

## THE ARANEAE AND OPILIONES OF THE SUB-ANTARCTIC ISLANDS OF NEW ZEALAND

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*Abstract:* This paper covers the spiders and opiliones from all the subantarctic islands of New Zealand. Forty-three species are enumerated, of which 21 are new (7 n. spp. from Campbell I.). Three genera are described as new.

This paper is based on large collections which have become available over the last few years from both the Auckland and Campbell Islands. Other collections from the Snares and Chatham Islands have also been referred to in the preparation of this paper in an attempt to elucidate some of the taxonomic problems involved. In an earlier paper (Forster, 1955) I listed 19 species of spiders from the Auckland Islands and 9 from Campbell I. This paper increases these totals to 24 species recorded from the Auckland Is. and 16 from Campbell I., besides Opiliones. Nine species are found in both Auckland and Campbell Is. but only 4 of these, *Gohia wenhami*, *Hina delli*, *Icona alba* and *Clynotis barresi* are considered to be endemic. *Mynoglenes insolens*, *M. marrineri* and *Amaurobioides maritima* are recorded from a number of other Subantarctic islands and also from the extremities of some of the Southern Continents and New Zealand and undoubtedly possess the ability to cross easily the wide stretches of ocean between the areas in which they occur. *Araneus pustulosus* has probably been introduced by man to these islands from New Zealand and the occurrence of *Oramia charybdis* on Campbell I. may be explained in the same way. In general the fauna is a characteristic extension of the New Zealand fauna and is related directly to the elements typical for the southern portion of the South Island. The facies of the fauna is not characteristic of an oceanic island fauna but appears to be an attenuated relict fauna from an earlier period when these islands were part of the New Zealand land area or when the extension of land greatly reduced the sea barriers present today. It is of interest to note that of the 31 species recorded from these islands 25 are endemic although in each case closely related species occur in New Zealand. Clear evidence of divergence between the populations of Campbell and Auckland Is. is shown in *Oramia crucifera* and *O. hoggi* and also within the Auckland Is. themselves by the species groups *Gohia falxiata*, *G. enderbyensis*, *G. wenhami* and *Huara antarctica*, *H. sorenseni*, *H. grossa*. The high degree of endemism shown in this fauna would seem to indicate that it is not to be explained by post-Pleistocene colonization but is in fact a fauna of considerable age.

*Acknowledgments:* I am deeply indebted to Dr. J. L. Gressitt for the opportunity to study the material collected for the Bishop Museum in recent years, and also to Mr. Ian Mannering and Mr. Peter Johns who arranged for supplementary material collected from

the Snares and Auckland Islands to be made available.

Order ARANEAE

Family DICTYNIDAE

Genus **Oramia** Forster, n. gen.

Large dictynid spiders with thickset carapace, usually reddish brown darkening anteriorly. Cribellum divided, calamistrum uniserial. Chelicerae with 2 teeth on retromargin, 3 on promargin. Epigynum usually with a pair of stout spinous projections near the epigastric furrow. Internal genitalia simple, with 1 pair of seminal receptacles. ♂ palp with a simple bifid or trifid process on tibia and a distal plate. Median apophysis of bulb well developed and free.

Type species : *Ixeuticus rubrioides* Hogg 1909.

The dictynid spiders of the N. Z. area have recently been revised by Marples (1959), who studied the genus *Ixeuticus* Dalmas in New Zealand, increasing the number of New Zealand and Subantarctic I. species to 12, and at the same time suggesting that these could be separated into 4 species-groups. In the course of a revision of the spider fauna of New Zealand by the present author, all the specimens which were available to Marples have been re-examined, and much additional material, collected subsequently, has been examined. It would appear that the genus *Ixeuticus* is somewhat heterogeneous. The type species of the genus *Ixeuticus* is *I. martius* which is probably of Australian origin and has perhaps been introduced into New Zealand in the same way as the species had been introduced into North America, where it is recorded as *Hesperauximus sternitzii* Gertsch.

The species found on the subantarctic islands are closely related to each other and to N. Z. species of the *charybdis* group. These I have grouped together under a new generic name *Oramia* which is equivalent to group 2 as suggested by Marples.

The opportunity has also been taken in this paper to clarify the status of the New Zealand, Chatham, and Snares Is. species, in relation to those found on the Auckland and Campbell Is. The unavailability of specimens from Snares I. in the past has resulted in considerable confusion. It has been assumed by all previous authors that the Snares I. species was identical with a single species found on the Auckland and Campbell Is. An examination of material now available from Snares shows that the Snares I. species is more closely related to that from the Chatham Is., and is also restricted to Snares. Furthermore, a detailed study of the material now available from the Aucklands and Campbell Is. shows that there is yet another species on the Auckland Is. related to *Oramia mckerrowi* (Marples) and that the Auckland and Campbell I. populations previously known under the name *rubrioides* are in fact quite distinct and represent 2 species. The present collections also show the presence of a population of the New Zealand *O. charybdis* at Tucker Cove on Campbell I., where it was most probably introduced during the period of early settlement.

**Oramia rubrioides** (Hogg)      Fig. 11–12.

*Amaurobius rubrioides* Hogg, 1909, Subantarct. Is. of N. Zeal. 1: 159.

*Badumna scylla* Hogg, 1909, *Ibid.* 1: 160.

♀. The following characteristics separate this species from the other known forms: Ratio of AME. ALE. PME. PLE=11. 14. 14. 12. The AME are separated from each other by a distance equal to 23/11 and from the ALE by 27/11 of the diameter of an AME. The lateral eyes are separated by a distance equal to 4/11 of the diameter of an AME. The PME are separated from each other by 14/11 and from the PLE by 18/11 of the diameter of an AME. Median ocular quadrangle wider in front than behind in ratio of 44.38 and longer than wide in front in ratio of 51.44. Epigynum heavily chitinised and shown in fig. 11. Internal genitalia shown in fig. 12. No mature ♂♂ are known.

*Types*: The type of *Amaurobius rubrioides* Hogg is an immature ♂ from Snares while the type specimen of *Badumna scylla* Hogg is a ♀ specimen from the same locality. These types are both in the Otago Museum collections.

*Records*: SNARES I., under log, 28. I. 1961, I. Mannering; Snares I., under debris, 28. I. 1961, Mannering.

There seems little doubt that only 1 species is found on Snares and this should be now known under the name *Oramia rubrioides* (Hogg) which has page precedence over *scylla*. The Auckland and Campbell forms have been placed in this species previously but the resurrection of the name *crucifera* for the Auckland species and the description below of the Campbell species as new clarifies the situation.

***Oramia chathamensis*** (Simon) Figs. 13, 14, 21, 22.

*Amaurobius chathamensis* Simon, 1899, Zool. Jahrb. Syst. 12: 433.

*Ixeuticus chathamensis*: Dalmas, 1917, Ann. Soc. Ent. France 86: 334.

This species is related to *rubrioides* and is very similar to it in appearance. Apart from the ♂ and ♀ genitalia, which are quite distinctive, the relative sizes and spacing of the eyes is characteristic.

