Epigynum. Fig. 844 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.00	1.05	1.55	1.25	0.90	6.75
2	1.75	1.00	1.25	1.20	0.80	6.00
3	1.65	0.95	1.05	1.40	0.80	5.85
4	2.15	1.00	1.65	2.00	1.00	7.80
Palp	1.25	0.60	0.55		0.85	3.25

Similar to the male.

Palp Spines. Reduced to bristles on the femur. Tibia, d.1.1. p.1.0. r.0. Trichobothria. Tibia, p.4. r.3. Tarsus, 5. Claw with six teeth.

Abdomen Epigynum and internal genitalia as in Figs. 843, 844.

Types Holotype male and allotype female. Otago. Pitfall trap 4, Summit Taieri Ridge, Deep Dell-Fillyburn Road, S43-0033, 17.iv.1969, C. L. Wilton (Otago Museum).

Records Otago. Pitfall trap, tussock bank. Dry Ridge Road near Middlemarch, 12.iv.1971, T. R. Beatson. Waipori Gorge, 18.xi.1966, R.R.F., C.L.W. Pitfall trap programme, Maniototo and adjacent areas, 1967-69, C. L. Wilton. Summit Taieri Ridge, Deep Dell-Fillyburn Road, 16.xii.-1967, 14.iii.1968, 18.iv.1968, 6.iii.1969, 29.iii.1969, 17.iv.1969. Maniototo Road, near Patearoa, 11.vi.1968.

Pakeha insignita n.sp.

Figs. 845-848

FEMALE

Measurements

Carapace length 3.15 width 2.15
Abdomen length 2.94 width 2.06

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.00	0.83	1.62	1.40	1.00	6.85
2	1.64	0.82	1.24	1.40	0.85	5.95
3	1.53	0.75	1.04	1.35	0.85	5.52
4	1.82	1.04	1.63	2.04	0.95	7.48
Palp	0.90	0.45	0.52		0.93	2.80

Colour Carapace yellow brown shaded with black except for dorsum of head. Legs banded. Abdomen mottled with black on dorsal surface.

Eyes Eyegroup occupies 7/16 of width of head. From above both rows straight but from in front both rows distinctly procurved. Ratio of AME.ALE.PME.PLE = 4.7.7.6. AME separated from each other and from ALE by one half of width of an AME but separated from PME by 7/4. Lateral eyes separated by one half of diameter of an AME. PME separated from each other by 7/4 and from the PLE by 6/4. MOQ wider behind than in front in ratio of 19.10 and longer than wide in front in ratio of 17.10. Height of clypeus one and a half times diameter of an AME.

Chelicerae Two teeth on each margin.

Abdomen Epigynum and internal genitalia as in Figs. 847, 848.

MALE

Measurements

Carapace length 2.45 width 1.86
Abdomen length 2.24 width 1.45

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.14	0.83	1.24	1.85	1.06	7.12
2	1.73	0.83	1.13	1.34	0.85	5.88
3	1.45	0.76	0.95	1.43	0.65	5.24
4	1.85	0.76	1.45	1.95	0.94	6.95
Palp	1.04	0.44	0.43		0.73	2.64

Similar to female. The form of the palp is shown in Figs. 845, 846.

Types Holotype male, allotype female. Southland. Tuatapere Domain, leaflitter, 1.xii.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Pakeha subtecta n.sp.

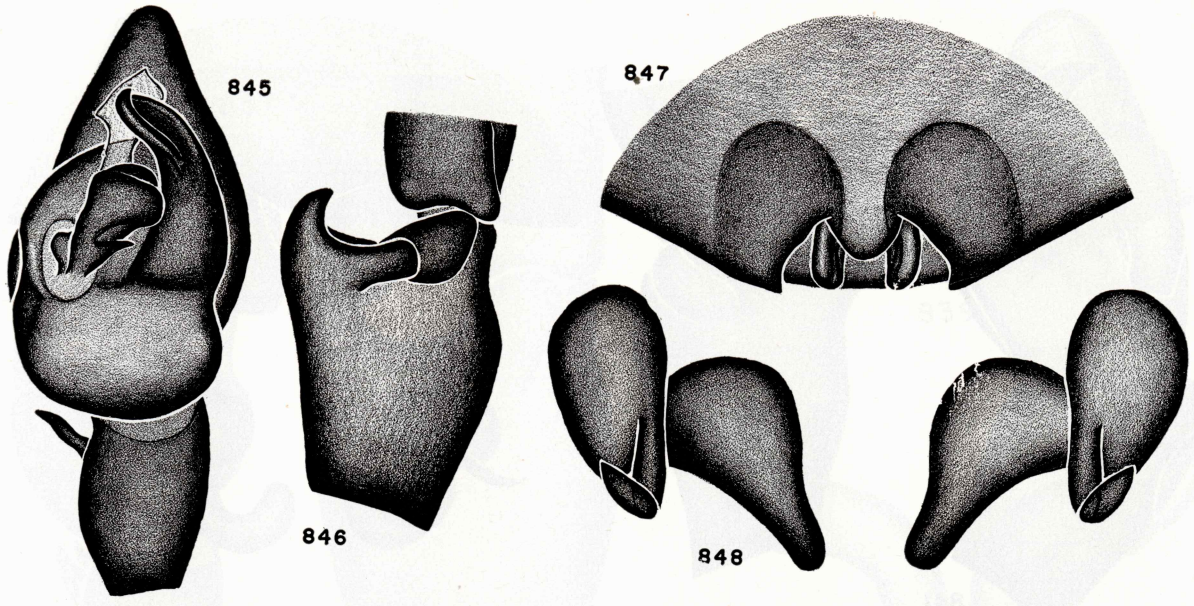
Figs. 849-852

FEMALE

Measurements

Carapace length 2.72 width 1.88
Abdomen length 3.08 width 2.20

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.78	0.95	1.43	1.25	0.75	6.16
2	1.58	0.93	1.13	1.13	0.70	5.47
3	1.45	0.83	0.93	1.23	0.65	5.09
4	1.90	0.93	1.45	1.78	0.83	6.89
Palp	1.00	0.50	0.50		0.75	2.75



Figs. 845-848 *Pakeha insignita* n.sp. Fig. 845 Ventral view of male palp. Fig. 846 Tibial processes of male palp. Fig. 847 Epigynum. Fig. 848 Internal genitalia.

Colour Carapace and legs pale orange brown. Abdomen pale brown with few small dark brown markings.

Eyes Eyegroup occupies one half of width of head. From above anterior row straight and posterior row procurved. From in front anterior row gently procurved and posterior row strongly procurved. Ratio of AME. ALE.PME.PLE = 5.10.10.11. AME separated by 6/5 and from ALE by 5/5 of diameter of an AME. Lateral eyes separated by 4/5. PME separated from each other by 14/5 and from PLE by 10/5. MOQ wider behind than in front in ratio of 17.8 and wider behind than long in ratio of 17.14. Height of clypeus 9/5 of diameter of an AME.

Chelicerae Length 3/7 of carapace. Retromargin with two teeth. Promargin with six minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.0. p.0.0.0.2. Patella, d.1.1. Tibia, p,r.1.0. Trichobothria. Tibia, 2.2.2.2. Tarsus, 1.2.2.1. Claw with seven teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.2. Tibia, v.2.2.1. p.1.0.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.0. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.1. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Metatarsal comb on legs 2-4 with six, eight and seven bristles respectively. Trichobothria. Tibia, 2.2.1.2.1. Metatarsus, 3. Tarsus, 5. Superior claws with nine teeth. Inferior claw with single small tooth.

Abdomen Epigynum and internal genitalia as in Figs. 851, 852. Colulus small, with three hairs.

MALE

Similar to female. Palp as in Figs. 849, 850.

Type Holotype female. Fiordland. Eglinton Valley, under logs, 19.i.1946, R. R. Forster. Allotype male. Cascade Creek, moss, R. R. Forster (Otago Museum).

Records Fiordland. Lake Gunn, leafmould, 29.xii.1943, R.R.F. Cascade Creek, 14.i.1971, R.R.F. Eglinton Valley, pitfall, 10.ii.1966, R.R.F., C.L.W. Deep Cove, 25.i.1958, R.R.F.

Pakeha tecta n.sp.

Figs. 853-856

FEMALE

Measurements

Carapace length 3.20 width 2.20
Abdomen length 4.00 width 3.00

1	2.10	1.13	1.60	1.25	0.63	6.71
2	1.75	0.80	1.25	1.18	0.63	5.61
3	1.68	0.93	1.03	1.28	0.70	5.62
4	2.28	1.08	1.55	1.88	0.78	7.57
Palp	1.13	0.50	0.55		0.80	2.98

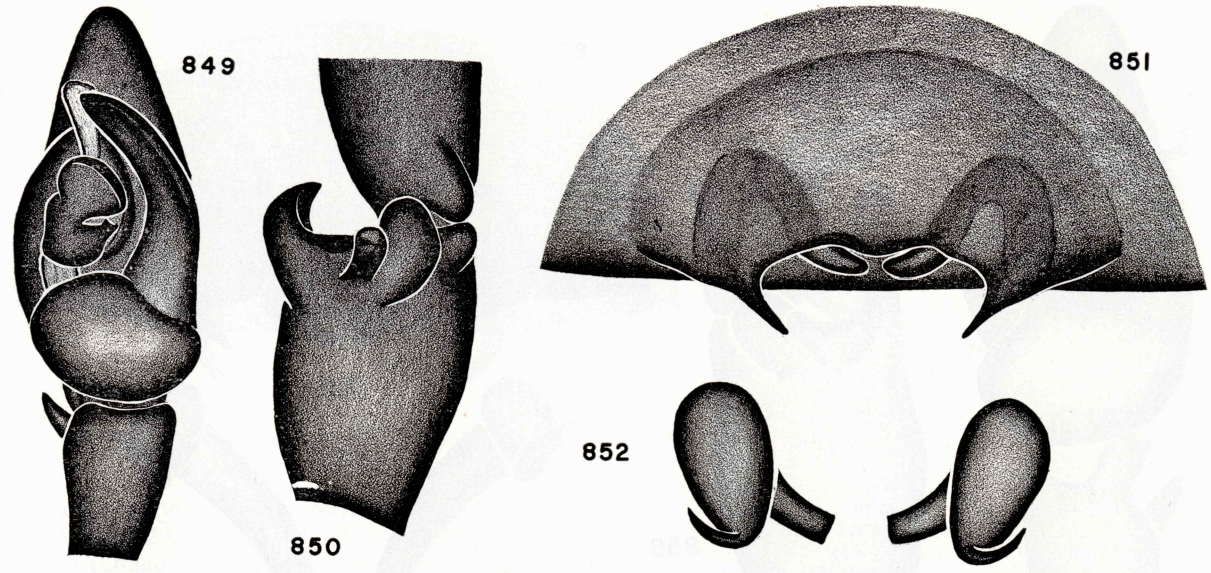
Colour Carapace deep orange brown. Legs orange brown with darker shading on femora. Chelicerae reddish brown. Abdomen strongly shaded with blackish brown. Dorsal surface with two pairs of pale spots on antero-dorsal surface and three pale chevrons on posterior half.

Eyes Eyegroup compact, occupying slightly less than one half of width of head. From above anterior row straight and posterior procurved. From in front anterior slightly procurved and posterior row strongly procurved. Ratio of AME.ALE.PME.PLE = 5.12.13.14. AME separated by 5/5 and from ALE by 3/5 of diameter of an AME. Lateral eyes contiguous. PME separated from each other and from PLE by 11/5. MOQ wider behind than in front in ratio of 37.15 and wider behind than long in ratio of 37.28. Height of clypeus equal to 8/5 of diameter of an AME.

Chelicerae Boss prominent. Both margins with two teeth. Carina present.

Palp Spines. Femur, d.0.1.1.1. Tibia, p.1.0. Trichobothria. Tibia, 1.2.2.2.1. Tarsus, 1.1.1. Claw with four teeth.

Legs Spines. First leg. Femur, d.0.1.0.1. p.0.0.0.2. Tibia, v.2.2.0. p.0.2.1. Metatarsus, p,r.1.1.1.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.1.2.0. p.0.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. Metatarsal comb on legs 2-4 with six, ten and twelve bristles respectively. Trichobothria. First leg. Tibia, 2.1.1.1.1. Metatarsus, 5. Tarsus, 2. Second leg, Tibia, 2.2.1.2.1. Metatarsus, 5. Tarsus, 2. Third leg. Tibia, 3.2.1.2. Metatarsus, 1.1.2.1. Tarsus, 1.2.1. Fourth leg. Tibia, 3.2.2.2.2.1. Metatarsus, 5. Tarsus, 4. Superior claws with from 5-6 teeth. Inferior claw with single minute tooth.



Figs. 849-852 *Pakeha subtecta* n.sp. Fig. 849 Ventral view of male palp. Fig. 850 Tibial processes of male palp. Fig. 851 Epigynum. Fig. 852 Internal genitalia.

Abdomen Epigynum and internal genitalia as in Figs. 855, 856. Colulus distinct but small.

Type Holotype female. Southland. Bluff, on coast, 21.i.1955, B. A. Holloway, R. K. Dell. Allotype male. Owen Island, S.W. Stewart Is., 1.vi.1955, R. K. Dell, B. A. Holloway (Dominion Museum).

Records Southland. Orepuki, 1,000 ft, leafmould, 17.v.1948, J. H. Sorensen. Stewart Is., Garden Mound, 21.xi.1946, R.R.F. Horseshoe Bay, 21.xi.1946, R.R.F. Halfmoon Bay, 20.iv.1947, O. Allan. Small Craft retreat, 23.i.1955, R. K. Dell, B. A. Holloway.

Pakeha duplex n.sp.

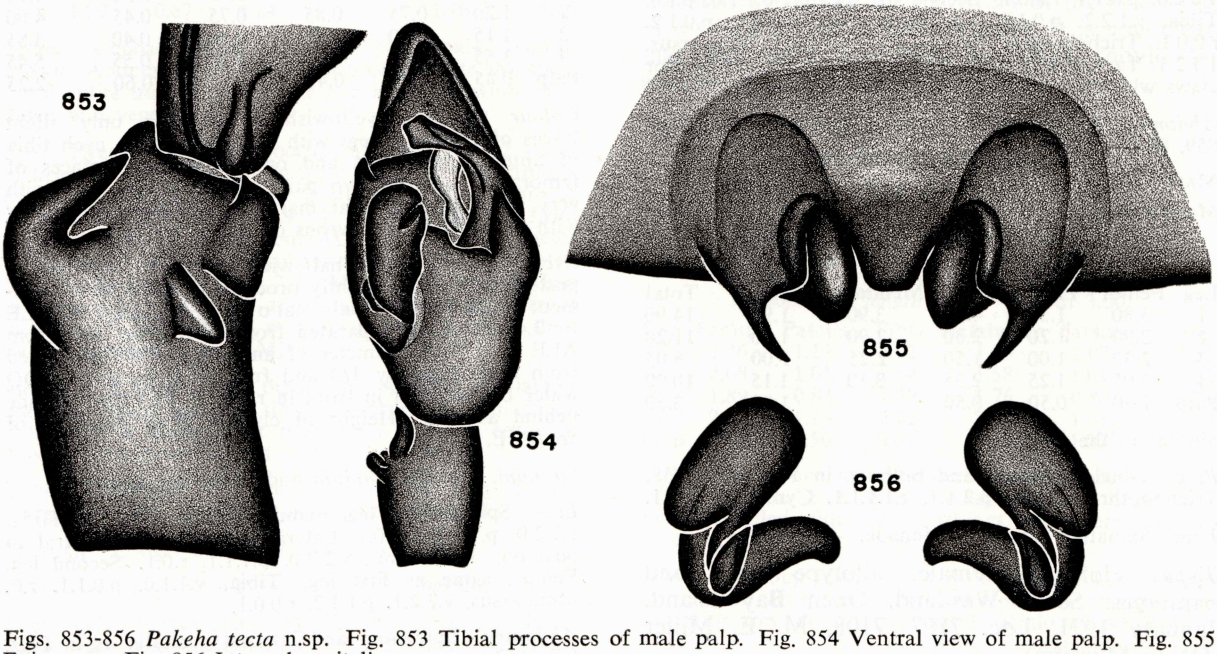
Figs. 857-860

FEMALE

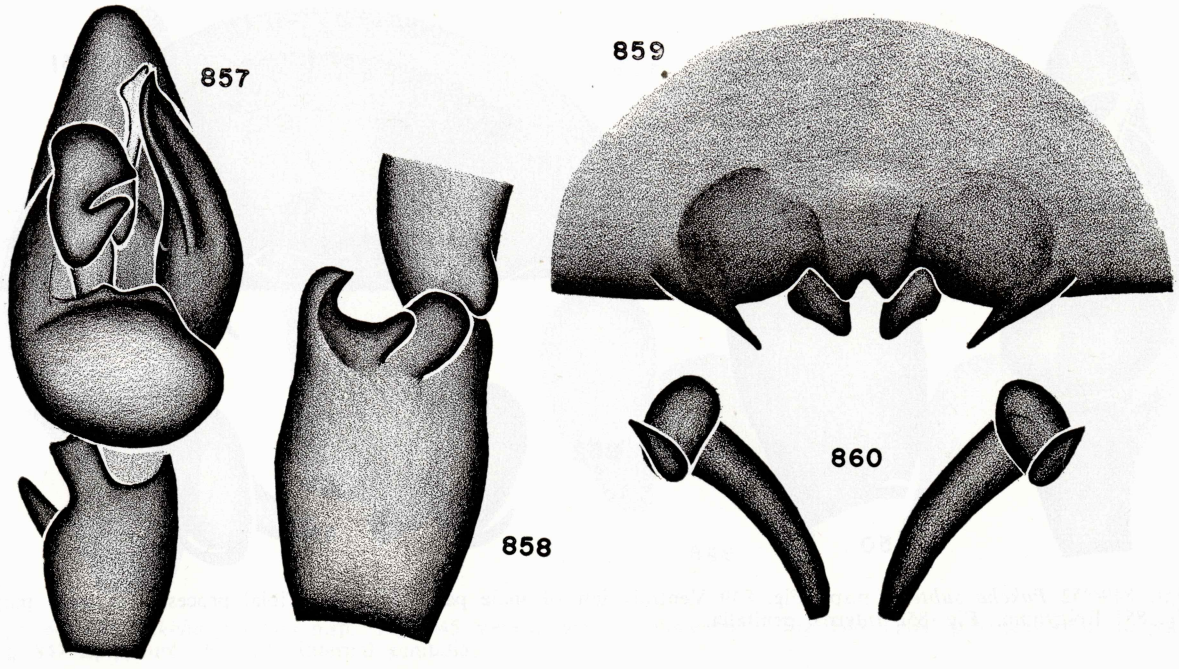
Measurements

	Carapace		length 2.60		width 1.75	
	Abdomen		length 2.60		width 1.60	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.65	0.80	1.35	1.10	0.75	5.65
2	1.45	0.75	1.00	1.00	0.70	4.90
3	1.35	0.75	0.80	1.05	0.60	4.55
4	1.80	0.80	1.40	1.65	0.70	6.35
Palp	1.00	0.45	0.50		0.75	2.70

Colour Carapace with typical pattern. Lateral margins well shaded with black. Legs with dark bands. Sternum pale. Abdomen pale brown with numerous black flecks. Pattern of black chevrons on dorsal surface.



Figs. 853-856 *Pakeha tecta* n.sp. Fig. 853 Tibial processes of male palp. Fig. 854 Ventral view of male palp. Fig. 855 Epigynum. Fig. 856 Internal genitalia.



Figs. 857-860 *Pakeha duplex* n.sp. Fig. 857 Ventral view of male palp. Fig. 858 Tibial processes of male palp. Fig. 859 Epigynum. Fig. 860 Internal genitalia.

Eyes Ratio of AME.ALE.PME.PLE = 3.5.5.6. AME separated from each other by 1/3 and from the ALE by 2/3 of diameter of an AME. PME separated from each other by 4/3 and from PLE by 3/3. MOQ wider behind than in front in ratio of 14.7 and wider than long in ratio of 14.12. Height of clypeus equal to 7/3 of diameter of an AME.

Sternum maxillae, labium and *chelicerae* typical.

Palp Spines. Femur, d.1.1.1. p,r. 0. Tibia, p.1.0. r.0. Trichobothria. Tibia, 2.2.2.2. Tarsus, 1.2.2.

Legs Spines First leg. Femur, prolateral spine present, d.1.1.0. p.0.1. r.0. Tibia, v.2.2.2. p.0.1.1. r.0. Metatarsus, v.2.2.0. p.0.1.1. r.0.0.1. Second leg. Femur, d.1.1.0. p,r.0. Tibia, v.1.2.2. p.0.1.1. r.0. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Trichobothria. Tibia, p.2.1.1. r.1.1.1.1. Metatarsus, 1.1.2.1. Tarsus, 1.2.2 and subdistal tarsal organ. Superior claws with six teeth and inferior with one.

Abdomen Epigynum and internal genitalia as in Figs. 859, 860.

MALE

Measurements

	Carapace		length 3.50		width 2.60	
	Abdomen		length 3.50		width 2.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.80	1.30	4.00	3.90	1.90	14.90
2	2.90	1.20	2.80	2.90	1.40	11.20
3	2.30	1.00	1.50	2.25	1.00	8.05
4	3.05	1.25	2.35	3.10	1.15	10.90
Palp	1.30	0.50	0.50		1.00	3.30

Similar to the female.

Palp Tibial processes and bulb as in Figs. 857, 858. Trichobothria. Tibia, p.2.1.1. r.1.1.1.1. Cymbium, 1.2.1.

Legs Spination similar to female.

Types Holotype female, allotype male and paratypes. South Westland. Open Bay Island, January 1971, Loc. 7107, 7108, M. E. Miller (Otago Museum).

Records South Westland. Open Bay Island, 31.xii.1970, 2.i.1971, 19.i.1971, 28.i.1971, M. E. Miller.

Pakeha inornata n.sp.

Figs. 861-862

FEMALE

Measurements

	Carapace		length 2.45		width 1.70	
	Abdomen		length 2.30		width 1.50	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.45	0.80	1.10	0.85	0.50	4.70
2	1.20	0.75	0.85	0.75	0.45	4.00
3	1.15	0.70	0.70	0.90	0.40	3.85
4	1.65	0.80	1.15	1.30	0.55	5.45
Palp	0.85	0.40	0.40		0.60	2.25

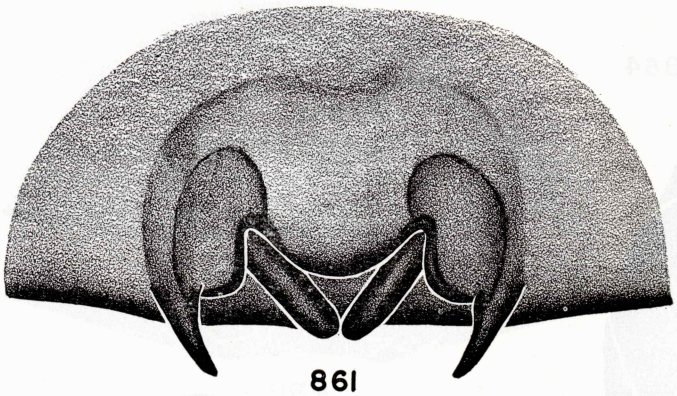
Colour Carapace yellowish brown with only slight traces of shading. Legs with a dark band on each tibia of anterior two pairs and on the ventral surfaces of femora of posterior two pairs. Sternum very pale with very slight shading near margins. Abdomen olive grey with traces of pale chevrons on dorsal surface.

Eyes Group occupies half width of head. From above posterior row only slightly procurved otherwise arrangement of the rows typical. Ratio of AME.ALE.PME.PLE = 3.4.4.5. AME separated from each other and from ALE by 1/3 of diameter of an AME. PME separated from each other by 3/3 and from PLE by 2/3. MOQ wider behind than in front in ratio of 11.7 and as wide behind as long. Height of clypeus twice diameter of an AME.

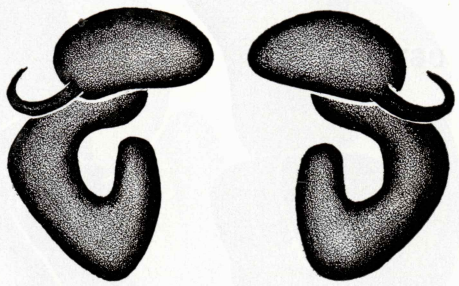
Sternum, maxillae, labium and *chelicerae* typical.

Legs Spines. First leg. Femur, d.1.1.1. p.0.1. r.0. Tibia, v.2.2.0. p.1.1.1. r.0.0.1. Lateral spines almost ventral in position. Metatarsus, v.2.2.0. p.1.1.1. r.0.1. Second leg. Femur, same as first leg. Tibia, v.1.1.0. p.0.1.1. r.0. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.1.

Abdomen Epigynum and internal genitalia as in Figs. 861, 862.



861



862

Figs. 861-862 *Pakeha inornata* n.sp. Fig. 861 Epigynum. Fig. 862 Internal genitalia.

Types Holotype female. Nelson. Bullock Creek, Punakaiki, 29.ix.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Record Nelson. Karamea Bluff, leafmould, 29.ix.1966, R.R.F., C.L.W.

Pakeha kirki (Hogg) 1909

1909 *Myro kirki,* Hogg. Subant. Is. N. Zeal. 1: 173.

1909 *Myro ovalis* (male), Hogg. Subant. Is. N. Zeal. 1: 175.

1964 *Myro ovalis* (male), Forster. Pac. Ins. Mon. 7: 73.

1964 *Myro kirki,* Forster. Pac. Ins. Mon. 7: 74.

Figs. 863-866

FEMALE

Measurements

Cephalothorax	length 7.48	width 4.48	
Abdomen	length 8.84	width 3.52	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.12	1.76	3.08	3.08	1.76	13.80
2	3.52	1.32	2.47	2.64	1.54	11.49
3	3.08	1.41	2.24	2.87	1.32	10.92
4	3.96	1.55	3.52	3.96	1.76	14.75
Palp	1.99	0.67	1.24		1.36	5.26

Colour Cephalothorax, legs and palp, pale, reddish brown. Abdomen pale grey with broken white markings down entire mid-dorsal surface and a further white area down mid ventral surface.

Eyes Eyegroup compact, occupying less than 1/2 width of head. From above and in front posterior row strongly procurved and anterior more gently procurved. Ratio of AME.ALE.PME.PLE = 5.9.9.8. AME separated from each other by 2/5 and from ALE by 4/5 of diameter of an AME. Lateral eyes subcontiguous. PME separated by 8/5 and from PLE by 7/5. MOQ wider behind than in front in ratio of 13.6 and longer than wide in front in ratio of 11.6. Width of clypeus slightly more than twice diameter of an AME.

Sternum Slightly longer than wide. Anterior and lateral margins almost straight, sloping sharply in from coxae 2 to form a sharp point posteriorly between coxae 4. Coxae 4 separated by 1/4 width of coxae.

Labium Notched at base, as wide as long, lateral margins straight, anterior margin gently incurved.

Maxillae Longer than wide in ratio of 3.2.

Chelicerae Two strong teeth on both margins.

Legs 4132. Spines. First leg. Femur, d.1.1. p.2 distal. Tibia, v.2.1. p.2. Metatarsus, v.2.2.2.2. Second leg. Femur, d.1.1.1. p.0.0.1.1. Tibia, v.2.2.2. p.0.1.1. Metatarsus, v.2.2.2.2. p.1.1.2. Third leg. Femur, d.1.1.2.1. Tibia, d,p,r.1.1.1. v.2.2.2. Metatarsus, d.0. v,p,r.2.2.2. Fourth leg. Femur, d.1.1.2.1. Tibia, d,p,r.1.1.1. v.2.1.2. Metatarsus, d.0. v,p,r.2.2.2. Trichobothria in a double row on tibia and single row on metatarsi and tarsi of all legs. Superior claws homogeneous with from 6-7 long teeth. Inferior claw with single tooth.

Abdomen Epigynum as in Fig. 865, and internal genitalia as in Fig. 866.

MALE

Similar to the female. The palp is shown in Figs. 863, 864.

Type Snares Is., Otago Museum (subadult female).

Records Snares Is. Near Station Point, under *Olearia* logs, 22-28.i.1961, I. Mannering. Near Station Point, sweeping *Polystichum vestitum,* 7.ii.1961, I. Mannering. Penguin Colony, under log in bush near colony, 28.i.1961, I. Mannering.

The association of the male and female specimens on which Hogg based his description of *Myro ovalis* (=*Huara ovalis*) was queried earlier (Forster, 1964) and the discovery of the true male of *ovalis* has cleared up this point. It is now clear that the male described by Hogg should be associated with *kirki.*

Pakeha stewartia n.sp.

Figs. 867-868

FEMALE

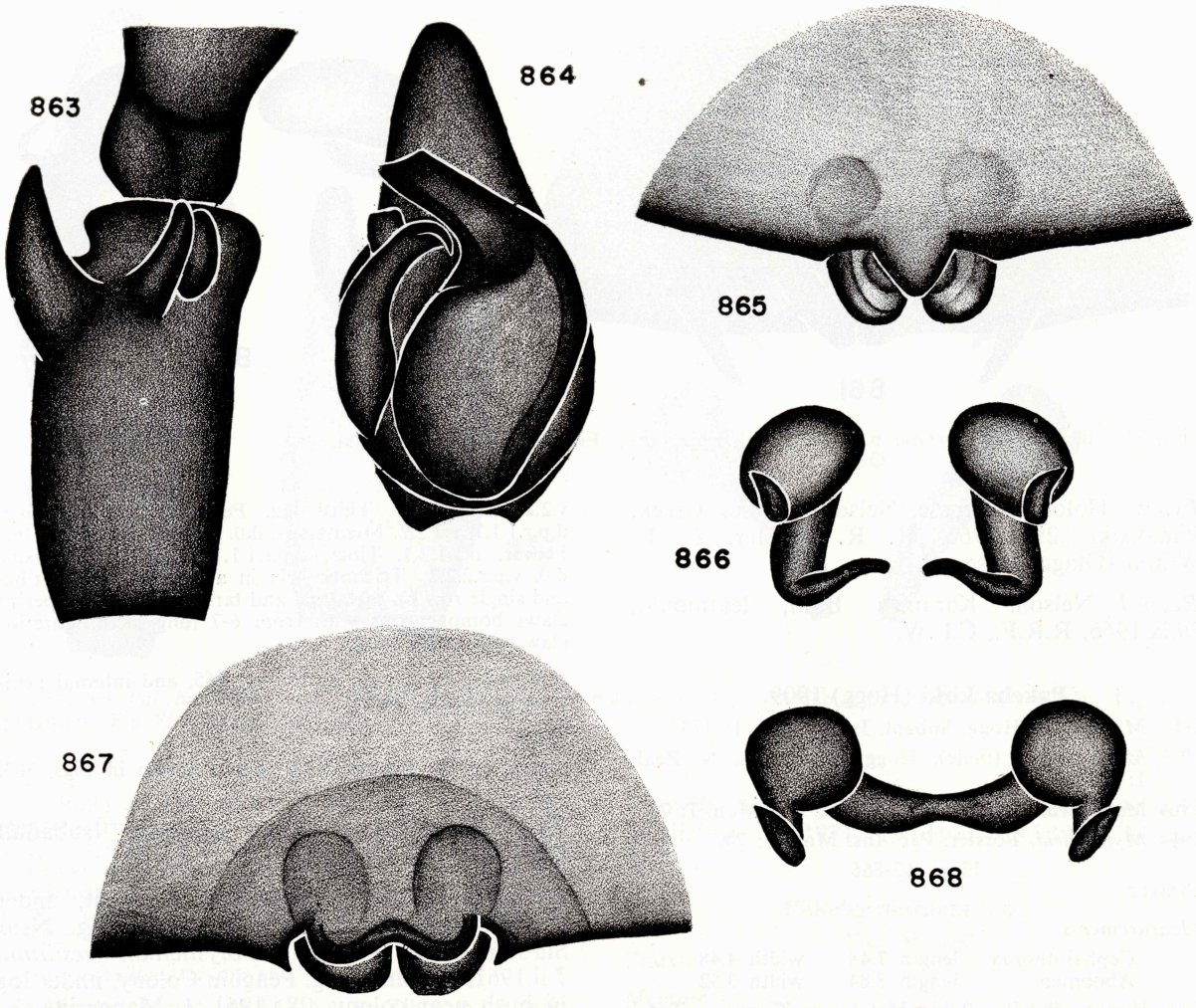
Measurements

Carapace	length 3.20	width 2.38	
Abdomen	length 4.22	width 3.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.46	1.13	2.02	1.83	1.07	8.51
2	2.08	1.01	1.64	1.58	1.01	7.32
3	1.89	0.82	1.39	1.76	0.88	6.74
4	2.52	1.13	2.02	2.52	1.01	9.20
Palp	1.26	0.50	0.69		1.07	3.52

Colour Carapace and chelicerae reddish brown. Legs orange brown. Eyes black. Abdomen pale brown but heavily shaded with black markings which form a series of chevrons on postero-dorsal surface.

Eyes Eyegroup occupying 4/9 of width of head. From above and from in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE. PME.PLE = 10.15.12.14. AME separated from each other by 2/10 and from ALE by 6/10 of diameter of



Figs. 863-866 *Pakeha kirki* (Hogg). Fig. 863 Tibial processes of male palp. Fig. 864 Ventral view of male palp. Fig. 865 Epigynum. Fig. 866 Internal genitalia. Figs. 867-868 *Pakeha stewartia* n.sp. Fig. 867 Epigynum. Fig. 868 Internal genitalia.

an AME. Lateral eyes contiguous. PME separated from each other and from PLE by 11/10. MOQ wider behind than in front in ratio of 35-22 but longer than wide behind in ratio of 38.35. Height of clypeus 7/10 of diameter of an AME.

Chelicerae Length equal to 7/16 of carapace. Retromargin with two teeth. Promargin with six minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1. Patella, d.1.1. Tibia, p,r.1.0. Trichobothria. Tibia, 2.1.2.2. Tarsus, 1.1.2. Claw with five teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, v.1.2.2. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Metatarsus comb well developed on legs 2-4, with seven bristles on leg 2 and twelve on legs 3 and 4. Trichobothria. First leg. Tibia, 1.2.2.2. Metatarsus, 5. Tarsus, 6. Second leg. Tibia, 1.3.2.1.1.2.1.1.1. Metatarsus, 1.1.1.1.2.1. Tarsus, 4. Third leg. Tibia, 2.2.3.1. Metatarsus, 1.1.1.1.2.1. Tarsus, 1.1.2.1. Fourth leg. Tibia, 4.3.2.1.1.2. Metatarsus, 6. Tarsus, 1.1.1.1.2. Superior claws with nine teeth. Inferior claw with two minute teeth.

Abdomen Epigynum and internal genitalia as in Figs. 867, 868. Colulus small and clothed with hairs.

Type Holotype female. Stewart Island, Halfmoon Bay, i.1948, O. Allan (Otago Museum).

Records, Southland. Orepuki, 9.v.1949, R.R.F. Stewart Is., Oban, camping ground, 12.iv.1966, J. Sutherland. Big South Cape Is., 11.xi.1968, J. McBufney.

This species is closely related to *P. kirki.* The two species seem to form a distinct group within the genus.

Pakeha paratecta n.sp.

Figs. 869-870

FEMALE

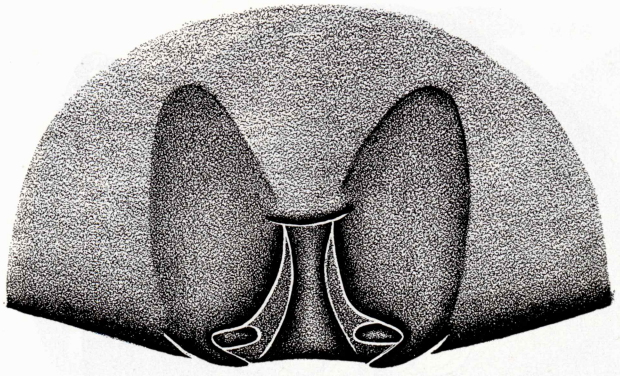
Measurements

Carapace	length 1.52		width 1.08	
Abdomen	length 1.48		width 1.00	

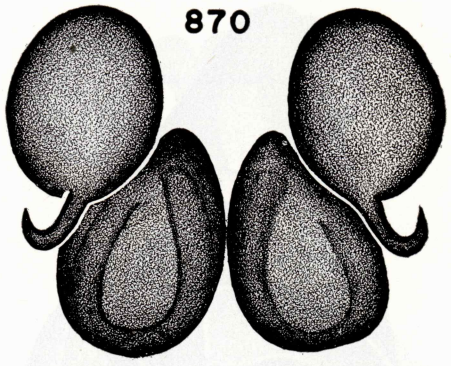
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.13	0.53	0.88	0.95	0.45	3.94
2	1.00	0.50	0.70	0.68	0.45	3.33
3	0.93	0.48	0.60	0.83	0.45	3.29
4	1.25	0.53	0.98	1.18	0.63	4.57
Palp	0.53	0.28	0.28		0.50	1.59

Colour Cephalothorax and legs reddish brown. Eye region black. Abdomen heavily reticulate with blackish brown which forms four indistinct chevrons on posterior half of dorsal surface.

Eyes Eyegroup occupies 3/5 of the width of the head. From above anterior row straight and posterior row



869



870

Figs. 869-870 *Pakeha paratecta* n.sp. Fig. 869 Epigynum. Fig. 870 Internal genitalia.

strongly procurved. From in front both rows strongly procurved. Ratio of AME.ALE.PME.PLE = 3.8.10.9. AME separated by 2/3 and from the ALE by 1/3 of diameter of an AME. Lateral eyes separated by 2/3. PME separated from each other by 3/3 and from PLE by 2/3. MOQ wider behind than in front in ratio of 23.8 and as wide behind as long. Height of clypeus equal to 5/3 of diameter of an AME.

Chelicerae Length one third of carapace. Retromargin with two strong teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.0. d.1.1. Trichobothria. Tibia, 2.2.2. Tarsus, 1.2.1. Claw with two small teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.1.2.2. Metatarsus, v.2.2.1. p1.0.0. Second leg. Femur, d.0.1.1.0. Tibia, v.1.2.1.0. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Metatarsal comb on legs 2-4 with five bristles. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 4. Tarsus, 1.1.2.1. Superior claws with from 6-7 teeth. Inferior claw with a single tooth.

Abdomen Epigynum and internal genitalia as in Figs. 869, 870.

Type Holotype female. Orepuki, leafmould, 1.v.1945, J. H. Sorensen (Otago Museum).

Records Orepuki, leafmould, 9.v.1949, R.R.F. Orepuki, leafmould, 1,000 ft, 17.v.1948, J. H. Sorensen. Longwood Range, leafmould 1.ix.1948, J. H. Sorensen. Fern Gully, Stewart Island, 24.viii.1946, R.R.F. Oban, Stewart Island, leafmould, 26.i.1956, I. Mannering. Horseshoe Bay, Bay, Stewart Island, 21.xi.1946, R.R.F. Golden Stewart Island, 21.xi.1946, R.R.F. Golden Bay, Stewart Island, 15.xi.1961, R.R.F. Garden Mound, Stewart Island, 21.xi.1946, R.R.F. Thule, Patterson Inlet, Stewart Island, 21.x.1948, R. K. Dell.

Pakeha parrotti n.sp.

Figs. 871-874

FEMALE

Measurements

	Carapace	length 1.60		width 1.20		
	Abdomen	length 2.40		width 1.48		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.23	0.50	1.00	0.83	0.63	4.19
2	1.05	0.58	0.75	0.73	0.53	3.64
3	1.00	0.55	0.63	0.88	0.45	3.51
4	1.33	0.55	1.03	1.25	0.63	4.79
Palp	0.38	0.28	0.50		0.55	1.66

Colour Carapace, chelicerae and legs orange brown. Abdomen pale yellow brown, covered with broad dark brown reticulate markings.

Eyes (Fig. 570) Eyegroup occupies 5/8 of width of head. From above anterior row straight and posterior row procurved. From in front both anterior and posterior rows procurved. Ratio of AME.ALE.PME.PLE = 3.7.8.8. AME separated by 4/3 and ALE by 3/3 of the diameter of an AME. Lateral eyes separated by 2/3. PME separated by 8/3 and from PLE by 5/3. MOQ wider behind than in front in ratio of 24.10 and wider behind than long in ratio of 24.19. Height of clypeus 5/3 of diameter of an AME.

Sternum Longer than wide in the ratio of 11.9. Anterior margin straight and lateral margins evenly curved. Posterior projection short and sharp, separating coxae 4 by 2/7 of width of a coxa.

Maxillae Lateral margins straight and parallel. Anterior margin oblique. Longer than wide in the ratio of 9.7.

Labium Notched at base. Lateral margins straight and convergent. Anterior margin straight. Wider than long in ratio of 5.4.

Chelicerae Length 3/10 of the carapace. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p,d.1.0. Trichobothria. Tibia, 1.1.2.1. Tarsus, 1.1.2. Tarsal organ sub-distal. Claw with five teeth.

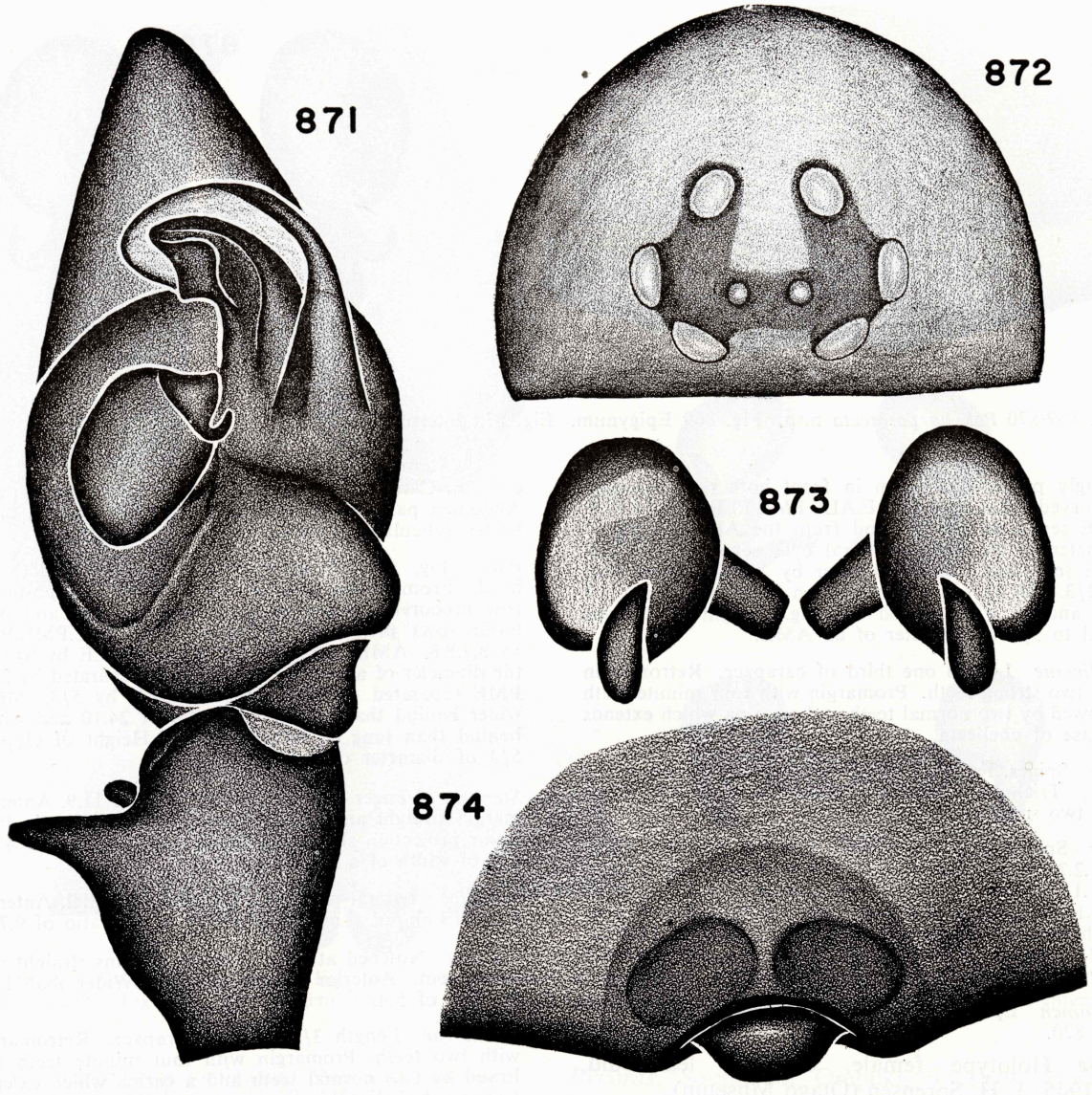
Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.1.0. p.2.1.0. Metatarsus, v.2.2.0. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.0. p.0.0.1. Metatarsus, v.1.2.1. p.1.0.2. r.0.0.1. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v.0.1.2. p,r.1.1.0. d.0.1.1. Metatarsus, v.2.2.1. p.1.2.2. Fourth leg. Femur, d.0.1.1.1. r.0.0.0.1. Patella, d.0.1. Tibia, v.1.1.2. p,r,d.1.1.1. Metatarsus, v.2.2.1. p,r.1.2.2. Metatarsal comb with five bristles on leg 2 and six on legs 3 and 4. Trichobothria. First leg. Tibia, 2.2.2.1.1. Metatarsus, 2. Tarsus, 4. Second leg. Tibia, 1.2.2.2.1.1. Metatarsus, 3. Tarsus, 1.2.1.1. Third leg. Tibia, 3.2.1.1. Metatarsus, 1.1.2.1. Tarsus, 1.2.1.1. Fourth leg. 2.2.1.1.1.2. Metatarsus, 4. Tarsus, 5. Superior claws with nine teeth. Inferior claw with two minute teeth.

Abdomen Epigynum and internal genitalia as in Figs. 873, 874.

MALE

Measurements

Carapace	length 1.80	width 1.37
Abdomen	length 2.10	width 1.25



Figs. 871-874 *Pakeha parrotti* n.sp. Fig. 871 Ventral view of male palp. Fig. 872 Eyes from in front. Fig. 873 Internal genitalia. Fig. 874 Epigynum.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.40	0.65	1.30	1.00	0.80	5.15
2	1.25	0.60	0.95	0.90	0.75	4.45
3	1.20	0.57	0.80	1.05	0.62	4.24
4	1.60	0.67	1.30	1.50	0.80	5.87
Palp	0.75	0.30	0.35		0.65	2.05

Similar in appearance to female. A light scopula on ventral surface of metatarsus and tarsus of first pair of legs and on distal half of metatarsus and full length of tarsus of second pair.