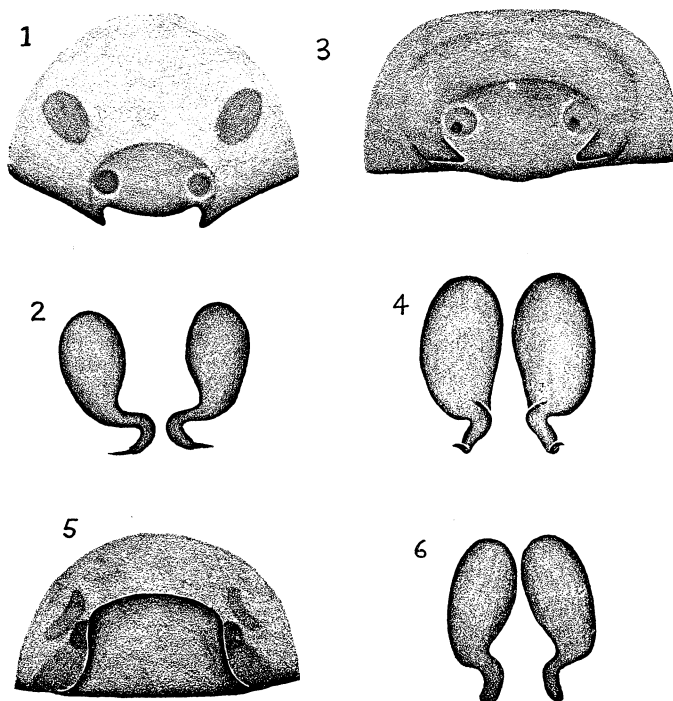
Ratio of AME. ALE. PME. PLE=7. 13. 10. 10. The AME are separated from each other by 10/7 and from the ALE leg 13/7 of the diameter of an AME. Lateral eyes separated by 5/7 the diameter of AME while the PME are separated from each other by 15/7 and from the PLE leg 21/7 the diameter of AME. Median ocular quadrangle wider behind than in front and longer than wide in front in the ratio of 17. 12. Epigynum as in fig. 13. This species is intermediate between *Oramia mckerrowi* and *O. rubrioides*. This relationship is seen in the internal genitalia (fig. 14, 10). Embolus, conductor and median apophysis, are shown in fig. 21. Tibial process is a bifid spine with a small boss at fork and the distal plate is straight-sided (fig. 22). ♂♂ are not known for *mckerrowi* or *rubrioides*.

***Oramia crucifera*** (Hogg) Figs. 3, 4, 17, 18.

*Rubrius cruciferus* Hogg, 1909, Subantarctic Is. of N. Zeal. 1: 169.

*Ixeuticus rubrioides*: Berland, 1931, Rec. Cant. Mus. 3: 357.—Forster, 1955, Rec. Dom. Mus. 2 (4): 172.

When Hogg originally described this species he failed to recognise that the specimens were cribellate and wrongly placed them in the family Agalenidae under the name *Rubrius*



Figs. 1-6. *Oramia* spp. 1, *O. hoggi* n. sp., epigynum; 2, same, internal genitalia from above; 3, *O. crucifera* (Hogg), epigynum; 4, same, internal genitalia from above; 5, *O. charybdis* (Hogg), epigynum; 6, same, internal genitalia from above.

*cruciferus*. Berland (1931), examining further collections, recognised the cribellate nature of this species and placed it in *Ixeuticus* Simon but did not realise that the species was identical with Hogg's *Rubrius cruciferus* but instead considered it identical with *Amaurobius rubrioides* from the Snares. I (1955) realised that Hogg's specimens and the material examined by Berland were of the same species, but following Berland's conclusions on the synonymy of the species, retained the name *rubrioides* which had page priority over *cruciferus*. The type specimen of *Rubrius cruciferus* Hogg is from the Auckland Is. and is now the type of *O. crucifera* (Hogg) while the Campbell I. species not recognised previously as a distinct species is described below as new. *O. crucifera* (Hogg) has been fully described in an earlier paper by me (1955) under the name *Ixeuticus rubrioides* (Hogg).

*Records*: AUCKLAND IS. Ranui Cove, under logs, 27.XII.1962, 30.XII.1962, P. Johns; Ranui Cove, under logs, 14. I. 1963, P. James; Ranui Cove, 15 m, under fallen branches in mixed scrub, 15. I. 1963, K. A. J. Wise; Ranui Cove, ex rata forest, I. 1963, Wise; Observation Point, under logs, 27. XII. 1962, R. A. Falla; Bivouac, 400 m, under rocks, 15. I. 1963, Wise; Meggs Hill to Mt. Eden, 120-400 m, 5. I. 1963, J. L. Gressitt; Laurie Harbor, Grey Duck Creek, under rotting wood, 9. I. 1963, Wise; Stony Peak to Bleak Hill, under stones, 1 in case with stonefly, 11. I. 1963, Gressitt; Hooker Hills, 300 m, under stones, 11.



I. 1963, Wise; Natural Arch, under stones, 12. I. 1963, Gressitt; Webling Bay, 13. I. 1963, Wise; Lindley Point, from supralittoral zone, 18. I. 1963, Johns; Ewing I., 4, 6. I. 1963, Gressitt; Ocean I., under logs and *Stilbocarpa*, 28. XII. 1962, Johns; French I., ex petrel burrow, 2. I. 1963, Gressitt.

***Oramia hoggi*** Forster, n. sp. Figs. 1, 2, 19, 20.

*Rubrius cruciferus* Hogg (in part), 1909, Subantarct. Is. of N. Zeal. 1: 169.

*Ixeuticus rubrioides*: Forster, 1955, Rec. Dom. Mus. 2 (4): 172.

♀: Measurements in mm. Total length 8.61. Cephalothorax, 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

*Color*: Typical for the genus. 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 2 parallel, longitudinal, pale bands down the anterior 1/2 of the mid-dorsal surface, followed by 3 indistinct, pale chevrons. Ventral surface with a longitudinal row of pale spots near each lateral margin. Chelicerae black, legs pale yellow, sternum reddish brown.

*Carapace*: Head region broad, widest portion of thoracic region only slightly wider than head region. *Eyes*: The eye group 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 AME. ALE. PME. PLE=7. 11. 10. 11. The AME are separated from each other by 10/7 and from the ALE by 14/7 of the diameter of an AME. The lateral eyes are separated by a distance equal to 5/7 of the diameter of an AME. The PME are separated from each other by 16/7 and from the PLE by 22/7 times the diameter of an AME. Median ocular quadrangle, wider behind than in front and longer than wide in the front in the ratio of 19.12. *Chelicerae*. Typical. Stout, vertical, promargin with 3 teeth, retromargin with 2 teeth. *Maxillae*. Longer than wide. Distal portion curved in over the labium. *Labium*. Slightly longer than wide, anterior margin slightly indented. *Sternum*. Longer than wide in ratio of 11.9, produced to a point posteriorly between coxae IV. *Legs*: The spination as in *crucifera*. Trichobothria as follows: Leg 1, tibia 2.2.2, proximal, metatarsus 1.1.1, distal, tarsus 1.1.1.1.1.1; leg 2, tibia 2.2.2.2.2, metatarsus 1.1.1.1.1, tarsus 1.1.1.1.1; leg 3, tibia, 2.2.2.2.2, metatarsus 1.1.1.1, tarsus 1.1.1.1; leg 4, tibia, 2.2.2.2.2.2, metatarsus 1.1.1.1.1, tarsus 1.1.1.1. Tarsal organ absent. Superior claws similar, with 10 teeth. Inferior claw with 2 long curved teeth. *Palp*: Tibia with 8 trichobothria arranged 2.2.2.2. Claw slender and smooth. *Abdomen*. Heavily clothed with relatively short hairs but with long erect hairs down the anterior dorsal surface. Epigynum as in fig. 1. Internal genitalia simple, as shown in fig. 2.