Eyes Group occupies 3/5 of width of head. Ratio of AME.ALE.PME.PLE = 4.9.8.9. AME separated from each other by their diameter and from ALE by half that distance. PME separated from each other by 6/4 and from PLE by 4/4. MOQ wider behind than in front in ratio of 22.12 and wider behind than long in ratio of 22.19. Height of clypeus 12/4 of diameter of an AME.

Palp Tibial processes and bulb as in Figs. 871, 872.

Types Holotype female. Westland. Kokopotuki, October 1946, A. W. Parrott (Otago Museum). Allotype male. Westland. Waiho Gorge, 26.i.1954, J. T. Salmon (Dominion Museum).

Record Lake Ianthe, leafmould, 27.i.1954, J. T. Salmon.

Pakeha pula n.sp.

Figs. 875-879

MALE

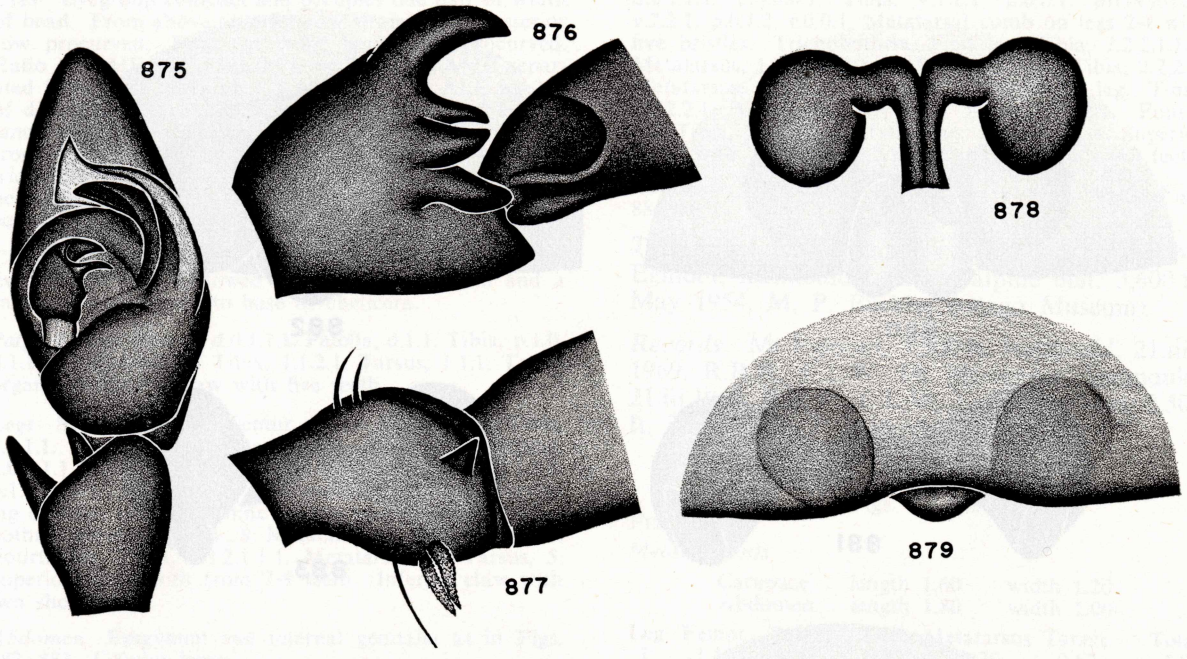
Measurements

Carapace	length 1.76	width 1.36	
Abdomen	length 1.80	width 1.08	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.38	0.68	1.25	1.03	0.73	5.07
2	1.23	0.63	0.93	0.88	0.63	4.30
3	1.13	0.58	0.78	1.03	0.58	4.10
4	1.55	0.68	1.25	1.55	0.65	5.68
Palp	0.64	0.20	0.24		0.64	1.72

Colour Carapace and legs orange brown. Abdomen cream with median longitudinal brown band on anterior half of dorsal surface followed behind by five indistinct chevrons.

Eyes AME enclosed by a small black ring and remaining eyes with a black margin. Eyegroup occupies two thirds of width of head. From above anterior row



Figs. 875-879 *Pakeha pula* n.sp. Fig. 875 Ventral view of male palp. Fig. 876 Tibial processes of male palp. Fig. 877 Trochanter of male palp showing typical paired spines. Fig. 878 Internal genitalia. Fig. 879 Epigynum.

straight and posterior row procurved. From in front both rows procurved. Ratio of AME.ALE.PME.PLE = 3.6.8.9. AME separated from each other and from ALE by the diameter of an AME. Lateral eyes separated by 2/3. PME separated from each other by 6/3 and from PLE by 2/3. MOQ wider behind than in front in ratio of 22.9 and wider behind than long in ratio of 22.16. Height of clypeus equal to twice diameter of an AME.

Chelicerae Length 3/7 of carapace. Boss present. Both margins with two teeth. A carina present on the promargin.

Palp As in Figs. 875, 876.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.0. p.1.0.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.2. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.1. r.0.0.1. Metatarsal comb on legs 2-4 with three, four and five bristles respectively. Trichobothria. First leg. Tibia, 1.2.2.1.1.1.1.1. Metatarsus, 4. Tarsus, 5. Second leg. Tibia, 2.2.1.1.1. Metatarsus, 1 1.2.1.1. Tarsus, 5. Superior claws with from 7-9 teeth. Inferior claw of legs 1 and 2 with a single tooth, legs 3 and 4 with two teeth.

Abdomen Colulus small, flat and rounded on posterior margin, with from 5-6 hairs.

FEMALE

Measurements

	Carapace	length 1.68		width 1.36		
	Abdomen	length 2.16		width 1.40		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.38	0.68	1.13	0.88	0.63	4.70
2	1.20	0.63	0.85	0.80	0.58	4.06
3	1.13	0.53	0.70	0.95	0.50	3.81
4	1.43	0.65	1.23	1.48	0.63	5.42
Palp	0.68	0.38	0.43		0.60	2.09

Similar to male. Epigynum and internal genitalia as in Figs. 878, 879. The characteristic trochanteral spines are as in Fig. 875.

Types Holotype male. Nelson. Flora Saddle, leafmould from beech forest, 23.i.1946, J. T. Salmon. Allotype female. Flora Valley, near Gridiron Ck, leafmould, 1,500 ft, 7.iv.1946, R. R. Forster (Dominion Museum).

Record Nelson. Flora Track, under logs, 5.iv.-1946, R.R.F.

Pakeha lobata n.sp.

Figs. 880-883

FEMALE

Measurements

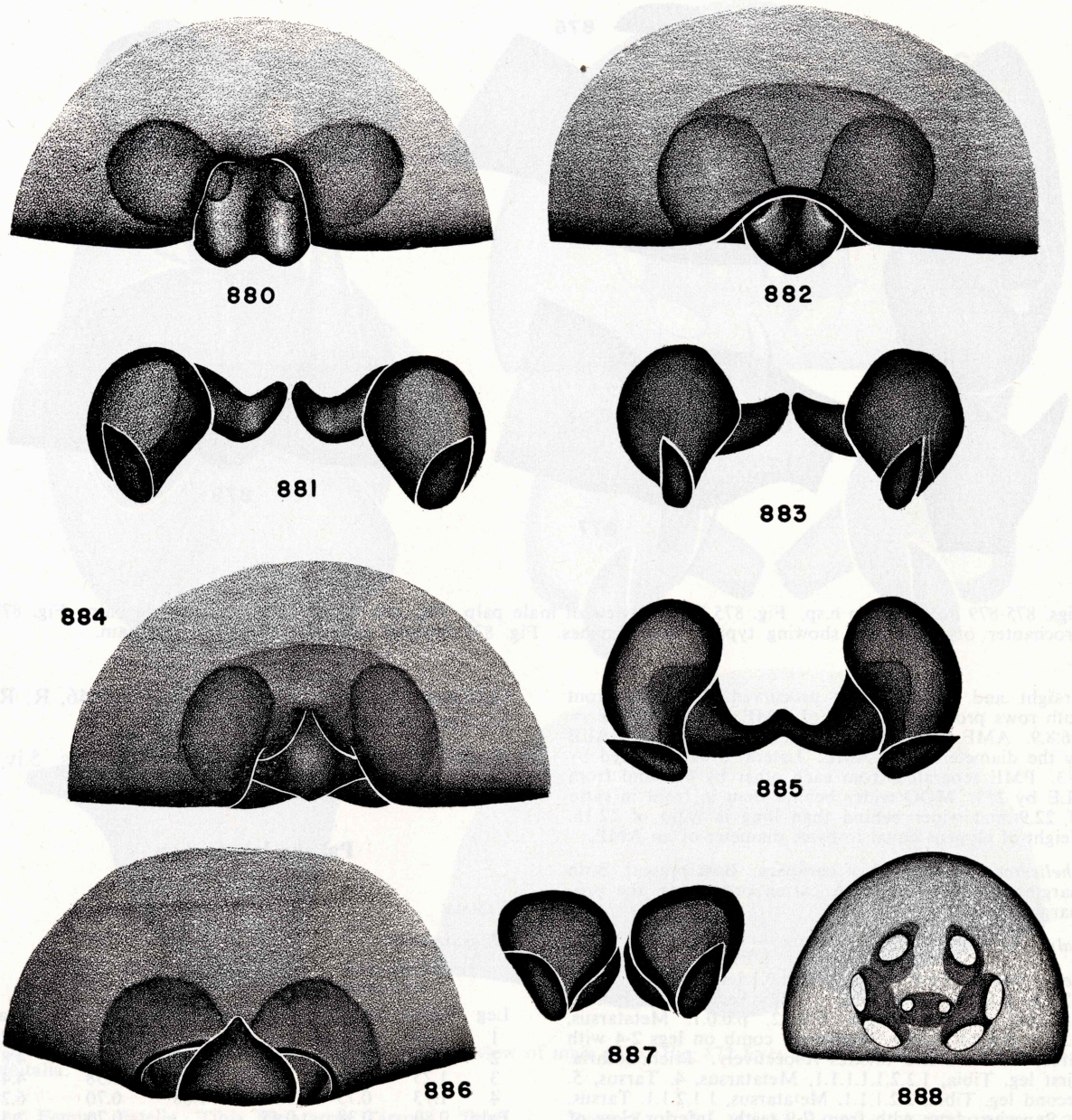
	Carapace	length 2.20		width 1.52		
	Abdomen	length 2.36		width 1.52		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.65	0.78	1.43	1.15	0.75	5.76
2	1.40	0.73	1.00	1.00	0.70	4.83
3	1.25	0.68	0.85	1.13	0.58	4.49
4	1.73	0.75	1.35	1.68	0.70	6.21
Palp	0.80	0.38	0.45		0.70	2.33

Colour Carapace and chelicerae uniform orange brown. Legs orange brown with darker shading. Abdomen with black reticulate shading which forms indistinct chevrons on postero-dorsal surface.

Eyes Eyegroup compact, occupying 17/25 of width of head. From above anterior row straight but posterior row procurved. From in front anterior row slightly procurved and posterior row strongly procurved. Ratio of AME.ALE.PME.PLE = 5.10.9.10. AME separated from each other by 3/5 and from ALE by 2/5 of diameter of an AME. Lateral eyes separated by 3/5. PME separated from each other by 8/5 and from PLE by 7/5. MOQ wider behind than in front in ratio of 26.13 and wider behind than long in ratio of 25.22. Height of clypeus equal to diameter of an AME.

Chelicerae Length equal to one third of carapace. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to base of chelicerae.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.0. r.1.1. Trichobothria. Tibia, 2.1.2.1. Tarsus, 1.1.2.1. Claw with six small teeth.



Figs. 880-881 *Pakeha lobata* n.sp. Fig. 880 Epigynum. Fig. 881 Internal genitalia. Figs. 882-883 *Pakeha hiloa* n.sp. Fig. 882 Epigynum. Fig. 883 Internal genitalia.

Figs. 884-885 *Pakeha buechlerae* n.sp. Fig. 884 Epigynum. Fig. 885 Internal genitalia.

Figs. 886-888 *Pakeha manapouri* n.sp. Fig. 886 Epigynum. Fig. 887 Internal genitalia. Fig. 888 Eyes from in front.

Legs Spines. First leg. Femur, d.0.1.1.1. Tibia, v.1.1.1. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Metatarsal comb on legs 2-4, with six bristles on leg 2 and five bristles on legs 3 and 4. Trichobothria. First leg. Tibia, 1.1.1.1.2.1. Metatarsus, 1.1. Tarsus, 1.1.2.1. Fourth leg. Tibia, 2.2.1.1.1.1.1. Metatarsus, 1.1.1. Tarsus, 1.2.1. Superior claws with nine teeth. Inferior claw with two minute teeth.

Abdomen Epigynum and internal genitalia as in Figs. 880, 881.

Type Holotype female. Westland. Mount Davie, leafmould, 18.i.1950, R. R. Forster (Otago Museum).

Pakeha hiloa n.sp.

Figs. 882-883

FEMALE

Measurements

Carapace length 1.80 width 1.36
Abdomen length 1.68 width 1.20

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.33	0.58	1.15	1.00	0.65	4.71
2	1.14	0.60	0.88	0.80	0.55	3.98
3	1.05	0.55	0.70	0.95	0.50	3.75
4	1.45	0.65	1.13	1.38	0.68	5.29
Palp	0.68	0.33	0.40		0.58	1.99

Colour Cephalothorax and legs dark reddish brown. Abdomen heavily shaded with blackish brown.

Eyes Eyegroup compact and occupies one half of width of head. From above anterior row straight and posterior row procurved. From in front both rows procurved. Ratio of AME.ALE.PME.PLE = 3.8.8.10. AME separated from each other by 4/3 and from the ALE by 2/3 of diameter of an AME. Lateral eyes separated by distance equal to diameter of an AME. PME separated from each other by 8/4 and from PLE by 4/4. MOQ wider behind than in front in ratio of 24.10 and wider behind than long in ratio of 24.21. Height of clypeus equal to 5/3 of diameter of an AME.

Chelicerae Retromargin with two teeth. Promargin with five minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.0. d.1.1. Trichobothria. Tibia, 1.1.2.1. Tarsus, 1.1.1. Tarsal organ sub-distal. Claw with five teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.1.1.1. p.2.1.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. Tibia, v.1.1.0. p.0.1.0. Metatarsus, v.2.2.1. p.1.1.2. r.0.1.2. Legs 2-4 with metatarsal combs consisting of four, seven and nine bristles respectively. Trichobothria. First leg. Tibia, 8. Metatarsus, 1.1.2.1. Tarsus, 4. Fourth leg. Tibia, 1.3.2.1.1.1. Metatarsus, 4. Tarsus, 5. Superior claws with from 7-8 teeth. Inferior claw with two short teeth.

Abdomen Epigynum and internal genitalia as in Figs. 882, 883. Colulus large.

Type Holotype female. Panikiri Bluff, 3,600 ft, leafmould, 11.xii.1946, R. R. Forster (Dominion Museum).

Pakeha buechlerae n.sp.

Figs. 884-885

FEMALE

Measurements

Carapace	length 1.92		width 1.28	
Abdomen	length 3.20		width 1.84	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.35	0.63	1.18	0.90	0.68	4.74
2	1.13	0.65	0.85	0.80	0.60	4.03
3	1.03	0.55	0.70	0.95	0.50	3.73
4	1.40	0.63	1.13	1.43	0.65	5.24
Palp	0.68	0.33	0.40		0.63	2.04

Colour Carapace orange brown with faint black shading between lateral eyes and fovea. Legs and chelicerae orange brown. Abdomen mottled with greyish black and cream.

Eyes Eyegroup occupies one half of width of head and surrounded with black pigment. From above anterior row straight and posterior row gently procurved. From in front both rows procurved. Ratio of AME.ALE.PME.PLE = 4.10.9.9. AME separated from each other by a distance equal to 5/4 and from the ALE by 2/4 of the diameter of an AME. Lateral eyes separated by 2/4 of diameter of an AME. PME separated from each other by 7/4 and from the PLE by 6/4 of the diameter of an AME. MOQ wider behind than in front in the ratio of 25.13 and wider behind than long in the ratio of 25.24. Height of clypeus equal to 5/4 of the diameter of an AME.

Chelicerae Length 5/12 of carapace. Retromargin with two teeth. Promargin with three minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.0. d.1.1. Trichobothria. Tibia, 1.2.1.2.1. Tarsus, 1.1.2. Claw with six small teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.0. p.1.0.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.1. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Metatarsal comb on legs 2-4 with five bristles. Trichobothria. First leg. Tibia, 2.2.2.1.1.1. Metatarsus, 1.1.2.1. Tarsus, 5. Second leg. Tibia, 2.2.2.1. Metatarsus, 1.1.2.1. Tarsus, 1.1.2.1. Third leg. Tibia, 4.2.2.2.1. Metatarsus, 1.1.1.2.1. Tarsus, 1.1.2.1. Fourth leg. Tibia, 3.2.1.1.1.1. Metatarsus and tarsus, 4. Superior claws with 7-8 teeth. Inferior claw with two small teeth.

Abdomen Epigynum and internal genitalia as in Figs. 884, 885.

Type Holotype female. Dawson Falls, Mt Egmont, leafmould from subalpine belt, 3,600 ft, May 1954, M. P. Buchler (Otago Museum).

Records Mt Egmont, 3,500 ft, leafmould, 21.iii.-1969, R.R.F., C.L.W. Mt Messenger, leafmould, 21.iii.1969, R.R.F., C.L.W. Te Aroha Mnt, 2,500 ft, 3.v.1946, J. T. Salmon

Pakeha manapouri n.sp.

Figs. 886-888

FEMALE

Measurements

Carapace	length 1.60		width 1.20	
Abdomen	length 1.80		width 1.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.13	0.57	0.95	0.76	0.57	3.98
2	1.01	0.50	0.76	0.69	0.57	3.53
3	1.01	0.50	0.63	0.82	0.57	3.53
4	1.32	0.63	1.07	1.32	0.63	4.97
Palp	0.57	0.32	0.38		0.38	1.65

Colour Carapace pale yellow with faint black shading extending from behind lateral eyes to merge at fovea where further streaks radiate out to lateral margins. Margins of carapace shaded with black. Legs pale yellow, darkening distally. Abdomen cream with prominent black reticulate markings which form five transverse bands and chevrons on dorsal surface.

Eyes (Fig. 886) Eyegroup occupies 5/9 of width of head. From above anterior row straight and posterior row strongly procurved. From in front, both rows strongly procurved. Ratio of AME.ALE.PME.PLE = 4.7.10.8. AME separated from each other by 4/4 and from the ALE by 3/4 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 6/4 and from PLE by 5/4. MOQ wider behind than in front in ratio of 26.16 and wider behind than long in ratio of 26.21. Height of clypeus 7/4 of diameter of an AME.

Chelicerae Length 3/8 of the carapace. Retromargin with two teeth. Promargin with two small teeth and two larger teeth, followed by a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.0.1.1. Patella, d.1.1. Tibia, p.1.0. d.1.1. Trichobothria. Tibia, 2.2.2. Tarsus, 1.1.2. Claw with four small teeth.

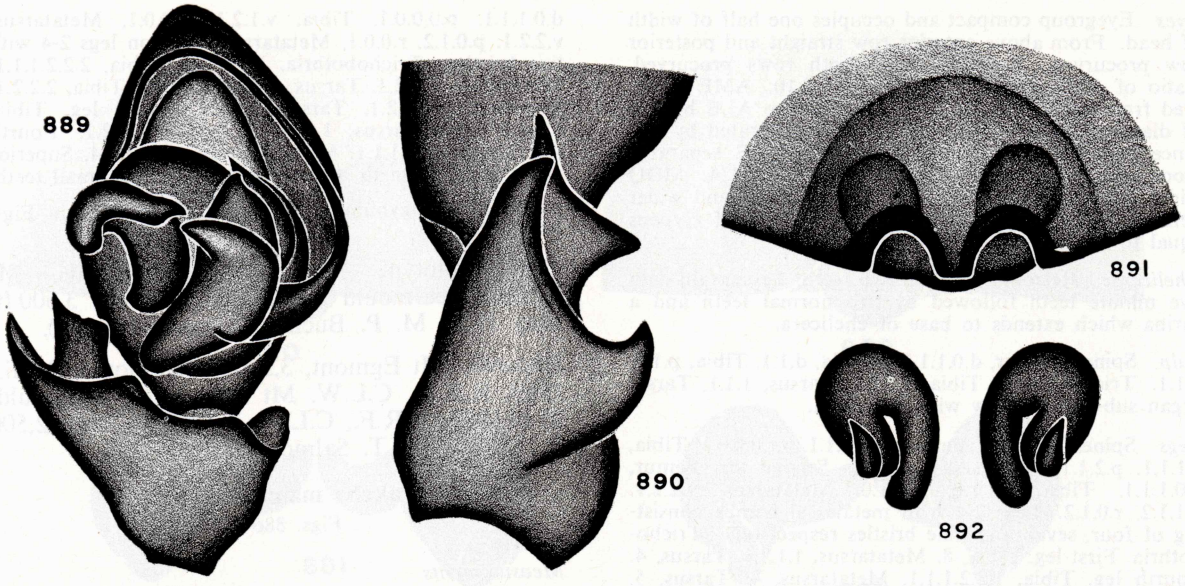
Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.0. p.1.0.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.1. p.1.0.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.2. Metatarsal comb on legs 2-4 with five, eight and twelve bristles respectively. Trichobothria. First leg. Tibia, 2.1.2.1.1.1.1. Metatarsus, 1.1.2.1. Tarsus, 5. Fourth leg. Tibia, 3.2.1.2.1.2. Metatarsus, 5. Tarsus, 1.1.2.1. Superior claws with eight teeth. Inferior claw with two small teeth.

Abdomen Epigynum and internal genitalia as in Figs. 886, 887. Colulus well developed, with six hairs.

Types Holotype female. Fiordland. Manapouri, moss, 23.i.1951, R. R. Forster (Otago Museum).

Otira n.gen.

Relatively small (3-3.5mm in body length) ecribellate spiders closely resembling the small species of *Pakeha*



Figs. 889-892 *Otira satura* n.sp. Fig. 889 Ventral view of male palp. Fig. 890 Tibial processes of male palp. Fig. 891 Epigynum. Fig. 892 Internal genitalia.

(e.g. *parrotti, pula)* but differing mainly in having a 'tarsal rod' in place of the pedal tarsal organ. Male palp with a strong, and often complex, median tegular process and prominent median apophysis. Epigynum without spines. Both rows of eyes strongly procurved when viewed from above.

Type species *Otira satura* n.sp.

These small spiders, which have only been recorded from the northern portion of the west coast of the South Island and the Wellington region of the North Island, live on the forest floor amongst leaflitter. Nothing is known of their habits or of the function of the tarsal rod, which seems to have replaced the tarsal organ.

Otira satura n.sp.

Figs. 889-891

MALE

Measurements

	Carapace	length 1.60		width 1.36		
	Abdomen	length 1.68		width 1.20		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.28	0.55	1.08	0.88	0.70	4.49
2	1.08	0.50	0.80	0.75	0.60	3.73
3	1.00	0.50	0.63	0.75	0.53	3.41
4	1.38	0.55	1.08	1.20	0.68	4.89
Palp	0.48	0.14	0.16		0.48	1.26

Colour Carapace and chelicerae pale orange brown. Legs yellow with faint bands. Abdomen pale yellow brown with black markings which form an indistinct chevron pattern on postero-dorsal surface.

Carapace Head narrow, width 6/17 of thoracic region. Lateral margins of head divergent, merging with thoracic region. Fovea distinct.

Eyes Eyegroup compact but as head is narrow occupies 3/4 of width. From above anterior row straight and posterior row strongly procurved. From in front both rows procurved. Ratio of AME.ALE.PME.PLE = 4.7.8.8. AME separated from each other by 2/4 and from the ALE by 1/4 of diameter of an AME. Lateral eyes subcontiguous. PME separated by 5/4 and from PLE by 4/4. MOQ wider behind than in front in ratio of 21.10 and as wide behind as long. Height of clypeus 11/4 of diameter of an AME.

Sternum Anterior margin straight and lateral margins evenly curved. Coxae 4 separated by one third of width of a coxa.

Maxillae Lateral margins straight and parallel. Longer than wide in the ratio of 9.7.

Labium Notched at base. Lateral margins straight and convergent. Anterior margin straight. Wider than long in ratio of 11.10.

Chelicerae Length equal to 3/8 of carapace. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to base of chelicera.

Palp As shown in Figs. 889, 890.

Legs Each tarsus with a tarsal rod. Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, v.2.2.2. p.0.0.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.0.1.1. Metatarsus, v.1.1.2. p.0.1.2. r.0.0.1. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v,p,d.1.1.1. r.0.1.1. Metatarsus, v.2.2.1. p.2.2.2. r.1.2.2. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r,d.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.1.1.0. Metatarsal combs on legs 2-4 with five, six and four bristles respectively. Trichobothria. First leg. Tibia, 2.2.1.2.1.1.1. Metatarsus, 1.1. Tarsus, 5. Second leg. Tibia, 3.1.2.1.1.1.1. Metatarsus and tarsus, 1.1.2.1. Third leg. Tibia, 2.2.2.2.2. Metatarsus, 1.1.2.1. Tarsus, 1.2.1. Fourth leg. Tibia, 2 2.2.2.1.1.2. Metatarsus, 5. Tarsus, 1.1.2.1. Superior claws with eight teeth. Inferior claw with two small teeth.

Abdomen Posterior pair of spinnerets very small. Colulus small, with two hairs.

FEMALE

Measurements

	Carapace	length 1.56		width 1.12		
	Abdomen	length 1.91		width 1.20		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.05	0.50	0.83	0.70	0.50	3.58
2	0.90	0.50	0.65	0.60	0.45	3.10
3	0.85	0.45	0.55	0.68	0.43	2.96
4	1.18	0.48	0.90	1.05	0.58	4.19
Palp	0.55	0.28	0.33		0.48	1.64

Colour Cephalothorax and legs pale yellowish brown. Abdomen yellow brown with heavy black shading on

dorsal surface which forms series of indistinct chevrons on posterior region. Mid-ventral surface pale.

Carapace Width of head equal to 9/14 of width of thoracic organ, wider than male. Lateral margins of head straight and parallel extending back distance equal to one quarter of length of carapace. Fovea narrow but distinct.

Eyes Ratio of AME.ALE.PME.PLE = 3.8.9.9. AME separated from each other by 3/3 and from ALE by 2/3 of diameter of AME. Lateral eyes separated by 2/3. PME separated from each other by 4/3 and from the PLE by 2/3. MOQ wider behind than in front in ratio of 22.9 and wider behind than long in ratio of 22.18. Height of clypeus equal to 5/3 of diameter of an AME.

Abdomen Epigynum and internal genitalia as in Figs. 891, 892.

Types Holotype male. Westland. Moana, leaf-mould, 10.iii.1950, R. R. Forster. Allotype female. 5 miles west of Otira, leaflitter, 29.ix.1966, R.R.F. (Otago Museum).

Records Same data as types.

Otira parva n.sp.

Figs. 893-897

FEMALE

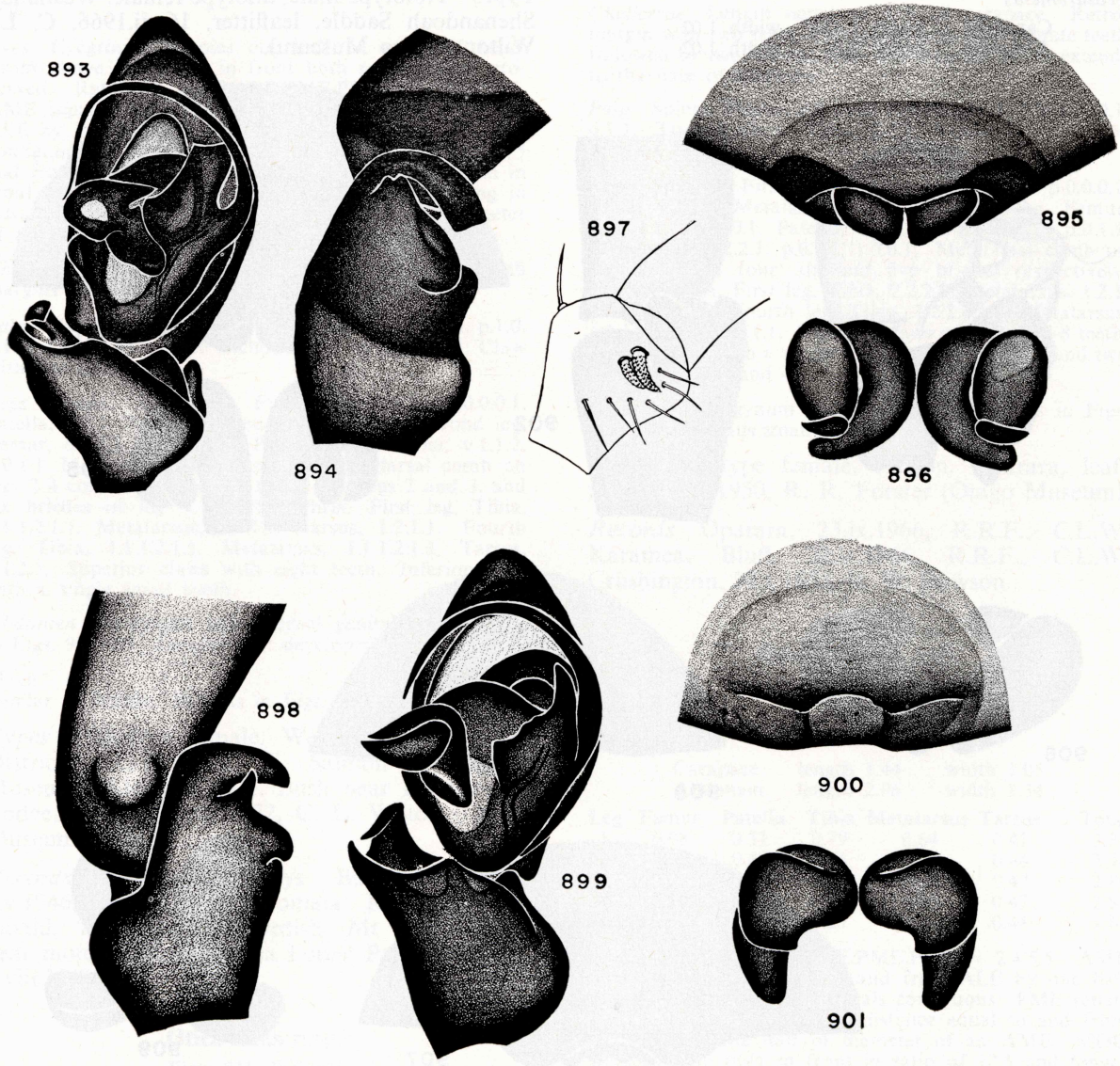
Measurements

	Carapace	length 1.34		width 0.96		
	Abdomen	length 1.36		width 0.95		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.93	0.44	0.74	0.59	0.45	3.15
2	0.78	0.43	0.59	0.54	0.44	2.78
3	0.69	0.37	0.47	0.68	0.37	2.58
4	0.96	0.43	0.78	0.96	0.52	3.65
Palp	0.47	0.23	0.25		0.39	1.34

Eyes Ratio of AME.ALE.PME.PLE = 2.5.5.5. AME separated from each other and from ALE by one half of width of an AME. Laterals contiguous. PLE contiguous with PME. PME separated from each other by diameter of an AME.

Legs Spines. Leg 1. Femur, d.1.1.0. Tibia, v.2.2.1. p.0.0.1. Metatarsus, v.2.2.2. Leg 2. Femur, d.1.1.0. p.0.0.1. Tibia, v.1.1.1. p.0.0.1. Metatarsus, v.2.2.1. p.1.0.0. d.0.0.1.

Chelicerae Two strong teeth on each margin.



Figs. 893-897 *Otira parva* n.sp. Fig. 893 Ventral view of male palp. Fig. 894 Tibial processes of male palp. Fig. 895 Epigynum. Fig. 896 Internal genitalia. Fig. 897 Tronchanter of male palp showing paired spines.
Figs. 898-901 *Otira terricola* n.sp. Fig. 898 Tibial processes of male palp. Fig. 889 Ventral view of male palp. Fig. 900 Epigynum. Fig. 901 Internal genitalia.

Abdomen Epigynum as in Fig. 895 and internal genitalia as in Fig. 896.

MALE

Similar to the female. Palp shown in Figs. 893, 894.

Types Holotype male, allotype female. Westland. Little Wanganui, leaflitter, 28.ix.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Records Same data as types. Corbyvale, leaflitter, 28.ix.1966, R.R.F., C.L.W.

This species is smaller than *O. satura* while the tibial processes of the palp and the tegular projections are not so strongly developed. It is more closely related to the following species *O. terricola.*

Otira terricola n.sp.

Figs. 898-901

FEMALE

Measurements

Carapace	length 1.41	width 1.02
Abdomen	length 2.21	width 1.02

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.98	0.42	0.85	0.64	0.51	3.40
2	0.79	0.39	0.64	0.56	0.45	2.83
3	0.74	0.35	0.52	0.68	0.40	2.69
4	1.10	0.45	0.88	0.98	0.51	3.92
Palp	0.49	0.22	0.27		0.45	1.43

Eyes Ratio of AME.ALE.PME.PLE = 2.5.5.5. Relative position of eyes similar to *parva.*

Legs Spines. Leg 1. Femur, d.1.1.0. Tibia, v.2.2.0. Metatarsus, v.2.2.1. Leg 2. Femur, d.1.1.0. Tibia, v.1.2.1. Metatarsus, v.2.2.1. p,r.0.0.1.

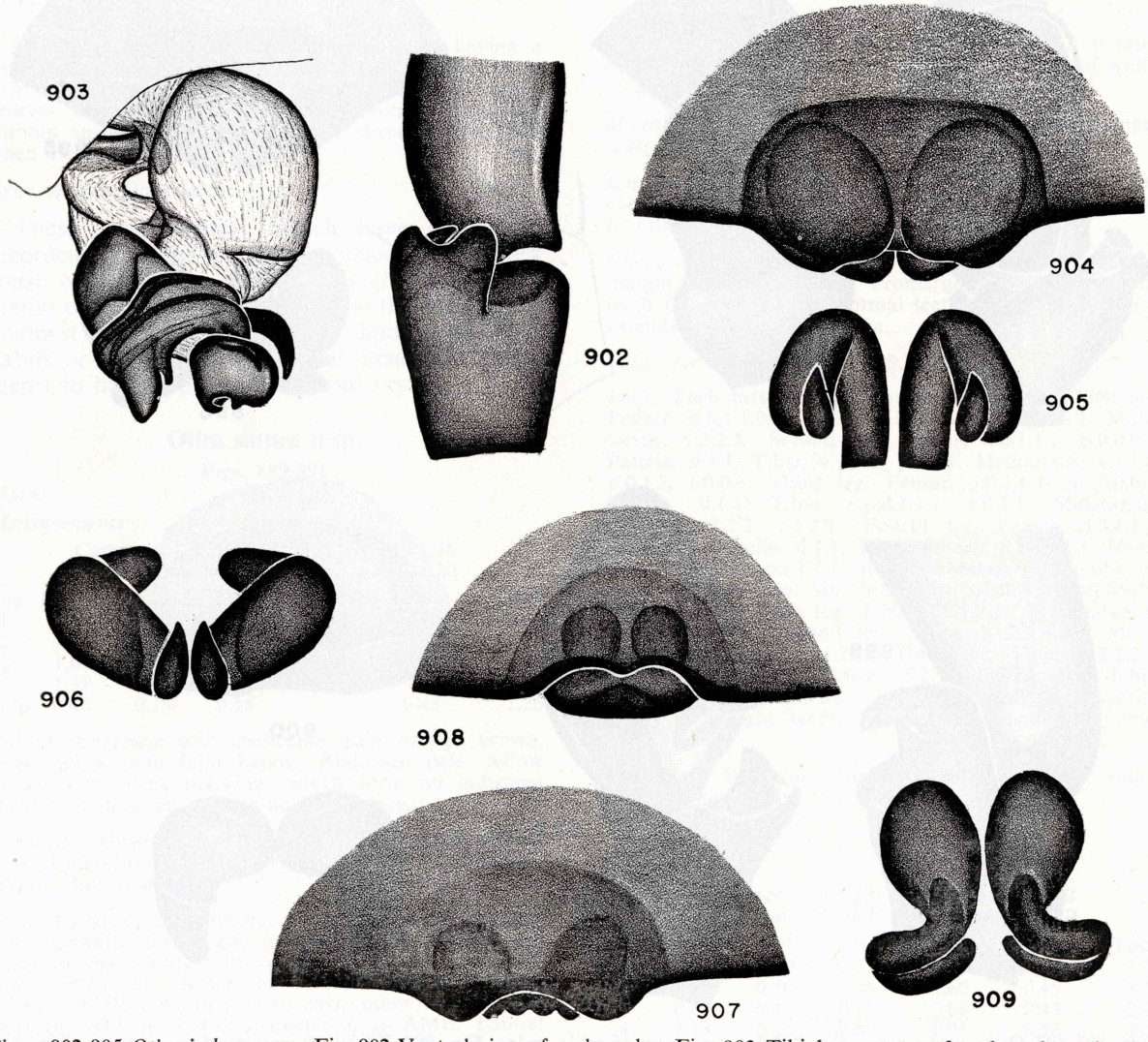
Chelicerae Typical, with two teeth on each margin.

Abdomen Epigynum similar to *parva* but posterior lobes not as strongly developed. Internal genitalia differs in that the ducts curve outwards rather than to the midline.

MALE

Similar to female in general structure. Male palp close to *parva* (Figs. 898, 899) but tegular process sharper and median apophysis of a different shape.

Types Holotype male, allotype female. Westland. Shenandoah Saddle, leaflitter, 16.vii.1966, C. L. Wilton (Otago Museum).



Figse. 902-905 *Otira indura* n.sp. Fig. 902 Ventral view of male palp. Fig. 903 Tibial processes of male palp. Fig. 904 Epigynum. Fig. 905 Internla genitalia.

Figs. 906-907 *Otira liana* n.sp. Fig. 906 Internal genitalia. Fig. 907 Epigynum. Figs. 908-909 *Otira canasta* n.sp. Fig. 908 Epigynum. Fig. 909 Internal genitalia.

Records Shenandoah Saddle, 1.viii.1966, C.L.W. Between Charleston and Brighton, leaflitter, 28.ix.1966, R.R.F., C.L.W. Jackson's Creek, near Maruia Springs, 16.viii.1966, C.L.W.

Otira indura n.sp.

Figs. 902-905

MALE

Measurements

Carapace	length 1.80	width 1.40	
Adbomen	length 2.92	width 2.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.43	0.65	1.13	0.88	0.68	4.77
2	1.23	0.60	0.88	0.80	0.63	4.14
3	1.13	0.50	0.75	0.98	0.58	3.94
4	1.55	0.63	1.20	1.40	0.73	5.51
Palp	0.63	0.30	0.38		0.63	1.94

Colour Head region yellow brown and thoracic region orange-brown. Legs and chelicerae orange brown. Abdomen heavily shaded with greyish black reticulate markings.

Eyes Eyegroup occupies one half of width of head. From above and front in front both rows appear procurved. Ratio of AME.ALE.PME.PLE = 5.10.10.11. AME separated from each other by 2/5 and from the ALE by 1/5 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 5/5 and from the PLE by 1/5. MOQ wider behind than in front in ratio of 25.12 and wider behind than long in ratio of 25.24. Height of clypeus equal to diameter of an AME.

Chelicerae Length equal to 1/3 of carapace. Both margins with two teeth. Lateral boss present.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.0. d.1.1. Tarsus with three trichobothria arranged 2.1. Claw with five small teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia and metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.1. Metatarsal comb on legs 2-4 consisting of seven bristles on legs 2 and 3, and six bristles of leg 4. Trichobothria. First leg. Tibia, 1.1.1.2.1.1. Metatarsus, 1.2.1.1. Tarsus, 1.2.1.1. Fourth leg. Tibia, 1.1.1.2.1.1. Metatarsus, 1.1.1.2.1.1. Tarsus, 1.1.2.1. Superior claws with eight teeth. Inferior claw with a single small tooth.

Abdomen Epigynum and internal genitalia are shown in Figs. 904-905. Colulus well developed.

MALE

Similar to female. Palp as in Figs. 900, 901.

Types Holotype female. Wellington. Rimutaka District, 5.xi.1946, J. T. Salmon (Dominion Museum). Allotype male. Bush near Holdsworth Lodge, pitfall, 15.viii.1972, C. L. Wilton (Otago Museum).

Records Wellington. Days Bay, leafmould, 7.v.1946, R.R.F. Wainuiomata Reserve, leafmould, 7.viii.1969, R. Ordish. Mt Holdsworth, near motor camp, Tararua Forest Park, leaflitter, 3.viii.1966, C.L.W.

Otira liana n.sp.

Figs. 815, 906-907

FEMALE

Measurements

Carapace	length 1.56	width 1.08
Abdomen	length 1.88	width 1.24

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.08	0.50	0.88	0.70	0.53	3.69
2	0.93	0.50	0.68	0.63	0.48	3.22
3	0.85	0.45	0.70	0.73	0.43	3.16
4	1.20	0.50	0.93	0.88	0.60	4.11
Palp	0.55	0.25	0.33		0.50	1.63

Colour (Fig. 815) Carapace pale yellow brown with faint grey shading. Chelicerae and legs pale yellow brown. Abdomen cream with irregular black shading on most of surface and three chevrons on postero-dorsal surface.

Eyes Eyegroup compact and placed on slight swelling. It occupies one half of width of head. From above anterior row straight, and posterior row procurved. From in front, both rows appear procurved. Ratio of AME. ALE.PME.PLE = 3.8.9.8. AME separated from each other by 2/3 and from ALE by 1/3 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 5/3 and from PLE by 3/3. MOQ wider behind than in front in ratio of 23.8 and wider behind than long in ratio of 23.22. Height of clypeus 4/3 of diameter of an AME.

Chelicerae Length equal to 3/8 of carapace. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and a carina which extends to the base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.0.1. d.1.1. Trichobothria. Tibia, 2.2.1. Tarsus, 1.1.1. Claw with six teeth.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.1. p.0.1.1. Metatarsus, v.2.2.1. p.0.1.2. r.0.0.1. Metatarsal comb on legs 2-4 with four, six and five bristles respectively. Trichobothria. First leg. Tibia, 2.2.2.2. Metatarsus, 1.2.1. Tarsus, 1.1.1. Fourth leg. Tibia, 1.2.2.1.1.1. Metatarsus, 1.1.1. Tarsus, 1.2.1.1. Superior claws with from 7-8 teeth. Inferior claw with a single tooth on legs 1 and 2, and two teeth on legs 3 and 4.

Abdomen Epigynum and internal genitalia as in Figs. 906, 907. Colulus small, with three hairs.

Type Holotype female. Nelson. Oparara, leafmould, 20.i.1950, R. R. Forster (Otago Museum).

Records Oparara, 23.ix.1966, R.R.F., C.L.W. Karamea, Bluff, 20.ix.1966, R.R.F., C.L.W. Crushington, 29.x.1955, E. W. Dawson.

Otira canasta n.sp.

Figs. 908-909

FEMALE

Measurements

Carapace	length 1.44	width 1.05
Abdomen	length 2.06	width 1.34

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.98	0.51	0.79	0.64	0.45	3.37
2	0.88	0.44	0.61	0.59	0.44	2.96
3	0.79	0.42	0.54	0.69	0.42	2.86
4	1.10	0.44	0.88	1.06	0.47	3.95
Palp	0.66	0.23	0.27		0.44	1.60

Eyes Ratio of AME.ALE.PME.PLE = 2.4.5.5. AME separated from each other and from ALE by one half of width of an AME. Laterals contiguous. PME separated from each other by a distance equal to and from the PLE by one half of diameter of an AME. MOQ wider behind than in front in ratio of 12.5 and longer than wide in front in ratio of 11.5.

Chelicerae Two teeth on both margins.

Legs Legs 1 and 2 with similar spination. Femur, d.1.1.0. Tibia, v.1.1.0. Metatarsus, v.2.2.2.

Abdomen Epigynum and internal genitalia as in Figs. 908, 909.

Type Holotype female. Canaan, Nelson, 25.x.-1948, C.L.W. (Otago Museum).

Auhunga n.gen.

Small (body length c.2.5mm) ecribellate spiders. Six fairly large eyes in a compact ring, occupying less than one half of width of head. Posterior row gently procurved. Legs, including spination, similar to *Pakeha*. Sternum scutiform, slightly longer than wide. Labium slightly wider than long and notched at the base. Epigynum of *Pakeha* type but more compact. Lateral spines well developed. Internal genitalia receptaculate. Male palp with a massive embolus and heavily sclerotized median apophysis. Conductor probably absent. Posterior spinnerets small.

Type species *Auhunga pectinata* n.sp.

The sole species has been found in leaflitter in beech forest. Nothing is known of its habits.

Auhunga pectinata n.sp.

Figs. 910-914

FEMALE

Measurements

Carapace	length 0.96	width 0.78	
Abdomen	length 1.80	width 0.84	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.79	0.36	0.66	0.48	0.36	2.65
2	0.72	0.36	0.52	0.48	0.36	2.44
3	0.66	0.36	0.42	0.58	0.38	2.40
4	0.84	0.34	0.73	0.78	0.47	3.16
Palp	0.37	0.19	0.23		0.35	1.14

Colour Cephalothorax and appendages pale yellow brown. Abdomen cream.

Carapace Relatively low. Head not clearly separable from thorax. Fovea distinct. Thorax curves out evenly from head region. Posterior margin relatively broad and straight.

Eyes (Fig. 910) Six eyes forming a small group which occupies slightly less than half of width of head. When viewed from above eyegroup oval with posterior row gently procurved. Ratio of ALE.PME.PLE = 5.4.5. ALE separated from each other and from the PLE by 1/5 of width of an ALE. PLE and PME contiguous. PME separated from each other by 3/5. MOQ square. Height of clypeus equal to 4/5 of width of an ALE.

Sternum Scutiform, longer than wide in ratio of 10.9. Anterior margin straight Lateral margins evenly curved to posterior projection which is sharp and separates coxae 4 by half width of a coxa.

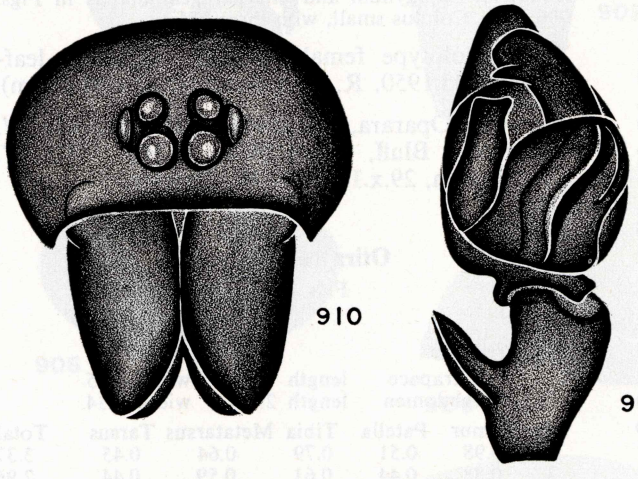
Maxillae Outer margins strongly curved. Anterior margin oblique. Twice as long as wide at base.

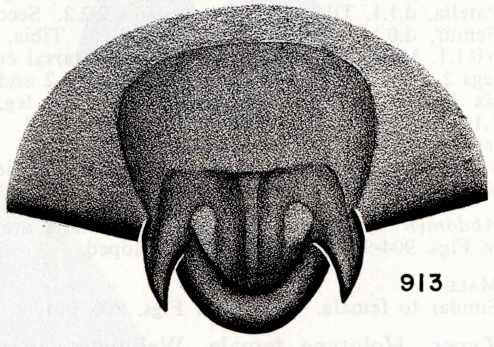
Labium Notched at base. Lateral margins gently rounded, anterior margin straight. Wider than long in ratio of 3.2.

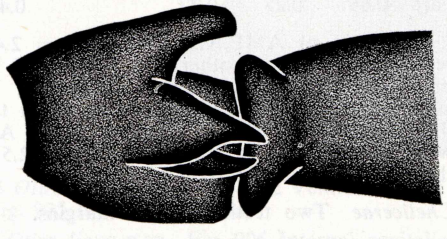
Chelicerae Retromargin with four equal sized teeth. Promargin with six strong teeth of which the fifth is largest.

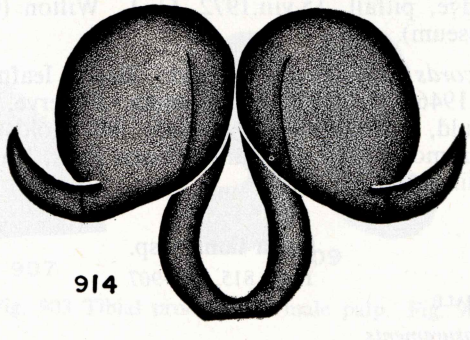
Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, p,d.1.1. Tarsus many. Trichobothria on both tibia and tarsus. Tibia, 2.1. Tarsus, 1. Claw with eight teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. Tibia, v.1.2.2. Metatarsus, 2.2.2. Second leg. Femur, d.0.1.1.1. r.0.0.0.1. Tibia, v.1.2.0. p.0.1.1. Metatarsus, v.1.2.2. p.0.1.1. Third leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.2. p,r.1.1.0. d.0.1.1. Metatarsus, v.2.2.1. p,r.2.1.1. d.0.2.1. Fourth leg. Femur, d.1.1.0.1. p,r.0.0.0.1. Tibia, v.1.1.2. p.2.1.1. r,d.1.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. d.2.1.0. Trichobothria. First leg. Metatarsus, 1. Tarsus, 1.1.1. Second and third leg. Metatarsus, 1. Tarsus, 1.1.1.1. Fourth leg.









Figs. 910-914 *Auhunga pectinata* n.sp. Fig. 910 Eyes from in front. Fig. 911 Ventral view of male palp. Fig. 912 Tibial processes of male palp. Fig. 913 Epigynum. Fig. 914 Internal genitalia.

Tibia, 2.1. Metatarsus, 1. Tarsus, 1.1.1. Superior claws of legs 1 and 2 with ten teeth, legs 3 and 4 with five teeth. Inferior claw with single tooth.

Abdomen Epigynum with pair of posterior projections. Internal genitalia as in Fig. 914.

MALE

Measurements

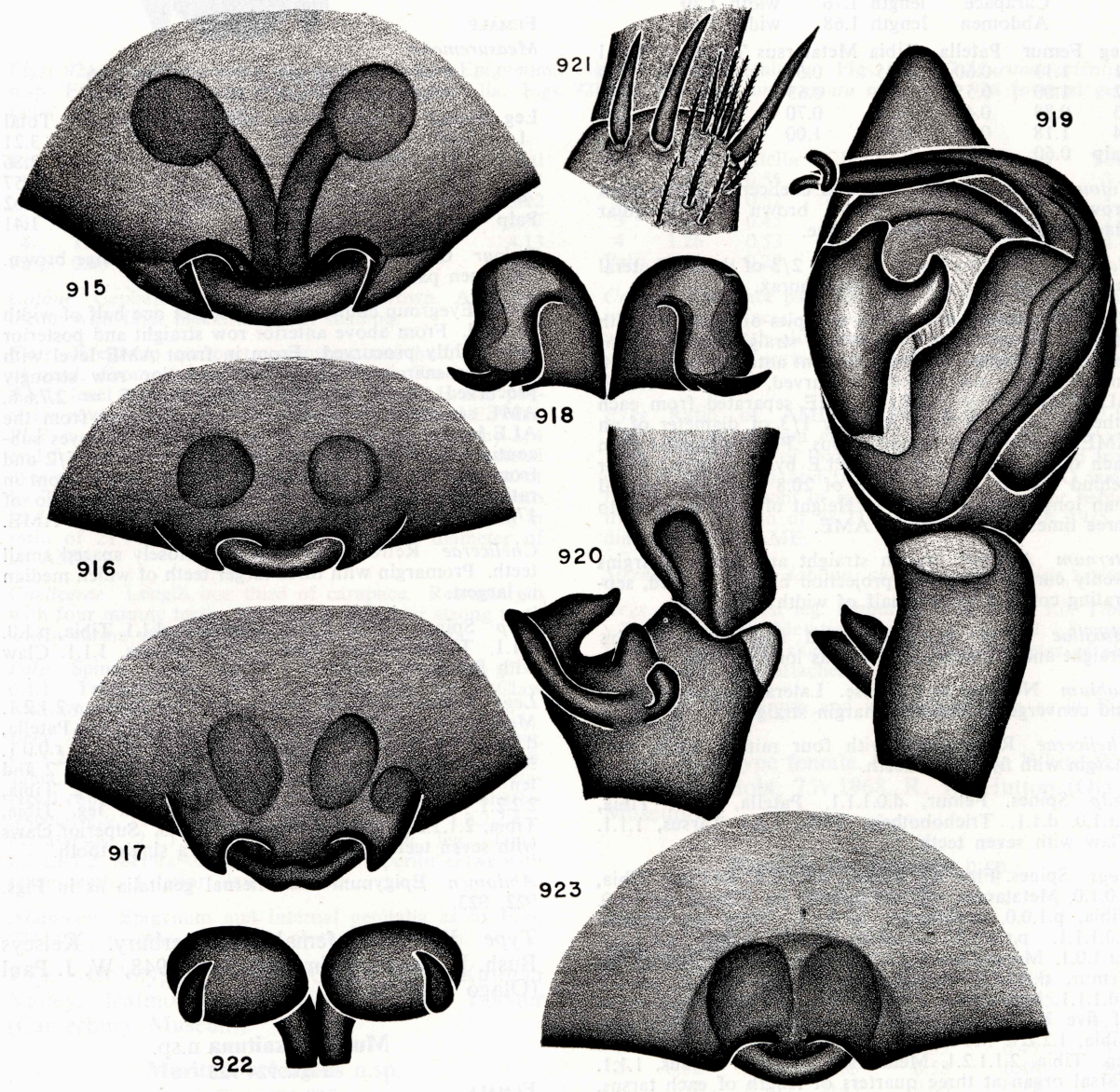
Carapace	length 1.14		width 0.90		
Abdomen	length 1.08		width 0.60		

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.42	0.72	0.60	0.43	3.07
2	0.81	0.36	0.61	0.54	0.46	2.78
3	0.73	0.48	0.48	0.60	0.42	2.71
4	0.96	0.42	0.82	0.84	0.56	3.60

Similar in most characteristics to female. Palp as in Figs. 911-912. Tibial process large and three lobed. Cymbium short with an expanded process on proximal retrolateral surface. Trichobothria as in female. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.1.2. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.1.0. Metatarsus, v.1.2.1. p,r.0.1.2. d.0.1.0. Third leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v,d.1.1.2. p,r.1.1.1. Metatarsus, v.2.2.1. p,r.2.1.1. d.0.1.2. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.1.1.2. p,r,d.1.1.1. Metatarsus, v.2.2.1. p,r.0.1.1. d.2.1.2.

Types Holotype female, allotype male and paratypes. Canterbury. Coopers Creek, Oxford, leafmould, 8.x.1953, R. R. Forster (Canterbury Museum).

Records Okuku Pass, leafmould, 30.iii.1952, J. S. Dugdale. Mt Grey, moss, 21.iii.1951, R.R.F. Creek east of Doghill, tributary of the Hurunui, moss on beech forest floor, 12.v.1952, J. S. Dugdale. Okuku Pass, leafmould, 25.iv.1950, R.R.F. Okuku Pass, moss, 6.iv.1953, J. S. Dugdale. Chalk Hill, leafmould, 4.xi.1951, R.R.F. Deep



Figs. 915-921 *Muritaia suba* n.sp. Fig. 915 Epigynum (Wellington). Fig. 916 Epigynum (Runanga). Fig. 917 Epigynum (Marlborough). Fig. 918 Internal genitalia. Fig 919 Ventral view of male palp. 920 Tibial processes of male palp. Fig. 921 Metatarsal comb. Figs. 922-923 *Muritaia parabusa* n.sp. Fig. 922 Internal genitalia. Fig. 923 Epigynum.

Stream, Lewis Pass, leaflitter, 6.xi.1962, P. M. Johns.

Muritaia n.gen.

Small ecribellate spiders (body length 2.5-3.5mm) resembling the small species of *Pakeha* but with four small teeth on the retromargin of the cheliceral groove in place of the two larger teeth found in *Pakeha*. Inferior tarsal claw smooth or with one small tooth. Embolus spiniform and relatively long, twisted distally. There appears no conductor present in the species known from a male. No tegular apophysis.

Type species *Muritaia suba* n.sp.

Muritaia suba n.sp.

Figs. 915-921

FEMALE

Measurements

	Carapace	length 1.76		width 1.20		
	Abdomen	length 1.68		width 1.12		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.13	0.60	0.85	0.68	0.43	3.69
2	1.00	0.55	0.68	0.63	0.43	3.29
3	0.88	0.48	0.50	0.70	0.43	2.99
4	1.18	0.58	0.88	1.00	0.53	4.17
Palp	0.60	0.28	0.28		0.45	1.61

Colour Cephalothorax, legs and chelicerae pale reddish brown. Abdomen pale yellow brown with irregular black shading down dorsal surface.

Carapace Width of head equal to 2/3 of thorax. Lateral margins divergent, merging with thorax.

Eyes Eyegroup compact and occupies one half of width of head. From above anterior row straight and posterior row slightly recurved. From in front anterior row straight and posterior row slightly procurved. Ratio of AME. ALE.PME.PLE = 3.7.7.10. AME separated from each other by 2/3 and from ALE by 1/3 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 6/3 and from PLE by 2/3. MOQ wider behind than in front in ratio of 20.8 and wider behind than long in ratio of 20.17. Height of clypeus equal to three times diameter of an AME.

Sternum Anterior margin straight and lateral margins evenly curved. Posterior projection bluntly pointed, separating coxae 4 by one half of width of a coxa.

Maxillae Outer margins curved and inner margins straight and convergent. Twice as long as wide.

Labium Notched at the base. Lateral margins straight and convergent. Anterior margin straight.

Chelicerae Retromargin with four minute teeth. Promargin with five larger teeth.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p,r.1.0. d.1.1. Trichobothria. Tibia, 1.2.1. Tarsus, 1.1.1. Claw with seven teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, p.0.1.0. Metatarsus, v.1.2.2. Second leg. Femur, d.0.1.1.0. Tibia, p.1.0.0. metatarsus, p,r.0.1.1. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.0.1. Tibia, v,d.1.1.1. p,r.1.0.1. Metatarsus, v.2.2.1. p.2.2.2. r.1.2.2. Fourth leg. Femur, d.0.1.1.0. Patella, d.1.1. Tibia, v.1.1.2. p.0.2.1. r.d.1.1.1. Metatarsus, v.2.2.1. p,r.1.2.2. Metatarsal comb of five bristles on legs 2-4. Trichobothria. First leg. Tibia, 1.2.2.1. Metatarsus, 2.1.1.1. Tarsus, 1.1.1. Fourth leg. Tibia, 2.1.1.2.1. Metatarsus, 2.1.1.1.1. Tarsus, 1.1.1. Tarsal organ at three quarters of length of each tarsus. Superior claws with from 7-8 teeth. Inferior claw smooth.

Abdomen Epigynum and internal genitalia as in Figs. 915-918. Posterior pair of spinnerets minute.

MALE

Similar to female. Palp as in Figs. 919-920.

Type Holotype female. Wellington. Johnsons Hill, Karori, leafmould, 24.iii.1946, J. T. Salmon. Allotype male. Stokes Valley, leaflitter, 10.viii.-1949, R. R. Forster (Dominion Museum).

Records North Island. Karori, Johnsons Hill, leafmould, 24.iii.1946, J. T. Salmon. Akatarawa Divide, 1,500 ft, leafmould, 5.i.1941, J. T. Salmon. Orongorongo Dist., Upper Wainui Valley, podocarp leafmould, 19.iv.1954, B. A. Holloway. Wainuiomata Reserve, leaflitter, 7.viii.1959, R. Ordish. South Island. Marlborough, beech forest north of Conway River, 25.iii.1964, R.R.F., C.L.W. Westland. Coal Ck, Runanga, leaflitter, 11.i.1956, R. L. C. Pilgrim.

Muritaia parabusa n.sp.

Figs. 922-923

FEMALE

Measurements

	Carapace	length 1.40		width 1.00		
	Abdomen	length 1.84		width 1.24		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.00	0.50	0.78	0.55	0.38	3.21
2	0.83	0.48	0.60	0.55	0.40	2.86
3	0.75	0.43	0.43	0.58	0.38	2.57
4	1.03	0.48	0.75	0.88	0.48	3.62
Palp	0.50	0.23	0.25		0.43	1.41

Colour Cephalothorax and legs uniform orange brown. Abdomen pale yellow brown.

Eyes Eyegroup compact and occupies one half of width of head. From above anterior row straight and posterior row slightly procurved. From in front AME level with posterior margin of ALE and posterior row strongly procurved. Ratio of AME.ALE.PME.PLE = 2.7.6.6. AME separated from each other by 2/2 and from the ALE by 1/2 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 5/2 and from PLE by 2/2. MOQ wider behind than in front in ratio of 17.6 and wider behind than long in ratio of 17.12. Height of clypeus four times diameter of an AME.

Chelicerae Retromargin with four closely spaced small teeth. Promargin with three larger teeth of which median is largest.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.0. d.1.1. Trichobothria. Tibia, 1.2.1.1. Tarsus, 1.1.1. Claw with five teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. Tibia, v.2.1.2.1. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, v,p.0.1.0. Metatarsus v.2.2.1 p.0.1.2. r.0.0.1. Metatarsal comb on legs 2-4. Five bristles on leg 2 and ten on legs 3 and 4. Trichobothria. First leg. Tibia, 2.2.2.1. Metatarsus and tarsus, 3. Fourth leg. Tibia, Tibia, 2.1.1.2.1. Metatarsus, 4. Tarsus, 3. Superior claws with seven teeth. Inferior claw with a single tooth.

Abdomen Epigynum and internal genitalia as in Figs. 922, 923.

Type Holotype female. Canterbury. Kelseys Bush, Waimate, leafmould, 30.iii.1948, W. J. Paul (Otago Museum).

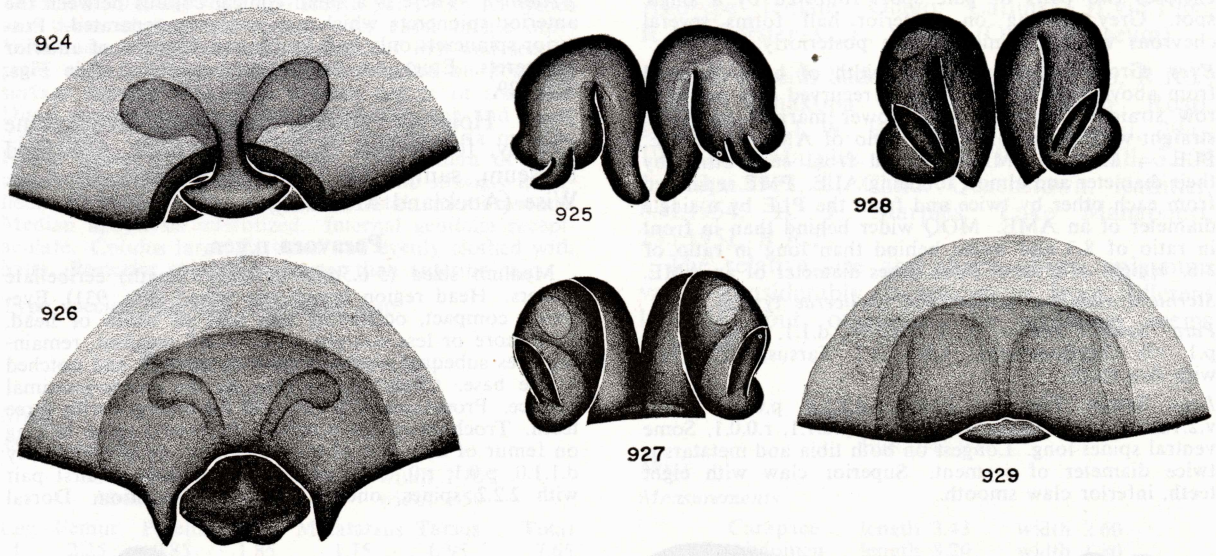
Muritaia kaituna n.sp.

Figs. 924-925

FEMALE

Measurements

Carapace	length 1.60	width 1.20	
Abdomen	length 2.00	width 1.40	



Figs. 924-925 *Muritaia kaituna* n.sp. Fig. 924 Epigynum. Fig. 925 Internal genitalia. Figs. 926-927 *Muritaia orientalis* n.sp. Fig. 926 Epigynum. Fig. 927 Internal genitalia. Figs. 928-929 *Muritaia longispinata* n.sp. Fig. 928 Internal genitalia. Fig. 929 Epigynum.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.18	0.55	0.90	0.70	0.38	3.71
2	0.98	0.55	0.68	0.63	0.38	3.22
3	0.88	0.45	0.53	0.68	0.43	2.97
4	1.20	0.55	0.90	0.98	0.50	4.13
Palp	0.60	0.30	0.30		0.43	1.63

Colour Cephalothorax and legs dark brown. Abdomen cream with faint blackish brown shading.

Eyes Eyegroup compact, occupying one half of width of head. From above both rows straight. From in front AME level with posterior margin of the ALE and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 4.7.7.8. AME separated from each other by 3/4 and from ALE by 1/4 of diameter of an AME. Lateral eyes separated by 2/3. PME separated from each other by 7/4 and from PLE by 4/4. MOQ wider behind than in front in ratio of 21.11 and wider behind than long in ratio of 21.17. Height of clypeus 9/4 of diameter of an AME.

Chelicerae Length one third of carapace. Retromargin with four minute teeth. Promargin with four strong teeth and a carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.1. d.1.1. Trichobothria. Tibia, 2.2.1. Tarsus, 1.1.1. Claw with four teeth.

Legs Spines. First leg. Femur, d.0.1.1.0. p.0.0.0.1. Tibia, v.2.1.2.0. Metatarsus, v.2.2.2. Second leg Femur, d.0.1.1.0. Tibia, v.1.1.2. p.0.0.1. Metatarsus, v.2.2.1. p.0.1.1. Metatarsal comb on legs 2-4, with four, five and eight bristles respectively. Trichobothria. First leg. Tibia, 1.2.2.2.1.1. Metatarsus, 2.1.1.1. Tarsus, 3. Fourth leg. Tibia, 2.2.2.1.1.2. Metatarsus and tarsus, 3. Superior claws with seven teeth. Inferior claw smooth.

Abdomen Epigynum and internal genitalia as in Figs. 924, 925. Colulus small and clothed with hairs.

Type Holotype female. Canterbury, Kaituna Valley, leafmould, 11.ix.1949, R. R. Forster (Canterbury Museum).

Muritaia orientalis n.sp.

Figs. 926-927

FEMALE

Measurements

Carapace	length 1.70	width 1.15		
Abdomen	length 1.90	width 1.20		

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.09	0.55	0.90	0.70	0.42	3.66
2	0.95	0.52	0.69	0.76	0.39	3.31
3	0.89	0.45	0.53	0.75	0.36	2.98
4	1.26	0.53	0.90	1.07	0.49	4.25
Palp	0.69	0.29	0.29		0.46	1.73

Colour Carapace pale yellowish brown with dark shading on all surfaces. Legs with dark bands. Abdomen well covered with olive grey shading. Two pairs of pale spots on dorsal surface followed by several small pale chevrons.

Eyes Ratio of AME.ALE.PME.PLE = 5.12.12.12. AME separated from each other by their diameter and from ALE by 2/5 of that distance. PME separated from each other by 9/5 and from PLE by 5/5. MOQ wider behind than in front in ratio of 33.15 and wider behind than long in ratio of 33.27. Height of clypeus 19/5 of diameter of an AME.

Sternum, maxillae, labium, chelicerae and *palps* typical.

Legs Spines. First leg. Femur, d.1.1.0. p.0.1. r.0. Tibia, v.2.1.2.1.0. p,r.0. Metatarsus, v.2.2.0. p,r.0.0.1. Longest ventral spine only slightly longer than diameter of segment where it is attached.

Abdomen Epigynum and internal genitalia as in Figs. 926, 927.

Type Holotype female. Hawkes Bay. White Pine Bush, Waitetola, 7.iv.1968, R. W. Hutton (Otago Museum).

Muritaia longispinata n.sp.

Figs. 928-929

FEMALE

Measurements

Carapace	length 1.35	width 0.85		
Abdomen	length 1.45	width 0.95		

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.00	0.40	0.85	0.65	0.45	3.35
2	0.82	0.40	0.65	0.58	0.40	2.85
3	0.72	0.36	0.45	0.60	0.37	2.50
4	1.02	0.40	0.75	0.85	0.50	3.52
Palp	0.50	0.22	0.28		0.47	1.47

Colour Pale cream, shaded with grey on dorsal surface of abdomen. Grey area on anterior surface of abdomen

encloses two pairs of pale spots followed by a single spot. Grey shading on posterior half forms several chevrons which diminish in size posteriorly.

Eyes Group occupies 2/3 of width of head. Viewed from above anterior row slightly recurved and posterior row straight. From in front lower margins of AME straight with centre of ALE. Ratio of AME.ALE.PME. PLE = 1.3.3.3. AME separated from each other by their diameter and almost touching ALE. PME separated from each other by twice and from the PLE by a single diameter of an AME. MOQ wider behind than in front in ratio of 8.3 and wider behind than long in ratio of 8.6. Height of clypeus three times diameter of an AME.

Sternum, maxillae, labium and *chelicerae* typical.

Palp Spines. Femur, d.1.1. Patella, d.1.1. Tibia, d.1.1. p.1. r.0. Trichobothria. Tibia, 2.2. Tarsus, 1.1. Claw with five teeth.

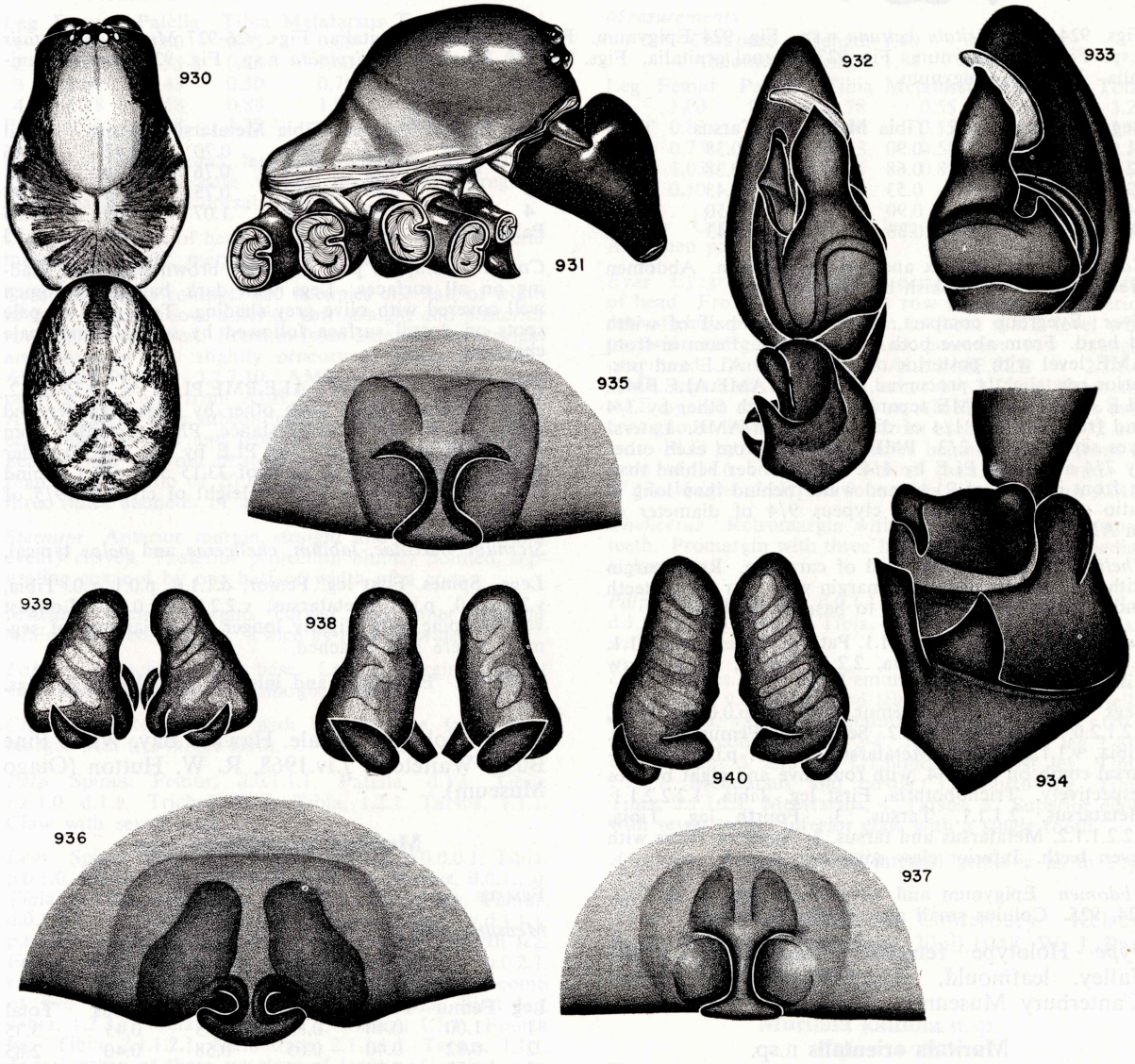
Legs Spines. First leg. Femur, d.1.1.0. p.0.1.0. Tibia, v.2.1.2.2.0. p.1. Metatarsus, v.2.2.0. p.0.1.1. r.0.0.1. Some ventral spines long. Longest on both tibia and metatarsus twice diameter of segment. Superior claw with eight teeth, inferior claw smooth.

Abdomen There is a small conical colulus between the anterior spinnerets which are narrowly separated. Posterior spinnerets only half length and diameter of anterior spinnerets. Epigynum and internal genitalia as in Figs. 928, 929.

Type Holotype female. Auckland. Whakatane County, forest east of Lake Rotorua, Auckland Museum, sample 66, leaflitter, 5.x.1966, K. A. J. Wise (Auckland Museum).

Paravoca n.gen.

Medium sized (5-6.5mm in body length) ecribellate spiders. Head region broad and raised (Fig. 931). Eye-group compact, occupying one half of width of head. Two more or less straight rows. AME smallest, remaining eyes subequal. Labium as long as wide and notched at the base. Chelicerae swollen on the antero-proximal surface. Promargin with two and retromargin with three teeth. Trochantera not notched. Prolateral spine lacking on femur of first pair of legs. Femoral spination usually d.1.1.0. p.0.1. r.0. Ventral surface of tibia of first pair with 2.2.2 spines, one pair distal in position. Dorsal



Figs. 930-940 *Paravoca otagoensis* n.sp. Fig. 930 Dorsal view of body. Fig. 931 Lateral view of the carapace and chelicerae. Fig. 932 Ventral view of male palp. Fig. 933 Lateral view of bulb showing embolus.
Fig. 934 Tibial processes of male palp. Fig. 935 Epigynum (Waipori Gorge). Fig. 936 Epigynum (Manapouri). Fig. 937 Epigynum (Catlins). Fig. 938 Internal genitalia (Waipori Gorge). Fig. 939 Internal genitalia (Manapouri). Fig. 940 Internal genitalia (Catlins).

surface of tibiae of third and fourth pairs with 1.1 spines and those of first and second with basal bristle only. Distal whorl of spines on metatarsi of first and second pairs with four spines, dorso-lateral spine on posterior surface missing. Metatarsi without combs or scopulae. Distal trichobothrium of metatarsal row long and angularly bent. Tarsal organ distal to trichobothria on legs. Palpal tarsus with trichobothria. Trochantera of male palp without twin spines. Tibia short and strongly modified. Embolus stout, conductor distal, membraneous. Median apophysis sclerotized. Internal genitalia receptaculate. Colulus large, flattened and evenly clothed with hairs. Posterior spinnerets shorter than anterior pair.

Type species *Paravoca otagoensis* n.sp.

Paravoca otagoensis n.sp.

Figs. 930-940

MALE

Measurements

	Carapace	length 2.65		width 2.10		
	Abdomen	length 2.60		width 1.50		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.25	0.85	1.85	1.75	0.95	7.65
2	2.00	0.85	1.50	1.50	0.85	6.70
3	1.75	0.75	1.10	1.35	0.75	5.70
4	2.15	0.85	1.75	1.80	0.85	7.40
Palp	0.60	0.20	0.20		0.50	1.50

Colour (Fig. 930) Carapace and chelicerae reddish brown. Maxillary lobes reddish brown with conspicuous white area where scopulae situated. Legs yellow brown. Abdomen pale brown with reddish brown shading on lateral surfaces and with a mid dorsal band which forms three chevrons on posterior half of abdomen.

Carapace As shown in Fig. 931. Head high and broad.

Eyes Group occupies slightly more than half width of head. From above both rows straight and from in front anterior row slightly procurved. Ratio of AME.ALE. PME.PLE = 4.7.6.7. AME separated from each other and from ALE by 3/4 of diameter of an AME. PME separated from each other by 5/4 and from PLE by 6/4. MOQ wider behind than in front in ratio of 17.11 and wider behind than long in ratio of 17.14. Height of clypeus 13/4 of diameter of an AME.

Sternum Scutate, margins sinuate. Posterior projection tapers to a moderate point between posterior coxae which are separated by less than half of diameter of a coxa.

Chelicerae Fang moderately long. Promargin of groove with two teeth and retromargin with three teeth.

Palp Bulb and tibial processes as in Figs. 932-934.

Legs Spines short. First leg. Femur, prolateral spine lacking, d.1.1.0. r.0.1. Tibia, v.2.2.2. p.0.1.1. r.0. Metatarsus v.2.2.1. p.0.1.2. r.0.0.1. Third and fourth pairs of legs with tibial dorsal spines. The distal trichobothrium on metatarsus long and bent. Tarsal organ distal to trichobothria on tarsi. Inferior claw has three or four straight teeth increasing in size distally.

FEMALE

Measurements

	Carapace	length 2.30		width 1.75		
	Abdomen	length 3.00		width 2.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.80	0.80	1.35	1.25	0.75	5.95
2	1.60	0.75	1.15	1.10	0.70	5.30
3	1.40	0.65	0.80	1.05	0.60	4.50
4	1.80	0.75	1.35	1.35	0.65	5.90
Palp	0.90	0.40	0.55		0.85	2.70

Abdomen Epigynum and internal genitalia as in Figs. 935-940.

Types Holotype male. Otago. Waipori Gorge, leafmould, 18.xi.1966, R. R. Forster, C. L. Wilton. Allotype female. Otago. Catlins, 31.viii.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Records Leith Saddle, pitfall, 20.xi.1966, R.R.F. Upper Tahakopa Valley, Wyndham Road, 14.ii.1971, C.L.W. Blacks Gully, Tapanui, 29.i.-1956, B. J. Marples. Rock and Pillar, pitfall, 3,000 ft, 23.xi.1968, J. Child. Queenstown, leaflitter, 6.vi.1954, B. J. Marples. Lake Manapouri, 25.i.1951, R.R.F.

The relative size and shape of the epigynum varies considerably in specimens from different localities but otherwise the structure seems identical.

Paravoca opaca n.sp.

Figs. 941-944

MALE

Measurements

	Carapace	length 3.43		width 2.60		
	Abdomen	length 3.20		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.96	1.20	2.58	2.52	1.26	10.52
2	2.71	1.07	2.27	2.33	1.26	9.64
3	2.46	1.01	1.64	2.08	1.07	8.26
4	3.02	1.07	2.52	2.71	1.26	10.58
Palp	1.24	0.52	0.56		1.26	3.58

Colour Carapace yellow brown with dark reddish brown band extending from each anterior corner of head to fovea. These bands continue back as single band to merge posteriorly with further pair of bands which extend back down lateral margin of thoracic region. Chelicerae dark reddish brown. Legs yellow brown with conspicuous bands of reddish brown. Abdomen cream with four prominent chevrons down dorsal surface which merge with longitudinal band down each lateral margin. Maxillae dark reddish brown but scopulate area white.

Carapace Head region broad and high. Width 10/13 of the thoracic region. Fovea relatively long, with outer margins slightly swollen.

Eyes Eyegroup occupies one half of width of head and placed on a slightly raised area which overhangs clypeus. From above both rows straight but from in front posterior row slightly procurved. Ratio of AME.ALE.PME. PLE = 8.16.15.15. AME separated from each other by 7/8 and from ALE by 10/8 diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 14/8 and from PLE by 16/8. MOQ wider behind than in front in ratio of 44.23 and wider behind than long in ratio of 44.35. Height of clypeus three times diameter of an AME.

Sternum Anterior margin straight and lateral margin slightly undulate. Posterior projection short and separates coxae 4 by 7/8 of width of a coxa.

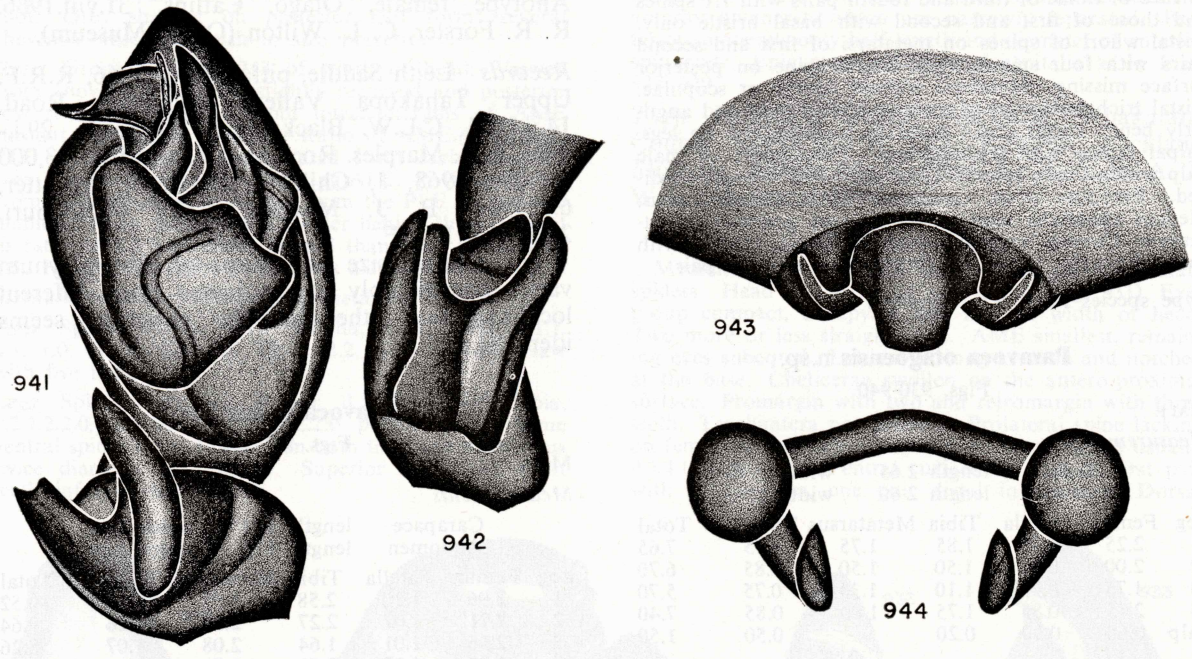
Maxillae The segments curve over labium where there is a thick scopula. Twice as long as wide.

Labium Notched at base. Lateral margins straight and convergent. Anterior margin straight. As long as wide.

Chelicerae Strong, 9/17 of length of carapace. Proximal surface swollen. Retromargin with three teeth. Promargin with two teeth and strong carina which extends to base of chelicera.

Palp As in Figs. 941, 942.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.2.2.2. p.1.1.1. Metatarsus, v.2.1.2. p,d.0.1.1. r.0.0.1. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Metatarsus, v.1.1.2. p.1.1.2. r.0.1.2. d.0.1.0. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,r,d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Fourth leg. Femur, d.1.1.0.1. p.0.0.0.1. Patella, d.1 median. Tibia, v.2.2.1.



Figs. 941-944 *Paravoca opaca* n.sp. Fig. 941 Ventral view of male palp. Fig. 942 Tibial processes of male palp. Fig. 943 Epigynum. Fig. 944 Internal genitalia.

p.0.1.1. r.1.1.1. Metatarsus. v.2.1.1.1. p.1.1.0.1. r.0.0.0.1. d.0.1.0. Trichobothria. Tibia, 2.2.1.1.1.1. Metatarsus and tarsus, 5. Superior claws with 10-11 teeth. Inferior claw with 3-4 teeth. Tarsal organ sub-distal.

Abdomen Posterior pair of spinnerets more slender and shorter than anterior pair. Colulus large, flattened, and clothed with hairs.

FEMALE

Measurements

Carapace	length 3.86	width 2.80	
Abdomen	length 3.48	width 2.40	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.63	1.13	2.03	1.75	1.00	8.54
2	2.38	1.13	1.75	1.63	0.93	7.82
3	2.13	1.00	1.25	1.45	0.88	6.71
4	2.75	1.18	2.10	1.90	0.95	8.88
Palp	1.50	0.63	0.80		1.15	4.08

Similar in colour and structure to male. Epigynum and internal genitalia as in Figs. 943, 944.

Types Holotype male, allotype female. Fiordland. Lake Te Au, 12-24.i.1953, R. R. Forster (Otago Museum).

Records Thompson Sound, Upper Camp, 2,800 ft, under logs, 22.i.1958, R.R.F. Same locality, 19.i.1958, R.R.F. Deep Cove, 11.i.1956, R. A. Chapman, Lake Te Au, 12-24.i.1953, R.R.F. Rugged Burn Valley, West Te Anau, 15-18.xii.-1956, G. W. Ramsay. Anita Bay, Milford Sound, under logs, 29.i.1946, R.R.F.

Mala n.gen.

Large ecribellate spiders, heavily clothed with fine ciliate hairs. Carapace low, head region clearly defined. Eight eyes in two rows occupying little more than one half of width of head region. Eyes reduced in size and without pigment. Both rows definitely procurved. Lateral eyes well separated. Chelicerae stout, vertical, with teeth on both margins. Lateral condyles present. Promargin with thick scopula. Legs 4132 thickly clothed with ciliate hairs but without scopulae, claw tufts or tenent hairs. Strongly spined, with spines on ventral surface of some tarsi. Trochantera notched. Trichobothria very long and numerous, in a double row on tibiae and a single row on metatarsi and tarsi. Three claws, superior pair similar, strongly pectinate. Inferior smooth. Tarsal organ not present. Palp strongly spined, with double row of trichobothria on tibia and a single row on tarsus. Claw strongly pectinate. Tarsal organ not present. Epigynum well developed with a pair of marginal teeth. Internal genitalia simple consisting of a pair of spherical receptacula. Six spinnerets. Anterior pair stout, almost contiguous. Distal segment short. Posterior pair stout, with a short distal segment. Colulus small, setose. Tracheal system not known but with small medium spiracle near the spinnerets. Male not known.

Type species *Mala cavernicola* n.sp.

This genus is represented by the cave dwelling species described below. Some of the distinctive characters used in the generic definition are undoubtedly adaptations, such as the reduced eyes and the long trichobothria, which would not necessarily be present in surface dwelling representatives. Taking these characters into account we are still not able to suggest direct relationship with other elements of the New Zealand fauna. The absence of a tarsal organ is unusual. The discovery of a male would be of some assistance in placing this genus. It is possible that relationship will be found with some of the two clawed cursorial spiders. The habits of this spider are not known but it is thought that it is a hunting spider which does not construct a snare.

Mala cavernicola n.sp.

Figs. 945-949

FEMALE

Measurements

Carapace	length 5.62	width 4.00
Abdomen	length 5.12	width 3.12

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.62	2.00	5.50	5.00	3.00	21.12
2	5.62	1.87	4.62	4.74	2.78	19.63
3	5.37	1.75	4.75	2.25	2.87	19.99
4	6.25	2.00	6.25	7.50	3.37	25.37
Palp	2.75	1.00	2.25		2.25	8.25

Colour Carapace and legs uniform pale yellow. Abdomen cream.

Carapace Heavily clothed with adpressed hairs. Head region wide (Fig. 945) and clearly delineated. Both head and thoracic regions flattened.

Eyes (Fig. 945) Eyes very small and without pigment. Group occupies 5/9 of width of head. Both rows definitely procurved. Ratio of AME.ALE.PME.PLE = 2.5.4.5. AME separated from each other by 5/2 and from the ALE by 7/2 of diameter of AME. Lateral eyes separated by 9/2. PME separated from each other and PLE by 13/2. MOQ longer than wide in front in ratio of 4.3 and wider behind than in front in ratio of 7.3. Height of clypeus 3½ times diameter of an AME.

Sternum Scutiform. Longer than wide in the ratio of 7.6. Pointed behind in front of coxae 4 which are only slightly separated.

Maxillae Parallel. Longer than wide in ratio of 15.8. pointed distally. There is a thick scopula along the inner distal margin.

Labium Notched at base. Lateral margins straight and parallel. Anterior margin straight. Longer than wide in ratio of 8.7.

Chelicerae Vertical. Relatively short but stout. Anteroproximal surface swollen (Fig. 947). Lateral condyles well developed. Promargin with two teeth at proximal end of furrow. Retromargin with four even teeth. Thick scopula present along promargin.

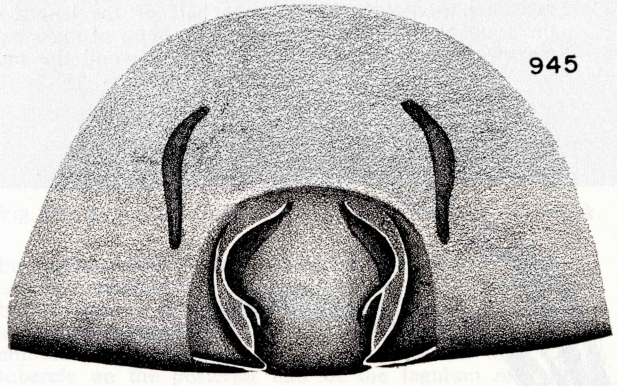
Legs 4231. Heavily clothed with fine ciliate hairs. Trochanters notched. Tarsal organ absent. Superior claws of legs 1 and 2 with 14-15 teeth, legs 3 and 4 with six teeth (Figs. 946, 947). Inferior claw smooth. Spines. Leg 1. Femur, d,r.0.1.1.1. p.0.0.1.1. Tibia, v.2.2.2. p,r.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.1. Leg 2. Femur, d.1.1.0.1. p.0.1.0.1. r.0.1.1.1. Patella, d.0.1. Tibia, v.2.2.2. p,r.1.1.1. Metatarsus, v.2.2.1. p.0.1.1. r.1.1.2. Tarsus, v.1 at 2/3. Leg 3. Femur, d,r.1.1.1. p.1.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.1. Tarsus, v.1 at 2/3. Leg 4. Femur, d,r.1.1.1. p.1.1.1.1. Patella, d.1.1. Tibia, v.2.2.2. p,r.1.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r,d.1.1.2. Tarsus, v.1.1, one spine at 2/3 and second subdistal. Trichobothria. Tibiae 2.2.1.1.1. Metatarsi 1.1.1. Tarsi from 7-9 in single row. Trichobothria extremely long and slender.

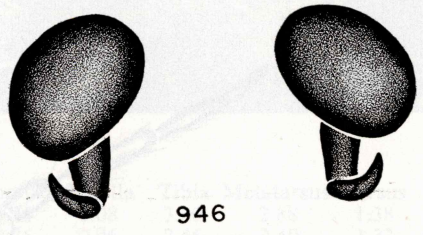
Palp Claw with eight even sized teeth. Tarsal organ lacking. Spines. Femur, d.1.1.1. p,r.1 distal. Patella, d.1.1. Tibia, d.0.1.1. p.0.1.0. r.1.1.0. v.1.0.0. Tarsus, heavily spined. Trichobothria. Tibia, 1.2.2.1. Tarsus with nine long trichobothria

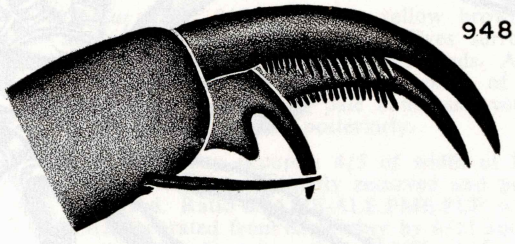
Abdomen Closely clothed with ciliate setae. Colulus small, with numerous hairs. Epigynum and internal genitalia as in Figs. 945, 946.