♂: Measurements in mm. Cephalothorax, 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 ♀. Bifid process on tibia of palp (fig. 19), slightly different from *crucifera* (fig. 18) 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. 17 and 20.

*Types*: Holotype ♂, allotype ♀, Campbell I., X. 1961, V. O'Neill, Dominion Museum, Wellington.

*Records*: CAMPBELL I. Rocky Bay, on rock slope, NE, 28. XI. 1961, Gressitt; Rocky Bay, 0.2 m, 20. I. 1962, K. P. Rennell; Rocky Bay, ex *Colobanthus* on rock, 20. XII. 1961, Gressitt; St. Col Ridge, 180 m, ex moss on rocks, 7. XII. 1961, Gressitt; St. Col Ridge, 180–280 m, ex moss on rocks, 24, 26, 30. XI. 1961, Gressitt; St. Col Ridge, 180–280 m, on rock, 4, 7, 9, 13. XII. 1961, Gressitt; Courrejolles Peninsula, 200 m, ex *Colobanthus*, 14. XII. 1961, Gressitt; Courrejolles Peninsula, Mollymawk colony, ex moss, 14. XII. 1961, J. L. Gressitt; Courrejolles Pen., 200 m, Mollymawk nest, ex *Colobanthus*, 14. XII. 1961, Gressitt; Beeman Hill, 30–100 m, ex *Poa* roots and moss, 6. XII. 1961, Gressitt; Beeman Hill, 150 m, ex *Anisotome*, 2. XII. 1961, J. L. Gressitt; Beeman Hill, 190 m, ex *Pleurophyllum speciosum*, 11. XII. 1961, Gressitt; Beeman Hill, ex dry flower on stem of *Pleurophyllum*, Gressitt; Beeman Hill, 2. II. 1963, Wise; Beeman camp area, Perseverance Harbor, 1958–1959; Beeman Cove, water edge, 2. I. 1962, Rennell; Mt. Lyall, 300 m, under moss, 5. XII. 1961, Gressitt; Mt. Lyall, 200–400 m, ex moss, 3, 5, 12. XII. 1961, Gressitt; Monument Harbor, rocky shore, 20 m, 10. XII. 1961, Gressitt; Monument Harbor, 9. II. 1963, Wise; Monument Harbor beach, ex kelp, 17. XII. 1961, Gressitt; Lookout Beach, ex dead fern, 16, 19. XII. 1961, Gressitt; Shoal Point, tussock, 7. II. 1963, Wise; Mt. Honey, 500 m, 17. XII. 1961, Gressitt; Filhol Peak, 9. II. 1963, Wise; Beeman Hill, 25 m, 21. XI. 1961, Gressitt; Mt. Dumas, 500 m, under rock, 17. XII. 1961, Gressitt.

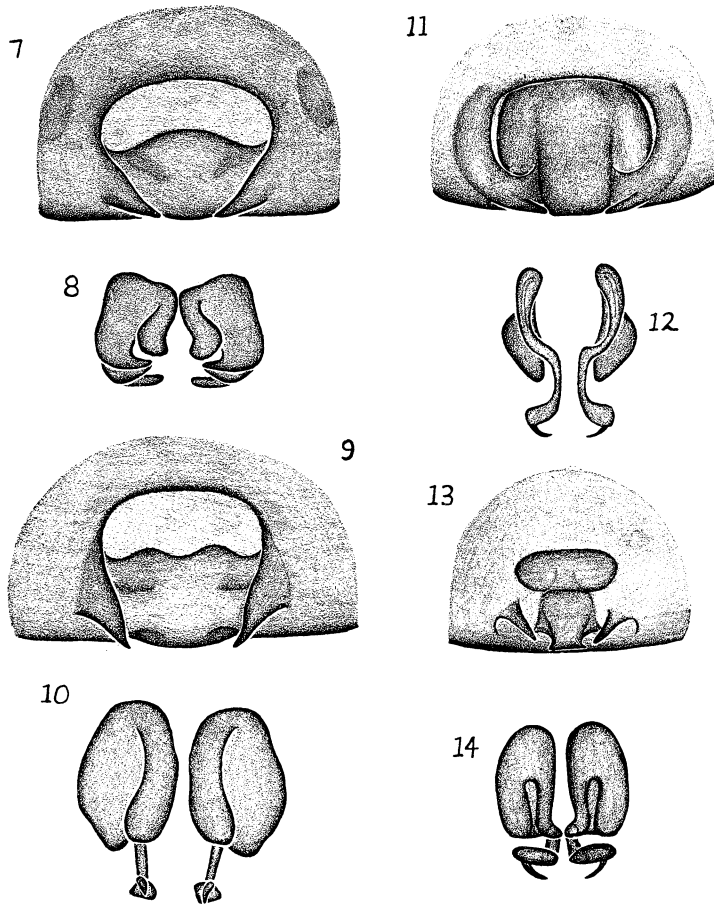
This species is closely related to *crucifera* from the Auckland Is. but can be readily separated by the form of the ♂ and ♀ genitalia.

***Oramia marplei* Forster, n. sp.** Figs. 7–8.

♀: Measurements in mm. Total length 8.86. Cephalothorax, 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

*Color*: 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 2 more rather indistinct chevrons. Legs and palp yellowish brown with a few darker patches. Chelicerae reddish brown.



Figs. 7-14. *Oramia* spp. 7, *O. marplei* n. sp., epigynum; 8, same, internal genitalia from above; 9, *O. mackerrowi* (Marples), epigynum; 10, same, internal genitalia from above; 11, *O. rubrioides* (Hogg), epigynum; 12, same, internal genitalia from above; 13, *O. chathamensis* (Simon), epigynum; 14, same, internal genitalia from above.

*Eyes*: Ratio of AME. ALE. PME. PLE=6.10.10.9. The AME are 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. The PME are separated from each other by  $11/6$  and from the PLE by  $15/6$  of the diameter of an AME. Median ocular quadrangle 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. *Carapace*. Head region broad, equal in width to  $2/3$  maximum width of thoracic region. Numerous, long, erect, black hairs on the head and fewer more inconspicuous hairs elsewhere. Fovea distinct. *Chelicerae*. Stout, vertical, without prominent lateral boss. Retromargin with 2 small teeth, 3 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 IV. *Abdomen*: Closely clothed with fine hairs, longer on the outer anterior dorsal surface. Cribellum small, division indistinct. Epigynum and internal genitalia as in figs. 7–8.

*Types*: Holotype ♀, Auckland Islands, Enderby I., Port Ross, 2. I. 1963, Wise, Dominion Museum, Wellington.

*Records*: AUCKLAND IS. Crozier Point, ex sedge, 28. XI. 1962, Gressitt; Crozier Point, 30. XII, 28. XII. 1962, Gressitt; Tucker Point, under rocks, 19. I. 1963, Gressitt.

Very closely related to *Oramia mckerrowi* (Marples) originally described by Marples (1959), as a subspecies of *rubrioides*, which at that time included both the Auckland and Campbell species. Epigynum and internal genitalia of *mckerrowi* are illustrated in fig. 9, 10 for comparison.