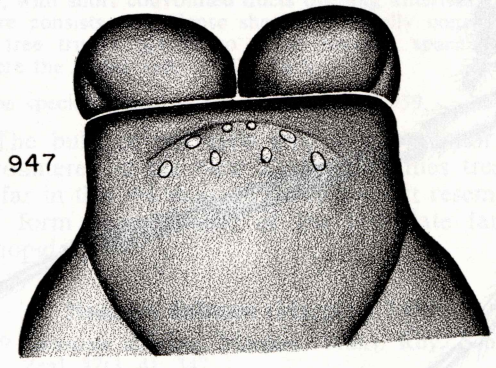
Type Holotype female. Nelson. United Creek Cave, 70 feet from entrance, August 1960, P. R. Kettle (Entomology Division, D.S.I.R.).

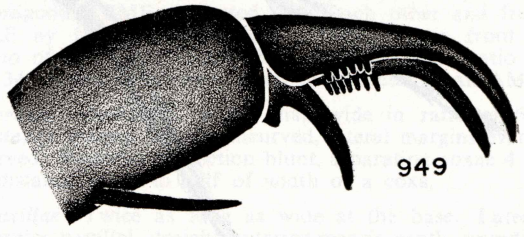
Remarks This is the second spider recorded from New Zealand showing strong adaptations











Figs. 945-949 *Mala cavernicola* n.sp. Fig. 945 Epigynum. Fig. 946 Internal genitalia. Fig. 947 Front of carapace showing eyes. Fig. 948 Claws of second pair of legs showing ventral spines on tarsus. Fig. 949 Claws of fourth pair of legs.

to cave life. The lack of pigment, reduction of the eyes and length of the trichobothria indicate considerable specialization. The other cave spider, as yet not described, belongs to the family Gradungulidae (Spiders of New Zealand, Part 1, p. 60) and is also found in caves in the Nelson area. The harvestmen recorded from same caves in the Nelson area (Forster, 1965) are also endemic and show considerable modification.

Family NEOLANIDAE n.fam.

Eyes in two more or less straight rows which occupy more than a half of width of head. Anterior and posterior median eyes equal in size or nearly so. Lateral eyes only slightly larger. Sole genus known cribellate, with calamistral hairs in a single row and cribellum divided. Legs with basic spination. Plumose hairs absent. Trichobothria in a double row on the tibia and a single row on the metatarsi and tarsi. Trichobothria not present on tarsi of the female palp or cymbium of male palp. Three pectinate claws. No claw tufts, tenent hairs or scopulae. Trochanters weakly notched. Sternum of basic shield shape. Labium notched at base. Chelicerae with lateral bosses, with two retromarginal and three promarginal teeth. Male palp with tibial processes. Bulb with a slender, curved embolus and median raised process which functions as conductor. Epigynum simple with a large pair of receptacula and short ducts, opening anteriorly. Spinnerets normal with anterior and posterior of equal length. Tracheal system consisting of four simple tubes opening from near the spinnerets.

Snare of the single known genus relatively small sheet web guyed up from the substrate where the spider rests. Webs usually constructed on trunks of trees.

Type genus *Neolana* n.gen.

This family retains most of the generalized features of the Dictynoid-Amaurobioid group of families. These are the more or less equal sized eyes in two rows; chelicerae with a lateral boss, two retromarginal and three promarginal teeth; legs with basic spination, three claws and lacking such modifications as claw tufts and scopulae. The simple tracheal system indicates that it belongs within the Amaurobioidea. The form of the male palp along with the absence of trichobothria on the cymbium precludes the association of *Neolana* with the other families of the Amaurobioidea. Amongst cribellate spiders the bulb of the male palp is similar to that found in the Dinopidae.

Neolana n.gen.

1959 *Ixeuticus* (part), Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 347.

Medium sized (body length 6-9mm) cribellate spiders. Eyes in two more or less straight rows occupying more than one half of width of head. AME only slightly smaller than remaining eyes and sometimes same size as PME. Laterals contiguous. Sternum scutiform, slightly longer than wide. Labium notched at base. Chelicerae with definite lateral boss. Retromargin with two, promargin with three teeth. Legs strongly spined, without plumose hairs. Trichobothria numerous with basic distribution, double row on tibiae and a single row on metatarsi and tarsi. Superior claws strongly pectinate, inferior claw with few teeth. Tarsal organ present. Trochanters weakly notched. Calamistrum well developed, proximal, occupying almost one half of the length of the segment. Cribellum divided. Cymbium of male palp narrowed distally and extending well beyond the bulb

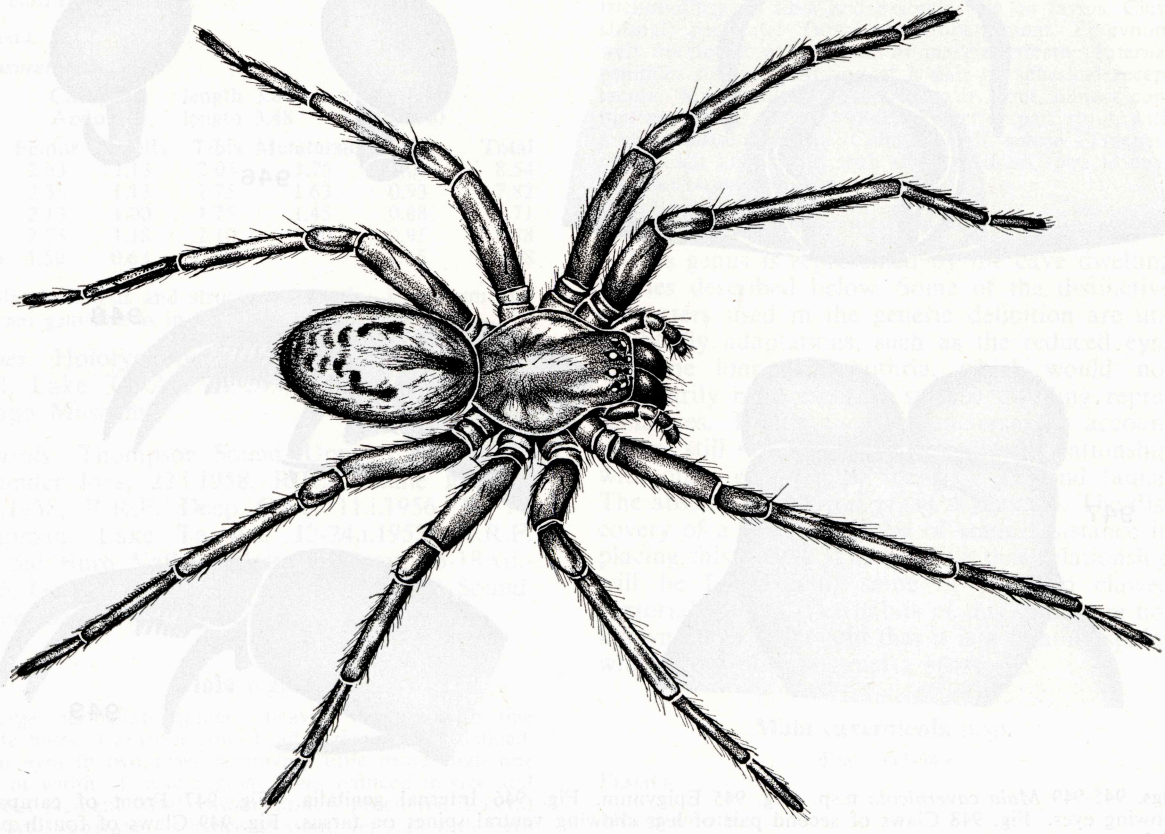


Fig. 950 *Neolana dalmasi* (Marples) female.



Fig. 951 Snare of *Neolana dalmasi* (Marples) on tree trunk.

but without trichobothria. Embolus originating from the anterior retrolateral surface, directed across the bulb before curving forward. Distal portion bent. There is a membraneous portion fused with proximal half of embolus. Tip of embolus rests on a median lobe. A tubercle on the posterior half of the tegulum may be the vestige of the median apophysis but is more likely to be a secondary lobe or functional conductor. Epigynum simple, without spines. Internal genitalia receptaculate, with short convoluted ducts opening anteriorly. The snare consists of a dense sheetweb, usually constructed on tree trunks, guyed so as to leave a space below where the spider rests on the bark.

Type species *Ixeuticus dalmasi* Marples 1959.

The bulb of the male palp is a type not yet encountered in the New Zealand families treated so far in this revision. In many ways it resembles the form characteristic of the cribellate family Dinopidae.

Neolana dalmasi (Marples) 1959

1959 *Ixeuticus dalmasi*, Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 347.

Figs. 950-958

FEMALE

Measurements

Carapace	length 2.76	width 2.04
Abdomen	length 3.42	width 2.28

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.24	1.08	3.00	2.88	1.38	11.58
2	2.76	0.96	2.46	2.40	1.32	9.90
3	2.46	0.84	2.04	2.16	1.08	8.58
4	2.88	0.96	2.40	2.52	1.26	10.02
Palp	0.90	0.36	0.66		1.02	2.94

Colour (Fig. 948) Carapace yellow brown darkening anteriorly and around margins. Eyes surrounded with black. Legs pale brown with faint bands. Antero-dorsal surface of abdomen with three pairs of large dark patches beside a central pale band, and with from 5-6 transverse black bands posteriorly.

Eyes Eyegroup occupies 4/5 of width of head. From above anterior row slightly recurved and posterior row procurved. Ratio of AME.ALE.PME.PLE = 11.15.11.15. AME separated from each other by 6/11 and from ALE by 9/11 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other and from PLE by 12/11. MOQ wider behind than in front in ratio of 34.27 and longer than wide behind in ratio of 37.34. Height of clypeus equal to diameter of an AME.

Sternum Scutiform, longer than wide in ratio of 6.5. Anterior margin broadly incurved, lateral margins evenly curved. Posterior projection blunt, separating coxae 4 by a distance equal to half of width of a coxa.

Maxillae Twice as long as wide at the base. Lateral margins parallel, straight, anterior margin gently rounded.

Labium Notched at the base. Lateral margins slightly convergent, anterior margin straight. Wider at the base than long in ratio of 4.3.

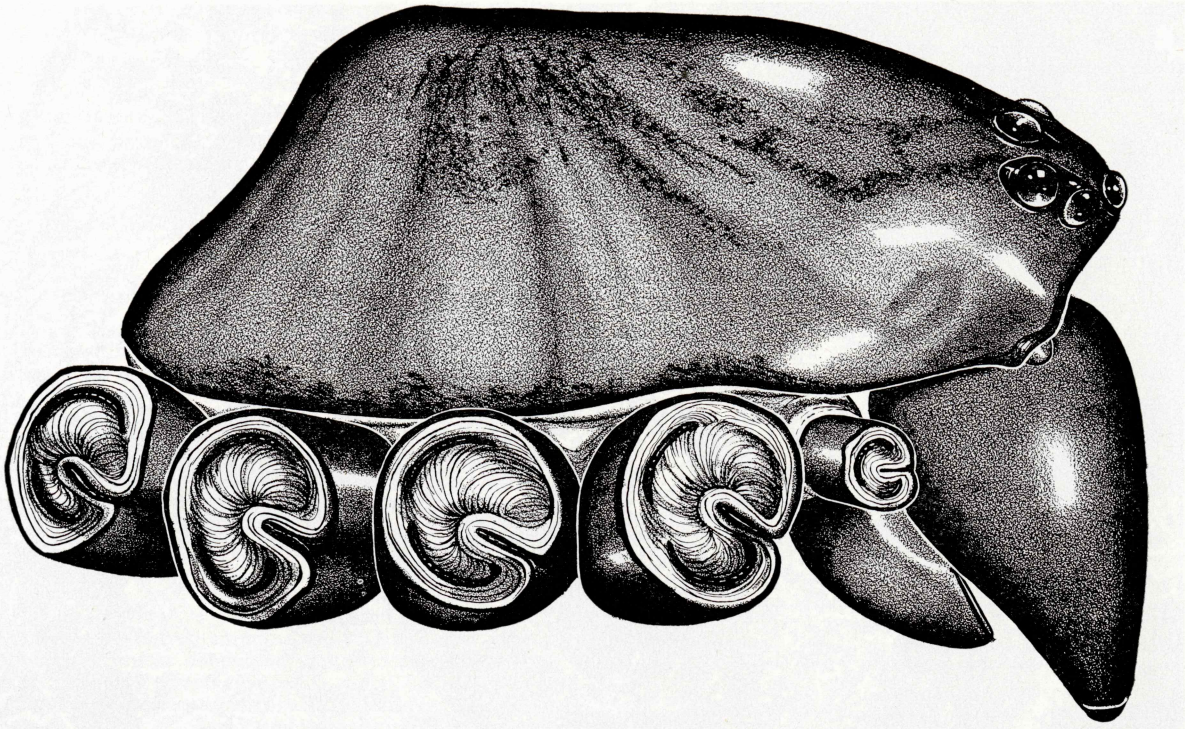
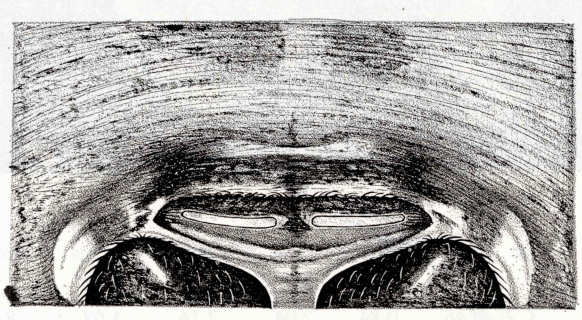
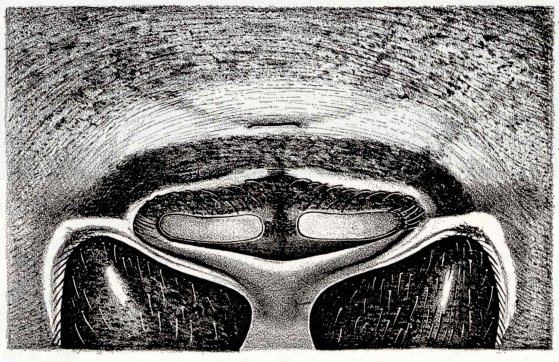


Fig. 952 *Neolana dalmasi* (Marples). Lateral view of carapace and chelicerae.



953



954

Figs. 953-954 *Neolana dalmasi* (Marples). Cribellum and base of anterior spinnerets. Fig. 953 Male. Fig. 954 Female.

Chelicerae Retromargin with two teeth, promargin with three of which middle tooth is largest. Well developed carina extends from proximal promarginal tooth to base of chelicera.

Palp All segments with strong bristles. Eight trichobothria on dorsal surface of tibia arranged 2.2.2.2. Claw with nine teeth.

Legs Spines. First leg. Femur, d,p.0.1.1.1. r.0.0.0.1. Tibia, v.0.2.2. p.0.1.0. Metatarsus, v.2.2.1.p,r.0.0.1. Second leg. Femur, d.0.1.2.1. Tibia, v.0.2.2. r,p.0.1.0. Metatarsus, v.2.2.1. p,r.0.1.2. Third leg. Femur, d.0.1.1.0. p,r.0.1.1. Tibia, v.0.2.2. p,r.0.1.1. Metatarsus, v.2.2.1. p.1.1.2. d.0.0.1. Fourth leg. Femur, d.0.1.1.1. r.0.0.0.1. Tibia, v.0.1.2. p,r.0.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.1.1.0. Trichobothria. First leg. Tibia, 1.1.1. Metatarsus, 4. Tarsus, 3. Fourth leg. Tibia, 1.2.2.1.1.1. Metatarsus, 4. Tarsus, 6. Calamistrum extends along half of segment. Superior claws with ten teeth, inferior with two.

Abdomen Cribellum relatively large and divided. Epigynum with distinct raised ridge around outer margin (Fig. 957). Internal genitalia simple (Fig. 958).

MALE

Measurements

	Carapace		length 3.10		width 2.30	
	Abdomen		length 3.70		width 2.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.15	1.20	4.20	4.10	1.85	15.50
2	3.80	1.15	3.50	3.65	1.60	13.70
3	3.40	1.05	2.75	3.20	1.50	11.90
4	3.60	1.05	3.20	3.80	1.75	13.40
Palp	1.00	0.40	0.40		1.10	2.90

With the general characteristics of female.

Eyes Group occupies 4/5 of width of head. From in front both anterior and posterior rows procurved. From above anterior row recurved and posterior row procurved. Ratio of AME.ALE.PME.PLE = 8.9.8.9. AME separated from each other by their diameter and from the ALE by 5/8 diameter of an AME. Laterals narrowly separated. PME separated from each other and from the PLE by 10/8. MOQ wider behind than in front in ratio of 26.24 and longer than wide behind in ratio of 29.26. Height of clypeus 10/8 of diameter of an AME.

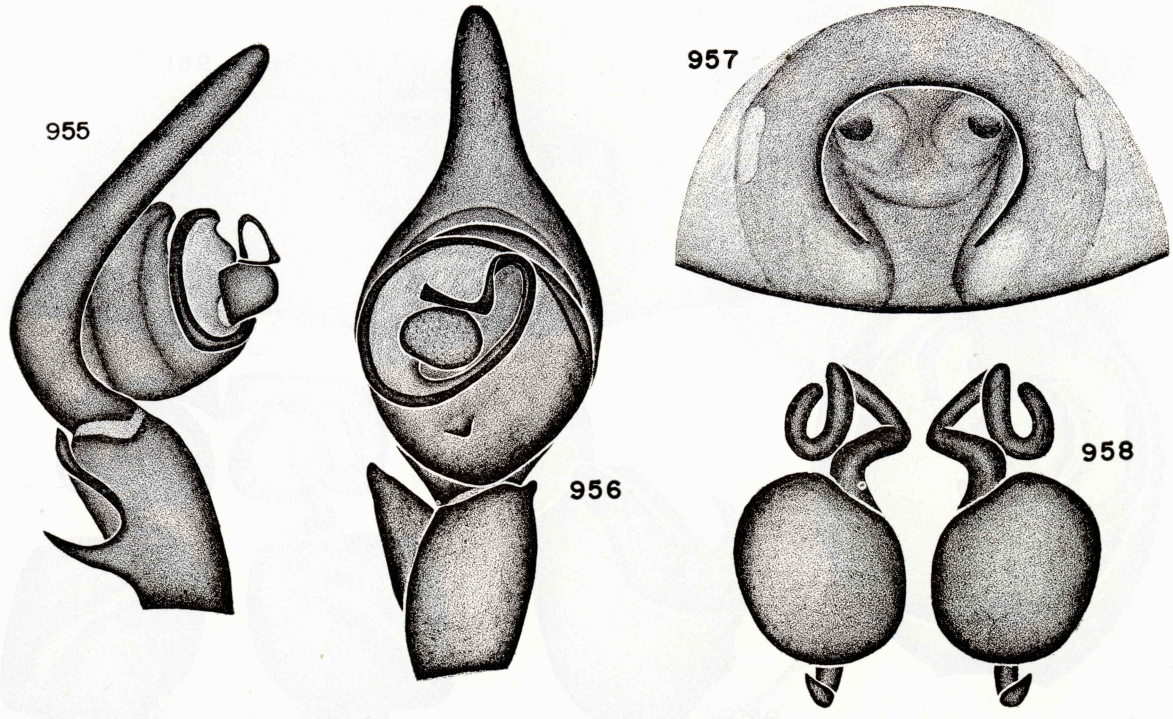


Fig. 955-958 *Neolana dalmasi* (Marples). Fig. 955 Lateral view of male palp. Fig. 956 Ventral view of male palp. Fig. 957 Epigynum. Fig. 958 Internal genitalia.

Palp Spines. Femur, d.1.1.1. p,r.0. Patella, 1.1. Tibia, p.1 basal and 1.1 distal. Trichobothria. Tibia, d.1.1.1.1 and 4 on basal part of outer surface. Tarsus, 0. Subdistal tarsal organ. Bulb and tibial processes as in Figs. 955, 956.

Types Holotype female. Rotorua-Taupo District. Lake Tarawera, May 1956, B. J. Marples (Otago Museum). Female paratypes, same data. Allotype male. Wellington. Totara Reserve, Pohangina Valley, 26.xii.1966, R. R. Forster, D. R. Forster (Otago Museum).

Records Mount Egmont, 2,000 ft, 1953, B. J. Marples. Totara Reserve, Pohangina, 26.xii.1966, 20.i.1967, R.R.F. Apiti, 29.vii.1966, R.R.F. Kitchener Park, Feilding, 29.xii.1966, R.R.F. Te Wairoa Falls, 23.viii.1970, D. Court. Mount Ngangataha, 28.viii.1970, D. Court. Hongi's Track, 4.x.1969, C.L.W. Whangamomona Saddle, 25.ii.1967, C.L.W. Lake Rotopuremu, 20.i.1960, R. W. Hutton. Napier-Taupo Road, 14.ii.1952, B. J. Marples. Motopuki Is., Rotorua, 15.v.1968, R. W. Hutton. White Pine Bush, Hawkes Bay, R. W. Hutton. Wairarapa. Mangareia, 19.vi.1967, 14.viii.1966, 11.ix.1965, 9.i.1960, C.L.W. Kiriwhakapapa, 6.iii.1966, C.L.W. Owhango, 26.ii.1967, C.L.W. Te Wharau, 5.iii.1967, C.L.W. Upper Waioeka Gorge, 1.x.1969, C.L.W.

Neolana septentrionalis n.sp.

Figs. 959, 962

FEMALE

Measurements

Carapace	length 3.75	width 2.80
Abdomen	length 5.00	width 4.00

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.45	1.40	4.25	3.90	1.90	15.90
2	4.00	1.35	3.50	3.40	1.50	13.75
3	3.50	1.25	2.80	3.00	1.40	11.95
4	3.75	1.25	3.25	3.65	1.60	13.50
Palp	1.20	0.55	0.80		1.30	3.85

Colour Paler than *dalmasi* but similar in general appearance.

Carapace Width of head 3/5 of thorax.

Eyes Group occupies 3/4 of width of head. From in front anterior row straight and posterior row procurved. From above anterior row procurved. Ratio of AME. ALE.PME.PLE = 12.13.12.12. AME separated from each other by 5/12 and from ALE by 6/12 of diameter of an AME. Lateral eyes narrowly separated. PME separated from each other by 11/12 and from PLE by 13/12. MOQ wider behind than in front in ratio of 35.29 and longer than wide behind in ratio of 36.35. Height of clypeus 10/12 of diameter of an AME.

Sternum Longer than wide in the ratio of 40.30. Anterior margin broadly indented. Posterior projection separates posterior coxae by 2/3 of width of a coxa.

Maxillae Longer than wide in ratio of 23.13 and longer than labium in ratio of 23.12.

Labium Wider than long in ratio of 14.12. Distal margin straight.

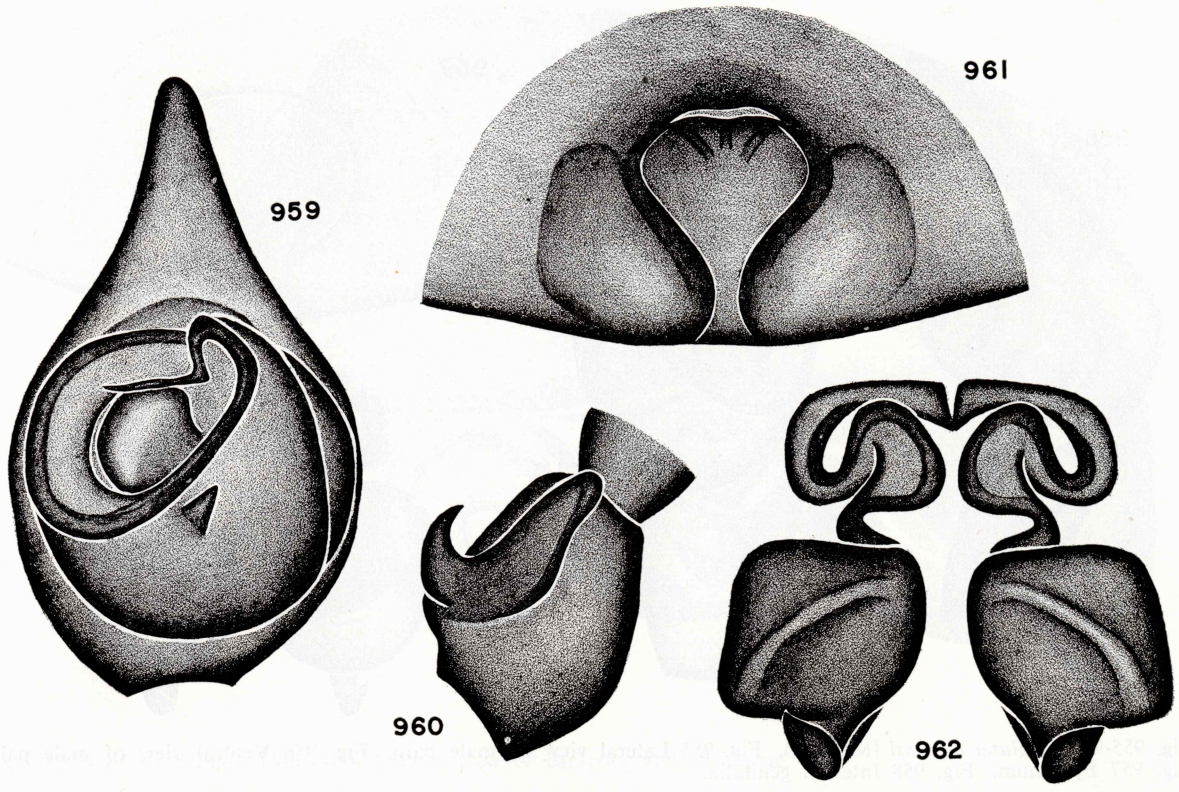
Chelicerae, palp and *legs,* typical.

Abdomen Epigynum and internal genitalia as in Figs. 961, 962.

MALE

Measurements

Carapace	length 2.50	width 1.80
Abdomen	missing	



Figs. 959-962 *Neolana septentrionalis* n.sp. Fig. 959 Ventral view of male palp. Fig. 960 Tibial processes of male palp. Fig. 961 Epigynum. Fig. 962 Internal genitalia.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.50	1.05	3.60	3.50	1.60	13.25
2	3.30	1.00	3.00	1.05	1.35	11.70
3	2.50	0.90	2.40	2.70	1.20	9.70
4	3.00	0.90	2.70	3.15	1.40	11.15
Palp	0.95	0.35	0.35		1.00	2.65

With general characteristics of female.

Eyes Curvature of rows similar to female. Ratio of AME.ALE.PME.PLE = 9.10.9.9. AME separated from each other and from ALE by 2/9 of diameter of an AME. PME separated from each other by 6/9 and from PLE by 7/9. MOQ wider behind than in front in ratio of 24.20 and longer than wide behind in ratio of 27.24. Height of clypeus 5/9 of diameter of an AME.

Palp Trichobothria. Tibia, d.4 and 4 on basal half of outer surface. Cymbium, 0. Subdistal tarsal organ. Bulb and tibial processes as in Figs. 959, 960.

Types Holotype female and allotype male. North Auckland. Hen Is., January 1968, M. Grantham (Otago Museum).

Records North Auckland. Kohukohu, 18, 27.viii.1953, B. J. Marples.

Neolana pallida n.sp.

Figs. 963-964

FEMALE

Measurements

Carapace length 3.00 width 2.30
Abdomen length 4.50 width 3.00

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.35	1.10	3.25	2.90	1.50	12.10
2	3.05	1.10	2.70	2.60	1.25	10.70
3	2.70	1.00	2.15	2.35	1.05	9.25
4	2.90	1.00	2.55	2.75	1.20	10.40
Palp	1.00	0.45	0.75		1.05	3.25

Colour Carapace pale cream but becoming pale orange on anterior half of head. Slight shading of black on upper slopes but not on mid-dorsal region which is almost white. Eyes on black spots. Chelicerae pale orange brown with a mottled or streaky appearance. Legs pale, tinged with pale orange. Bands are not distinct but may occur faintly on posterior pairs. Sternum cream, darker at margins and whole surface stippled with black. Maxillae orange brown and labium darker brown with distal margin white. Dorsal surface of abdomen very pale with only longitudinal bands followed by several pairs of spots showing. Lateral and posterior slopes shaded with black. Ventral surface pale with some dark shading. Plates covering booklungs rich brown and sclerotized, a character which may be diagnostic for this species.

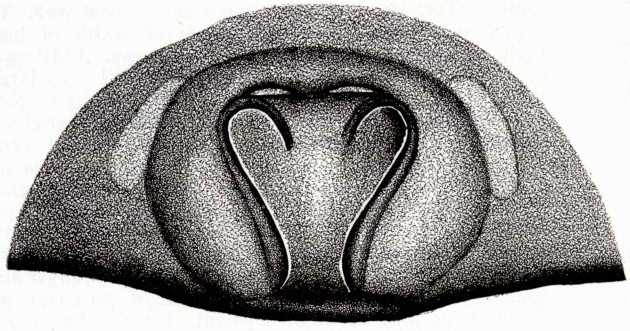
Carapace Width of head 5/8 of greatest width of carapace.

Eyes Group occupies 11/16 of width of head. From in front anterior row procurved and from above posterior row procurved. Ratio of AME.ALE.PME.PLE = 9.10.10.10. AME separated from each other by 5/9 and from the ALE by 4/9 of diameter of an AME. Laterals separated by 1/9. PME separated from each other by 9/9 and from PLE by 8/9. MOQ wider behind than in front in ratio of 29.23 and as long as wide behind. Height of clypeus 8/9 of diameter of an AME.

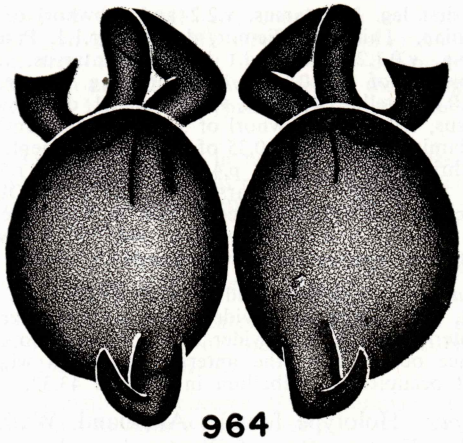
Chelicerae Number and placing of teeth typical, but promarginal teeth slightly separated from each other. Length 7/10 of length of carapace.

Palp Spines. Femur, d.1.1.1. Patella, 1.1. Tibia, d.1. p.1 basal, 1.1 distal. r.0. Numerous spines on tarsus. Trichobothria. p.4. r.5. Claw with nine teeth.

Legs Shallow notches on trochantera of posterior pairs of legs. Spines. First leg. Femur, prolateral spine present, d.1.1.0. p,r.1.1. Patella, 1.1 (bristles), Tibia, v.0.2.0. p,r.0.0.1. d.1 basal (bristle)). Metatarsus, v.2.2.3. p.1 median. r.0. Second leg. Femur, patella and tibia same



963



964

Figs. 963-964 *Neolana pallida* n.sp. Fig. 963 Epigynum. Fig. 964 Internal genitalia.



Fig. 965 *Aorangia ansa* n.sp. female.

as first leg. Metatarsus, v.2.2 and subwhorl of 5, p,r.1 median. Third leg. Femur, d.1.1.0. p,r.1.1. Patella, 1.1. Tibia, v.0.1.2. p,r.1.1. d.1 basal. Metatarsus, v.2.2 and subwhorl of 5, p.0.1. r.1.1. Fourth leg. Femur, d.1.1.0. p,r.0.1. Patella, 1.1. Tibia, v.0.0.2. p,r.1.1. d.1 basal. Metatarsus, v.1.2 and subwhorl of 5, p.1.1. r.1 calamistrum 1. Calamistrum occupies 0.35 of length of segment. Trichobothria. First leg. Tibia, p.4 on basal quarter, r.5 extending to midpoint. Metatarsus, 4. Tarsus, 5. Other legs resemble the first leg except tibia of fourth leg which has p.2.1.1.1 and retro-row of 6. Inferior claw with two teeth and superior claws with ten teeth.

Abdomen Epigynum and internal genitalia as in Figs. 963, 964. Cribellum divided, strongly sclerotized along posterior margin and wider than long in ratio of 33.10. Space occupied by the anterior spinnerets wider than that occupied by cribellum in ratio of 43.33.

Types Holotype female. Auckland. Waihapokopoko, Eastern Bay of Plenty, from beneath web on tree trunk, 2.x.1969, C. L. Wilton (Otago Museum).

INCERTAE SEDIS

We have not been able to reach any finality on the correct placement of the genus *Aorangia*. A number of characteristics including the structure of the male bulb, suggest that the genus could be placed in the Family Amphinectidae but the development of the posterior pair of spinnerets, the absence of trichobothria from the tarsus of the palp and cymbium and the spination of the legs suggest that they are not amphinectids.

Aorangia n.gen.

Medium sized (body length 3.5-7.5mm) ecribellate spiders. Terrestrial, constructing a small sheet web. The eyegroup occupies about two-thirds of width of head. Eight eyes in two more or less straight rows. AME equal in size to PME or slightly smaller. Lateral eyes larger, subcontiguous. Legs with plumose hairs, strongly spined with spines which tend to stand out at right angles to segments. Trochanters deeply notched. Tarsal organ subdistal. Trichobothria in a double row on tibia and a single row on metatarsi and tarsi. Superior claws similar, strongly pectinate. Inferior claw strongly pectinate. Chelicerae with lateral boss. Two teeth on retromargin and usually two on promargin. Labium notched at base, wider than long. Sternum scutiform, longer than wide. Six spinnerets. Distal segment of posterior pair elongate, as long as basal segment. Colulus flat, evenly clothed with hairs, wider than long. Epigynum simple usually with paired lobes. Epigynum weakly sclerotized. Area covered by internal genitalia extends over most of ventral surface of epigynal region. Internal genitalia receptaculate with ducts, broad and usually translucent, with tendency to become convoluted. Female palp with double row of trichobothria on tibia but none on tarsus. Claw pectinate. Male palp with processes on distal retrolateral surface of tibia. Cymbium pointed distally, without trichobothria. Embolus originating distally and twisted. Median apophysis well developed. Bulb characterized by a large plate which arises from the tegulum on prolateral side.

Type species *Aorangia ansa* n.sp.

There are three distinct groups of species. The *ansa* group has a filiform embolus twisting along a membraneous conductor while the *muscicola* group also has a filiform embolus but shorter and

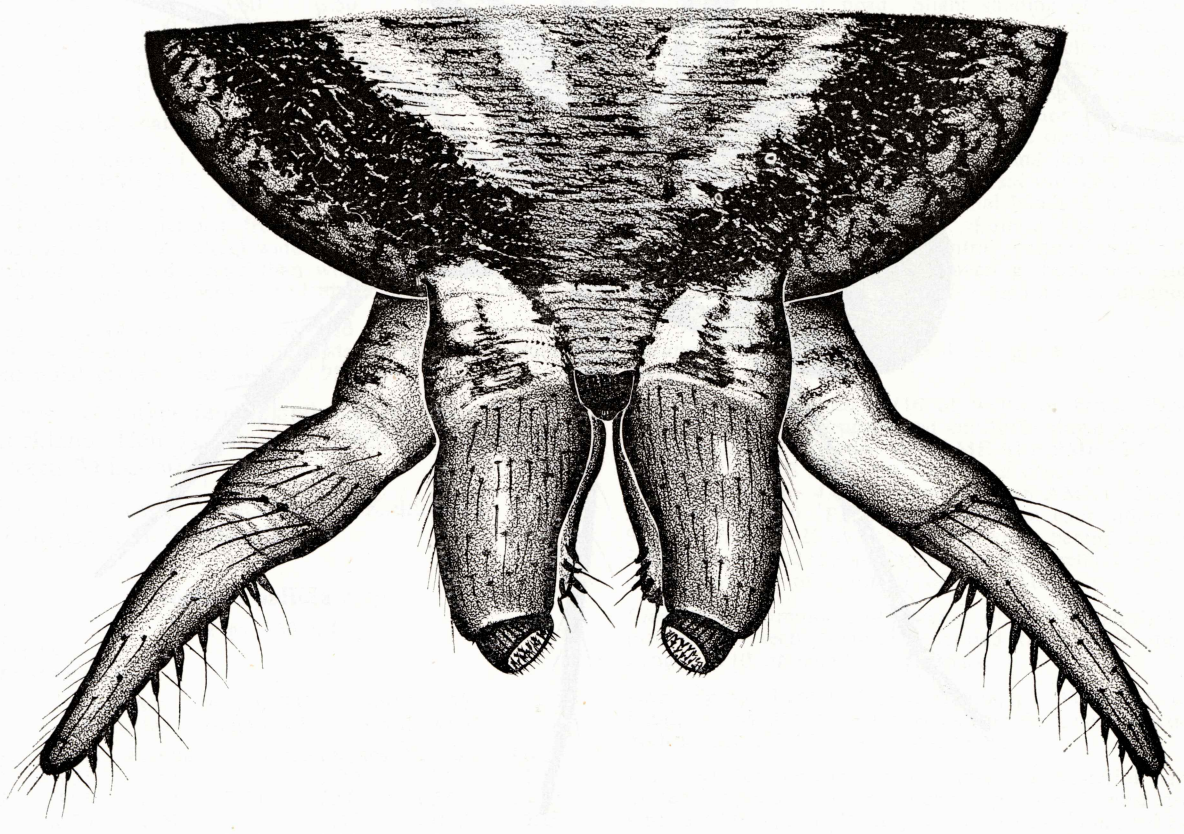


Fig. 966 *Aorangia poppelwelli* n.sp. Spinnerets and colulus.

a more compact conductor. In both of these groups the tegular process is large and branched. In the *semita* group the embolus takes the peculiar angular form characteristic of *Makora* and *Dunstania* and the conductor while complex is compact and not membraneous.

This distinctive genus is one of the most easily recognized of the New Zealand genera because of the long posterior spinnerets and the presence of plumose hairs on the legs. The spiders construct webs consisting of a number of horizontal sheets beneath stones and logs on the forest floor. Pitfall traps capture both males and females, and this suggests that they may also actively hunt prey. These spiders are also occasionally found in grassland and scrub.

This genus poses a number of problems. It does not seem to show any direct relationship with other New Zealand or Australian spiders of this general group and the family placing is problematical. It has therefore been decided to leave this genus unplaced at present.

Aorangia ansa n.sp.

Figs. 965, 972, 974, 984-987

MALE

Measurements

	Carapace	length 1.88		width 1.44		
	Abdomen	length 2.00		width 1.00		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.63	0.58	1.43	1.60	1.10	6.34
2	1.60	0.58	1.28	1.55	1.00	6.01
3	1.70	0.58	1.33	1.80	0.98	6.39
4	2.05	0.58	1.88	2.50	1.23	8.24
Palp	0.76	0.20	0.20		1.00	2.16

Colour Carapace yellowish, with darker shading on lateral surfaces of head and three patches radiating out from each side of fovea. Abdomen mottled with dark brown.

Carapace Width of head 4/7 of width of thorax. Fovea distinct.

Eyes Eyegroup occupies 11/17 of width of head. From above anterior row strongly recurved and posterior row straight. From in front anterior row straight and posterior row procurved. Ratio of AME.ALE.PME.PLE = 9.12.9.11. AME separated from each other by 5/9 of the diameter of an AME and contiguous with ALE. Lateral eyes contiguous. PME separated from each other by 9/9 and from PLE by 5/9. MOQ wider behind than in front in ratio of 31.23 and wider behind than long in ratio of 31.26. Height of clypeus 14/9 of diameter of an AME.

Sternum Longer than wide in ratio of 26.23. Anterior margin straight, lateral margins evenly curved. Posterior projection bluntly pointed, separating coxae 4 by 3/5 of width of a coxa.

Maxillae Slightly convergent. Lateral margins straight and parallel. Longer than wide in ratio of 8.5.

Labium Notched at base. Lateral margins straight and slightly convergent. Anterior margin gently incurved. Wider than long in ratio of 3.2.

Chelicerae Length of chelicerae 3/8 of carapace. Boss prominent. Both margins with two teeth.

Palp As in Figs. 972, 974, 982, 983. The tegular process of type specimen not typical, lacking one of the branches.

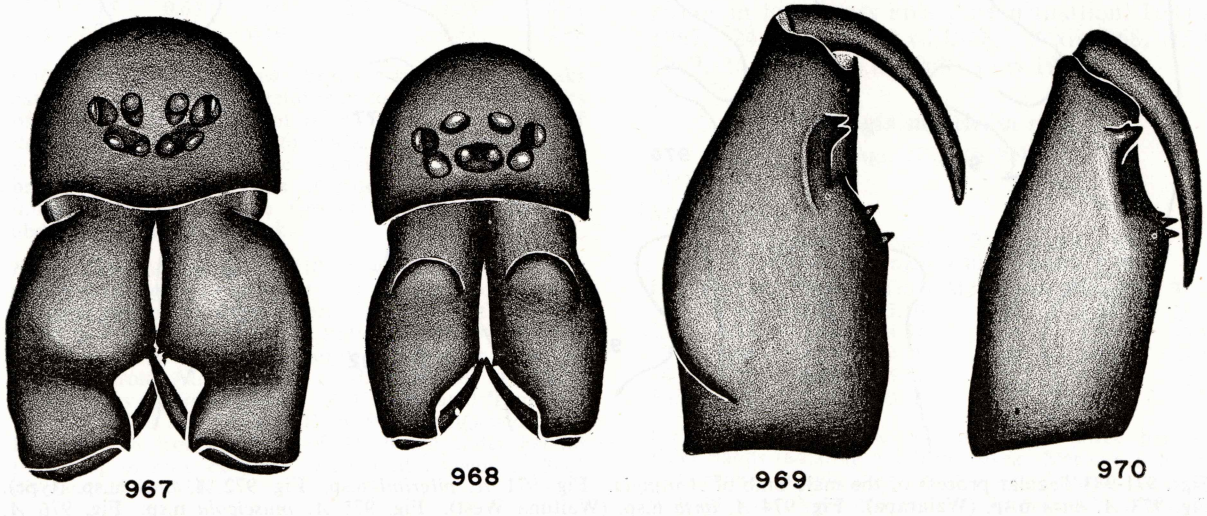
Legs 4312. Long and slender. Plumose hairs present. Spines. First leg. Femur, d.1.0.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.1. p.1.0.0. r,d.1.1.0. Metatarsus, v.0.1.1. p,r.0.1.2. Second leg. Femur, d.1.0.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.1.0.1. d.1.1.0. Metatarsus, v,p.r.0.1.2. d.0.1.0. Third leg. Femur, d.1.0.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,r.1.0.1. d.1.1.0. Metatarsus, v.0.2.1. p,r.1.1.2. d.0.1.1. Fourth leg. Femur, d.1.0.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.1. p,r.0.1.1. d.1.1.0. Metatarsus, v.1.2.1. p,r.1.1.2. d.0.1.1. Trichobothria. First leg. Tibia, 2.2.1.1. Metatarsus, 5. Tarsus, 3. Second leg. Tibia, 1.2.2.1. Metatarsus, 5. Tarsus, 3. Third leg. Tibia, 3.2.1.1. Metatarsus and tarsus, 3. Fourth leg. Tibia, 3.1.1.1. Metatarsus, 4. Tarsus, 3. Tarsal organ sub-distal. Superior claws with nine teeth. Inferior claws with four teeth.

Abdomen Posterior pair of spinnerets longer than anterior pair in ratio of 9.7. Colulus flat, wider than long in ratio of 3.2 and clothed with short hairs.

FEMALE

Measurements

	Carapace	length 2.08		width 1.44		
	Abdomen	length 2.80		width 1.84		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.63	0.63	1.38	1.58	1.08	6.30
2	1.58	0.63	1.25	1.50	0.95	5.91
3	1.70	0.63	1.28	1.75	0.93	6.29
4	2.00	0.58	1.88	2.50	1.23	8.19
Palp	0.70	0.33	0.50		0.85	2.38



Figs. 967-970 Male chelicerae of *Aorangia* showing modifications. Fig. 967 *Aorangia tumida* n.sp. Fig. 968 *Aorangia obscura* n.sp. Fig. 969 *Aorangia semita* n.sp. Fig. 970 *Aorangia pudica* n.sp.

Similar in appearance and structure to male. Epigynum and internal genitalia as in Figs. 986, 987.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Tibia with nine trichobothria arranged 3.3.2.1. Claw straight with 3 small teeth.

Type Holotype male, allotype female. Waikato. Aorangi, Feilding, under logs, 6.i.1952, R. R. Forster (Otago Museum).

Records North Island. Totara Reserve. Pohangina Valley, 20.viii.1948, R.R.F. Johnsons Pk, Feilding, 22.iii.1943, R.R.F. Apiti, 29.xii.1966, R.R.F. Morere, xii.1950, R. K. Dell, J. M. Moreland. Waituna, 30.viii.1965, R. W. Hutton. Ohope Beach, in bush, 5.x.1969, C.L.W. Foot of Mount Holdsworth, Tararua Range, 6.iv.1968, C.L.W. Wairarapa. Mangareia, 25.vii.1945, September 1958, 8.iii.1966, 4.viii.1966, 19.iv.1967, C.L.W. Solway Showground, 13.ix.1967, C.L.W. Solway, pitfall, 19.ix.1967, C.L.W. Tane, 15.x.1935, C.L.W. Kaituna, Masterton, 8.ix.1967, C.L.W. Hills beside Gladstone, 20.v.1953, B. J. Marples. Te Wharau, 13.x.1970, 12.ix.1967, C.L.W. South Island. Nelson, Mount Arthur Track, 3,400 ft, under logs, 22.i.1948, R.R.F. Marlborough, Ships Cove, Queen Charlotte Sound, 13.ix.1948, R. K. Dell.

Aorangia pilgrimi n.sp.