***Oramia charybdis*** (Hogg) Figs. 5, 6, 15, 16.

*Amaurobius charybdis* Hogg, 1910, Trans. N. Zeal. Inst. 42: 273.

*Ixeuticus charybdis*, Dalmas, 1917, Ann. Soc. Ent. France 96: 334.—Marples, 1959, Trans. Roy. Soc. N. Zeal. 87: 338.

Hogg's type specimen came from Stewart I. where the species is common. Marples (1959) has subsequently extended the range to cover most of the South I. of New Zealand. The specimens recorded below are probably part of a restricted population introduced into Campbell I. during an earlier period when the island was settled or during the recent war years.

*Records*: CAMPBELL I. Tucker Cove area, under lichen on *Dracophyllum*, 9. II. 1962, Rennell; Tucker Cove, 1. II. 1963, Wise; Tucker Cove, old camp, under boards 15 m, 7. XII. 1961, Gressitt; Tucker Cove, from peat bank, 1. II. 1963, Rennell.

#### Family OONOPIDAE

##### Genus *Subantarctia* Forster, 1955

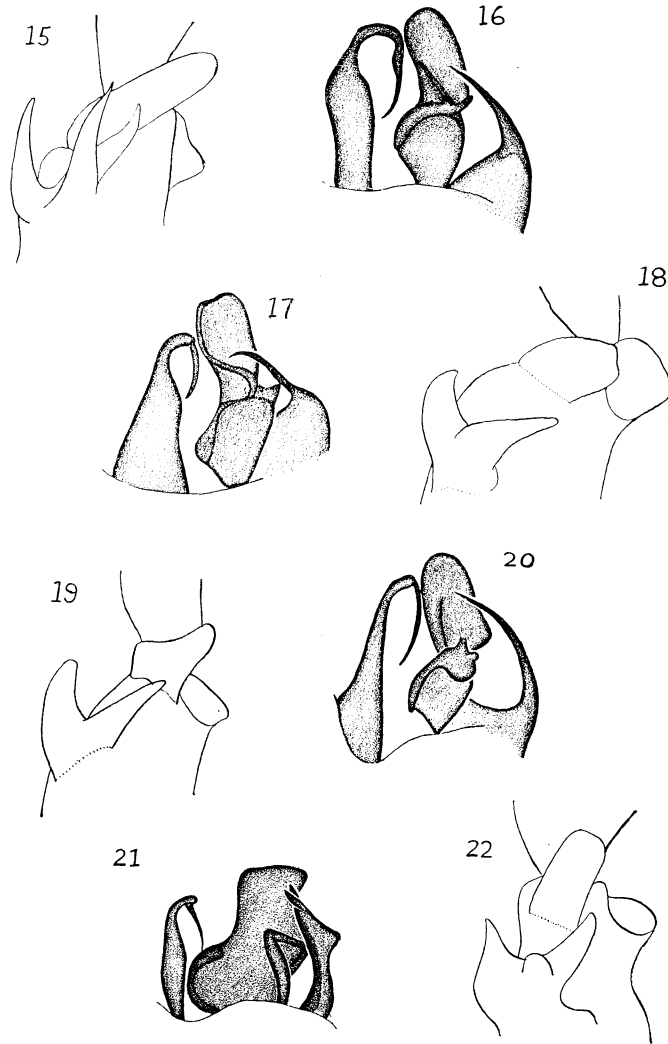
This genus was originally placed in the family Dysderidae. In a subsequent revision (Forster, 1955) of the N. Z. spiders of the family Oonopidae, 4 further species of this genus were described from the South I. of New Zealand and *Subantarctia* was then transferred to this family.

***Subantarctia turbotti*** Forster Figs. 23–25.

*Subantarctia turbotti* Forster, 1955, Rec. Dom. Mus. 2 (4): 170.

Only 2 ♀ ♀ specimens were available when this species was established. The present collections include a good series of both ♂ and ♀ specimens. The description of the ♂ is as follows:

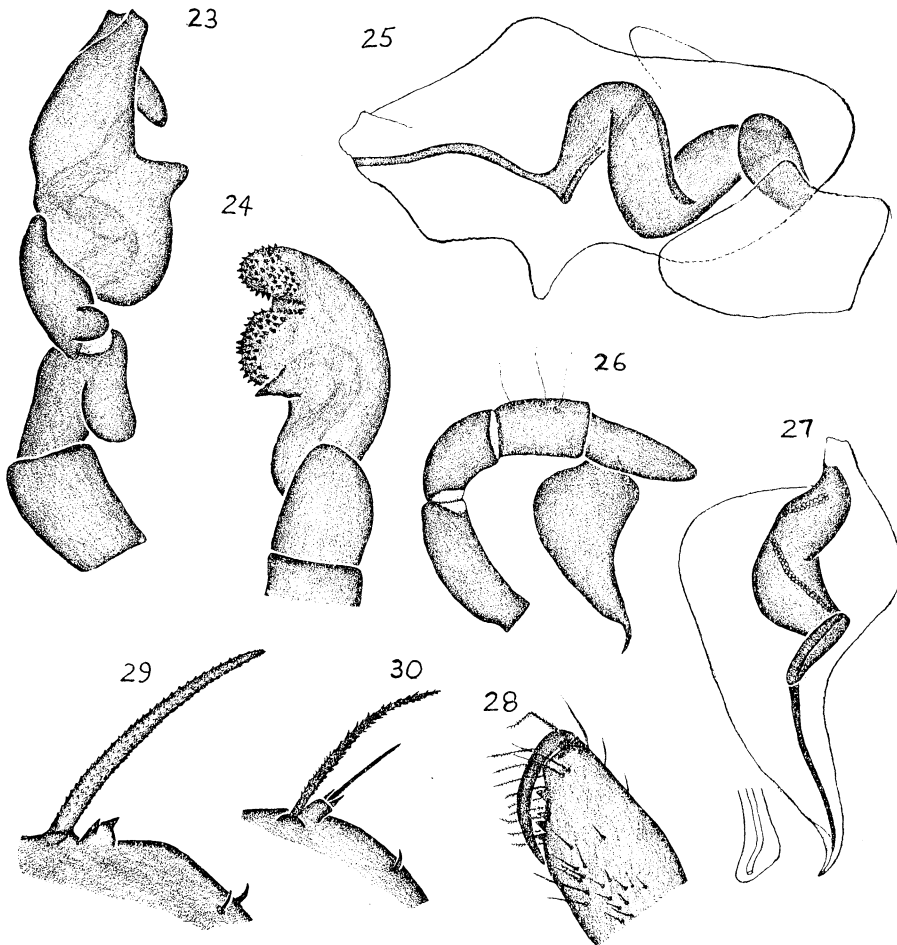
♂: Measurements in mm. Cephalothorax, length 1.80; width 1.29. Abdomen, length 1.73; width 1.17.



Figs. 15-22. *Oramia* spp. 15, *O. charybdis* (Hogg), distal retrolateral portion of tibia of ♂ palp; 16, same, embolus, conductor, and median apophysis of ♂ palp; 17, *O. crucifera* (Hogg), embolus, conductor and median apophysis of ♂ palp; 18, same, distal, retrolateral, portion of tibia of ♂ palp; 19, *O. hoggi* n. sp., distal retrolateral portion of ♂ palp; 20, same, embolus, conductor and median apophysis; 21, *O. chathamensis* (Simon), embolus, conductor and median apophysis of ♂ palp; 22, same, distal, retrolateral, portion of ♂ palp.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.32	0.72	1.08	1.06	0.57	4.75
2	1.44	0.65	1.08	1.11	0.55	4.83
3	0.98	0.57	0.72	0.81	0.45	3.53
4	1.29	0.61	0.99	1.16	0.49	4.54
Palp	0.39	0.31	0.27		0.28	1.25

Cephalothorax and legs bright reddish brown. Abdomen creamy, without markings. Six eyes arranged in 3 contiguous pairs. Ratio of ALE. PME. PLE=8.6.8. The ALE are separated from each other by  $13/8$  of the PLE by  $23/8$  of the diameter of an ALE. The PME are placed behind the ALE so that they are separated from the ALE by  $2/8$  and from the PLE by  $5/8$  of the diameter of an ALE. Legs 2.1.4.3, clothed with both serrate and smooth hairs. All legs with 2 trichobothria on proximal  $1/3$  of tibia and a single distal trichobothrium present on metatarsus of the 1st 3 pairs of legs but absent from the 4th pair. Tarsal organ small with a single small bristle. Two distal "thorns" present. The palp is shown in figs. 23-25. The receptaculum seminis is provided with a well dev-



Figs. 23-30. 23, *Subantarctia turbotti* (Forster), retrolateral surface of ♂ palp; 24, same, prolateral surface of cymbium, and bulb of ♂ palp; 25, same, ♂ bulb showing the receptaculum seminis; 26, *Pounamua gressitti* n. sp., retrolateral surface of ♂ palp; 27, same, bulb cleared to show the receptaculum seminis; 28, same, ♀ chelicera; 29, same, distodorsal, surface tarsus I showing the tarsal tubercle, tarsal thorns and an adjacent hair; 30, *Pounamua australis* n. sp., distodorsal surface of tarsus I showing the tarsal tubercle, tarsal thorns and an adjacent hair.

eloped sieve plate.

*Records*: AUCKLAND IS. Crozier Point, ex sedge, 28. XII. 1962, Gressitt; Crozier Point, ex kelp on beach, 28. XII. 1962, Gressitt; Crozier Point, 30. XII. 1962, Gressitt; Observation Point, 27. XII. 1962, Gressitt; Ranui Cove, beating *Myrsine*, 27. XII. 1962, Johns; Ranui Cove, 4 m, ex Malaise trap, 16-18. I. 1963, Gressitt; Ranui Cove, 4 m, ex Malaise trap, 28. XII. 1962, Gressitt; same data, 30. XII. 1962, 27. XII. 1962 and 31. XI. 1962; Stony Peak, Bleak Hill, under stones, 11. I. 1963, Gressitt; Bivouac, 400 m, under rocks, 15. I. 1963, Gressitt; Bivouac, ex tussock, 16. I. 1963, Gressitt.

Form of palp quite distinctive but indicates close relationship with the 4 species known from the South I. of New Zealand.

#### Genus *Pounamua* Forster, 1956

This genus was established by me for 5 species from New Zealand. Specimens are present in the material studied from both Auckland and Campbell Is. In New Zealand these spiders are found in leaf detritus from forest but the present material shows that they can also thrive in leaf detritus under shrubby cover and also in tussock land. The 2 species described below conform closely to the New Zealand species but are readily separated from each other by the form of the tarsal tubercle.

#### *Pounamua gressitti* Forster, n. sp. Figs. 26-29.

♂: Measurements in mm. Total length 2.26. Cephalothorax, length 0.99; width 0.89. Abdomen, length 1.26; width 0.90.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.90	0.39	0.75	0.72	0.45	3.21
2	0.89	0.36	0.75	0.72	0.45	3.17
3	0.81	0.36	0.61	0.66	0.36	2.80
4	1.08	0.45	0.89	0.90	0.43	3.75
Palp	0.31	0.21	0.19		0.27	0.98

*Color*: Cephalothorax yellow-brown with dark brown shading. Abdomen purple, with a few pale lines.

*Eyes*: Six eyes of equal width. From above the AME are set back slightly from the ALE. Lateral eyes subcontiguous. PME subcontiguous, separated from the ALE by a distance equal to 1/4 the width of a PME. ALE are separated from each other by distance equal to 5/4 and PLE separated from each other by 10/4 of the diameter of a PME. Width of the clypeus is slightly less than the diameter of a PME. *Chelicerae* (fig. 28). Two strong teeth present on both pro- and retromargins. Four rows of setose hairs behind retromargin, but otherwise hairs present are smooth except for strong serrate hairs originating from the base of the fang. *Maxillae*: Parallel, margins straight, 3× as long as wide. *Labium*. As wide as long, anterior margin gently procurved. *Sternum*: Scutiform, longer than wide in the ratio of 33.31. Produced out to small points between coxae. Posterior margin clavate, extending behind coxae IV, which are separated from each other by a distance equal to 11/13 of the diameter of a coxa. *Legs*. Trichobothria distributed on tibiae and metatarsi as follows: Leg 1, tibia 1 at 2/3 length, metatarsus 1 distal; leg 2, tibia 1 pair on median surface, metatarsus 1 distal; leg 3, tibia 1 median, metatarsus 0;

leg 4, tibia 0, metatarsus 1 distal. Tarsal tubercle without a long median bristle but with 2-3 small bristles (fig. 29). Two claws, bipectinate, median claws of outer row on legs 3 and 4 longest as is characteristic for the genus. *Palp* (figs 26, 27). Clothed with setose hairs. Tibia with a row of 3 trichobothria. Bulb simple, as shown in figs. 26, 27. *Abdomen*. Ovoid, clothed with short hairs. The 2 pairs of spiracles are separated from each other by a distance equal to 1/15 of the length of the abdomen. Colulus small with 3 setae.

♀: Measurements in mm. Total length 2.47. Cephalothorax, length 1.01; width 0.90. Abdomen, length 1.44; width 0.90

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.99	0.39	0.81	0.72	0.43	3.34
2	0.91	0.43	0.81	0.72	0.45	3.32
3	0.81	0.36	0.63	0.66	0.36	2.82
4	0.08	0.45	0.88	0.90	0.38	3.69
Palp	0.36	0.27	0.21		0.33	1.17

Very similar to ♂. The tarsal tubercle appears to have a very small median bristle as well as 2 or 3 small marginal bristles. There are 3 trichobothria on the tibia of the palp, arranged 2.1. The claw is short, straight and smooth.

*Types*: Holotype ♂, Courrejolles Peninsula, 240 m, Campbell I., ex Berlese funnel, 13. II. 1963, Wise; allotype ♀, Beeman Hill, 30-100 m, ex *Poa* roots and moss, 1-6. XII. 1961, Gressitt, Dominion Museum, Wellington.