Figs. 971, 988-991

MALE

Measurements

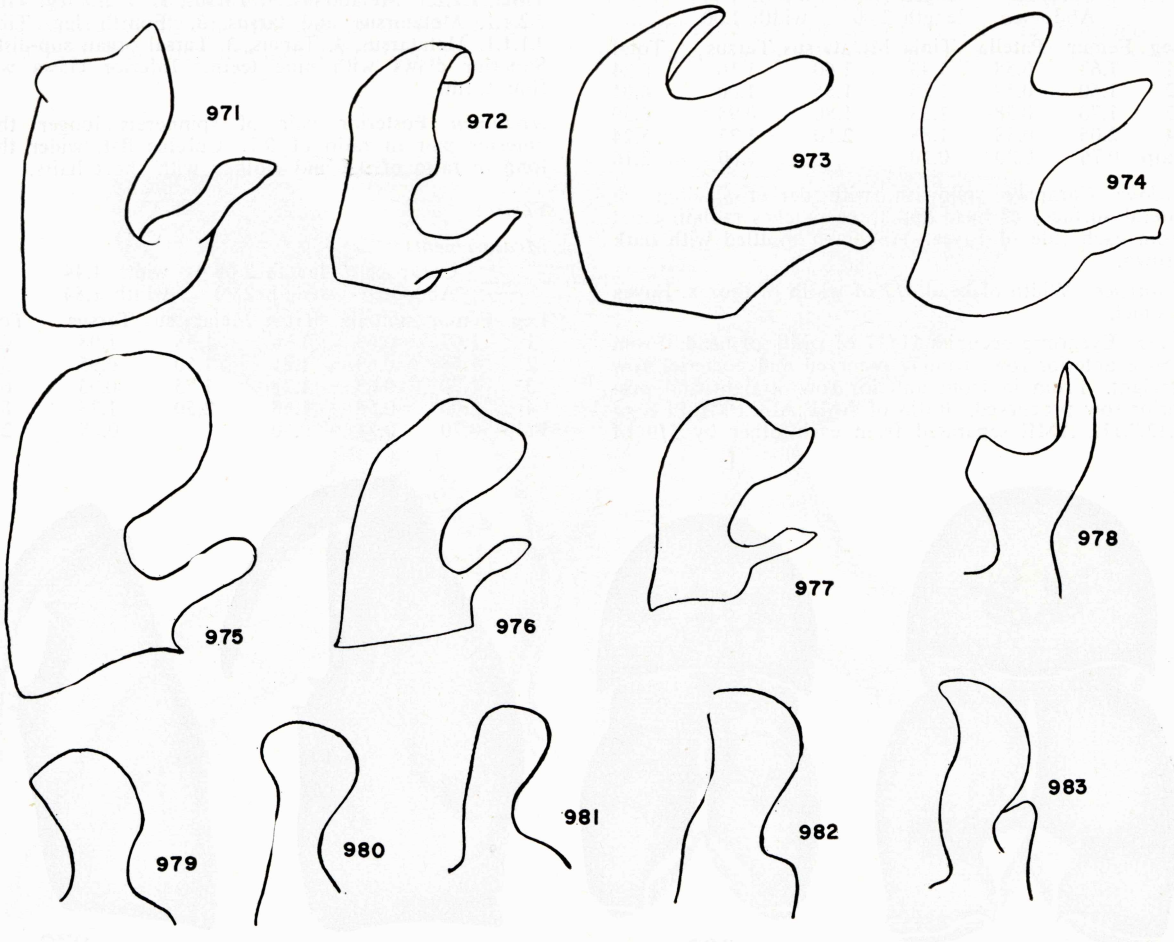
Carapace	length 2.80		width 1.88		
Abdomen	length 3.00		width 1.80		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.27	0.82	2.02	2.27	1.58	6.96
2	2.33	0.82	1.89	2.27	1.39	8.70
3	2.46	0.88	1.95	2.58	1.32	9.19
4	2.90	0.82	2.71	3.78	1.76	11.97

Colour Carapace yellowish with four longitudinal brown bands. Legs yellowish with irregular brown bands. Sternum and abdomen blackish brown.

Eyes From above anterior row slightly recurved and posterior row straight. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 10.14.10.14. AME separated from each other by 9/10 and from the ALE by 4/10 of diameter of an AME. Lateral eyes separated by 3/10. PME separated from each other by 14/10 and from the PLE by 13/10. MOQ wider behind than in front in ratio of 34.29 and wider behind than long in ratio of 34.28. Height of clypeus 4/10 of diameter of an AME.

Chelicerae Chelicerae slightly less than one half of length of carapace. Both margins with two teeth.

Palp As shown in Figs. 971, 988, 989.



Figs. 971-983 Tegular process of the male bulb of *Aorangia*. Fig. 971 *A. pilgrimi* n.sp. Fig. 972 *A. ansa* n.sp. (type). Fig. 973 *A. ansa* n.sp. (Waiarapa). Fig. 974 *A. ansa* n.sp. (Waituna West). Fig. 975 *A. muscicola* n.sp. Fig. 976 *A. tumida* n.sp. Fig. 977 *A. agama* n.sp. Fig. 978 *A. obscura* n.sp. Fig. 979 *A. singularis* n.sp. Fig. 980 *A. otira* n.sp. Fig. 981 *A. fiordensis* n.sp. Fig. 892 *A. semita* n.sp. Fig. 983 *A. pudica* n.sp.

Legs Spines. Femur, d.0.1.1.1. p.0.0.0.2. r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. p,r.1.0.1. d.1.1.0. Metatarsus, v.1.2.1. p,r.1.0.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.2.1. p,r.1.1.0. d.0.1.0. Metatarsus, v.1.2.1. p,r.1.0.2. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 3. Tarsus, 5. Superior claws with eight teeth. Inferior claw with five teeth.

Abdomen Colulus flat. Wider than long in ratio of 5.3. Clothed with dark hairs.

FEMALE

Measurements

	Carapace	length 1.88		width 1.36		
	Abdomen	length 2.20		width 1.40		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.60	0.60	1.38	1.43	1.00	6.01
2	1.53	0.63	1.20	1.30	0.93	5.59
3	1.65	0.58	1.23	1.60	0.93	5.99
4	2.03	0.63	1.85	2.25	1.18	7.94
Palp	0.70	0.30	0.50		0.88	2.38

Similar in most respects to male. The eyes differ slightly. Ratio of AME.ALE.PME.PLE = 8.11.9.11. AME separated from each other by 4/8 and from ALE by 2/8 of diameter of an AME. Lateral eyes separated by 2/8. PME separated from each other by 8/8 and from PLE by 9/8. MOQ wider behind than in front in ratio of 26.20 and wider behind than long in ratio of 26.23. Epigynum and internal genitalia as in Figs. 990, 991.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.1.1. Claw with four teeth.

Types Holotype male. Canterbury. Ashley Gorge, December 1957, R. L. C. Pilgrim. Allotype female. Canterbury. Lake Taylor, 14.iv.1952, R. R. Forster (Canterbury Museum).

Record Porters Pass, 29.ix.1966, R.R.F., C.L.W.

Aorangia poppelwelli n.sp.

Figs. 966, 992-995

FEMALE

Measurements

	Carapace	length 2.12		width 1.08		
	Abdomen	length 2.20		width 1.40		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.75	0.68	1.50	1.60	1.15	6.68
2	1.73	0.63	1.28	1.50	1.03	6.17
3	1.78	0.65	1.33	1.75	1.03	6.54
4	2.15	0.63	1.90	2.38	1.25	8.31
Palp	0.70	0.30	0.50		0.93	2.43

Colour Carapace yellow brown with dark streaks extending from behind lateral eyes to fovea. Three pairs of dark streaks radiate out from the fovea. Margin of thoracic region shaded with black. Legs yellow brown with dark bands. Abdomen heavily shaded with dark brown but with two pairs of pale patches on antero-dorsal surface. On live specimens posterior half of abdomen tinged with pink.

Eyes Eyegroup occupies 7/10 of width of head. From above posterior row straight and anterior row gently recurved. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 8.10.10.12. AME separated from each other by 5/8 and from ALE by 2/8 of diameter of an AME. Lateral eyes separated by 2/8. PME separated from each other by 11/8 and from PLE by 9/8. MOQ wider behind than in front in ratio of 31.21 and wider behind than long in ratio of 31.28. Height of clypeus 19/8 of diameter of an AME.

Chelicerae Length 4/13 of carapace. Both margins with two teeth.

Palp Spines. Femur, d.1.1.1. Patella, d.1.1. Tibia, p,d.1.1. Tibia with ten trichobothria arranged 2.2.2.2.2. Claw with four teeth. Tarsal organ sub-distal.

Legs Spines. First leg. Femur, d.0.1.1.1. p.0.0.1.1. r.0.0.0.1. Patella, d.1.1. Tibia, v2.2.1. p,r.1.1.1. d.1.1.0. Metatarsus, v.2.2.1. p,r.0.0.2. d.0.0.1. Second leg. Femur, d 2.0.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.1. p.r,d.1.0.1. Metatarsus, v.1.2.1. p,r.0.1.2. Trichobothria. Tibia, 2.1.1.1.1. Metatarsus, 2. Tarsus, 4. Superior claws with 12-13 teeth. Inferior claw with four teeth.

Abdomen Epigynum and internal genitalia as in Figs. 994, 995. Posterior pair of spinnerets longer than anterior pair in ratio of 5.4. Colulus flat, slightly swollen on posterior surface.

MALE

Measurements

	Carapace	length 3.00		width 2.20		
	Abdomen	length 3.50		width 2.20		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.60	0.90	2.35	2.65	1.60	10.10
2	2.60	0.90	2.10	2.60	1.45	9.65
3	2.70	0.90	2.10	2.95	1.35	10.00
4	3.10	0.90	2.90	3.90	1.65	12.45
Palp	1.05	0.40	0.35		1.35	3.15

Chelicerae Not modified, with two teeth on each margin.

Palp Bulb and tibial processes as in Figs. 992-993.

Types Holotype female. Otago. Dunedin, 4.x.-1961, W. T. Poppelwell. Allotype male. Opoho Bush, Cemetery Rd, pitfall, 25-31.i.1971, C.L.W. (Otago Museum).

Records Otago. Waipori Gorge, 18.xi.1966, R.R.F., C.L.W. Whare Flat, 4.i.1966, C.L.W. Evansdale Glen, 11.vi.1966, C.L.W. Hawkesbury Bush, near Waikouaiti, 20.x.1966, C.L.W. Waitati Valley, 30.iv.1966, C.L.W. Horsetrough, North Road, 5.vi.1966, C.L.W. Akatore Creek, 14.iv.-1966, C.L.W. Hightop, 1.ii.1970, J. Panting. Frazers Gully, 17.v.1969, C.L.W., R. W. Hutton. Sullivans Dam, pitfall, 1.xi.1966, R.R.F. Leith Saddle, pitfall, 8.iv.1967, R.R.F. Leith Saddle, 4.iii.1970, R.R.F., C.L.W. Opoho Bush, pitfall in forest, C.L.W. 30.xi.1970-7.xii.1970, 18-25.i.1971, 1-8.ii.1971, 1-15.v.1971. Flagstaff, pitfall in scrub and tussock, C.L.W. 29.xi.1970-6.xii.1970, 7-21.ii.1971, 1-7.ii.1971, 21.ii.1971-7.ii.1971. Hyde, pitfall in long grass area pine plantation. 16.viii.-1967, 24.iii.1968, 12.xii.1968, 26.xii.1968, 15.i.-1969, 16.ii.1969, 6.iii.1969, 17.iv.1969.

Aorangia muscicola n.sp.

Figs. 977, 998-999

MALE

Measurements

	Carapace	length 3.82		width 2.80		
	Abdomen	length 4.40		width 2.40		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	5.04	1.39	5.10	5.99	3.34	20.86
2	4.73	1.26	4.54	5.55	2.90	18.99
3	4.66	1.20	4.28	5.80	2.71	18.65
4	5.29	1.26	5.17	7.37	3.28	22.37
Palp	1.36	0.44	0.72		1.80	4.32

Colour Carapace reddish brown with three pairs of paler bands radiating out from fovea. Sternum pale reddish brown. Chelicerae, maxillae and labium dark reddish brown. Abdomen heavily shaded with black but with five pairs of palespots down mid-dorsal surface and a longitudinal pale band down ventro-lateral surfaces.

Eyes Eyegroup occupies 5/8 of width of head. From above both rows recurved. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 10.18.15.20. AME separated from each other by 7/10 of diameter of an AME and contiguous with ALE. Lateral eyes contiguous. PME separated from each other by 15/10 and from PLE by 12/10. MOQ wider behind than in front in ratio of 45.27 and wider behind than long in ratio of 45.35. Height of clypeus 12/10 of diameter of an AME.

Sternum Longer than wide in ratio of 5.4. Anterior margin indented at base of labium. Lateral margins undulate. Posterior projection elongate and slender, separating coxae 4 by 2/7 of width of a coxa.

Maxillae Lateral margins straight but divergent distally. Longer than wide in ratio of 3.2.

Labium Slightly wider than long. Outer margins gently curved. Anterior margin indented.

Chelicerae One half length of carapace. Both margins with two teeth.

Palp As shown in Figs. 998, 999.

Legs Spines. First leg. Femur, d.1.1.0.1. p.0.2.0.1. r.0.0.0.1. Patella, d.1.1. Tibia, v.1.2.2. p,r,d.1.1.0. Metatarsus, v.2.2.1. p,r.0.1.2. d.0.1.0. Second leg. Femur, d.1.0.1.1. p.0.1.1.1. r.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.2.2.1. p,r.0.1.2. d.1.1.0. Third leg. Femur, d.1.0.1.1. p.0.1.1.1. r.0.1.0.1. Patella, d.1.1. Tibia, v.2.1.2. p,r.0.1.1. d.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.1.1.0. Fourth leg. Femur, d.1.1.0.1. p.0.1.0.1. r.0.0.0.1. d.1.1.1. Metatarsus, v.2.2.1. p,r.0.1.2. d.1.1.0. Trichobothria. Tibia, 3.1.1.1.1. Metatarsus and tarsus, 4. Superior claws with 9-10 teeth. Interior claw with four teeth.

Abdomen Posterior pair of spinnerets longer than anterior pair in ratio of 22.13. Colulus flat and subrectangular, slightly wider than long.

Type Holotype male. Fiordland. Lake Te Au, near the south arm of Lake Te Anau, under log, 12.i.1953, R. R. Forster (Otago Museum).

Aorangia agama n.sp.

Figs. 979, 1000-1003

MALE

Measurements

	Carapace	length 3.40		width 2.55		
	Abdomen	length 3.20		width 2.10		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.95	1.15	3.65	5.10	2.45	16.30
2	3.50	1.25	3.00	3.75	2.20	13.70
3	3.35	1.20	2.75	3.95	2.00	13.25
4	4.00	1.15	3.60	5.05	2.50	16.30
Palp	1.45	0.55	0.65		1.40	4.05

Colour Carapace with head and upper region pale yellow brown with typical dark pattern. Lower lateral surfaces and posterior slope, pale cream with tinges of black on lateral margins. Abdomen olive brown with a pale area proximally.

Eyes Ratio of AME.ALE.PME.PLE = 6.7.6.7. AME separated from each other by 2/6 and from ALE by 1/6 of diameter of an AME. PME separated from each other by 6/6 and from PLE by 5/6. MOQ wider behind than in front in ratio of 18.14 and longer than wide behind in ratio of 19.18. Height of clypeus 10/6 of diameter of an AME.

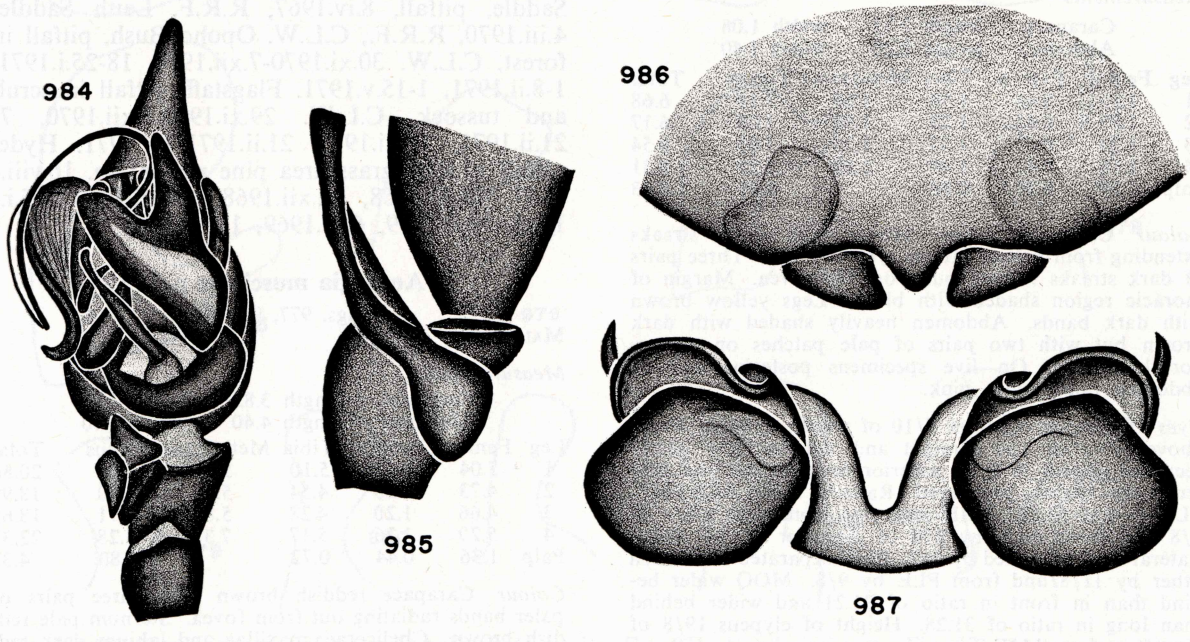
Chelicerae Modified. Anterior surface with a depression between the teeth on promargin and the base of fang. Both margins with two teeth, retromarginal teeth well separated.

Palp Bulb and tibial processes as in Figs. 1000, 1001.

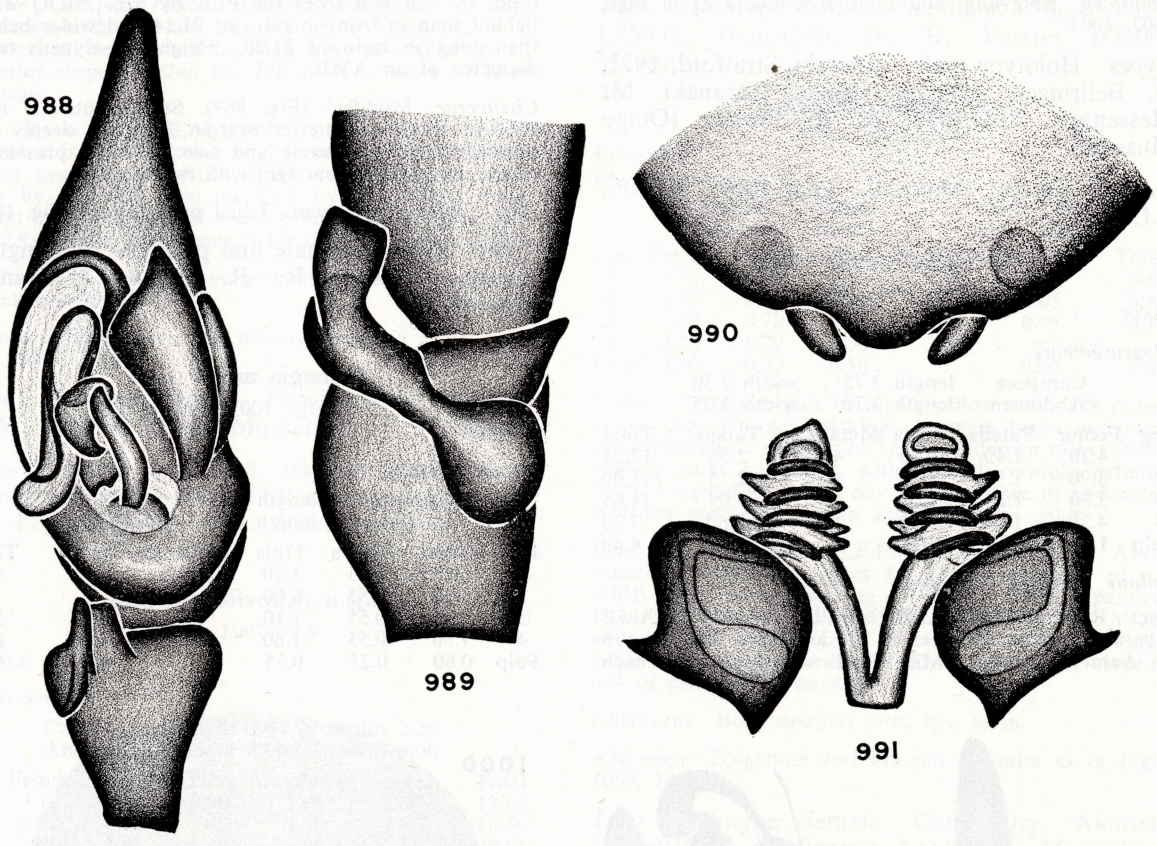
FEMALE

Measurements

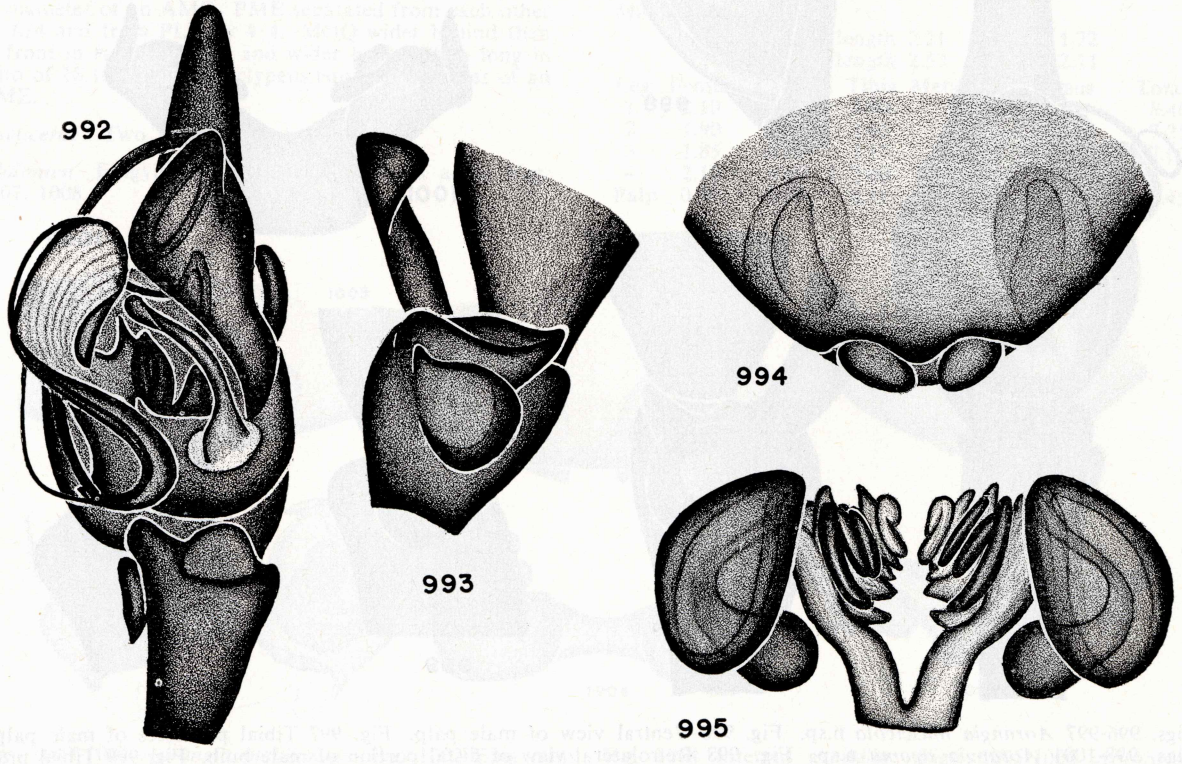
	Carapace	length 3.05		width 2.25		
	Abdomen	length 3.60		width 2.40		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.15	1.10	3.00	3.25	2.20	12.70
2	2.90	1.00	2.10	2.85	1.75	10.60
3	2.80	1.00	2.30	3.05	1.65	10.80
4	3.40	1.05	3.15	4.00	2.00	13.60
Palp	1.30	0.55	0.90		1.50	4.25



Figs. 984-987 *Aorangia ansa* n.sp. Fig. 984 Ventral view of male palp. Fig. 985 Tibial processes of male palp. Fig. 986 Epigynum. Fig. 987 Internal genitalia.



Figs. 988-991 *Aorangia pilgrimi* n.sp. Fig. 988 Ventral view of male palp. Fig. 989 Tibial processes of male palp. Fig. 990 Epigynum. Fig. 991 Internal genitalia.



Figs. 992-995 *Aorangia poppelwelli* n.sp. Fig. 992 Ventral view of male palp. Fig. 993 Tibial processes of male palp. Fig. 994 Epigynum. Fig. 995 Internal genitalia.

Abdomen Epigynum and internal genitalia as in Figs. 1002, 1003.

Types Holotype male. Taranaki. Stratford, 1922, H. Bellringer. Allotype female. Taranaki. Mt Messenger, 20.iii.1969, R. R. Forster (Otago Museum).

Record Oketu, Maxwell, 20.iii.1969, R.R.F., C.L.W.

Aorangia tumida n.sp.

Figs. 969, 1004

MALE

Measurements

Carapace	length 3.75		width 2.50	
Abdomen	length 3.70		width 2.25	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.20	1.40	4.10	4.75	2.80	17.25
2	3.90	1.30	3.35	4.20	2.25	15.00
3	3.80	1.20	3.20	4.40	2.05	14.65
4	4.30	1.25	4.00	5.55	2.60	17.70
Palp	1.75	0.30	0.75		1.60	4.40

Colour Similar to *agama*.

Eyes Ratio of AME.ALE.PME.PLE = 6.7.7.7. AME separated from each other by 2/6 and from ALE by 1/6 of diameter of an AME. PME separated from each other by 7/6 and from the PLE by 6/6. MOQ wider behind than in front in ratio of 21.14 and wider behind than long in ratio of 21.20. Height of clypeus twice diameter of an AME.

Chelicerae Modified (Fig. 969). Strong tubercle near base of fang on anterior margin. Surface deeply depressed between tubercle and two teeth on promargin of the groove. Retromargin with two teeth.

Palp Bulb as in *agama*. Tibial process as in Fig. 1004.

Types Holotype male and paratype. Wellington. Levin, 6.vi.1948, R. R. Forster (Dominion Museum).

Aorangia mauii n.sp.

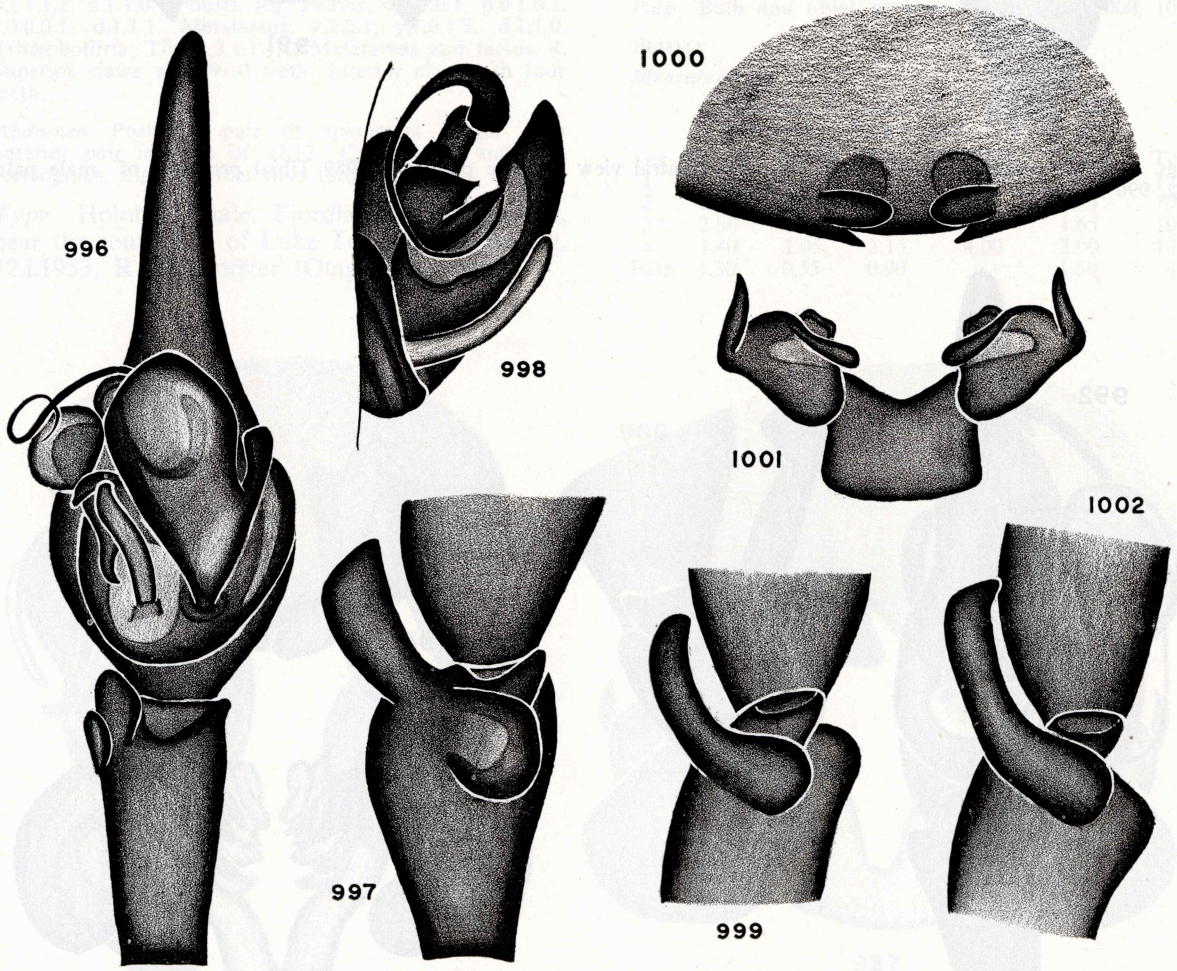
Figs. 1005-1006

FEMALE

Measurements

Carapace	length 1.75		width 1.20	
Abdomen	length 2.70		width 2.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.40	0.55	1.20	1.30	0.95	5.40
2	1.40	0.55	1.00	missing		
3	1.45	0.55	1.10	1.40	0.85	5.35
4	1.80	0.55	1.60	2.00	0.90	6.85
Palp	0.60	0.25	0.35		0.75	1.95



Figs. 996-997 *Aorangia muscicola* n.sp. Fig. 996 Ventral view of male palp. Fig. 997 Tibial processes of male palp. Figs. 998-1001 *Aorangia agama* n.sp. Fig. 998 Retrolateral view of distal portion of male bulb. Fig. 999 Tibial processes of male palp. Fig. 1000 Epigynum. Fig. 1001 Internal genitalia. Fig. 1002 *Aorangi tumida* n.sp. Tibial processes of male palp.

Colour Carapace heavily marked with typical pattern. Abdomen with a folium-like pale area occupying most of proximal region and tapering towards spinnerets on posterior slope. Within the folium is a series of faint chevrons.

Eyes Ratio of AME.ALE.PME.PLE = 3.4.3.4. AME separated from each other by 2/3 of their diameter and almost touching the ALE. PME separated from each other by 4/3 and from the PLE by 2/3. MOQ wider behind than in front and wider behind than long in ratio of 10.8. Height of clypeus twice diameter of an AME.

Chelicerae Three teeth on promargin and two or three on retromargin.

Abdomen Epigynum and internal genitalia as in Figs. 1005, 1006.

Type Holotype female. Hawkes Bay. Napier, R. W. Hutton (Otago Museum).

Record North Auckland. Bay of Islands, four miles south of Russell, leaflitter by stream, sample 156, 17.xii.1966, K. A. J. Wise.

Aorangia silvestris n.sp.

Figs. 1007-1008

FEMALE

Measurements

	Carapace	length 3.00		width 2.25	
	Abdomen	length 4.00		width 3.00	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.10	1.00	2.90	3.00	2.05	12.05
2	2.90	0.95	2.40	2.60	1.65	10.50
3	2.90	0.95	2.30	3.00	1.50	10.65
4	3.50	1.00	3.10	4.00	2.00	13.60
Palp	1.25	0.50	0.90		1.50	4.15

Eyes Ratio of AME.ALE.PME.PLE = 4.7.6.7. AME separated from each other by 2/4 and from ALE by 1/4 of diameter of an AME. PME separated from each other by 6/4 and from PLE by 4/4. MOQ wider behind than in front in ratio of 18.10 and wider behind than long in ratio of 18.14. Height of clypeus equal to diameter of an AME.

Chelicerae Two teeth on each margin.

Abdomen Epigynum and internal genitalia as in Figs. 1007, 1008.

Type Holotype female. Westland. Haast Pass, 1,850 ft, 16.iii.1966, R. R. Forster (Otago Museum).

Aorangia isolata n.sp.

Figs. 1009-1010

FEMALE

Measurements

	Carapace	length 2.15		width 1.60	
	Abdomen	length 2.75		width 2.10	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.75	0.75	1.55	1.50	1.25	6.80
2	1.70	0.70	1.35	1.65	1.05	6.45
3	1.80	0.70	1.35	1.90	0.95	6.70
4	2.20	0.70	2.00	2.55	missing	
Palp	0.70	0.30	0.50		0.90	2.40

Colour Carapace pale brownish yellow with dark radial striae and vein-like markings between fovea and eyes on upper lateral surfaces of head. Abdomen rather dark, slightly paler anteriorly, with little discernible pattern. Three longitudinal bands on ventral surface of abdomen. Anterior spinnerets brown and the others paler.

Eyes Ratio of AME.ALE.PME.PLE = 5.4.5.4. AME separated from each other by 2/4 of diameter of an AME and almost touching the ALE. PME separated from each other by 5/4 and from the PLE by 3/4. MOQ wider behind than in front in ratio of 13.10 and wider behind than long in ratio of 13.12. Height of clypeus 6/4 of diameter of an AME.

Chelicerae Both margins with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 1009, 1010.

Type Holotype female. Canterbury. Akaroa, 14.x.1949, R. R. Forster (Canterbury Museum).

Aorangia semita n.sp.

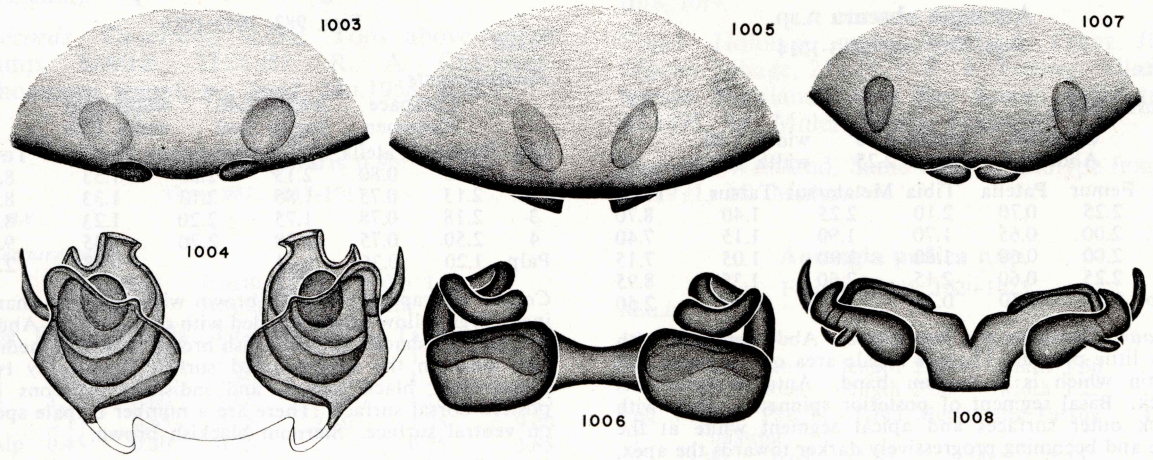
Figs. 984, 1011, 1012

MALE

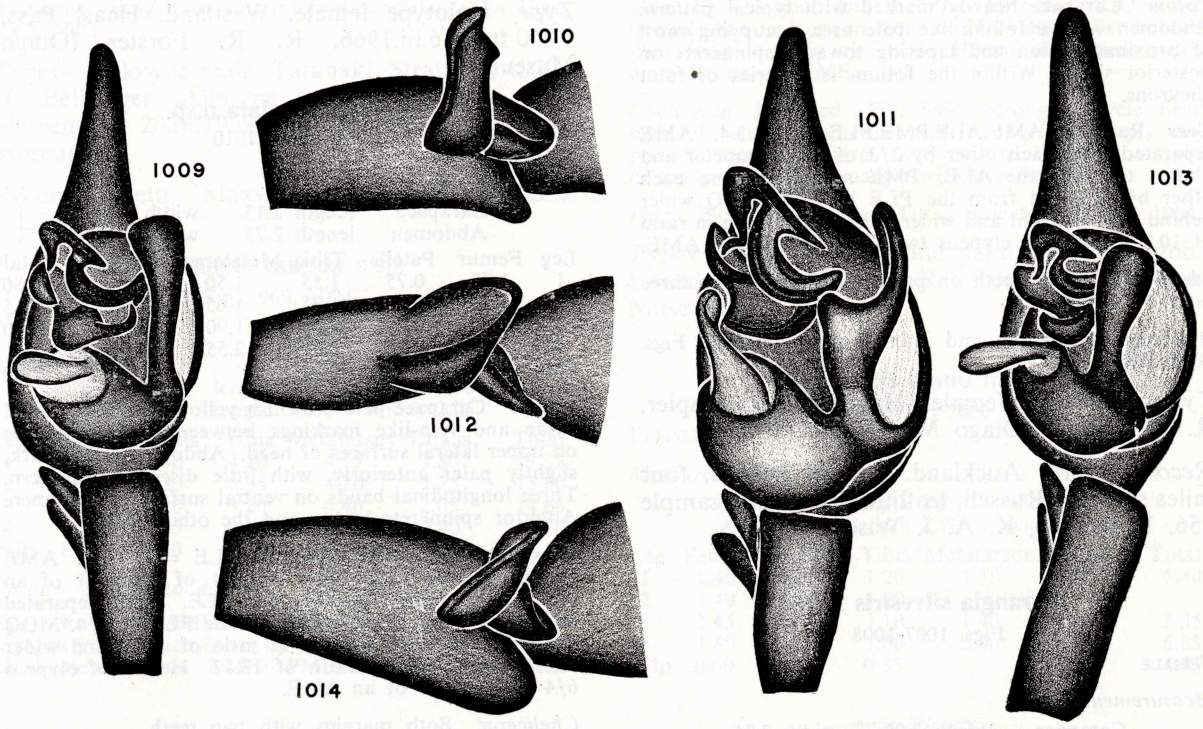
Measurements

	Carapace	length 2.21		width 1.72	
	Abdomen	length 2.53		width 2.11	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.10	0.70	2.00	2.25	1.35	8.40
2	1.90	0.65	1.65	1.90	1.15	7.25
3	1.85	0.60	1.55	1.95	1.05	7.00
4	2.10	0.60	2.00	missing		
Palp	0.90	0.30	0.35		0.90	2.45



Figs. 1003-1004 *Aorangia mauii n.sp.* Fig. 1003 Epigynum. Fig. 1004 Internal genitalia. Figs. 1005-1006 *Aorangia silvestris* n.sp. Fig. 1005 Epigynum. Fig. 1006 Internal genitalia. Figs. 1007-1008 *Aorangia isolata* n.sp. Fig. 1007 Epigynum. Fig. 1008 Internal genitalia.



Figs. 1009-1010 *Aorangia semita* n.sp. Fig. 1009 Ventral view of male palp. Fig. 1010 Tibial processes of male palp. Figs. 1011-1012 *Aorangia obscura* n.sp. Fig. 1011 Ventral view of male palp. Fig. 1012 Tibial processes of male palp. Figs. 1013-1014 *Aorangia fiordensis* n.sp. Fig. 1013 Ventral view of male palp. Fig. 1014 Tibial processes of male palp.

Eyes Ratio of AME.ALE.PME.PLE = 3.6.5.6. AME separated from each other by 2/3 and from the ALE by 1/3 of diameter of an AME. PME separated from each other by 4/3 and from the PLE by 3/3. MOQ wider behind than in front in ratio of 14.8 and wider behind than long in ratio of 14.12. Height of clypeus 4/3 of diameter of an AME.

Chelicerae Modified as in *pudica*.

Palp Bulb and tibial processes as in Figs. 984, 1011, 1012.

Type Holotype male. Fiordland. Homer Tunnel, 3,000 ft, under logs, 26.xii.1943, J. T. Salmon (Dominion Museum).

Aorangia obscura n.sp.

Figs. 970, 980, 1013-1014

MALE

Measurements

	Carapace		length 2.00		width 1.40	
	Abdomen		length 2.25		width 1.35	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.25	0.70	2.10	2.25	1.40	8.70
2	2.00	0.65	1.70	1.90	1.15	7.40
3	2.00	0.60	1.60	1.90	1.05	7.15
4	2.25	0.60	2.15	2.60	1.35	8.95
Palp	0.85	0.30	0.35		1.00	2.50

Colour Carapace and legs typical. Abdomen dark with very little pattern. There is a pale area on proximal half within which is a median band. Anterior spinnerets black. Basal segment of posterior spinnerets white with black outer surfaces and apical segment white at the base and becoming progressively darker towards the apex.

Eyes Ratio of AME.ALE.PME.PLE = 4.6.5.5. AME separated from each other by 2/4 of their diameter and almost touching ALE. PME separated from each other by 4/4 and from the PLE by 3/4. MOQ wider behind than in front in ratio of 14.10 and as long as wide behind. Height of clypeus equal to diameter of an AME.

Chelicerae Modified (Fig. 970). There is a large hump on the frontal surface near the base. Promargin of groove with four teeth, two distal small. Two teeth on retromargin.

Palp Bulb and tibial processes as in Figs. 980, 1013, 1014.

Type Holotype male. Southland. The Wilderness, near Te Anau, 15.ii.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Aorangia fiordensis n.sp.

Figs. 983, 1015-1016

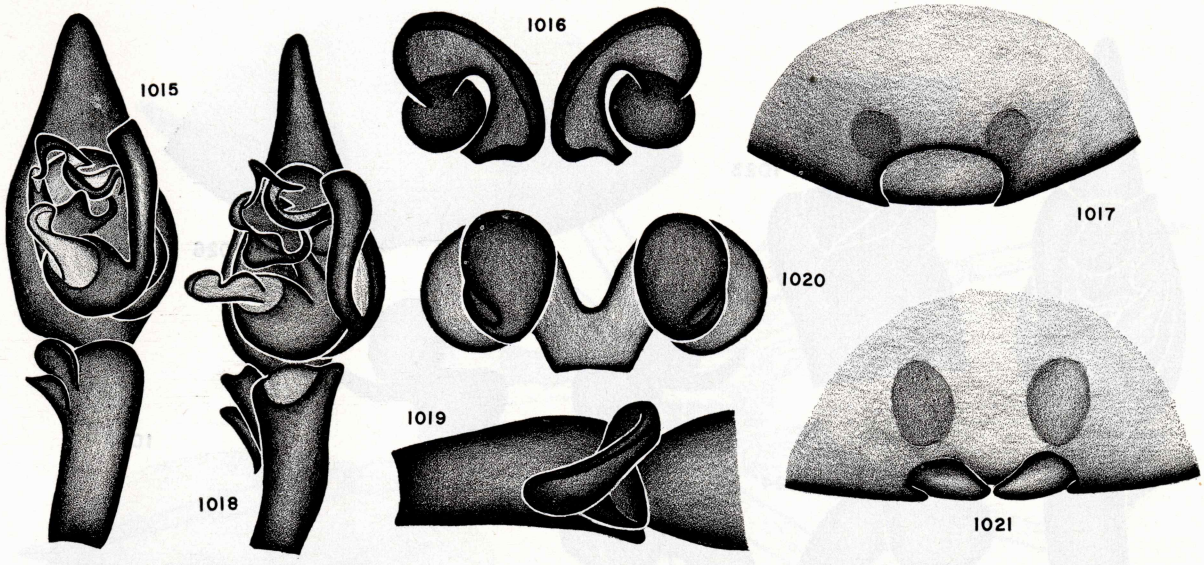
MALE

Measurements

	Carapace		length 2.40		width 1.60	
	Abdomen		length 2.40		width 1.40	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.20	0.80	2.13	2.30	1.53	8.96
2	2.13	0.75	1.85	2.13	1.33	8.19
3	2.18	0.78	1.75	2.20	1.23	8.14
4	2.50	0.75	2.38	2.70	1.45	9.78
Palp	1.20	0.36	0.44		0.88	2.88

Colour Carapace yellowish brown with few dark markings. Legs yellow-brown banded with dark brown. Abdomen heavily shaded with blackish brown leaving a median pale area on the antero-dorsal surface broken by two longitudinal black stripes, and indistinct chevrons on postero-dorsal surface. There are a number of pale spots on ventral surface. Sternum blackish brown.

Eyes Eyegroup occupies 3/4 of width of head. From above anterior row slightly recurved and posterior row straight. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.



Figs. 1015-1017 *Aorangia singularis* n.sp. Fig. 1015 Ventral view of male palp. Fig. 1016 Internal genitalia. Fig. 1017 Epigynum. Figs. 1018-1021 *Aorangia pudica* n.sp. Fig. 1018 Ventral view of male palp. Fig. 1019 Tibial processes of male palp. Fig. 1020 Internal genitalia. Fig. 1021 Epigynum.

PLE = 10.12.14.15. AME separated from each other by 3/10 of diameter of an AME, and contiguous with ALE. Lateral eyes separated by a distance equal to 2/10. PME separated from each other by 7/10 and from PLE by 2/10. MOQ wider behind than in front in ratio of 35.23 and wider behind than long in ratio of 35.31. Height of clypeus twice diameter of an AME.

Chelicerae Length equal to 5/12 of carapace. Both margins with two teeth.

Palp as in Figs. 983, 1015, 1016.

Legs Spines. First leg. Femur, d.1.0.1.1. p.0.0.1.1. r.0.0.0.1. Patella, d.1.1. Tibia, v.0.2.2. p,r.1.0.1. d.1.0.0. Metatarsus, v.0.2.1. p,r.0.1.2. Second leg. Femur, d.1.0.1.1. p.0.0.1.1. r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p.1.0.1. r 0.1.1. d.1.1.0. Metatarsus, v.0.2.1. p,r.0.1.2. Trichobothria. Tibia, 2.1.1.1.1. Metatarsus, 1. Tarsus, 6. Superior claws with ten teeth. Inferior claw with three teeth.