*Records*: CAMPBELL I. Courrejolles Peninsula, mollymawk colony, 14. XII. 1961, Gressitt; Beeman Hill, 30-100 m, ex *Poa* roots and moss, 1-6. XII. 1961, Gressitt; Beeman Hill, 100-180 m, ex yellow moss, Berlese funnel, 2-6. XII. 1961, Gressitt; Mt. Azimuth, 350 m, ex moss and lichen, Berlese funnel, 30. XI. 1961, Gressitt; Tucker Cove, ex grass 22. XI. 1961, Gressitt; Tucker Cove, 16-100 m, ex moss, Berlese funnel, 21. XI. 1961, Gressitt; Tucker Cove, ex leafmold under tussock, 3. III. 1963, Wise; Mt. Lyall, 200-400 m, ex moss, 3-5. XII. 1961, Gressitt; St. Col Ridge, 180-280 m, ex moss on rock, 4, 7, 9, 13. XII. 1961, Gressitt; same data, 24, 26, 30. XI. 1961, St. Col-Lyall-Beeman, ex moss, Berlese funnel, 3-5. XII. 1961, Gressitt; St. Col Ridge, 200 m, ex moss on rocks, 24. XI. 1961, Gressitt; Perseverance Harbor, Lookout Bay, ex leafmold under tussock, 3. II. 1962, Wise; Penguin Colony, Rocky Bay, South coast below Mt. Dumas, ex leafmold from base of tussock, 3. III. 1963, Wise; Campbell I., 6. VII. 1962, Clark.

***Pounomua australis*** Forster, n. sp. Fig. 30.

♀: Measurements in mm. Total length 2.26. Cephalothorax, length 1.08; width 0.81. Abdomen, length 1.17; width 0.81.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.86	0.39	0.72	0.61	0.36	2.94
2	0.81	0.37	0.69	0.61	0.36	2.84
3	0.72	0.34	0.45	0.54	0.27	2.32
4	0.90	0.36	0.72	0.75	0.32	3.05
Palp	0.28	0.19	0.18		0.29	0.94

The general characters of this species are as in *P. gressitti*. The distribution of tricho-



bothria on the legs is slightly different. There is a trichobothrium on the median surface of the metatarsus of the 1st 2 pairs of legs and 2 trichobothria on the tibia and a single trichobothrium on the metatarsus of the 3rd and 4th pairs of legs. The tarsal tubercle bears a strong median bristle which is  $\frac{2}{3}$  the length of adjacent hairs in addition to 2 short accessory marginal bristles (fig. 29).

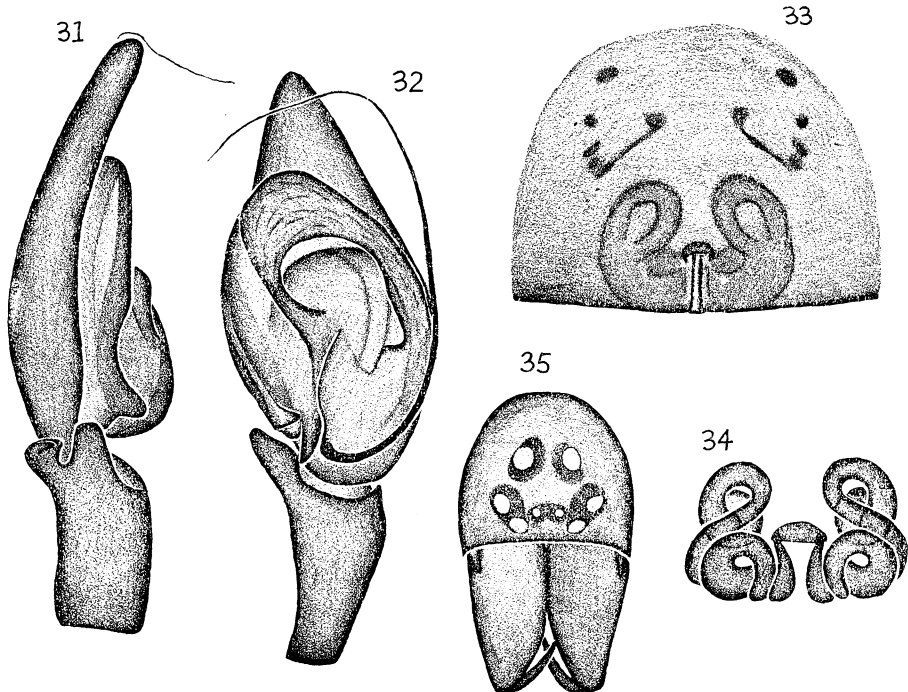
*Type*: Holotype ♀, Natural Arch, Auckland I., 2. I. 1963, Gressitt, Dominion Museum, Wellington.

*Records*: AUCKLAND IS. Bivouac Hill, near rocky stream, 10. I. 1963, Gressitt (immature ♀).

### Family AGELENIDAE

#### Genus *Myro* Cambridge, 1876

The genus *Myro* was established by Cambridge in 1876 for *M. kerguelenensis*, a spider common on Kerguelen Island, which is now known to occur also in the Crozets, Heard and Macquarie Islands. Other species which have been placed in this genus have been recorded from South Chile, South Georgia, South Africa, Tasmania and the Snares Island, and these spiders have been used in the past as evidence to support theories for ancient land-links between the Southern Continents. The opportunity has been taken in the pre-



Figs. 31-35. *Myro kerguelenensis* Cambridge. 31, retrolateral view of ♂ palp; 32, ventral view of ♂ palp; 33, epigynum; 34, internal genitalia from below; 35, head and chelicerae of ♀, from in front.

paration of the present paper to compare specimens of the type species with material now available from the Snares Island.

*Myro kerguelenensis* has been adequately described by previous authors but illustrations of the key characters (figs. 31–35) for this species are included in this paper. After a detailed examination I feel that there is a very close relationship between *Myro kerguelenensis* and *M. manneringi* n. sp. from Snares and a more distant relationship between *M. kirki* and *M. ovalis* also found on the Snares. This affinity is continued through to New Zealand by a number of as yet undescribed species and to the Auckland Is. by the 3 species of *Huara* which have very similar ♂ palps, and in my view are closely related. The main diagnostic character used to define the genus *Myro* is the position of the anterior median eyes which are situated behind the anterior lateral eyes, a character which has been carried to the extreme in some of the undescribed related New Zealand species where the AME is situated in the center of a circle formed by the remaining eyes. However, it would appear that this character could be rather misleading if too much emphasis is placed upon it and the revision of the New Zealand spiders related to *Myro* may well result in new generic groupings.

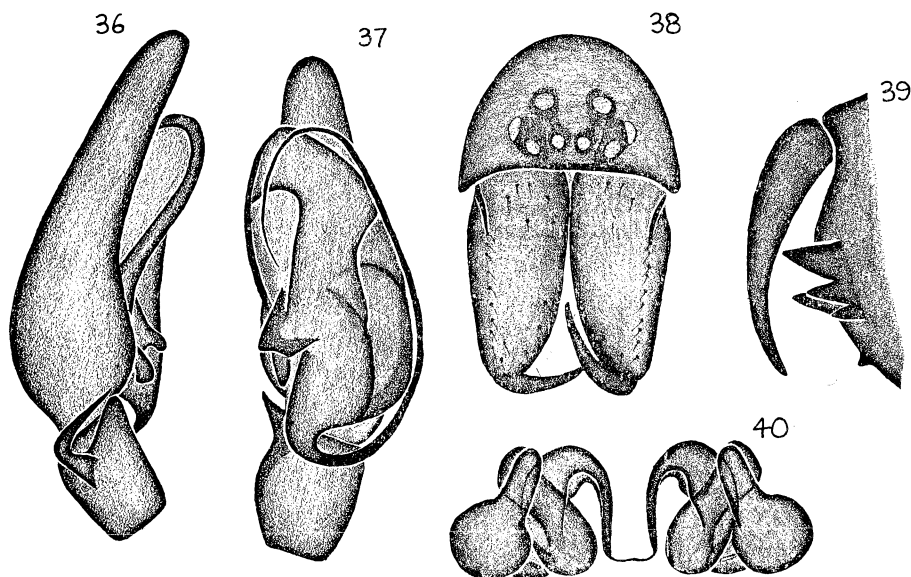
**Myro manneringi** Forster, n. sp. Figs. 36–40.

♂: Measurements in mm. Total length 2.90. Cephalothorax, length 1.44; width 0.98. Abdomen, length 1.44; width 0.90.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.17	0.54	1.08	0.99	0.63	4.41
2	1.08	0.54	0.81	0.82	0.57	3.82
3	0.90	0.45	0.64	0.81	0.51	3.31
4	1.08	0.48	1.04	0.99	0.56	4.15

*Color*: Cephalothorax pale yellow-brown, without markings, legs creamy white. Abdomen creamy white with faint black shading on lateral surfaces and with a faint black band, extending down the anterior 1/2 of the dorsal surface, followed by 4 incomplete chevrons down the posterior 1/2.

*Eyes*: The eye group takes up 2/3 of the width of the head in that region. From above the anterior row is straight and the posterior row procurved. From in front the AME are seen to be situated behind the level of the ALE, forming a procurved row as does the posterior row (fig. 38). Ratio of AME. ALE. PME. PLE = 6.10.9.8. AME are separated from each other and from the ALE by 2/6 and from the PME by 8/6 of the diameter of an AME. The lateral eyes are separated from each other by 5/6 and from the PLE by 6/6 of the diameter of an AME. The median ocular quadrangle is as wide as it is long. *Carapace*. Clothed with a few long hairs. Widening evenly from anterior margin to widest portion between the 2nd pair of legs. Head region not separated by a furrow, no higher than thoracic region. Fovea longitudinal, narrow, not deep. *Chelicerae* (fig. 39). Sharp ridge extending down anterior surface from base to 1/2 the length. Three, closely spaced, strong, teeth on retromargin, 2 on promargin, of which the distal is strong and the proximal small. *Labium*. Relatively broad, slightly wider than long. Anterior margin evenly rounded. *Maxillae*. Parallel, lateral margins straight. Longer than wide in ratio of 5 : 3. *Sternum*. Scutiform, longer than wide in ratio of 5 : 4. Pointed posteriorly behind the 4th pair of coxae which are separated from each other by a distance



Figs. 36-40. *Myro manneringi* n. sp. 36, retrolateral view of ♂ palp; 37, ventral view of ♂ palp; 38, head and chelicerae of ♀ from in front; 39, fang and teeth of ♂ chelicera, 40, internal genitalia from below.

equal to their width. *Legs.* 4. 1. 2. 3. Clothed with numerous setose hairs. Spines are distributed as follows: Leg 1, tibia ventral 2.2, metatarsus ventral 2.2.2, tarsus 0; leg 2, femur dorsal 1.2, 1 distal prolateral, tibia, ventral 1.1, dorsal 1.1, tarsus 0; leg 3, femur, dorsal 1.2, patella dorsal 1.1, tibia dorsal 1.1, prolateral 1.1, retrolateral 1.1, ventral 1.2, metatarsus, dorsal 1.2, ventral 2.1, prolateral 1.2, retrolateral 1.2, tarsus 0; leg 4, femur 1 mid-dorsal, 1 distal prolateral, tibia dorsal 1.2, ventral 1.1.1, prolateral 1.1, retrolateral 1.1, metatarsus dorsal 1.1, ventral 2.1, prolateral 2 distal, retrolateral 2 distal. Trichobothria are numerous and distributed on the tibiae metatarsi and tarsi as follows: Leg 1, tibia 1.1.2.1.1, metatarsus 1.1.1, tarsus 1.1.1; leg 2, tibia 1.1.2.1.1, metatarsus 1.1.1, tarsus 1.1.1.1; leg 3, tibia 1.1.1.1, metatarsus 1.1.1, tarsus 1.1.1; leg 4, tibia 2.2.1, metatarsus 1.1.1, tarsus 1.1.1. Tarsal organ present at  $3/4$  length of each tarsus. Superior claws similar with 9 short teeth. Inferior claw with 2 long, curved teeth. *Palp* (figs. 36, 37). Cymbium elongate, projecting well beyond the bulb. Distal surface of tibia with a long curved spinous process and a broad triangular plate. Conductor broad and expands into a thin curved bowl on the retrolateral margin into which the tip of the embolus normally rests. Median apophysis stout and not free. *Abdomen.* Closely clothed with short setose hairs. Colulus prominent.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.63	0.34	0.45	0.45	0.31	2.18
2	0.54	0.29	0.42	0.45	0.30	2.00
3	0.48	0.29	0.33	0.39	0.27	1.76
4	0.72	0.27	0.45	0.48	0.28	2.20
Palp	0.31	0.13	0.18		0.28	0.90

♀: Measurements in mm. Total length 2.62. Cephalothorax, length 1.08; width 0.72.

Abdomen, length 1.53; width 0.99.

Cephalothorax pale reddish brown. Abdomen heavily shaded with black, relieved by pale areas on dorsal surface which merge posteriorly to form a median band. Ratio of AME. ALE. PME. PLE=3.5.4.4. The spacing of the eyes is similar to that of the ♂ except that the PME are more widely spaced, the distance between them being equal to 4/3 the diameter of an AME. Epigynum simple, with a small rectangular median lobe. Internal genitalia is complex as shown in fig. 40. The structure of the ♀ otherwise corresponds to that of the ♂.

*Types*: Holotype ♂, allotype ♀, Snares Is. (10.1), South East Promontory, beating *Hebe*, 31. I. 1963, G. Knox. Canterbury Museum.

*Records*: SNARES IS. Near station beating *Senecio*, 2. II. 1961, Knox; Hoho Bay and East Coast, beating *Olearia*, 31. I. 1961, I. Mannering.

**Myro ovalis** Hogg      Figs. 41-44.

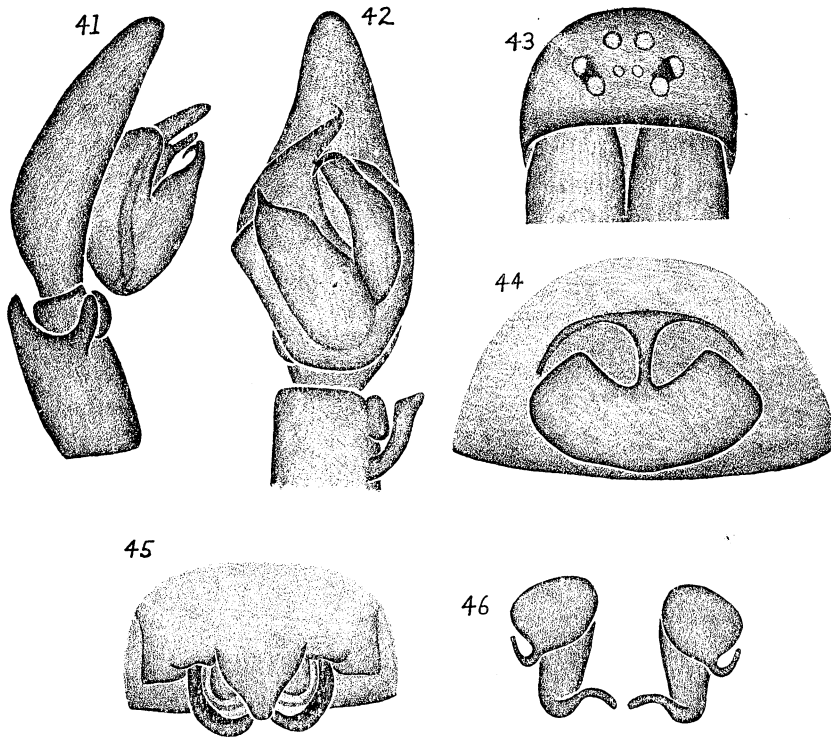
*Myro ovalis* Hogg, 1909, Subantarct. Is. of N. Zeal. 1: 157.