Abdomen Posterior pair of spinnerets almost twice as long as anterior pair.

Type Holotype male. Fiordland. Thompson Sound, 2,800 ft, 19.i.1958, R. R. Forster (Otago Museum).

Records Thompson Sound. Tops above upper camp, 3,000 ft, 21.i.1958, R. A. Chapman. Thompson Sound, sea level, 14.i.1958, R.R.F.

Aorangia singularis n.sp.

Figs. 981, 1017-1019

MALE

Measurements

Carapace length 2.00 width 1.50
Abdomen length 2.00 width 1.35

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.20	0.70	2.20	2.50	1.40	9.00
2	2.05	0.65	1.80	2.10	1.25	7.85
3	1.95	0.60	1.65	2.15	1.10	7.45
4	2.15	0.65	2.15	2.70	1.35	9.00
Palp	0.45	0.30	0.35		0.75	1.85

Colour Carapace pattern typical. Abdomen grey, paler proximally without any definite pattern. Posterior spinnerets grey and anterior spinnerets darker.

Eyes Ratio of AME.ALE.PME.PLE = 3.5.5.5. AME separated by 2/3 of their diameter and almost touching the ALE. PME separated from each other and from PLE by 2/3. MOQ wider behind than in front in ratio of 12.8 and as wide behind as long. Height of clypeus 5/3 of diameter of an AME.

Chelicerae Modified as in *pudica* but to a lesser degree. Promargin with four teeth and retromargin with two contiguous teeth.

Palp Bulb and tibial processes as in Figs. 987, 1017, 1018.

FEMALE

Measurements

Carapace length 1.75 width 1.30
Abdomen length 2.35 width 1.40

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.65	0.60	1.55	1.60	1.05	6.45
2	missing					
3	1.55	0.55	1.25	1.60	missing	
4	1.90	0.60	1.80	2.05	1.10	7.45
Palp	0.75	0.30	0.50		0.80	2.35

Abdomen Epigynum and internal genitalia as in Figs. 1018, 1019.

Types Holotype male. Westland. Franz Josef Glacier, foliage, 21.i.1971, R. R. Forster. Allotype female. Westland. Open Bay Island, pitfall trap, 4.i.1971, M. Miller (Otago Museum).

Record Westland. Same data as allotype female, 6.i.1971, M. Miller.

Aorangia pudica n.sp.

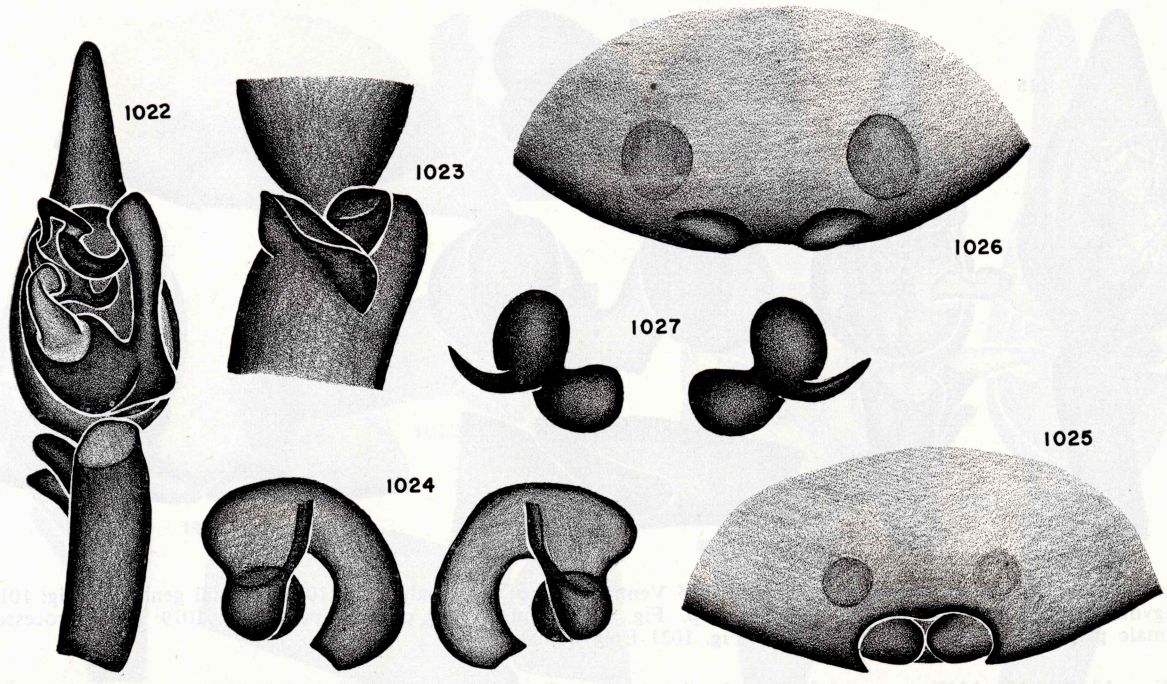
Figs. 972, 985, 1020-1023

MALE

Measurements

Carapace length 2.00 width 1.50
Abdomen length 2.00 width 1.25

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	missing					
2	1.90	0.65	1.65	2.00	1.15	7.35
3	1.65	0.65	1.65	2.15	1.10	7.20
4	2.20	0.65	2.15	2.75	1.35	9.10
Palp	0.90	0.30	0.30		0.90	2.40



Figs. 1022-1025 *Aorangia otira* n.sp. Fig. 1022 Ventral view of male palp. Fig. 1023 Tibial processes of male palp. Fig. 1024 Internal genitalia. Fig. 1025 Epigynum. Figs. 1026-1027 *Aorangia kapitiensis* n.sp. Fig. 1026 Epigynum. Fig. 1027 Internal genitalia.

Colour Carapace pale cream. Dark shading on upper lateral surfaces does not extend forward as far as lateral eyes. Narrow black band on each of lateral margins. Eyes on black but pale colour of carapace extends between and separates PME. All segments of legs and palpi have black bands except tarsi. Distal portion of coxae black. Sternum, maxillae and labium black. Proximally there is a pale area on abdomen enclosing some shading, followed by a series of four narrow pale chevrons. Remainder of upper and lateral surfaces black. Ventral surface of abdomen less heavily shaded and separated from lateral surfaces on each side by broken cream band. Colulus, anterior spinnerets and distal segment of posterior spinnerets black and remaining parts of spinnerets pale cream.

Eyes Group occupies 2/3 of width of head. Ratio of AME.ALE.PME.PLE = 7.10.10.10. AME separated from each other by 3/7 and from ALE by 1/7 of diameter of an AME. Lateral eyes separated by 4/7. PME separated from each other by 8/7 and from PLE by 5/7. MOQ wider behind than in front in ratio of 28.17 and wider behind than long in ratio of 28.25. Height of clypeus 11/7 of diameter of an AME.

Chelicerae Modified, excavated transversely (Fig. 972). Promargin with three teeth, the median tooth largest. Bicuspid tooth on retromargin near base of fang.

Palp Bulb and tibial processes as in Figs. 985, 1020, 1021.

FEMALE

Measurements

	Carapace		length 2.10		width 1.55	
	Abdomen		length 3.00		width 2.00	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.05	0.75	1.90	2.00	1.30	8.00
2	1.90	0.70	1.60	1.75	1.05	7.00
3	1.90	0.65	1.65	2.00	1.60	7.80
4	2.40	0.70	2.30	2.70	1.30	9.40
Palp	0.90	0.35	0.55		1.00	2.80

Chelicerae Promargin of groove with four teeth. Small tooth distal. Retromargin with two teeth. Epigynum and internal genitalia as in Figs. 1022, 1023.

Types Holotype male and allotype female. Stewart Island. Oban, 23.ii.1972, C. L. Wilton (Otago Museum).

Records Stewart Island. Halfmoon Bay, 10.iii.-1957, R.R.F. Southland. Orepuki, 9.v.1949, R.R.F.

Aorangia otira n.sp.

Figs. 982, 1024-1027

MALE

Measurements

	Carapace		length 1.80		width 1.36	
	Abdomen		length 1.92		width 1.20	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.68	0.60	1.43	1.63	1.03	6.37
2	1.68	0.55	1.33	1.63	0.96	6.15
3	1.68	0.53	1.35	1.63	0.95	6.14
4	1.83	0.55	1.80	2.15	1.18	7.51
Palp	0.68	0.40	0.44		0.76	2.28

Colour Carapace yellowish brown with reticulate black shading on each side of head region behind eyes and three dark patches radiating out from each side of fovea. Margin of thoracic region shaded with black. Legs pale yellow, banded with black. Sternum heavily shaded with black. Dorsal surface of abdomen heavily shaded with black which forms four or five indistinct chevrons on posterior surface. Ventral surface of abdomen with pale patch near outer margins.

Eyes Eyegroup occupies 3/5 of width of head. From above anterior row slightly recurved and posterior row straight. From in front anterior row straight and posterior row procurved. Ratio of AME.ALE.PME.PLE = 6.11.10.10. AME separated from each other by 5/6 of diameter of AME and contiguous with ALE. Lateral eyes separated by 3/6. PME separated from each other by 9/6 and from PLE by 4/6. MOQ wider behind than in front and wider behind than long in ratio of 29.17. Height of clypeus twice diameter of an AME.

Chelicerae Length 2/5 of carapace. Retromargin with two teeth near base of fang and single tooth on promargin near proximal end of furrow.

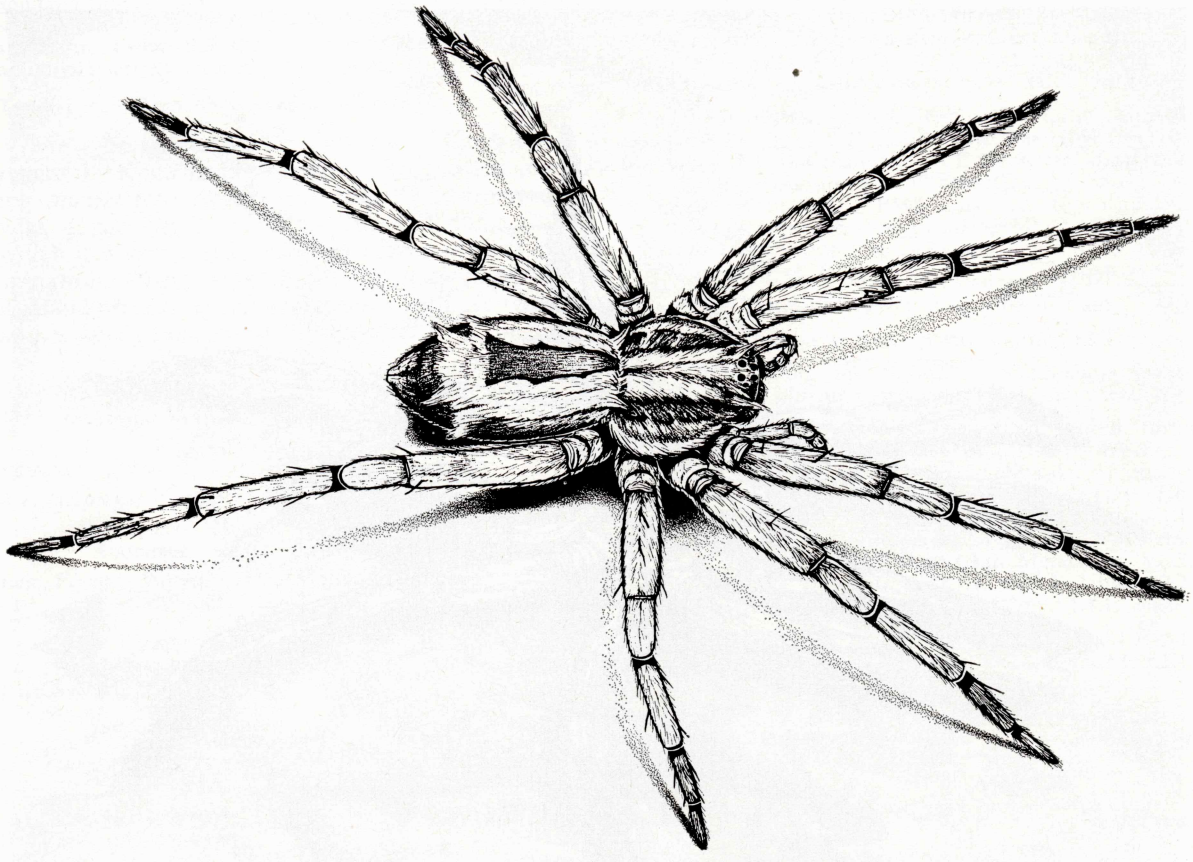


Fig. 1028 *Horioctenioides* sp. Immature female from Foxton.

Palp As in Figs. 982, 1024, 1035.

Legs Spines. First leg. Femur, d.1.0.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.1.1. d.1.1.0. Metatarsus, v.0.2.1. p,r.0.1.2. Second leg. Femur, d.1.0.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.0.2.1. p,r.0.1.2. d.1.1.0. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 4. Tarsus, 3. Superior claws with 13-14 teeth. Inferior claw with three teeth.

Abdomen Posterior pair of spinnerets longer than anterior pair in ratio of 11.6.

FEMALE

Measurements

	Carapace	length 1.80		width 1.35	
	Abdomen	length 2.40		width 1.80	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.70	0.65	1.55	1.60	1.10	6.60
2	1.55	0.55	1.30	1.45	0.95	5.80
3	1.55	0.55	1.30	1.55	0.95	5.90
4	1.90	0.55	1.80	2.05	1.15	7.45
Palp	0.70	0.30	0.50		0.75	2.25

Chelicerae Two teeth on both margins.

Abdomen Epigynum and internal genitalia as in Figs. 1026, 1027.

Type Holotype male. Canterbury. Kelley's Rge, near Otira, 4,000 ft, under stones, 26.i.1956, R. R. Forster. Allotype female. Canterbury. Upper Styx, 21.xi.1952, J. S. Dugdale (Canterbury Museum).

Record Same data as allotype.

Aorangia kapitiensis n.sp.

Figs. 1028-1029

FEMALE

Measurements

	Carapace	length 2.00		width 1.44	
	Abdomen	length 3.12		width 1.84	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.63	0.65	1.38	1.70	1.20	6.56
2	1.68	0.63	1.25	1.50	1.00	6.06
3	1.78	0.65	1.30	1.73	0.95	6.41
4	2.08	0.63	1.88	2.33	1.15	8.07
Palp	0.75	0.33	0.53		0.95	2.56

Colour Carapace yellowish brown with dark streaks behind PLE and three pairs of dark streaks radiating out from fovea. Sternum, chelicerae and legs orange brown. Abdomen pale brown with indistinct darker shading.

Eyes From above both rows slightly recurved. From in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 9.11.11.12. AME separated from each other by 3/9 of diameter of an AME and contiguous with ALE. Lateral eyes contiguous. PME separated from each other by 10/9 and from the PLE by 5/9. MOQ wider behind than in front in ratio of 32.21 and wider behind than long in ratio of 32.28. Height of clypeus 15/9 of diameter of an AME.

Chelicerae Length 2/5 of carapace. Both margins with two teeth.

Palp Spines. Femur, d.0.1.1.1. Tibia, p.1.2. d.1.1. Tibia with five trichobothria arranged 2.1.1.1. Claw with three teeth.

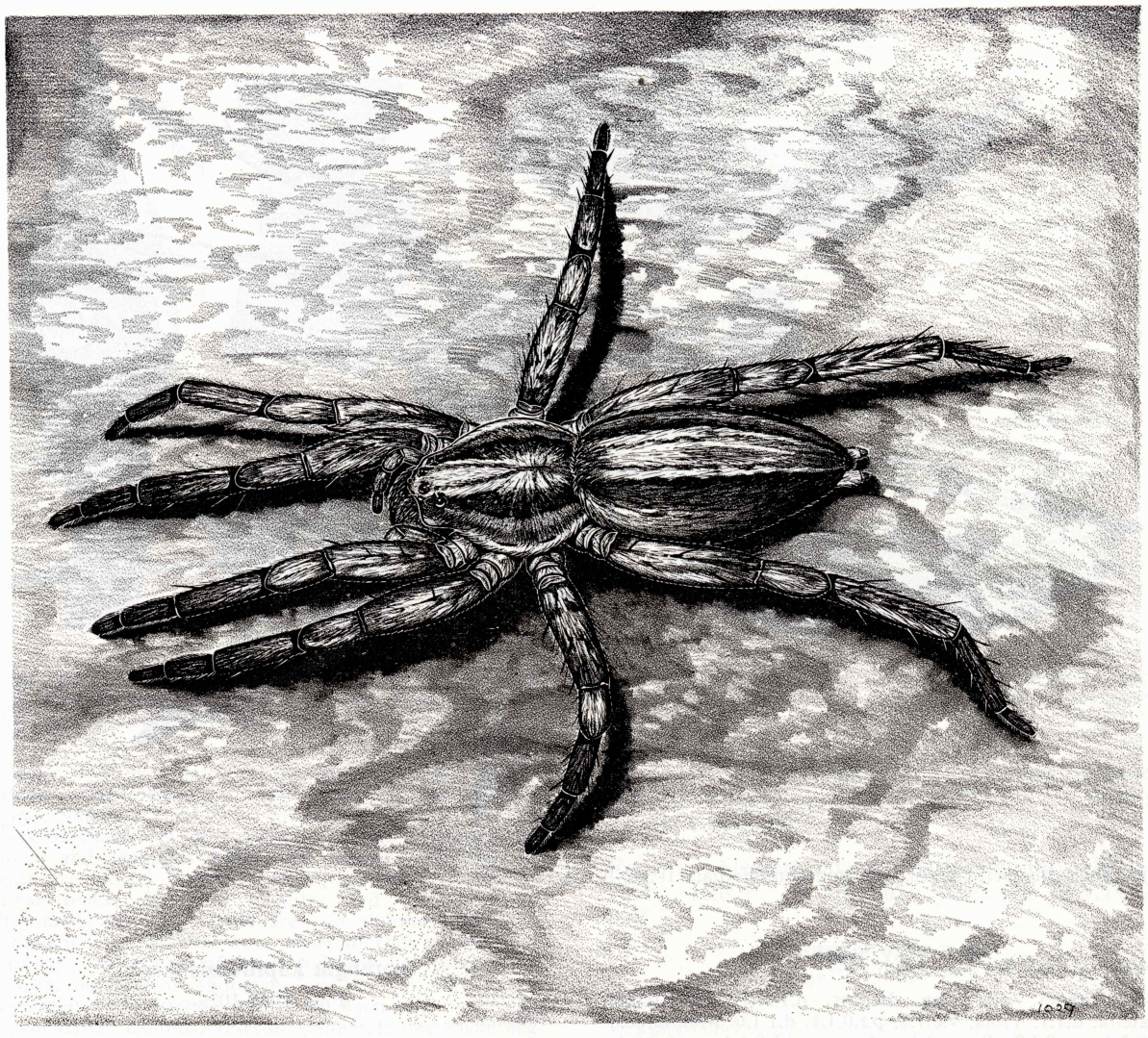


Fig. 1029 *Zealoctenus cardronaensis* n.sp. Female holotype.

Legs Spines. First leg. Femur, d.0.1.1.1. p,r.0.0.0.2. Patella, d.0.1. Tibia, v.0.2.2. p,r.1.0.1. d.1.1.0. Metatarsus, v.0.2.1. p,r.0.0.2. d.0.1.1. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p.1.0.1. r.1.1.1. d.0.1.0. Metatarsus, v.0.2.1. p,r.1.0.2. d.0.1.1. Trichobothria. Tibia, 2.2.1.1.1. Metatarsus, 4. Tarsus, 3. Superior claws with ten teeth. Inferior claw with four teeth.

Abdomen Epigynum and internal genitalia as in Figs. 1028, 1029. Posterior pair of spinnerets slightly less than twice as long as anterior pair.

Type Holotype female. Kapiti Island, September 1947, R. R. Forster (Dominion Museum).

Records Wellington. West side of Rimutakas, 13.iv.1948, R. K. Dell. Waikanae, foliage, 3.i.1948, R.R.F. Wiltons Bush, December 1952, J. S. Dugdale. Ngauraranga Gorge, Wellington, 19.iv.-1941, F. A. Bodley.

Family CTENIDAE Keyserling, 1877

Owing to the paucity of this group in New Zealand we have not been able to give much consideration to the problems brought up by Lehtinen (1967) regarding the limitation of the family Ctenidae other than his suggestion that the genus *Argoctenus* be transferred to the Zoridae. While we have now concluded that *Argoctenus* is not present in this country, the new genus *Nemoctenus* established for *Argoctenus aurens* Hogg is undoubtedly related. Accepting the main characters of the Ctenidae as eight eyes in two strongly recurved rows, normally with two claws, thick claw-tufts and distinct scopulae we consider that the three genera recorded below are better placed in the Ctenidae, even in the restricted diagnosis of Lehtinen.

Nemoctenus n.gen.

Medium sized (body length 10-11mm) ecribellate spiders. Carapace with broad dark mid-lateral bands and a prominent dark band extending down entire mid-dorsal surface of abdomen. Hair tufts near eyes and along margin of posterior portion of the abdominal band. Eight eyes in two strongly recurved rows. AME distinctly smaller than PME. Two claws. Prominent claw tufts on all legs. Well developed scopulae on ventral surfaces of all tarsi and disto-ventral surfaces of the metatarsi. Trochanters strongly notched. Legs of female 4123. Trichobothria in double row on tibiae and tarsi and single row on metatarsi. Chelicerae with two teeth on retromargin and three teeth on promargin. Epigynum of the form shown in Fig. 1043. Internal

genitalia tubular and strongly convoluted. Receptaculum small. Male palp with tibia processes only. Embolus spiniform. Conductor short and membraneous. Median apophysis well developed and strongly sclerotized.

Type species *Argoctenus aurens* Hogg 1911.

The type species of *Argoctenus* L. Koch is *A. igneus* L. Koch from Australia. Hogg when placing *aurens* into *Argoctenus* actually compared it with *A. vittatus* Simon from New Caledonia from which it differs considerably in colour pattern and spination. There is little doubt that this New Zealand species is not congeneric with *A. igneus* and a new genus is established for it.

Nemoctenus aurens (Hogg) 1911

1911 *Argoctenus aurens*, Hogg. Proc. Zool. Soc.: 306.

Figs. 1030-1032, 1043-1046

FEMALE

Measurements

Carapace	length 4.89	width 3.75	
Abdomen	length 5.52	width 3.48	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.76	1.76	3.22	2.92	1.86	13.52
2	3.58	1.77	2.91	1.89	1.86	13.21
3	3.58	1.75	2.89	2.92	1.73	12.87
4	4.47	1.85	3.89	4.67	2.12	17.21
Palp	1.43	0.89	0.96		1.45	4.73

Colour Carapace dark brown apart from a pale band along lateral margins and the dorsal surface of head. Sternum with dark brown shading along margins. Abdomen with a broad median dark band clearly defined to midway and less distinct on posterior half (Fig. 1030).

Eyes Both rows strongly recurved. Ratio of AME. ALE.PME.PLE = 9.14.11.10. AME separated from each other by 5/9 and from the ALE by 3/9 of diameter of an AME. Laterals widely separated by three times diameter of an AME. PME separated from each other by 7/5 and from the PLE by 15/5. MOQ wider behind than in front in ratio of 29.23 and longer than wide in front in ratio of 25.23.

Sternum Scutiform, longer than wide in ratio of 17.14.

Labium Notched at base. Twice as wide as long.

Chelicerae Short and vertical. Lateral boss present. Retromargin with two, promargin with three teeth.

Legs Scopulae strongly developed on ventral surface of all tarsi and metatarsi of legs 1 and 2. Weaker on metatarsi of legs 3 and 4. Trochanters deeply notched. Spines. Leg 1. Femur, d.1.1.1. p.1.1 distal. r.1.0.0. Tibia, v.2.2.2. Metatarsus, v.2.0.0. Leg 2. Femur, d,p,r.1.1.1. Tibia, v.2.2.2. p.0.1.0. Metatarsus, v.2.0.0. Leg 3. Femur, d,p,r.1.1.1. Tibia, v.2.2.2. d,p,r.1.1.0. Metatarsus, v.2.2.1. d,p,r.1.1.1. Leg 4. Femur, d,r.1.1.1. p.0.1.1. Tibia, v.2.2.2. d,p.1.1.1. r.1.1.0. Metatarsus, v.1.2.1. d,p,r.1.1.1.

Palp Spines. Femur, d.0.1.2. p.0.0.1. Patella, d.1.1. p.1.0. Tibia, d.1.1. p.2.1. Tarsus, d.1.0.0. p.2.1.0. v.0.0.1. r.1.1.0. Claw absent.



Fig. 1030 *Nemoctenus aurens* (Hogg). Immature, fourth instar.

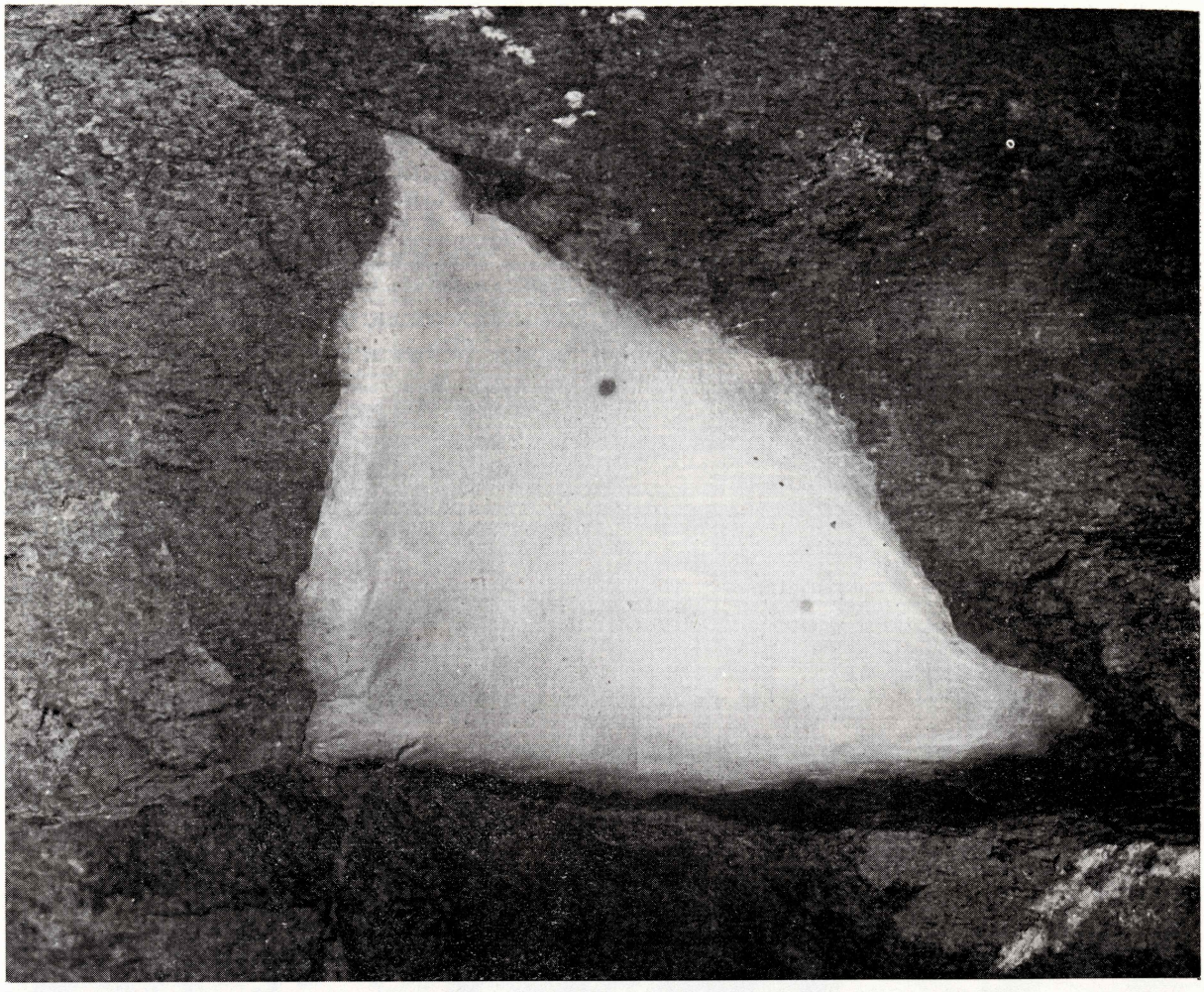


Fig. 1031 *Nemoctenus aurens* (Hogg). Eggsac photographed on the underside of a surface rock in scree, Mount Kohurau, Otago, 5,000 ft.

Abdomen The epigynum of specimens from near the type locality as in Fig. 1043. Specimens from the foothills area appear to be smaller and the epigynum is as in Fig. 1045. Internal genitalia as in Figs. 1044, 1046.

MALE

A single specimen was examined some time ago but is not available at present for detailed description. In general it was similar to the female in appearance and structure. The palp was figured during the initial examination and is shown in Figs. 1032, 1033.

Type Holotype female. Mt Peel, Canterbury. R. N. Hawkes. British Museum (Nat. Hist.).

Records Canterbury. Mount Torlesse, 4,500 ft, under stones in scree, 5.i.1950, R.R.F. Mount Sugarloaf, 3,400 ft, 25.viii.1928, G. A. H. Helson. Mount Misery, 2,500 ft, 25.v.1954, J. S. Dugdale. Mount Acken, 25.iii.1954, J. S. Dugdale. South Branch, Hurunui River, 12.v.1952, J. S. Dugdale. Ribbonwood Creek, Cass, 21.v.1954, J. S. Dugdale. Lake Rubicon, 19.xi.1950, R.R.F.

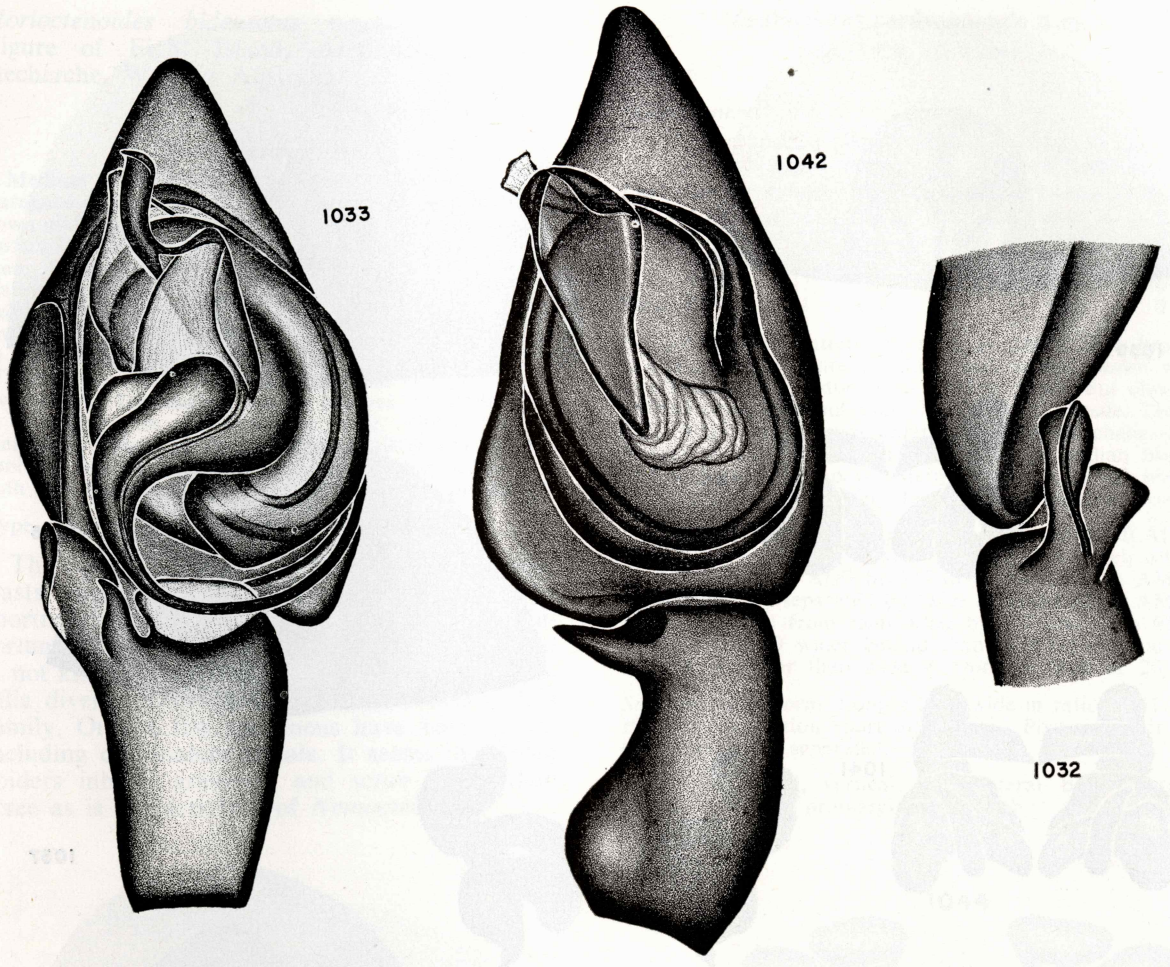
The typical habitat for this species seems to be sub-alpine screes. It has been found from Mid-Canterbury to Otago. An eggsac collected from Mt Kohurau, Otago at 5,000 ft, which appears to be this species or a closely related one, was found on the undersurface of a scree rock. Forty eight spiderlings emerged from the eggsac. These are at present being reared, and to date have passed through from three to four moults and appear to be about two-thirds grown.

Horioctenoides Main, 1954

1954 *Horioctenoides,* Main. Austr. Geogr. Rep. No. 1: 42.

Type species *Horioctenoides bidentatus* Main.

The species described below has been tentatively placed in the genus established by Main for a female specimen found in the Archipelago of Recherche, Western Australia and described as *H. bidentatus.* As this spider is thought to have been introduced into this country we have not given it a name but it does seem to differ from the type species in a number of characters. The species is easily separated from the two other ctenids recorded from New Zealand by the colour pattern, the fully scopulate metatarsi and tarsi, equal sized median eyes, and the strong development of hair tufts near the eyes and on the posterior half of the abdomen.



Figs. 1032-1033 *Nemoctenus aurens* (Hogg). Fig. 1032 Retrolateral view of tibial processes of male palp and the base of the cymbium showing excavation. Fig. 1033 Ventral view of male palp.

Fig. 1042 *Acanthoctenus spinigerus.* Ventral view of male palp, specimen from Orizabo, Mexico.

Horioctenoides sp.

Figs. 1028, 1034-1038

FEMALE

Measurements

	Carapace	length 5.16		width 4.50		
	Abdomen	length 8.12		width 5.35		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	4.42	1.98	4.12	3.36	2.14	16.02
2	4.42	1.98	3.94	3.39	1.92	15.65
3	4.15	1.78	3.25	3.32	2.69	14.19
♂	5.36	1.98	4.93	5.12	2.33	19.72
Palp	1.56	0.97	1.08		1.51	5.12

Colour Carapace with broad black band down each mid-lateral surface. Abdomen with clearcut black band down anterior half of dorsal surface. Dorsal and lateral surfaces closely speckled with dark brown spots. Ventral surface of abdomen pale. Sternum heavily shaded with brown apart from a pale median band. Tufts of pale silky hairs near ALE and on anterior corners of head. Further similar hairs along thoracic margins and on dorsal surfaces of trochantera.

Eyes Both rows strongly recurved. Ratio of AME. ALE.PME.PLE = 11.9.11.12. AME separated from each other by 7/11 and from ALE by 5/11 of diameter of an AME. Laterals widely separated by 16/11 of diameter of an AME. PME separated from each other by 7/11 and from PLE by 20/11. MOQ almost square. Anterior and posteriors widths equal but longer than wide in front in ratio of 30.29.

Sternum Scutiform, longer than wide in ratio of 25.22. Posterior projection short and pointed, not extending far between coxae which are closely spaced.

Maxillae Longer than wide in ratio of 3.2.

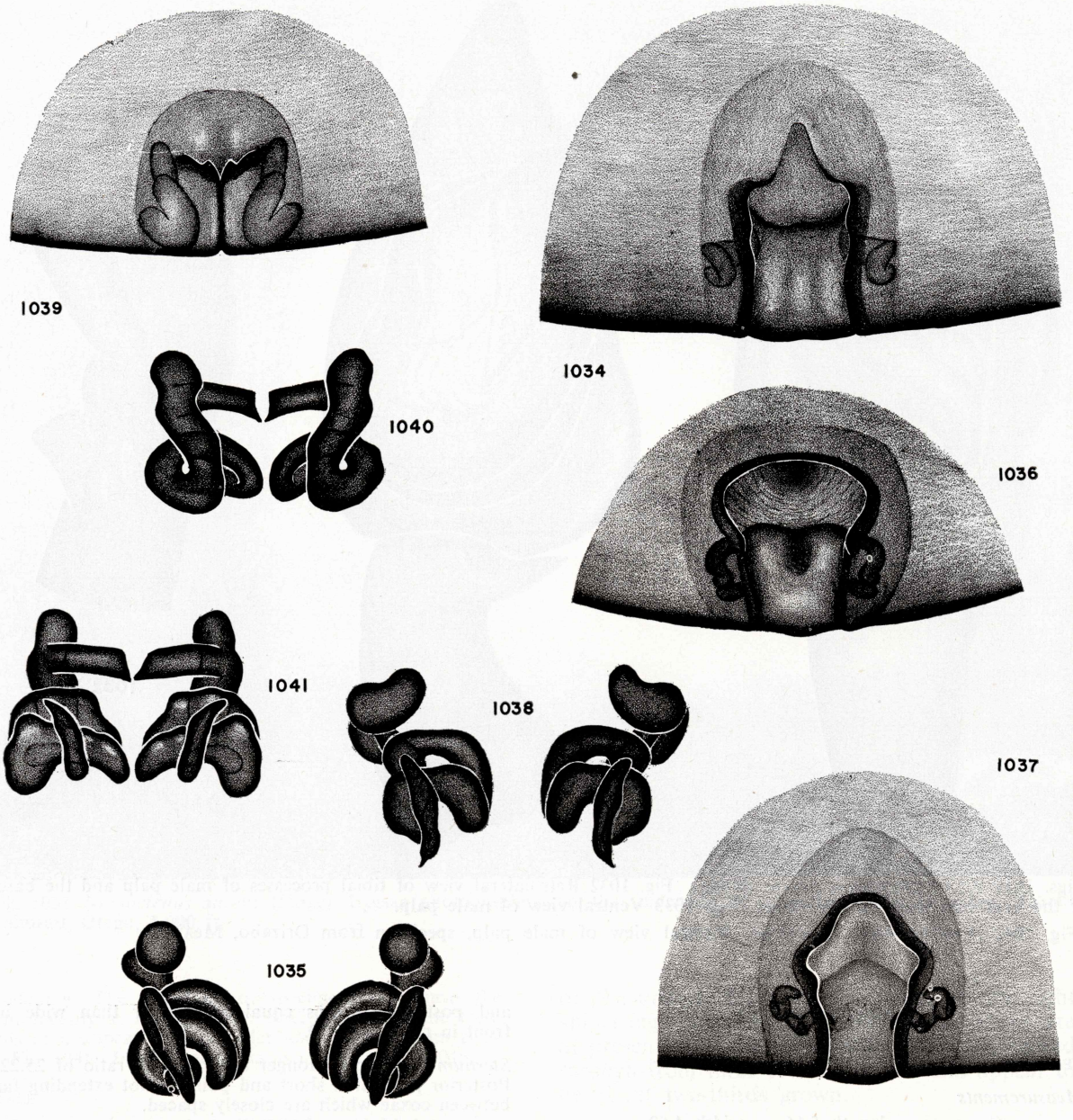
Labium Notched at base. Wider than long in ratio of 8.5.

Chelicerae Relatively short and vertical. Lateral boss present. Retromargin with two, and promargin with three teeth.

Legs Ventral surfaces of metatarsi and tarsi of all legs with thick scopulae. A weak scopula on distal ventral surface of tibiae of first two pairs of legs. Trochantera deeply notched. Spines. Leg 1. Femur, d.1.1.1. p.0.1.1.1. r.1.0.1. Tibia, r.1.2.2. p.0.1.0. Metatarsus, v.2.0.0. Leg 2. Femur, d,r,p.1.1.1. Tibia, v.2.2.2. p.1.1.0. Metatarsus, v.2.0.0. Leg 3. Femur, d,r,p.1.1.1. Tibia, v.2.2.2. p,r.1.1.0. Metatarsus, v.2.0.0. p,r.1.1.1. d.1.1.0. Leg 4. Femur, d,p.1.1.1. r.0.1.1. Tibia, v.2.2.2. p,r.1.1.0. d.2.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. d.1.1.1.

Palp Spines. Femur, d.0.1.2. p.0.0.1. Patella, d.2.1. Tibia, d.1.1. p.2.1. Tarsus, d.1.0.0. p.2.1.0. v.0.0.2. r.1.1.0. Claw well developed with three teeth.

Abdomen Shape of epigynum and to a less extent the form of genitalia differs between most of the specimens



Figs. 1034-1038 *Horioctenoides* sp. Fig. 1034 Epigynum. Waiterere Beach. Fig. 1035 Internal genitalia. Waiterere Beach. Fig. 1036 Epigynum. Takaka. Fig. 1037 Epigynum. Masterton, specimen taken from bulbs imported from Australia. Fig. 1038 Internal genitalia. Masterton.

Figs. 1039-1041 *Zealoctenus cardronaensis* n.sp. Fig. 1039 Epigynum. Fig. 1040 Internal genitalia from below. Fig. 1041 Internal genitalia from above.

examined (Figs 1034, 1036, 1037) and it is difficult to judge whether they represent a single species or not. No definite colulus structure but area at base of spinnerets nearly bare and triangular in outline.

Records Waiterere Beach, Levin, in maram grass, 16.i.1964, R. G. Ordish (specimen described). Foxton, in rough grass, December 1967, R.R.F. (immature specimen illustrated fig. 1028). Dashwood Railway Station, Marlborough, pitfall trap in grass, 16-25.iii.1969, R.R.F., C.L.W. Takaka Cave near mouth, 16.xii.1961, B. J. Marples. Masterton, from bulbs from Australia, 4.ii.1971, Dept Agriculture. J. S. Dugdale reports that this species is often seen in gardens in Nelson.

Only single female specimens from a number of localities have been available for examination. From the limited data it appears that the spider prefers rough pasture and long grass and its distribution suggests that it is an introduced species or perhaps a group of species. The undoubted relationship of all of the specimens with the spider intercepted from Australia would suggest that it is an Australian species. We have not been able to relate it directly with any of the described Australian species but consider that it may be related to the ctenid described by Main (1954) as

Horioctenoides bidentatus n.gen. n.sp. from Figure of Eight Island, Archipelago of the Recherche, Western Australia.

Zealoctenus n.gen.

Medium sized (body length 7.5mm) ecribellate spiders. Carapace and abdomen with longitudinal blackish bands down mid-lateral surfaces leaving pale band down median surface (Fig. 1029). No conspicuous hair tufts on abdomen. Eight eyes in tdo strongly recurved rows. AME distinctly smaller than the PME. Legs 4231. Strong claw tuft. Leg 1 only weakly scopulate. Thick scopula on distal surface of the tibia, and entire ventral surface of metatarsus and tarsus of leg 2 but only distal surface of metatarsus and entire surface of tarsus of legs 3 and 4. Two claws. Trochanters deeply notched. Trichobothria in a double row on tibiae and tarsi. Single row on metatarsi. Epigynum distinctive (Fig. 1039) and internal genitalia tubular but not strongly convoluted. Chelicerae with two teeth on retromargin and three on promargin.

Type species *Zealoctenus cardronaensis* n.sp.

The colour pattern is most distinctive and contrasts strongly with that of *Nemoctenus*. The shortness of the first pair of legs is unusual. Unfortunately the male of the sole species recorded is not known but the epigynum and internal genitalia diverge from the typical form found in this family. Only a few specimens have been found, including one mature female. It seems that these spiders inhabit grassland and scrub rather than scree as is characteristic of *Nemoctenus*.

Zealoctenus cardronaensis n.sp.

Figs. 1029, 1039-1041

FEMALE

Measurements

Carapace	length 3.24	width 2.53	
Abdomen	length 4.35	width 2.46	

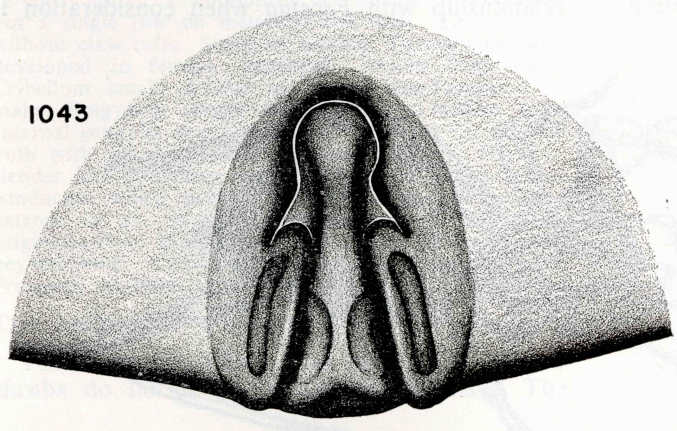
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.95	0.88	1.52	1.74	0.98	7.07
2	2.08	0.90	1.81	1.62	0.98	7.39
3	1.97	1.02	1.76	1.59	0.98	7.32
4	2.85	1.13	2.58	2.38	1.22	10.16
Palp	0.98	0.61	0.59		0.82	3.00

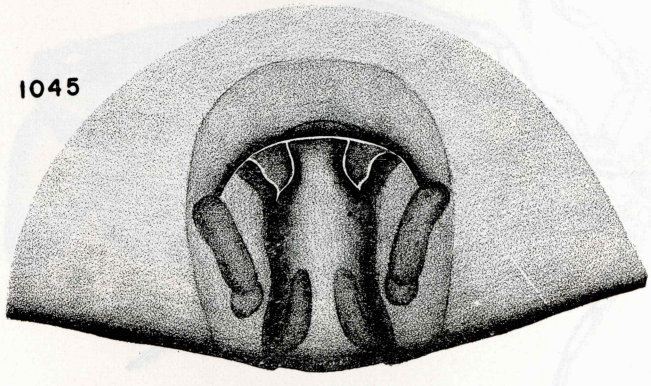
Colour Colour pattern as in Figs. 1029. The broad mid-lateral bands are blackish and extend down the whole length of abdomen as broken bands but clearly defined along inner margins. Median surface pale. There is a black band down anterior margin of chelicerae. Ventral surface of abdomen with a thin median black line and scattered spots. Sternum with a broad black band along each margin. Legs uniform yellow-brown.

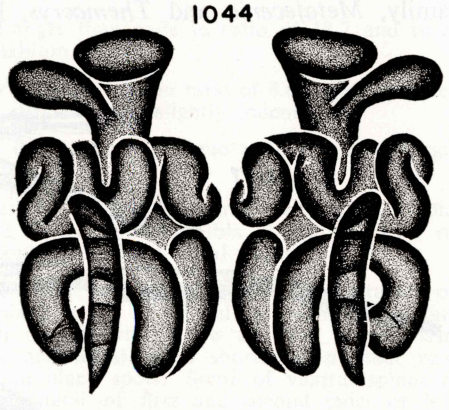
Eyes Both rows strongly recurved. Ratio of AME.ALE. PME.PLE = 7.9.9.11. AME separated from each other by 4/7 and from ALE by 3/7 of diameter of an AME. Laterals widely separated by twice diameter of an AME. PME separated from each other by 9/7 and from PLE by 12/7. MOQ wider behind than in front in ratio of 27.18 and longer than wide in front in ratio of 20.18.

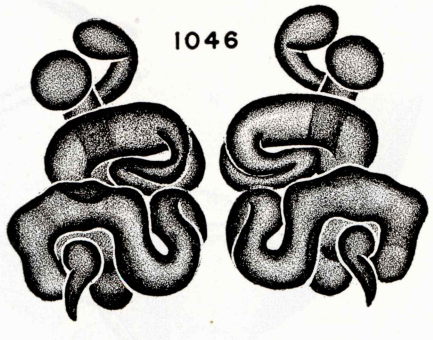
Sternum Scutiform. Longer than wide in ratio of 17.14. Posterior projection short and sharp. Posterior pair of coxae narrowly separated.

Chelicerae Short, vertical, with lateral boss. Retromargin with two, promargin three teeth.









Figs. 1043-1046 *Nemoctenus aurens* (Hogg). Fig. 1043 Epigynum. Mount Torlesse. Fig. 1044 Internal genitalia. Torlesse. Fig. 1045 Epigynum. Hurunui. Fig. 1046 Internal genitalia. Hurunui.

Palp Spines. Femur, d.0.1.1. p.0.0.1. Patella, p.1.0. Tibia, p.2.1. d.1.1. Tarsus, p,r.2.1.0. d.1.0.0. There is a thick distal bunch of hairs on the tarsus but no claw.

Legs All trochanters strongly notched. Scopula only weakly developed on leg 1, but thick on distal-ventral surface of tibia and ventral surface of metatarsus and tarsus of second leg. Legs 3 and 4 scopulate on ventral surface of tarsi and disto-ventral surface of metatarsi. Spines. Leg 1. Femur, d.1.1.0. p.0.0.2. Tibia, v.2.2.0. p.0.0.1. Metatarsus, v.2.2.0. Leg 2. Femur, d.1.1.1. p.1.0.1. r.0.1.0. Tibia, v.2.2.0. p.0.0.1. Metatarsus, v.2.2.0. p.0.1.0. Leg 3. Femur, p,r.d.1.1.1. Tibia, v.2.2.2. p,r.1.1.0. Metatarsus, v.2.2.0. r.1.1.0. p.1.1.1. d.0.1.0. Leg 4. Femur, d.1.1.1. p.1.0.1. r.0.0.1. Tibia, v.1.2.2. p,r,d.1.1.0. Trichobothria in double row on both tibiae and tarsi. Tibia and tarsus, 1.2.2.1.1. Metatarsus, 1.1.1.1.

Abdomen Anterior pair of spinnerets stout, contiguous. Posterior pair more slender and slightly longer. No distinct colulus. Epigynum and internal genitalia as in Figs. 1039, 1041.

Type Holotype female. Otago. Cardrona Valley, beaten from grass, 21.xii.1969, C. L. Wilton (Otago Museum).

Family PSECHRIDAE Simon 1890

The status of the family Psechridae and the relationship of the two genera usually placed in the family today (*Psechrus, Fecenia*) is puzzling. Dalmas (1917) placed *Stiphidion,* (designated by us as the type genus of the new family Stiphidiidae) his genus *Stiphidiellum* (synonym of *Laestrygones,* family Desidae) and the Matachiinae (now Desinae, Desidae) within the family. Two further genera previously included in the family, *Metafecenia* and *Themacrys,* have been recently transferred by Lehtinen (1967) to his Miturgidae and Amaurobiidae respectively.

Lehtinen (1967) gives the following definition of the family Psechridae covering the two genera *Psechrus* and *Fecenia.*

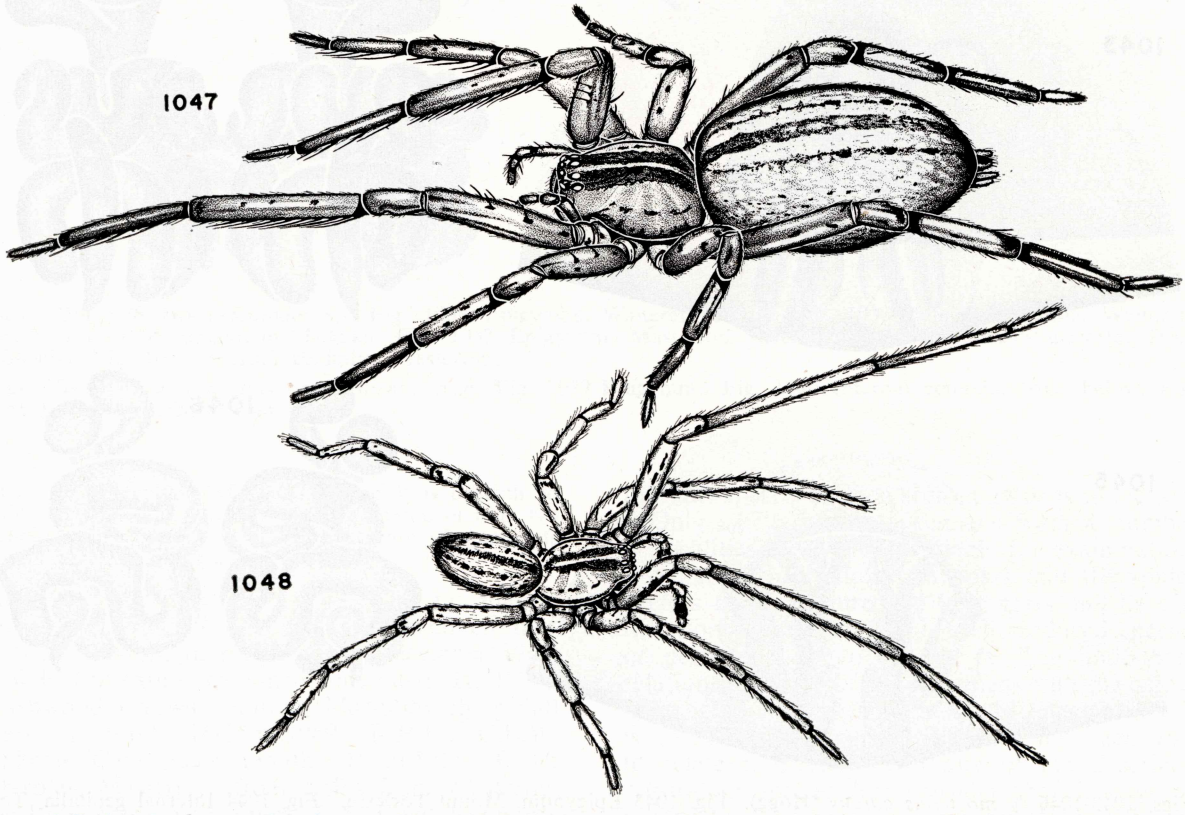
Carapace pear-shaped, eyes in two recurved rows, fovea large and longitudinal, clypeus high. Sternum with more or less distinct marginal elevations. Labium free, distally notched. Maxillae long, with a median scopula. Chelicerae with strong teeth on both margins of the fang groove, fang with smooth basal part.

Abdomen long, more or less cylindrical, with distinct dorsal and ventral pattern. Cribellum bipartite, as wide as the area of the spinnerets. Anterior spinnerets very large, conical: posterior spinnerets cylindrical and with a short apical segment. Median spinnerets exceptionally long and slender. Tracheal stigma close to the cribellum. Legs long, strongly spinulated on femora and tibiae, and metatarsi. In males the first leg enormously lengthened and its tarsi and metatarsi covered with long erect hairs. Tarsal trichobothria very indistinct, but usually there are some with equal length. Tarsi with three toothed claws and rather well developed claw-tufts composed of longitudinally arranged coarse hairs. Ventral hairs of tarsi usually more densely spaced than elsewhere, but no true scopulae comparable to these structures in e.g. Ctenidae and Theraphosidae exist.

Calamistrum very characteristic, consisting of 3-5 regular rows of true calamistrum hairs. Epigynal area well chitinized, divided by longitudinal furrows into a central septum and lateral lobes, but the septum is seldom *(Fecenia)* distinctly limited anteriorly.

Male palpus robust. Femora, patella and tibia may have simple processes or elevations, but no complicated apophyses. Bulbal organs highly variable, even concerning the presence of sclerites.

Of the two genera included below from New Zealand, *Haurokoa* seems to show some direct relationship with *Fecenia* when consideration is



Figs. 1047-1048 *Poaka graminicola* n.sp. Fig. 1047 Female. Fig. 1048 Male.

given to the male and female genitalia but differs from it in a number of important characters, such as the absence of claw-tufts and the single row of calamistrum hairs. *Poaka* differs much more radically and it is with considerable doubt that it is placed in this family. The eyes of *Poaka* are placed in two more or less straight rows while the simple hooked median apophysis of the male palpal bulb and the presence of an extra median sclerite are quite different from *Haurokia*. Both genera have three tarsal claws and no claw-tufts or scopulae. The habits of the two New Zealand genera are also very different. *Psechrus* and *Fecenia* both apparently construct large sheet snares with the spiders moving on the under surface as does *Cambridgea* in New Zealand. *Haurokia* and *Poaka* are both hunters which as far as we have noted do not construct snares. *Poaka* is found on grass or low plants in open country and along forest margins while *Haurokia* frequents low fern and shrubs in damp forest.

Poaka n.gen.

Small (body length 4-5mm) cribellate spiders. Carapace with two longitudinal narrow black bands extending back from eyes. Abdomen with a narrow median longitudinal band and a broken band down each dorso-lateral surface (Figs. 1047, 1048). Carapace humped around fovea (Fig. 1049). Eight eyes in two rows. Anterior row straight. Posterior row slightly recurved. AME distinctly smaller than PME. Chelicerae with two teeth on retromargin and three on promargin. Legs 1423. Trochanters not notched. Many spines in double row on ventral surface of tibia and metatarsus of legs 1 and 2. Trichobothria in a double row on tibiae but a single row on metatarsi and tarsi. Three claws, without claw tufts. Scopulae lacking. Calamistrum well developed in female, proximal. Absent from male. Cribellum small, divided in female, non-functional in male. Epigynum simple with an antero-median lobe. Internal genitalia receptaculate, opening anteriorly. Male bulb with simple hooked median apophysis. Embolus slender and spiniform with an elongate membraneous conductor which originates at base of embolus and extends to tip. A second elongate translucent plate originates from mid-ventral surface and extends forward beyond bulb. Cymbium extending well beyond bulb. Processes on retro-lateral surface of tibia.

Type species *Poaka graminicola* n.sp.

These spiders which live in grass and low shrubs do not seem to construct a snare. The eggsac is not known. The single known species is found in both in both North and South Islands.

Poaka graminicola n.sp.

Figs. 1047-1054

FEMALE

Measurements

Carapace length 1.60 width 1.25
Abdomen length 3.25 width 1.80

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.70	0.65	1.95	1.50	0.45	6.25
2	1.20	0.50	1.15	1.05	0.40	4.30
3	1.00	0.50	0.75	0.90	0.30	3.45
4	1.50	0.55	1.30	1.40	0.45	5.20
Palp	0.50	0.25	0.30		0.55	1.60

Colour Colour generally pale with dark olive pattern as in Fig. 1047. Legs pale with dark patches and with dark partial bands distally on tibiae and metatarsi especially posterior legs. The very pale sternum has a conspicuous black median band for most of its length.

Carapace Profile as in Fig. 1049. Width of head 13/25 of greatest width of thorax.

Eyes Group occupies 4/5 of width of head. From in front anterior row straight and from above posterior row slightly recurved. Ratio of AME.ALE.PME.PLE = 4.6.5.6. AME separated from each other by 2/4 and from ALE by 4/4 of diameter of an AME. Laterals almost touching. PME separated from each other and from PLE by diameter of AME. MOQ wider behind than long in ratio of 14.10 and as wide behind as long. Height of clypeus 3/4 of diameter of an AME.

Sternum Longer than wide in ratio of 27.20. Scutate. Posterior projection tapers broadly to blunt point and posterior coxae well separated. Anterior margin indented to accommodate the convexity of labium.

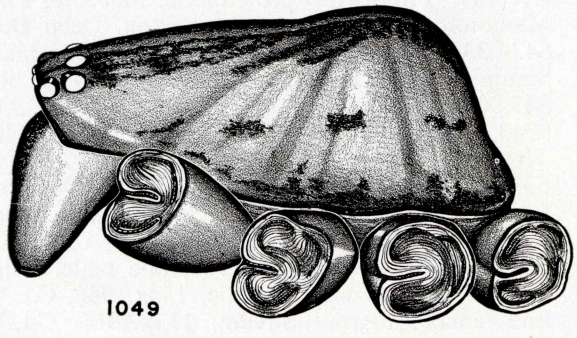
Maxillae Longer than wide in ratio of 12.7 and twice as long as labium.

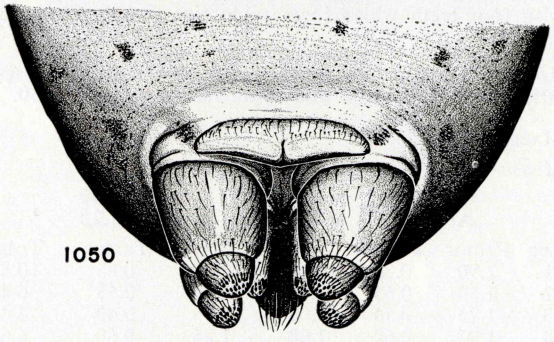
Labium Wider than long in ratio of 8.6 slightly notched basally and distal margin slightly indented.

Chelicerae Promargin with three teeth and retromargin with two teeth.

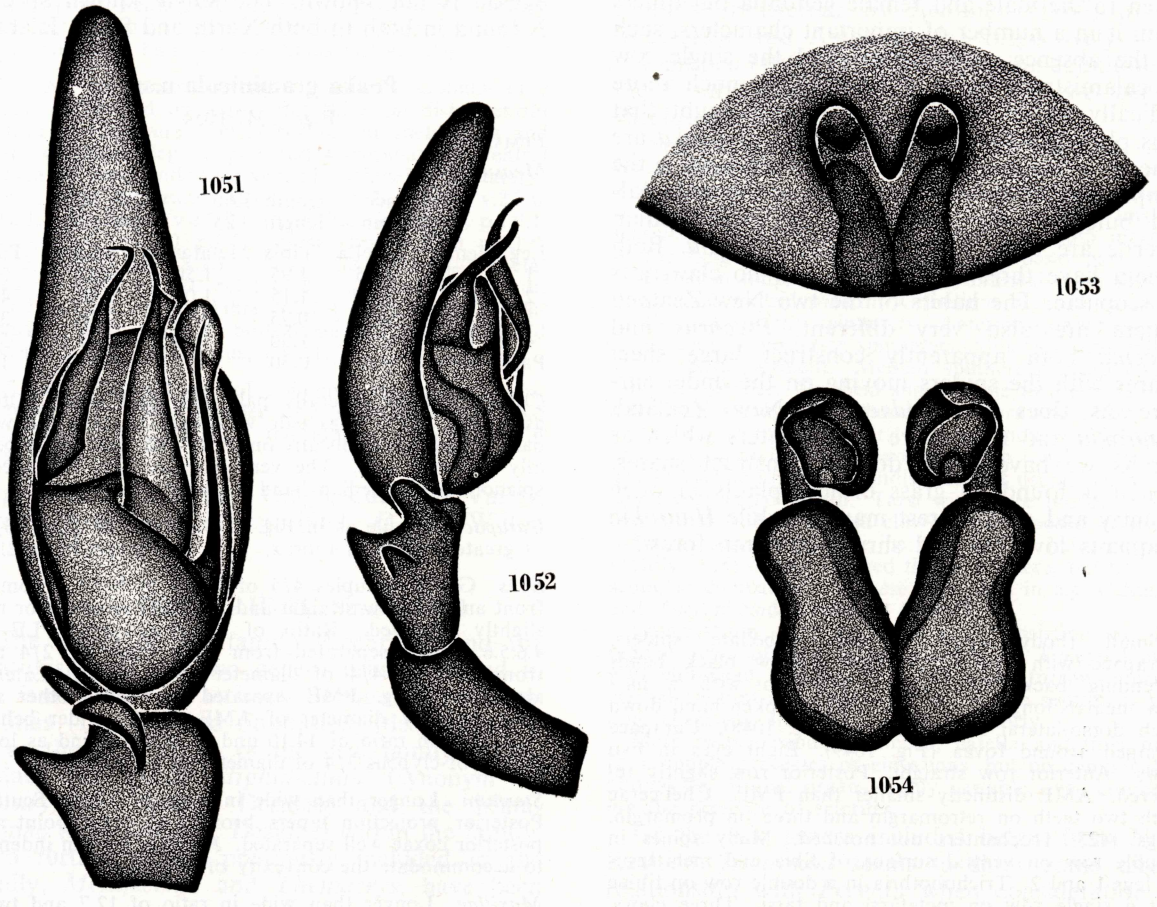
Palp Spines. Femur, d.1.0.1. p,r.0. Patella, 0.1. Tibia, d.1. p.1. r.0. Trichobothria. Tibia, 2. Tarsus, 1.1.1 on basal half and a sub-distal tarsal organ.

Legs 1423. Dorsal femoral spines short and situated on individual black spots. Distal half of prolateral surface of first pair of legs with a row of three spines, basal one longest and distal much shorter than other row. Spines not on black spots. Some of ventral spines of tibia and metatarsi of first and second pairs of legs





Figs. 1049-1050 *Poaka graminicola* n.sp. Fig. 1049 Lateralview of carapace and chelicerae. Fig. 1050 Spinnerets and cribellum of female.



Figs. 1051-1054 *Poaka graminicola* n.sp. Fig. 1051 Ventral view of male palp. Fig. 1052 Lateral view of male palp. Fig. 1053 Epigynum. Fig. 1054 Internal genitalia.

very long. Basal spines on tibiae almost half length of segment while those of metatarsi 5/8 of length of that segment. Spines become shorter distally so that when in prone position they do not project beyond end of segment, except on metatarsus of second pair of legs. First leg. Femur, d.1.1.0. v,r.0. p.1.1.1. Patella, 0. Tibia, 2.2.2.2.2.2.2.2.1. d.1 (small) basal. Metatarsus, v.2.2.2.2.1. Second leg. Femur, d.1.1.0. p,r.0.0. Tibia, ventral spines not paired and there is a pro-row of 7 and a retro-row of 5. p.1 median. r.0. d.1 (small) basal. Metatarsus, v.2.2.2.2. p.1.1. r.0. Third leg. Femur, d.1.0.1. p,r.0. Tibia, v.0.1.0. p.1.1. r,d.1. Metatarsus, v.1.2.0. p.1.2. r.0.2. d.1. Fourth leg. Femur, d.1.0.1. p.0. r.0.1. Tibia, v.0.1.0. p,r.0.1. d.1. Metatarsus, v.1.2.0. p.1.2. r.0.2. The calamistrum extends down half the length of the metatarsus. Trichobothria. First leg. Tibia, p.3 on basal third, r.4 to almost 2/3 length of segment. Metatarsus, 3. Tarsus, 4 and distal tarsal organ. Superior claws relatively small with four teeth which increase in size distally on basal half.

Abdomen Epigynum and internal genitalia as in Figs. 1053, 1054. Cribellum and spinnerets as in Fig. 1050.

MALE

Measurements

Carapace	length 1.80	width 1.40	
Abdomen	length 2.60	width 1.20	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.90	0.80	3.30	3.00	0.85	10.85
2	1.80	0.65	1.65	1.75	0.55	6.40
3	1.25	0.55	1.05	1.15	0.40	4.40
4	1.95	0.60	1.60	1.85	0.60	6.60
Palp	0.85	0.45	0.20		0.65	2.15

In general resembles female.

Palp Bulb and tibial processes as in Figs. 1051, 1052. Trichobothria. Tibia, d.1.2. Tarsus, 1.1.1 (mid cymbium).

Legs Spines of first pair of legs very much reduced in number and size relative to female and in size as regards second pair of legs. First leg. Femur, d.1.1.1. p (almost ventral) 1.1. Tibia, v.2.2.2. Metatarsus, 0. No calamistrum.

Abdomen Broad colulus in place of cribellum.

Types Holotype female. Otago. Pitfall trap, Kokonga, S33-9350, 15.v.1969, C. L. Wilton. Allotype male. Same locality, 6.iii.1969, C. L. Wilton (Otago Museum).

Records Pitfall trap programme, MacRaes Flat-Maniototo, 1968-1969, C. L. Wilton. Deep Dell, S43-0332, 14.iii.1968, male, 29.iii.1969, one male. Summit Taieri Ridge, Deep Dell-Fillyburn Rd, S43-0033, 12.xii.1968, one female. Hyde, S33-9343, 11.vi.1968, one female. Capburn Hill, Tiroiti, S33-9447, 14.iii.1968, one male. Kokonga, S33-9350, 12.ii.1968, one female, 23.v.1968, one female, 16.ii.1969, one male, 6.iii.1969, two males. Kokonga School, S33-9253, 6.iii.1969, one male. Patearoa, S33-7644, 24.iii.1968, one male. Other records: Otago. Leith Saddle, 15.ix.1966, C.L.W. one female. Pigroot Stream, 13.ix.1966, C.L.W. two females, immature male collected 15.i.1966 and reached maturity 22.ii.1966. Matanaka, Waikouaiti, 24.v.1967, C.L.W., R. W. Hutton, one female. Mt Flagstaff, Whare Flat Rd, December

1968, R.R.F., C.L.W. Near Mt Aspiring Station, Matukituki Valley, 7.ii.1970, C.L.W., five males. Wairarapa. "Sulphur Wells", Bideford, 7.iv.1958, C.L.W., one female. Carters Reserve, Gladstone, C.L.W., one female. Miki Miki, 14.ix.1967, C.L.W., two females. Wanganui, Wainui Beach, Waitotara, 18.iii.1969, R.R.F., C.L.W., one female. Rotorua. Lake Rotoehu, near Hongi's Track, 4.x.1969, C.L.W., one female.

Haurokoa n.gen.

Small (body length 3-3.3mm) cribellate spiders. Carapace with black band down lateral margins and black patches extending a short distance back from eyes (Fig. 1055). Thoracic region of carapace not humped. Eight eyes in three rows, 4.2.2. Anterior row slightly recurved but posterior four eyes strongly recurved. AME much smaller than PME. Chelicerae with two teeth on retromargin and three on promargin. Legs. Male 1423, female 1243. Ventral surfaces of tibiae and metatarsi of first two pairs of legs with numerous long spines in two rows. Trochanters not notched. Three claws. Claw-tufts and scopulae absent. Calamistrum proximal, in a single row. Cribellum small, entire. Calamistrum and spinning fields of cribellum lacking in male. Trichobothria in a double row on tibiae and tarsi, single row on metatarsi. Trichobothria extend beyond tarsal organ. Epigynum without distinct surface features. Internal genitalia receptaculate, opening posteriorly. Male palp with apophyses on tibia and patella. Embolus spiniform, distal, short. Conductor as a small membraneous plate. Median apophysis relatively large, sclerotized.

Type species *Haurokoa filicifolia* n.sp.

This genus shows some affinities with *Fecenia* but the cribellum is small and claw-tufts are lacking. The habits seem to be quite different as these spiders hunt on low foliage while *Fecenia* constructs a large sheetweb.

Haurokoa filicicola n.sp.

Figs. 1055-1059

MALE

Measurements

Carapace	length 1.70	width 1.25	
Abdomen	length 1.30	width 0.90	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.90	0.70	2.15	1.85	0.55	7.15
2	1.50	0.60	1.45	1.35	0.50	5.40
3	1.25	0.50	0.95	1.00	0.40	4.10
4	1.50	0.50	1.20	1.30	0.50	5.00
Palp	0.60	0.25	0.20		0.50	1.55

Colour Carapace very pale cream with a wide dark stippled band near lateral margins of thorax. A band with an orange tinge extends posteriorly from each PLE to about two thirds of distance to fovea. There is also a narrower band of a similar hue mid-dorsally between eyes and fovea. Eyes on black spots. Chelicerae have dark stippled shading on anterior surfaces for about two thirds of length. Legs pale without dark bands. Sternum white and labium transparent. On dorsal surface of abdomen there is a dark band, better defined anteriorly, on basal half of each side and followed by row of four dark spots on each side. The rest of surface of abdomen pale but clothed with reddish hairs. Ventral surface pale without pattern.

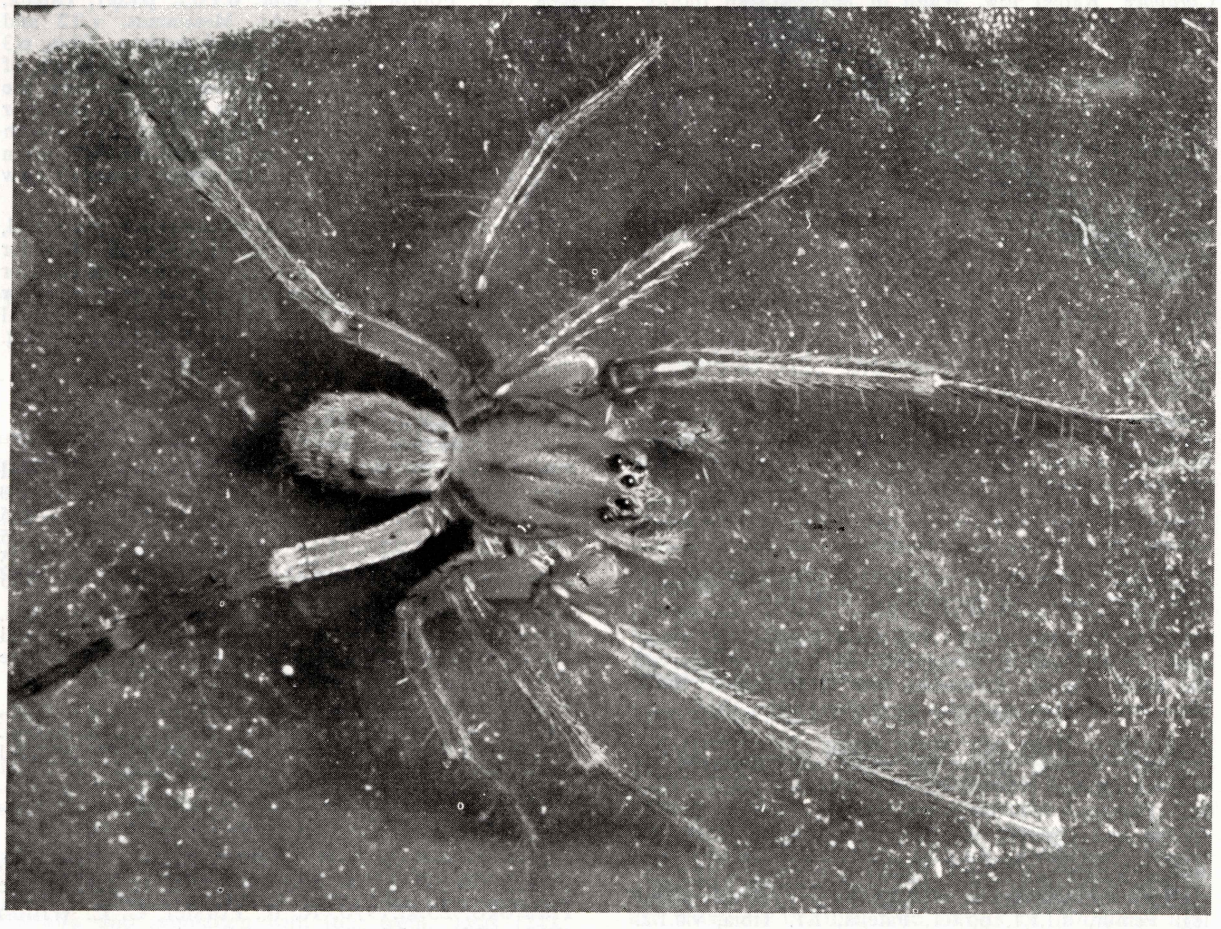
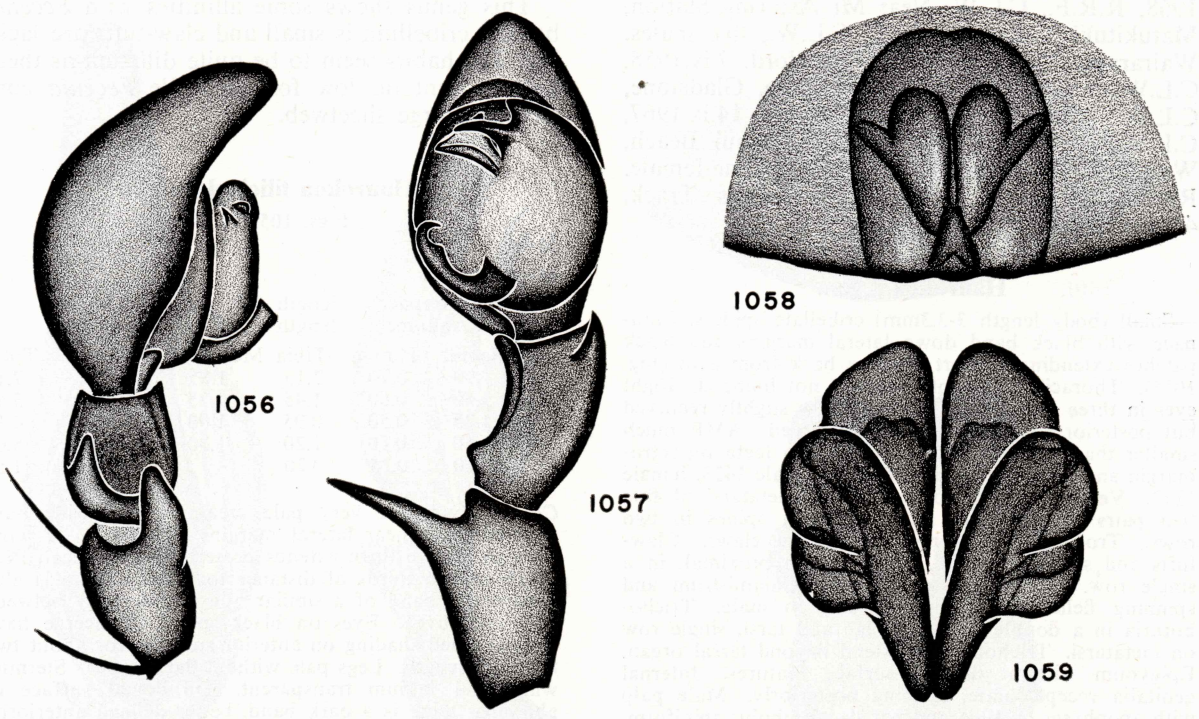


Fig. 1055 *Haurokoa filicicola* n.sp. Male.



Figs. 1056-1059 *Haurokoa filicicola* n.sp. Fig. 1056 Lateral view of male palp. Fig. 1057 Ventral view of male palp. Fig. 1058 Epigynum. Fig. 1059 Internal genitalia.

Carapace Rather low. Width of head 3/5 of thorax. Fovea longitudinal.

Eyes Group occupies 11/15 of width of head. From in front anterior row is straight by centres of eyes and posterior row straight. From above anterior row slightly recurved and posterior row strongly recurved. Ratio of AME.ALE.PME.PLE = 2.7.6.7. AME separated from each other and from ALE by 3/2 of diameter of an AME. Laterals separated by 9/2. PME separated from each other by 5/2 and from PLE by 6/2. MOQ wider behind than in front in ratio of 17.7 and wider behind than long in ratio of 17.14. Height of clypeus equal to diameter of an AME.

Sternum Scutate. Longer than wide in ratio of 30.25. Anterior margin broadly indented. Posterior projection pointed and separates posterior coxae by half diameter of a coxa.

Maxillae Longer than wide in ratio of 18.12 and longer than labium in ratio of 18.10. Slightly divergent. Rather flat distally with outer angles rounded and with conspicuous serrula.

Labium Wider than long in ratio of 11.10. Rounded, almost semi-circular. Rebordered.

Chelicerae Vertical. Lateral condyles present. Promargin with three teeth and retromargin with two.

Palp Spines. Femur, d.0.1.1. p.1. r.0. Patella, 1.1. Tibia, d,p.1. Trichobothria. Tibia, d.4 and 1 on the base of the basal process. Cymbium with tarsal organ. Bulb, tibial and patellar processes as in Figs. 1056, 1057.

Legs 1243. Hairs very finely ciliate. Trochanters not notched. Ventral spines on tibiae and metatarsi of anterior legs are long excepting distal ones. Spines. First leg. Femur, prolateral spine present, d.1.1.1. p,r.0.1. Patella, 1.1 (small). Tibia, v.2.2.2.2.2.2. p,r.0.1.0. d.1 minute. Metatarsus, v.2.2.2.2. p,r.1.0. d.1. Second leg. Femur, d.1.1.1. p.1.1. r.0.1. Patella, 1.1. Tibia, v.2.2.2.2.2. p,r.0.1.1. d.1. Metatarsus, v.2.2.2.2. p.1.0. r.1.1. d.1. Third leg. Femur, d.1.1.1. p,r.0.1. Patella, 1.1. Tibia, v.0.1.2. p.1.1. r.0.1. d.1. Metatarsus, v.0.2 and a subwhorl of 5, p,r.1. d.1. Fourth leg. Femur, d.1.0.1. p,r.0.1. Patella, 1.1. Tibia, v.1.1.2. p,r.1.1. d.1. Metatarsus, v.0.2 and subwhorl of 5, p.0.1. r.1.1. d.1. Trichobothria. Tibia, p.3 on basal half. r.4 extending to two thirds of length of segment. Metatarsus, 4. Tarsus, four in two rows, the 2nd and 4th in anterior row and 1st and 3rd in posterior row. Tarsal organ sited between third and fourth trichobothria. Superior claw of anterior leg with seven teeth and inferior claw with two teeth. Superior claw of fourth leg has six teeth.

Abdomen Cribellum, which is probably not functional, is a broadly based cone with rounded summit. Anterior spinnerets separated by a quarter of diameter of anterior spinnerets. Posterior spinnerets shorter than anterior spinnerets and only about half their diameter. Distal segment conical and two fifths of length of basal segment.

FEMALE

Measurements

Carapace length 1.60 width 1.20
Abdomen length 1.80 width 1.30

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.35	0.60	1.35	1.20	0.40	4.90
2	1.15	0.55	1.05	1.00	0.40	4.15
3	1.00	0.50	0.75	0.75	0.35	3.35
4	1.25	0.50	1.00	1.00	0.40	4.15
Palp	0.50	0.25	0.25		0.45	1.45

Resembles male in colour and general characteristics. Spination of the legs as in male. Calamistrum well developed. Ten setae in a single row occupying one third of length of metatarsus.

Falp Spines. Femur, d.0.1.1. p.1. r.0. Patella, 0.1. Tibia, d,p.0.1. r.0. Tarsus with numerous spines. Trichobothria. Tibia with two rows of 3. Tarsus, 0. Small subdistal tarsal organ. Claw with eleven small teeth.

Abdomen Epigynum and internal genitalia as in Figs. 1058, 1059. Cribellum entire and rather small.

Types Holotype male. Southland. Lake Hauroko, 11.iii.1970, C. L. Wilton. Allotype female. Lake Hauroko, 25.xi.1970, R. R. Forster, C. L. Wilton (Otago Museum).

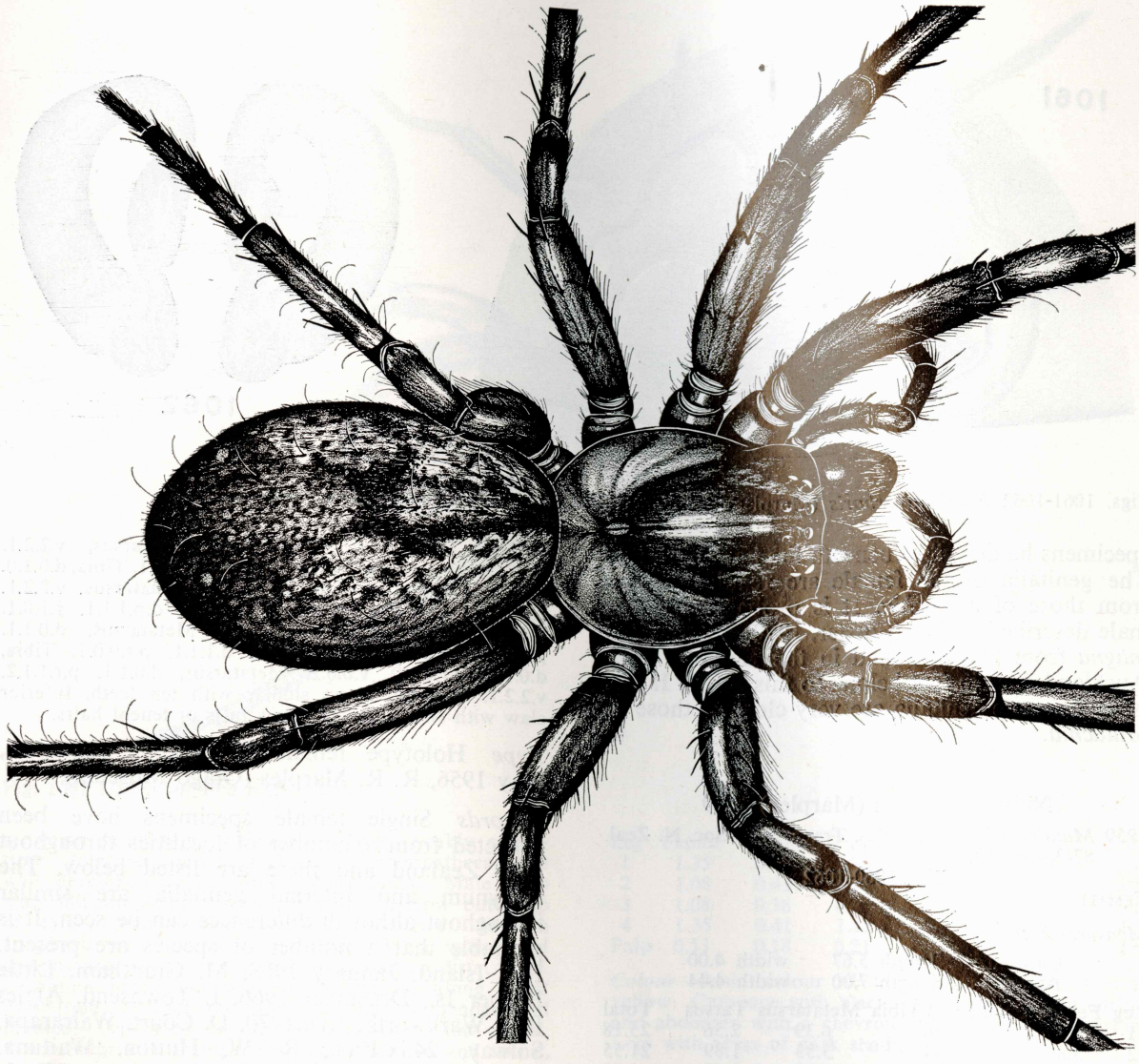


Fig. 1060 *Nuisiana arboris* (Marples). Female.

Family DESIDAE Pocock, 1895

The family Desidae was treated in a previous volume of this work (Forster, 1970). Further species belonging to existing genera have been discovered since this publication appeared and these will be described in the final volume of the series. However some of the species require the establishment of new genera and these are described below.

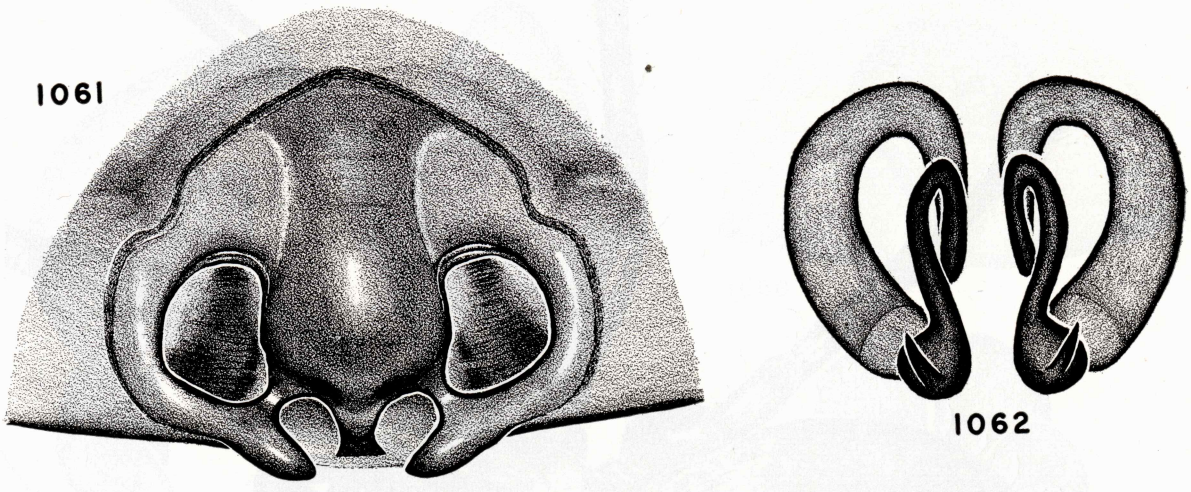
Subfamily DESINAE Pocock, 1895

Nuisiana n.gen.

Large cribellate spiders (12mm in body length), similar to *Matachia* but not modified for life in narrow burrows. Carapace normal. Eyes subequal, in two rows. Anterior row straight. Posterior row gently procurved. Lateral eyes contiguous. Sternum scutiform, only slightly longer than wide and pointed posteriorly. Labium longer than wide and notched at the base. Maxillae strong and parallel. Chelicerae vertical, with boss. Retromargin with two and promargin with four teeth. Legs 1243, clothed with short ciliate hairs and longer smooth, apically bent hairs. Trichobothria short but numerous. In a double row on tibiae and a single row on metatarsi and tarsi. Spination strong. Superior claws similar, strongly pectinate. Inferior claw with two teeth. Claw tufts and tenent hairs lacking. Trochantera notched. Calamistrum well developed in the female, proximal. Cribellum prominent, more than twice as wide as long. Spinning field narrow, entire. Anterior spinnerets stoutly conical, contiguous. Posterior spinnerets more slender and slightly longer. Epigynum strongly sclerotized, with posterior pair of spines. Internal genitalia with spherical receptacula, a short strongly sclerotized duct followed by a stout thin walled duct which opens posteriorly (Fig. 1062). Tracheal system similar to *Matachia* and restricted to abdomen.

Type species *Maniho arboris* Marples 1959.

This genus is very closely related to *Matachia*. The adaptive features of *Matachia* related to the use of narrow tunnels separate the two genera. *Matachia* is elongated and the first three pairs of legs are directed forward whereas *Nuisiana* has a normal cephalothorax and the third pair of legs are directed behind. The habits of *Nuisiana* are not well known but Marples (1959) found the



Figs. 1061-1062 *Nuisiana arboris* (Marples). Fig. 1061 Epigynum. Fig. 1062 Internal genitalia.

specimens he described beneath the bark of totara. The genitalia of the female are readily derived from those of *Matachia*. It is probable that the male described earlier (Forster, 1970) as *Matachia magna* from Cuvier Island in the Hauraki Gulf, Auckland does in fact belong to this genus. If this is so the male genitalia are very close to those of *Matachia*.

Nuisiana arboris (Marples) 1959

1959 *Maniho arboris*, Marples. Trans. Roy. Soc. N. Zeal. 87(3, 4): 352.

Figs. 1060-1062

FEMALE

Measurements

Carapace	length 5.67		width 4.00	
Abdomen	length 7.00		width 4.44	

Leg	Femur	Patella and Tibia	Metatarsus	Tarsus	Total
1	6.67	9.56	6.39	2.56	25.18
2	5.89	8.44	5.33	1.89	21.55
3	4.83	5.94	4.22	1.39	16.68
4	5.11	6.77	4.78	1.94	18.61
Palp	2.61	2.50		2.33	7.44

Colour Carapace yellow, darkening around eyes and head region. Abdomen yellowish with median folium down dorsal surface which is widest medially. Legs yellow. Chelicerae reddish.

Eyes From above and in front anterior row straight and posterior row procurved. Ratio of AME.ALE.PME. PLE = 6.7.5.6. AME separated from each other by 6/6 and from ALE by 10/6 of diameter of an AME. Lateral eyes subcontiguous. PME separated from each other by 11/6 and from PLE by 14/6. MOQ wider behind than in front and wider behind than long in ratio of 7.6. Width of clypeus slightly more than width of an AME.

Chelicera Retromargin with two and promargin with four teeth.

Abdomen Epigynum as in Figs. 1061. Median lobe produced posteriorly to a relatively sharp point and paired projections long and blunt. Internal genitalia (Fig. 1062) relatively simple with small receptacula from which strongly sclerotized ducts lead forward and bend before expanding into thin walled ducts which curve back to posterior openings.

Legs 1243. Clothed with finely ciliate hairs and longer, apically bent, smooth hairs as in *Matachia*. Trichobothria numerous but short. Spines. First leg. Femur, d.1.2.2. p.0.1.1. Tibia, v.0.2.2. p,r.1.1.1. Metatarsus, v.2.2.1. p,r.1.1.2. Second leg. Femur, d.1.1.1. p,r.0.1.1. Tibia, d.0.1.0. r.0.1.1. Tibia, d.0.1.0. p,r.1.1.0. v.0. Metatarsus, v.2.2.1. p,r.1.1.2. d.0.1.0. Third leg. Femur, d,p.1.1.1. r.1.0.1. Tibia, d.0.1.0. p,r.1.1.0. v.0.0.2. Metatarsus, d.0.1.1. p,r.1.1.2. Fourth leg. Femur, d.1.1.1. p,r.0.0.1. Tibia, d.0.1.0. p,r.1.1.0. v.0.0.2. Metatarsus, d.0.1.1. p,r.1.1.2. v.2.2.1. Superior claws similar with ten teeth. Inferior claw with two teeth. No claw tufts or tenent hairs.

Type Holotype female. Southland. Tuatapere, May 1956, R. R. Marples (Otago Museum).

Records Single female specimens have been collected from a number of localities throughout New Zealand and these are listed below. The epigynum and internal genitalia are similar throughout although differences can be seen. It is probable that a number of species are present. Hen Island, January 1968, M. Grantham. Little Barrier Is., December 1966, I. Townsend. Algies Bay, Warkworth, 1.vii.1970, D. Court. Wairarapa, Solway, 24.ix.1966, R. W. Hutton. Waituna, 25.viii.1965, R. W. Hutton. Canterbury, Hoods Bush, Malvern Hills, May 1952, R.R.F. Foxs Creek, February 1963, R.R.F. Nelson, 21.vi.1948, A. W. Parrott.

It seems probable that the male described as *Matachia magna* (Forster, 1970) from Cuvier Island belongs to *Nuisiana* and is perhaps the male of the specimens recorded above from Hen Island and Little Barrier Is. Marples (1959) found the specimens he described living beneath the bark of large Totara trees. He noted that the web was small and remarked that it was similar to that of *Neoramia charybdis*. However in view of the close relationship of these spiders to *Matachia* it is most likely that the web would show the laddered form typical for most of the spiders of this group.

Sub-family MYRONINAE Lehtinen, 1967

Hulua n.gen.

Small cribellate spiders (body length 2-3mm). Eight eyes, in two rows, occupying little more than one half of width of head. Both rows straight or nearly so, AME much smaller than remaining eyes which are subequal. Chelicerae with two teeth on retromargin and five or



Fig. 1063 *Hulua minima* n.sp. Female.

more on promargin. Epigynum simple, weakly sclerotized. Internal genitalia with pair of spermathecae and well developed ducts, usually convoluted. Male palp with filiform embolus running under narrow outer lip of large, mainly membraneous, conductor. Median apophysis well developed, spatulate. Tibia with basal spinous process on retrolateral surface and a distal plate. Cymbium broad but strongly emarginate along distal promargin so that the distal portion is slender and pointed. Legs 4123 or 1423 with relatively few spines. Trichobothria in a single row on metatarsus and tarsus, double row on tibia. Tarsal organ distinct, subdistal. Superior claws with from 5-8 teeth. Inferior claw with two teeth. Claw tufts and scopulae absent. Six spinnerets. Anterior pair stout, distal segment short. Posterior pair slender, longer than anterior spinnerets, with distal segment long, over half of the length of basal segment. Cribellum small, rectangular, much wider than long. Spinning field small, divided. Calamistrum proximal. Tracheal system limited to abdomen.

Type species *Hulua convoluta* n.sp.

These small spiders are found on the forest floor where they appear to be vagrants. The three species recorded are from the North Island and the northern portion of the west coast of the South Island but other specimens examined but not described come from Canterbury and from the Greymouth region of the west coast of the South Island. *Hulua* is the first cribellate genus placed in the Myroninae.

Hulua convoluta n.sp.

Figs. 1064-1066

MALE

Measurements

Carapace	length 1.26	width 1.08
Abdomen	length 1.38	width 0.90

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.35	0.43	1.33	1.22	0.90	5.23
2	1.08	0.43	0.90	0.84	0.61	3.86
3	1.08	0.36	0.81	0.85	0.57	3.67
4	1.35	0.41	1.17	1.27	0.66	4.86
Palp	0.53	0.18	0.21		0.68	1.60

Colour Basic colour of body and appendages straw yellow. Carapace with black shading on median surface and abdomen with a chevron pattern on dorsal surface. Legs with areas of dark shading.

Carapace Relatively wide, only slightly longer than greatest width. Narrowing sharply to eye region. Head region not distinctly separated. Fovea distinct but narrow.

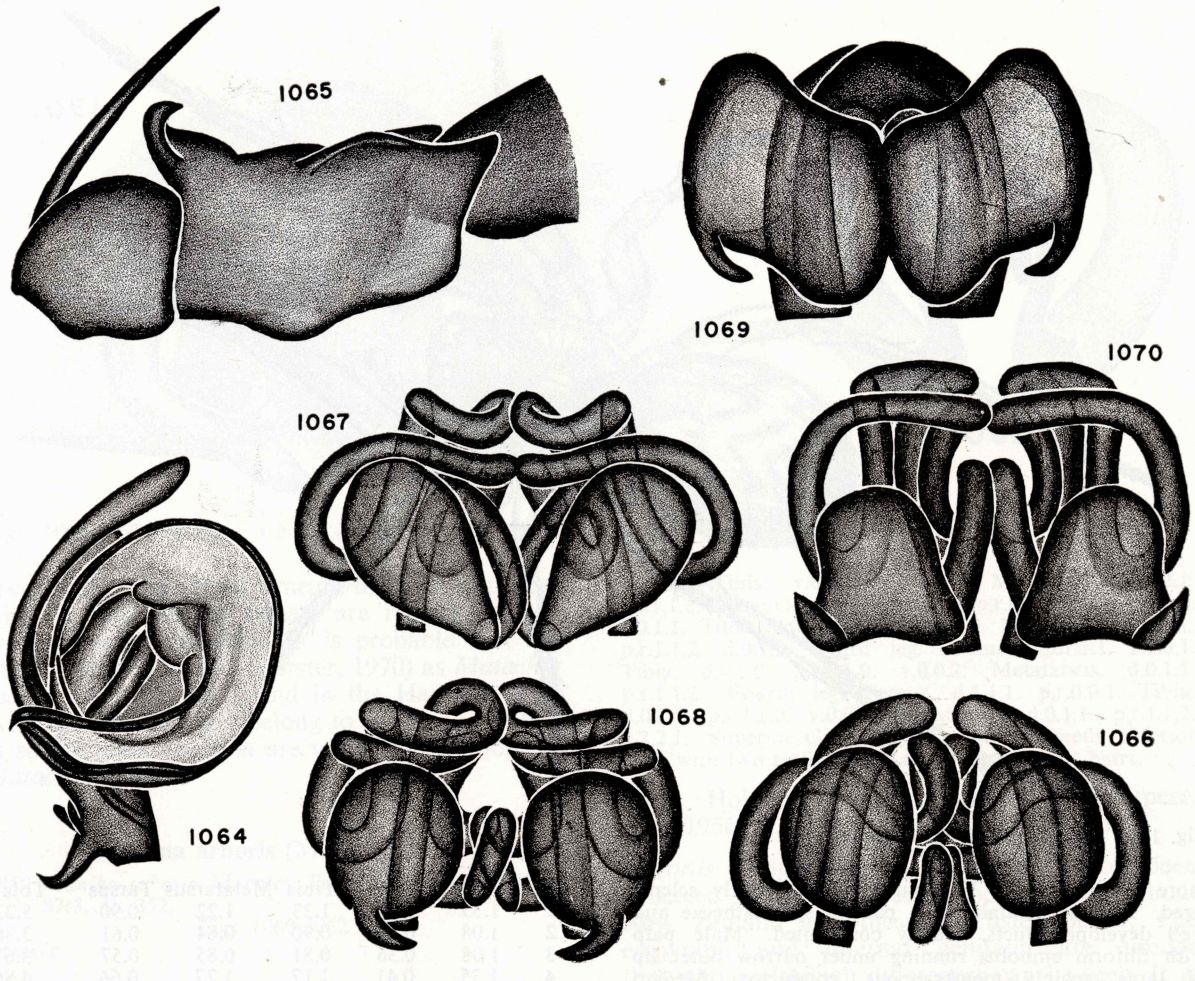
Eyes Group occupies 5/8 of width of head. From above both rows straight but both slightly procurved from in front. Ratio of AME.ALE.PME.PLE = 1.4.5.6. AME separated from each other and from ALE by the width of an AME. Lateral eyes separated by three times this width. PME separated from each other by twice and from the PLE by distance equal to width of an AME. MOQ wider behind than in front in ratio of 12.3 and longer than wide in the front in ratio of 11.3. Clypeus six times width of an AME.

Sternum Scutiform. Longer than wide in ratio of 6.5. Broadly obtuse posteriorly, separating coxae 4 by the width of a coxa.

Maxillae Longer than wide in ratio of 15.11. Rectangular and almost parallel. Serrula well developed. Scopula weak.

Chelicerae Retromargin with two teeth in mid-line. Promargin with seven teeth of which second from base is largest.

Legs Superior claws with five teeth, inferior with two. Tarsal organ subdistal. Spines. First leg. Femur, d.0.1.0. Patella, d.1.1. Tibia, d.1.0.0. p.1.0.1. Metatarsus, v.0.0.1. Second leg. Femur, d.0.0.2. Patella, d.1.1. Tibia, v.0.1.1. p,r.0.0.1. d.1.0.1. Metatarsus, v.0.2.1. p,r.0.1.2. d.1.1.1.



Figs. 1064-1066 *Hulua convoluta* n.sp. Fig. 1064 Bulb of male palp from below. Fig. 1065 Tibial processes of male palp. Fig. 1066 Internal genitalia. Fig. 1067 *Hulua pana* n.sp. Internal genitalia. Fig. 1068 *Hulua minima* n.sp. Internal genitalia. Fig. 1069 *Hulua manga n.sp.* Internal genitalia. Fig. 1070 *Hulua* n.sp. from Canterbury. Internal genitalia.

Third leg. Femur, p,r.0.0.1. Patella, d.1.1. Tibia, v.0.0.2. d.1.0.1. p.0.1.1. r.0.0.1. Metatarsus, v.0.2.1. p,r.0.1.1. d.1.1.2. Fourth leg. Femur, p,r.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.0.2.1. p,r.0.0.2. d.2.2.0. Trichobothria. Metatarsus and tarsus of all legs with single row of three. Tibia. Leg 1, 1.2.1.1. Leg 2, 1.1.2.1. Leg 3, 1.2.2.1. Leg 4, 1.2.1.1. Calamistrum proximal with 9 hairs.

Palp (Figs. 1064, 1065). Embolus threadlike and fits under marginal flange of large, thin and transparent conductor. Median apophysis well developed, median in position and strap-like. Cymbium broad and not strongly concave. Inner margin curves in so that distal portion is narrow. Trichobothria not present on cymbium.

Abdomen Six spinnerets. Anterior pair with stout basal segment. Distal segment short and conical. Separated at base by 5/7 of basal width of spinneret. Posterior pair slender with distal segment 2/3 length of basal and longer than anterior pair. Cribellum rectangular, wider than long in ratio of 8.5. Anterior margin deeply notched. Spinning areas small, divided.

FEMALE

Measurements

Carapace	length 1.07	width 0.75
Abdomen	length 1.26	width 0.97

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.97	0.36	0.86	0.72	0.57	3.48
2	0.79	0.30	0.57	0.55	0.45	2.66
3	0.77	0.31	0.55	0.61	0.39	2.63
4	0.99	0.36	1.00	0.84	0.50	3.69
Palp	0.39	0.19	0.25		0.39	1.22

Very similar in structure to male. Carapace relatively narrower than male with lateral margins of head region sub-parallel. Epigynum represented by thickening of epigastric area but without structure. Internal genitalia (Fig. 1066) can be seen through the skin.

Types Holotype male. Bay of Islands, Mimiwhangata, pitfall trap at base of Puriri, 10-17.xii.1970, J. T. Darby (Otago Museum). Allotype female. Four miles south of Russell, ex *Freycinetia*, sample 158, 17.xii.1966, K. A. J. Wise (Auckland Museum).

Records East of Waikare, leaflitter by stream, Sample 162, 17.xii.1966, K. A. J. Wise. East of Waikare, leaflitter on hillside, samples 163, 164, 17.xii.1966, K. A. J. Wise. Three miles west of Matapouri, leaflitter, sample 178, 18.xii.1966, K. A. J. Wise. Three miles south of Paihia, Rimu

leaflitter by stream, sample 183, 18.xii.1966, K. A. J. Wise. North Cape, Unawhao, leaflitter, forest remnant, sample 236, 24.ii.1967, K. A. J. Wise. Gt Barrier Is., leaflitter, 20.xi.1964, R. G. Ordish. Poor Knights Island, December 1958, F. Kinsky. Te Hope-Maehau Track, 2,000 ft, leaflitter, 17.i.1952, T. E. Woodward.

Hulua pana n.sp.

Fig. 1067

FEMALE

Measurements

Carapace	length 0.86	width 0.62	
Abdomen	length 0.96	width 0.65	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.66	0.30	0.54	0.42	0.36	2.28
2	0.60	0.24	0.42	0.42	0.31	1.99
3	0.48	0.19	0.32	0.30	0.29	1.58
4	0.60	0.24	0.54	0.54	0.35	2.27
Palp	0.30	0.12	0.19		0.24	0.85

Colour Carapace pale reddish brown. Legs pale yellow brown. Abdomen purplish grey.

Eyes Eyes large but form compact group which occupies slightly more than half of width of head. From above both rows appear straight but from in front anterior row straight and posterior row slightly procurved. Ratio of AME.ALE.PME.PLE = 2.5.4.6. AME separated from each other by 2/2 and from ALE by 1/2 of diameter of an AME. Lateral eyes contiguous. PME separated from each other by 2/2 and from PLE by 1/2. MOQ wider behind than in front in ratio of 5.3 and wider behind than long in ratio of 5.4.

Sternum Scutiform, as wide as long. Anterior margin straight, laterals evenly curved. Anterior margin oblique. Longer than wide at base in ratio of 3.2.

Labium Notched at the base. Lateral margins slightly convergent. Anterior margin straight. Wider at base than long.

Chelicerae Retromargin with two, promargin with three teeth. Carina extends from proximal promarginal tooth to base of chelicera.

Palp Metatarsus with three spines in a row on the prolateral surface, otherwise only bristles are present. Trichobothria. Tibia, 2.1. Tarsus, 1.1. Claw with four minute teeth.

Legs 1423. Spines on first two pairs of legs long and strong but reduced in size and number on legs 3 and 4. First leg. Femur, d.0.1.0.0. p.0.0.0.1. Tibia, v.2.1.0. p.1.1.1. Metatarsus, v,p.1.1.1. Second leg. Femur, d.0.1.0.0. Tibia, v.2.1.0. p.1.1.1. Metatarsus, v.1.1.1. p.2.1.1. Third leg. Femur, d.0.1.0.0. Tibia, p.1.0.1. Metatarsus, p.1.0.1. r.0.0.1. Fourth leg. Femur, d.0.1.0.0. Metatarsus, p.0.0.1. Trichobothria. Tibia, 2.1.1. Metatarsus, 1.1. Tarsus, 1.1.1. Superior claws of legs 1 and 2 with 6-7 teeth, legs 3 and 4 with four teeth. Inferior claws with single tooth.

Abdomen Epigynum smooth apart from small lobe on antero-median surface. Internal genitalia consist of pair of kidney shaped vesicles from which extend moderately convoluted tubes (Fig. 1067).

Type Holotype female. Wellington. Orongorongo Valley, 7.ii.1954, McIntyre (Otago Museum).

Record Akatarawa Divide, 1,500 ft, leaflitter, 3.i.1947, J. T. Salmon.

Hulua manga n.sp.

Fig. 1069

FEMALE

Measurements

Carapace	length 1.30	width 0.66
Abdomen	length 1.08	width 0.72

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.72	0.28	0.63	0.50	0.46	2.59
2	0.64	0.27	0.45	0.41	0.37	2.14
3	0.57	0.26	0.41	0.41	0.36	2.01
4	0.73	0.28	0.61	0.63	0.41	2.66
Palp	0.30	0.18	0.19		0.35	1.02

Colour Typical with a strong chevron pattern on dorsal surface of abdomen.

Eyes From above straight but from in front both rows gently procurved. Ratio of AME.ALE.PME.PLE = 1.3.2.2. AME separated from each other and from ALE by distance equal to width of an AME. Lateral eyes separated by same distance. PME separated from each other by twice, and from the PLE by distance equal to, the diameter of an AME. Height of clypeus equal to three times diameter of an AME.

Maxillae, labium and *chelicerae* typical.

Legs Calamistrum proximal, with six hairs. Superior claws with from 6-7 teeth, inferior with two. Tarsal organ subdistal. Spines. First leg. Patella, d.0.1. Tibia, d.1.0.0. Metatarsus, v.0.0.1. Second leg. Patella, d.1.1. Tibia, d.1.0.0. Metatarsus, v.0.1.1. p,r,d.0.0.1. Third leg. Femur, p.r.0.0.1. Patella, d.1.1. Tibia, d.1.0.0. p,r,v.0.0.1. Metatarsus, p,r,v.0.0.1. d.0.0.2. Fourth leg. Femur, r.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.0.1. d.1.0.0. Metatarsus, v.0.1.1. p,r.0.0.1. d.0.1.2. Trichobothria. Metatarsi and tarsi of all legs with three trichobothria. Tibia of first leg with 1.2.1.1.1 but other tibiae with 1.2.1.1.

Abdomen Cribellum rectangular, twice as wide as long with posterior margin deeply notched. Internal genitalia as in Fig. 1069.

Type Holotype female. Mangamuka Gorge, leaflitter, 7.i.1967, R. R. Forster (Otago Museum).

Records Mangamuka Gorge, leaflitter, 19.xi.1966, K. A. J. Wise. North of Waiwere, leaflitter sample 33, 2.ix.1966, K. A. J. Wise.

Hulua minima n.sp.

Fig. 1068

FEMALE

Measurements

Carapace	length 1.09	width 1.43	
Abdomen	length 0.89	width 1.01	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.08	0.37	1.08	0.81	0.61	3.95
2	0.89	0.32	0.71	0.54	0.48	2.94
3	0.88	0.33	0.63	0.52	0.41	2.77
4	1.08	0.39	0.93	0.97	0.54	3.91
Palp	0.35	0.21	0.25		0.45	1.26

Colour pattern typical with a distinct chevron pattern on abdomen.

Eyes Eyegroup occupies 16/29 of width of head. Ratio of AME.ALE.PME.PLE = 2.4.5.5. AME separated from each other and from ALE by 1/2 of diameter of an AME. Lateral eyes separated by the diameter of an AME. PME separated from each other by distance equal to and from the PLE by 1/2 of diameter of an AME. MOQ wider behind and longer than wide in front in ratio of 12.5.

Legs Spines. First leg. Tibia, p.1 basal. Metatarsus, v.0.2.1. Second leg. Tibia, v.0.1.0. p.0.0.1. Metatarsus, v.0.1.1. p,r.0.0.2. Third leg. Femur, r.1 distal. Patella, d.0.1. Tibia, v,p,r.0.0.1. Metatarsus, v.0.0.1. p,r.0.1.2. d.0.0.1. Fourth leg. Femur, r.1 distal. Patella, d.0.1. Tibia, v.0.0.2. r.1.0.1. p.0.1.1. d.0.0.1. Metatarsus, v,d.0.1.1. r.0.0.2. p.0.1.2. Trichobothria, claws, typical.

Abdomen Cribellum twice as wide as long. Distal segment of posterior pair of spinnerets one half of length of basal segment. Internal genitalia as in Fig. 1068.

Type Holotype female. Little Wanganui, Westland, leaflitter, R.R.F., C. L. Wilton (Otago Museum).

Neomyro n.gen.

Small (1.5-2.5mm) ecribellate spiders. Eyes compact, occupying little more than one half of width of head. AME extremely small and situated well behind ALE. ALE and posterior eyes large and subequal, evenly spaced and forming a ring around AME. Area enclosed by eyes heavily pigmented so that eyegroup is distinctive. Labium notched at base and wider than long. Chelicerae with boss. Retromargin with two teeth. Promargin usually with two normal teeth and row of four closely placed minute teeth. Legs 4123. Preening comb on metatarsi of legs 3 and 4. Trichobothria in double row on tibiae and single row on metatarsi and tarsi. Superior claws similar, strongly pectinate. Inferior claw with one or two teeth. Scopulae, tenent hairs and claw tufts absent. Tarsal organ distinct, at about two thirds of length of segment. Female palp with trichobothria on tibia. Claw strongly pectinate. Six spinnerets, anterior and posterior pairs equal in length. Distal segment short. Colulus small, setose. Epigynum weakly developed. Internal genitalia receptaculate, with both short and convoluted ducts. Male bulb with filiform embolus originating proximally and extending prolaterally along a large membraneous conductor. Median apophysis well developed. Tibia of male palp with distal retrolateral plate. Tracheal system limited to abdomen.

Type species *Habronestes scitula* Urquhart

Closely related to *Myro* but separated by the much smaller size, the presence of a well developed median apophysis and a broad spoon-shaped cymbium. These small spiders are found amongst the litter on the forest floor. They are often present in large numbers.

Neomyro scitulus (Urquhart) 1890

1890 *Habronestes scitula,* Urquhart. Trans. N. Zeal. 23: 135.

1957 *Storena scitula,* Bonnet. Bibl. Aran. 2: 2069.

FEMALE

Measurements

Carapace	length 1.12	width 0.72
Abdomen	length 1.20	width 0.80

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.70	0.25	0.63	0.50	0.38	2.46
2	0.58	0.25	0.40	0.50	0.38	2.11
3	0.50	0.28	0.38	0.50	0.38	2.04
4	0.80	0.18	0.63	0.50	0.35	2.46
Palp	0.33	0.20	0.13		0.35	1.01

Colour Cephalothorax pale yellow with prominent black patch enclosing eyes. Legs pale yellow. Abdomen with black markings on dorsal and lateral surfaces.

Carapace Width of head 9/14 of width of the thoracic region. Lateral margins straight and parallel. Fovea distinct but narrow.

Eyes Eyegroup compact and occupies 4/9 of width of the head. From in front and above both anterior and posterior rows strongly procurved. AME placed so that PLE and posterior row form a ring around AME. Ratio of AME.ALE.PME.PLE = 2.6.8.7. AME separated from each other by 3/2 and from the ALE by 2/3 of diameter of an AME. Lateral eyes separated by 3/2. PME separated from each other and from PLE by 3/2. MOQ wider behind than in front in ratio of 19.7 and wider behind than long in ratio of 19.15. Height of clypeus three times diameter of an AME.

Sternum Anterior margin straight and lateral margins evenly curved. Posterior projection broadly pointed and separates coxae 4 by one half of width of coxa.

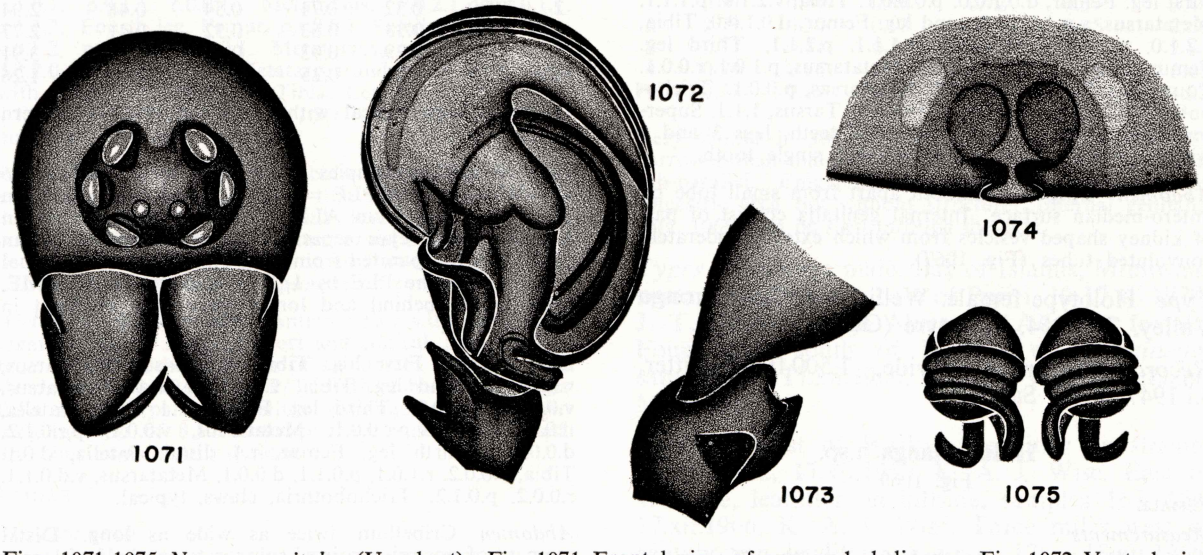
Maxillae Slightly convergent. Outer margins curved. Longer than wide in ratio of 4.3.

Labium Notched at base. Outer margins gently curved. Anterior margin slightly indented. As long as wide.

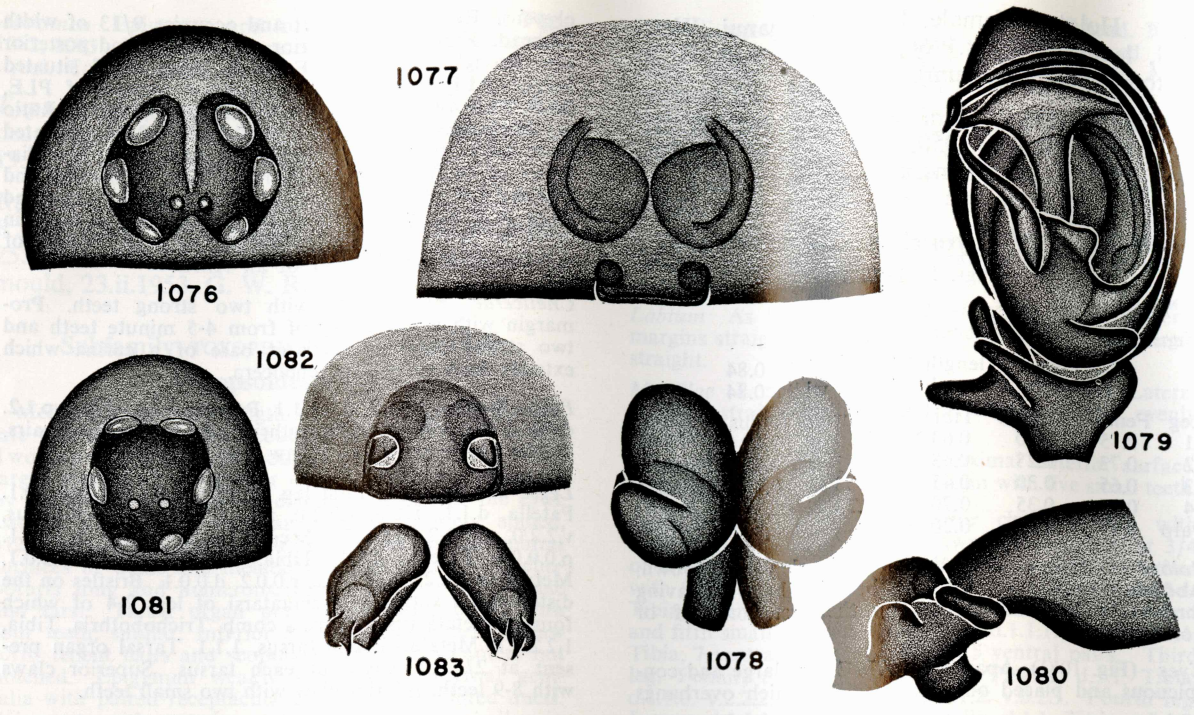
Chelicerae Length of chelicerae 2/7 of the carapace. Boss present. Retromargin with two teeth. Promargin with four minute teeth followed by two normal teeth and carina which extends to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. r.1.0. Tibia with five trichobothria arranged 2.2.1. Claw with six teeth.

Legs 4123. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Tibia, v.1.2.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Tibia, v.0.1.0. p.0.0.1. d.1.0.0. Metatarsus, v.1.1.1. p.0.1.2. r.0.0.2. Third leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.0.1.2. p,r.0.1.1. d.1.0.1. Metatarsus, v.0.2.1. p,r.0.1.2. d.0.1.1. Fourth leg. Femur, d.0.1.1.1. p,r.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.2. p,d.1.0.1. r.0.1.1. Metatarsus, v.1.1.1. p,r.0.1.2. d.0.1.1. Metatarsal comb on legs 3 and 4 with three and six bristles respectively. Trichobothria. Tibia, 1.2.1. Metatarsus and tarsus,



Figs. 1071-1075 *Neomyro scitulus* (Urquhart). Fig. 1071 Frontal view of eyes and chelicerae. Fig. 1072 Ventral view of male palp. Fig. 1073 Tibial processes of male palp. Fig 1074 Epigynum. Fig. 1075 Internal genitalia.



Figs. 1076-1080 *Neomyro amplius* n.sp. Fig. 1076 Eyes from in front. Fig. 1077 Epigynum. Fig. 1078 Internal genitalia. Fig. 1079 Ventral view of male palp. Fig. 1080 Tibial processes of male palp. Figs. 1081-1083 *Neomyro circe* n.sp. Fig. 1081 Eyes from in front. Fig. 1082 Epigynum. Fig. 1083 Internal genitalia.

1.1.1. Tarsal organ large, situated at two thirds of length of each tarsus. Superior claws with from 11-12 teeth. Inferior claw with two teeth.

Abdomen Epigynum and internal genitalia as in Figs. 1074, 1075. Posterior pair of spinnerets very small. Colulus small. Spiracle distinct and situated at base of spinnerets.

MALE

Similar to the female in structure. Form of the palp as in Figs. 1072, 1073.

Type Holotype female. Stratford, A. T. Urquhart (probably lost).

Records Taranaki. Arawhata Rd, Oanui, 20.v.-1966, M. Luxton. Mt Ruapehu, S.W. slopes, 3,000 ft, leaflitter, R. G. Ordish. Dawson Falls, Egmont, 3,600 ft, leaflitter, May 1954, M. Buchler. Egmont, near swamp off road to Stratford, moss and leaf-litter, 14.xi.1951, T. E. Woodward. Egmont, 3,000 ft, leaflitter, 21.iii.1969, R.R.F., C.L.W. Mt Messenger, 21.iii.1969, leaflitter, R.R.F.

Neomyro amplius n.sp.

Figs. 1076, 1078-1080

FEMALE

Measurements

Carapace	length 0.84	width 0.60	
Abdomen	length 1.00	width 0.60	

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.63	0.25	0.50	0.45	0.30	2.13
2	0.58	0.25	0.38	0.35	0.28	1.84
3	0.50	0.23	0.30	0.33	0.30	1.66
4	0.63	0.25	0.48	0.50	0.33	2.19
Palp	0.25	0.13	0.18		0.25	0.81

Colour Cephalothorax and legs pale yellow. Abdomen creamy yellow, with faint grey shading. Eyegroup black except for a pale area between the PME.

Eyes (Fig. 1076). Eyegroup relatively large and occupies 3/4 of width of head. From above anterior row straight and posterior row procurved. From in front both rows strongly procurved. AME situated behind ALE. Ratio of AME.ALE.PME.PLE = 3.6.7.7. AME separated from each other and from ALE by 2/3 of diameter of an AME. ALE separated from each other by 5/3 and from PLE by 2/3 of diameter of an AME. PME separated from each other by 4/3 and from PLE by 2/3. MOQ wider behind than in front in ratio of 9.4 and as wide behind as long. Height of clypeus equal to diameter of an AME.

Chelicerae Retromargin with two strong teeth. Promargin with row of four minute teeth followed by two normal teeth and a carina which extends back to base of chelicera.

Palp Spines. Femur, d.0.0.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, p.1.2. d.0.1. Tibia with four trichobothria arranged in two pairs Tarsal organ sub-distal.

Legs 4123. Clothed with finely ciliate hairs. Spines. First leg. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, v,p.1.1.0. d.1.0.0. Metatarsus, v.2.2.2. Second leg. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, v.0.1.0. p.1.0.1. d.1.0.0. Metatarsus, v.1.2.1. p.0.1.2. r.0.0.2. Few bristles on disto-ventral surfaces of metatarsi of legs 2-4 but not in form of a comb. Trichobothria. Tibia, 2.1.1.1. Metatarsus and tarsus, 1.1.1. Tarsal organ relatively large and situated at three-quarters of length of each tarsus. Superior claws with from 11-12 teeth. Inferior claw with single long tooth.

Abdomen Epigynum and internal genitalia as in Fig. 1078. Anterior and posterior pairs of spinnerets subequal. Colulus well developed, triangular, clothed with hairs.

MALE

Similar to female in general appearance and structure.

Palp As in Figs. 1079, 1080.

Type Holotype female. Little Wanganui, Westland, leaflitter, 28.ix.1966, R. R. Forster, C. L. Wilton (Otago Museum).

Records Nelson. Flora Hut, 28.i.1948, R. K. Dell. Oparara, 20.i.1950, R.R.F. Lake Kanieri, 31.xii.1949, J. H. Sorensen.

Neomyro circe n.sp.

Figs. 1081-1083

FEMALE

Measurements

	Carapace	length 1.20		width 0.84		
	Abdomen	length 1.24		width 0.84		
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.75	0.30	0.63	0.58	0.40	2.66
2	0.73	0.28	0.53	0.53	0.38	2.45
3	0.65	0.30	0.45	0.58	0.33	2.31
4	0.85	0.35	0.70	0.75	0.38	3.03
Palp	0.35	0.13	0.20		0.30	0.98

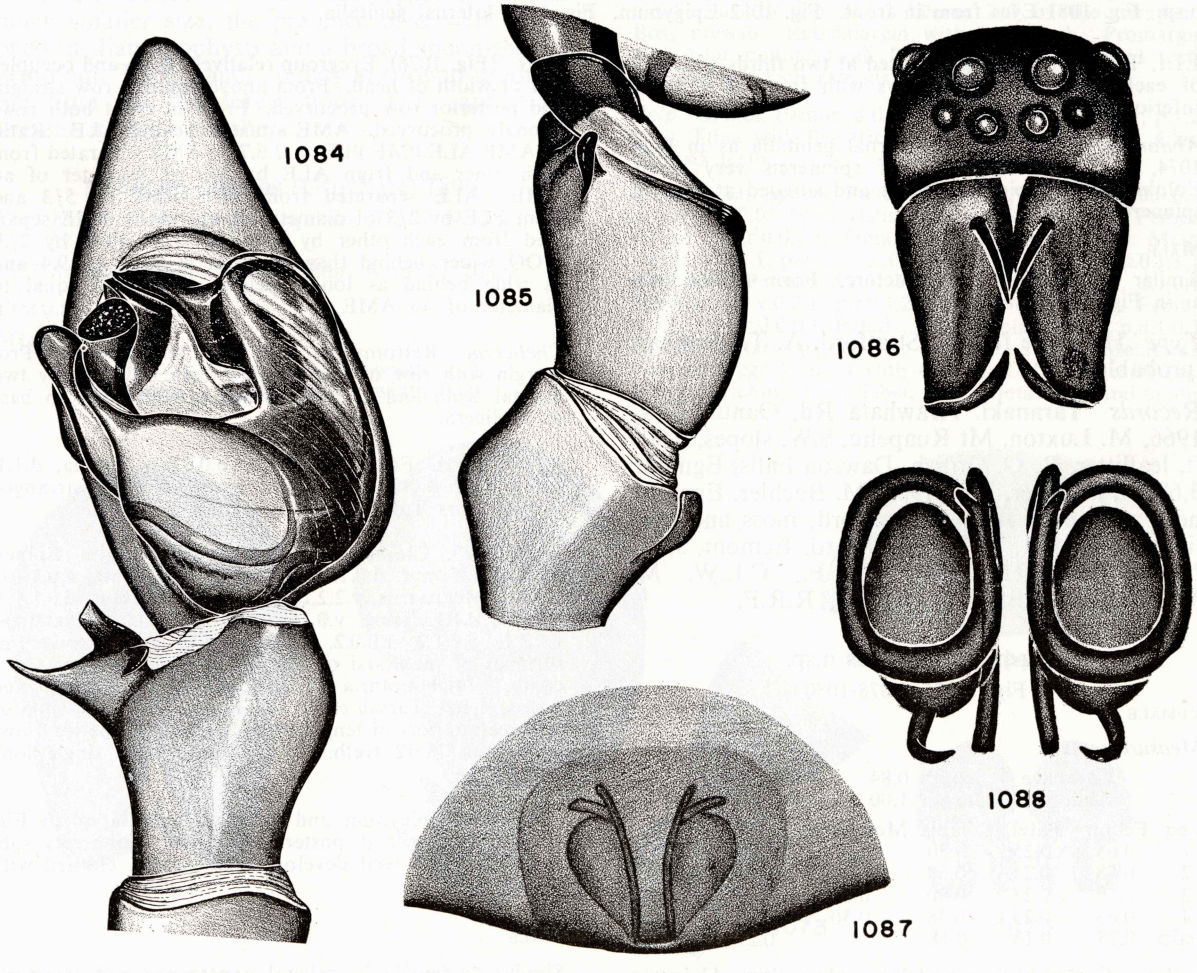
Colour Carapace, legs and chelicerae pale yellow brown. Abdomen heavily shaded with blackish brown, leaving three pale, broken chevrons on the posterior half of dorsal surface.

Eyes (Fig. 1081). Apart from AME eyes large and conspicuous and placed on a low mound which overhangs clypeus. Eyegroup compact and occupies 9/13 of width of head. From above anterior row straight and posterior row strongly procurved. From in front AME situated behind ALE and level with anterior margin of PLE. ALE, PLE and PME form an oval around AME. Ratio of AME.ALE.PME.PLE = 3.10.9.10. AME separated from each other by 4/3 and from ALE by 3/3 of diameter of an AME. ALE separated from each other and PLE by 4/3. PME separated from each other by 6/3 and from PLE by 5/3. MOQ wider behind than in front in ratio of 24.10 and as wide behind as long. Height of clypeus equal to diameter of an AME.

Chelicerae Retromargin with two strong teeth. Promargin with a distal row of from 4-5 minute teeth and two strong proximal teeth at base of a carina which extends back to base of chelicera.

Palp Spines. Femur, d.0.1.1.1. Patella, d.1.1. Tibia, p.1.2. d.0.1. Tibia with six trichobothria arranged in three pairs. Tarsal organ sub-distal. Claw with six teeth.

Legs 4123. Spines. First leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.2.2.0. p.0.1.0. d.1.0.1. Metatarsus, v.2.2.0. p.0.1.2. r.0.0.2. Second leg. Femur, d.0.1.1.1. p.0.0.0.1. Patella, d.1.1. Tibia, v.1.1.0. p.0.1.1. d.0.0.1. Metatarsus, v.2.2.1. p.1.1.2. r.0.0.2. d.0.0.1. Bristles on the disto-ventral surfaces of metatarsi of legs 2-4 of which four on metatarsus 4 forms a comb. Trichobothria. Tibia, 1.2.2.1.1. Metatarsus and tarsus, 1.1.1. Tarsal organ present at 2/3 of length of each tarsus. Superior claws with 8-9 teeth. Inferior claw with two small teeth.



Figs. 1084-1088 *Toxopsioides huttoni* n.sp. Fig. 1084 Ventral view of male palp. Fig. 1085 Tibial processes of male palp. Fig. 1086 Frontal view of eyes and chelicerae. Fig. 1087 Epigynum. Fig. 1088 Internal genitalia.

Abdomen Epigynum and internal genitalia as in Figs. 1082, 1083. Anterior and posterior pair of spinnerets subequal. Colulus small.

Type Holotype female. Fiordland. Lake Te Au, near South Arm of Lake Te Anau, moss, 12.i.-1953, R. R. Forster (Otago Museum).

Records Fiordland. Lake Te Au, moss, 12.i.1953, R.R.F. Deep Cove, collected with light at night, 25.i.1958, R.R.F. Lake Hankerson, Te Anau, leaf-mould, 23.ii.1953, G. W. Ramsay.

Subfamily TOXOPINAE Hickman, 1939

Toxopsoides n.gen.

Medium sized (body length 3-4mm) laterigrade, ecribellate spiders. Eyegroup occupying most of head width. Two rows of four eyes, both strongly recurved. AME larger than ALE. Posterior eyes large. PME separated by a distance equal to the diameter of one of the eyes. Lateral eyes widely separated. Legs strongly spined, 4123, with a double row of long spines along ventral surfaces of tibiae and metatarsi of legs 1 and 2. Trichobothria long and numerous, in a double row on tibiae and tarsi. Tarsal organ present. Superior claws with four teeth, similar. Inferior claw with two teeth. Claw tufts, tenent hairs and scopula lacking. Trochanters not notched. Epigynum weakly sclerotized. Internal genitalia with paired receptacula and long convoluted ducts. Spinnerets with anterior and posterior pairs similar in size; distal segment short. Colulus small. Male palp with filiform embolus curving down the prolateral margin. Radix strongly developed. Conductor membraneous. Median spophysis well developed, not hooked. Tibia with distal retrolateral plate. Palp of female with trichobothria on tibia and tarsus. Claw smooth.

Type species *Toxopsoides huttoni* n.sp.

In general appearance this genus is similar to *Toxops* from Tasmania, but it does not seem to be closely related. The ALE are much more widely separated from the PLE. The posterior eyes are similar in size whereas the PLE in *Toxops* is much larger than the PME. The superior claws are provided with an equal number of teeth in contrast to *Toxops* and there are no tenent hairs. The bulb of the male palp seems to be considerably different in detailed structure, with a median apophysis present.

Toxopsoides is the third genus of the subfamily Toxopinae to be recorded from New Zealand.

Toxopsoides huttoni n.sp.

Figs. 1084-1088

FEMALE

Measurements

	Carapace	length 1.89		width 1.47	
	Abdomen	length 1.98		width 1.44	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.60	0.66	1.62	1.26	0.61	5.75
2	1.53	0.63	1.32	1.22	0.43	5.13
3	1.51	0.55	1.26	1.23	0.54	5.09
4	1.89	0.72	1.74	1.80	0.81	6.96
Palp	0.63	0.32	0.43		0.63	2.01

Colour Carapace heavily shaded with black apart from median area from behind eyes to posterior margin of carapace which is unpigmented. Abdomen heavily shaded with black on dorsal and lateral surfaces with number of chevrons on posterior half of dorsal surface. Femora of all legs with prominent black bands, present on other segments but more diffused.

Eyes Eyegroup occupies most of width of head. From above and in front both rows strongly recurved (Fig. 1086). Ratio of AME.ALE.PME.PLE = 6.4.9.10. AME separated from each other by 4/6 and from ALE by 3/6 of diameter of an AME. Lateral eyes separated by 5/6. PME separated from each other and PLE by 5/6. MOQ wider behind than in front in ratio of 23.16 and longer than wide in front in ratio of 19.16. Height of clypeus slightly more than diameter of an AME.

Sternum Scutiform. As long as wide. Pointed behind between coxae 4 which are separated by 5/6 of width of a coxa.

Labium As long as wide. Basal notch absent. Lateral margins straight and slightly convergent. Anterior margin straight.

Maxillae Longer than wide in ratio of 17.12. Lateral margins straight and parallel. Anterior margin evenly curved.

Chelicerae Strong bristle on proximal anterior surface. Retromargin with two and promargin with five small teeth.

Legs Laterigrade. 4123. Superior claws similar, with four teeth. Inferior claw with two. Tarsal organ at 3/4 of length of segment. Trochanters not notched. Clothed with finely ciliate hairs. Spines. First leg. Femur, d.1.1.1. Tibia, 6 ventral pairs. Metatarsus, 5 ventral pairs, second and fifth small. Second leg. Femur, d.1.1.1. Patella, d.1.1. Tibia, 7 ventral pairs. Metatarsus, 5 ventral pairs. Third leg. Femur, d.1.1.1. r.1 subdistal. Patella, d.1.1. Tibia, d.1.1.0. v.2.2.2. Metatarsus, p,r.0.1.2. v.0.2.1. Fourth leg. Femur, d.1.1.1. r.1 subdistal. Patella, d.1.1. Tibia, v.2.1.2. d.1.1.1. p,r.1 subdistal. Metatarsus, v.0.2.1. p,f.0.1.2. Trichobothria long and numerous. Leg 1. Tibia, 1.1.2.1.1. Metatarsus, 6. Tarsus, 1.1.2.2. Leg 2. Tibia, 1.1.2.1.1.1. Metatarsus, 6. Tarsus, 1.1. Leg 3. Tibia, 1.2.1.1.1. Metatarsus, 7. Tarsus, 1.1.2.2. Leg 4. Tibia, 1.2.1.1.1.1. Metatarsus, 6. Tarsus, 5.

Palp Tarsal organ subdistal. Claw smooth. Trichobothria. Tibia, 2.2.1. Tarsus, 1.1.2. Spines. Femur, d.0.1.1.1. v.0.1.0.2. Patella, d.1.1. Tibia, v.1.0. p.2.2. r.0.1. Tarsus, many.

Abdomen Six spinnerets with anterior and posterior pairs of equal length. Distal segments short. Colulus small, anterior margin evenly curved and setose. Epigynum simple (Fig. 1087). Internal genitalia with a large spherical receptaculum and coiled ducts (Fig. 1088).

MALE

Measurements

	Carapace	length 1.71		width 1.47	
	Abdomen	length 1.62		width 1.17	
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.98	0.75	1.98	1.47	0.73	6.91
2	1.98	0.72	1.80	1.44	0.72	6.66
3	1.80	0.64	1.62	1.51	0.69	6.26
4	1.87	0.68	2.07	2.03	0.86	7.51
Palp	0.73	0.39	0.25		0.68	2.05

Similar in general structure to female. The palp is shown in Figs. 1084, 1085.

Embolus filiform, originating distally and curving back down the prolateral surface along margin of membraneous conductor. A complex structure occupying anterior portion of the bulb is a form of radix projecting from base of embolus and curving towards cymbium before bending down into a curved tongue. Median apophysis developed but not hooked apically. In the illustration it is shown on the left side of bulb. Tibia has a large distal plate on retrolateral surface and a small spinous process at base of plate.

Types Holotype female, allotype male. Hawkes Bay, Waitetola, R. W. Hutton (Otago Museum).

Record Same data as types. This spider was collected from beneath stones and fallen logs. It is presumed to be a vagrant.