The type specimens have at some time dried out and both specimens are fragmentary. The cephalothorax of the ♂ is longer than wide in the ratio of 15.8, while that of the ♀ is longer than wide in the ratio of 8.5. The abdomen of the ♂ is missing, but that of the ♀ is longer than wide in the ratio 13.10. The following data is all that can be secured from the specimens.

♂: The eye group occupies 1/2 of the head region. From above the anterior row is slightly procurved and the posterior row strongly procurved.

*Eyes*. The ratio of AME. ALE. PME. PLE=4.8.8.8. The AME are separated from each other and from 2/4 on the ALE by a distance equal to 1/2 the diameter of an AME. ALE and PLE are separated from each other by 4/4 the diameter of an AME. The PME are separated from each other by 5/4 and from the PLE by 4/4 of the diameter of an AME. Median ocular quadrangle wider behind than in front in the ratio of 21.10 and longer than wide in the front in the ratio of 19.10. The width of the clypeus is equal to 7/4 of the diameter of an AME (fig. 43). *Sternum*. Scutiform, as wide as long, terminating in front of coxae IV which are contiguous. *Maxillae*. With straight sides, parallel. Longer than wide in the ratio of 10.7. *Labium*. As long as wide, lateral margins parallel, anterior margin incurved. *Chelicerae*. Short and stout, with lateral boss. Both margins with 2 teeth. *Palp*. The form of the palp is shown in figs. 41, 42. The legs and abdomen are missing.

♀. *Eyes*: The eyes other than the AME, are much larger than the ♂. Ratio of AME. ALE. PME. PLE=4.11.11.11. The AME are separated from each other and from the ALE by a distance equal to the diameter of AME. The lateral eyes are separated by a distance equal to 6/4 of this diameter. The PME are separated from each other by 8/4 and from the PLE by 3/4 of the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 30.10 and longer than wide in the front in the ratio of 31.10. *Sternum*. This is scutiform but extends back to a narrow projection between coxae IV which are separated by a distance equal to 1/3 the width of a coxae. *Maxillae*. Similar in appearance to the ♂ but only slightly longer than wide. *Labium* and *chelicerae* as in ♂. *Legs*. One of the 2nd pair of legs is still attached to the speci-



Figs. 41-46. *Myro* spp. 41, *M. ovalis* Hogg, retrolateral view of ♂ palp; 42, same, ventral view of ♂ palp; 43, same, head of ♂ from in front; 44, same, epigynum; 45, *M. kirki* Hogg, epigynum; 46, same, internal genitalia.

men. The tibia has 4 pairs of spines on the ventral surface and the metatarsus with 3 pairs. *Abdomen*. There is a large oval colulus. The epigynum is shown in fig. 40.

*Types*: Syntypes, ♂ and ♀. Snares Is., Otago Museum.

It is unfortunate that the type material is in such bad condition and that no further material is available. The quite striking differences between the eyes and the form of sternum of the 2 specimens which were pointed out by Hogg in his original description could indicate that the type material does in fact represent 2 distinct species.

***Myro kirki* Hogg** Figs. 45-46.

*Myro kirki* Hogg, 1909, Subantarct. Is. of N. Zeal. 1: 173.

♀: Measurements in mm. Total length 12.16. Cephalothorax, length 7.48; width 4.84. Abdomen, length 4.84; 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

*Color*: Cephalothorax, legs and palp, pale, reddish brown. Abdomen pale grey with broken white markings down the entire mid-dorsal surface and a further white area down the mid ventral surface.

*Eyes*: The eye group is compact, occupying less than  $1/2$  the head in that region. From above the posterior row is strongly procurved and the anterior more gently procurved. From in front the rows are both procurved. Ratio of AME. ALE. PME. PLE=5.9.9.8. The AME are separated from each other by  $2/5$  and from the ALE by  $4/5$  of the diameter of an AME. The lateral eyes are subcontiguous. The PME are separated from each other by  $8/5$  and from the PLE by  $7/5$  of the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 13:6 and longer than wide in the front in the ratio of 11:6. The width of the clypeus is slightly more than  $2\times$  the diameter of an AME. *Sternum*. Slightly longer than wide. Anterior and lateral margins almost straight, sloping sharply in from coxae II to form a sharp point posteriorly between coxae IV. Coxae IV separated by a distance equal to  $1/4$  the width of 1 of the coxae. *Labium*. Notched at base, as wide as long, lateral margins straight, anterior margin gently incurved. *Maxilla*. Larger than wide in ratio of 3.2, not converging. *Chelicerae*. Short and stout. Prominent lateral boss. There are 2 strong teeth on both pro- and retromargins and a ventral ridge extends back from the furrow. *Legs*. 4. 1. 3. 2. Spines distributed as follows: Leg 1, femur, dorsal 1.1, prolateral 2 distal, tibia, ventral 2. 1p. 3. 1p. 2, metatarsus, ventral 2.2.2.2; leg 2, femur, dorsal 1.1.1, prolateral 0.0.1.1, tibia, ventral 2.2.2, prolateral 0.1.1, metatarsus, ventral 2.2.2.2, prolateral 1.1.2; leg 3, femur, dorsal 1.1.2.1, tibia, dorsal 1.1.1, ventral 2.2.2, prolateral 1.1.1, retrolateral 1.1.1, metatarsus, dorsal 0, ventral 2.2.2, prolateral 2.2.2, retrolateral 2.2.2; leg 4, femur, dorsal 1.1.2.1, tibia, dorsal 1.1. 1, ventral 2.1.2, prolateral 1.1.1, retrolateral 1.1.1, metatarsus, dorsal 0, ventral 2.2.2, prolateral 2.2.2, retrolateral 2.2.2, trichobothria present in a double row on tibia and a single row on metatarsi and tarsi of all legs. Superior claws homogeneous with from 6-7 long teeth. Inferior claw with a single tooth. *Abdomen*. Clothed with numerous small, inconspicuous hairs. Spinnerets short, colulus well developed. The epigynum is shown in fig. 45, and the internal genitalia in fig. 46.

*Type*: Snares Is., Otago Museum (subadult ♀).

*Records*: SNARES I. Near Station Point, under *Olearia* logs, 22-28. I. 1961, Mannering; Near Station Point, sweeping *Polystichum vestitum*, 7. II. 1961, Mannering; Penguin Colony, under log in bush near colony, 28. I. 1961, Mannering.

#### Genus *Gohia* Dalmas, 1918

This genus was established by Dalmas for *Rubrius falxiatus*, described by Hogg from a single ♂ collected in the Auckland Islands. In 1955, I (1955) examined 3 further ♂♂ from the Auckland Is. and redescribed Hogg's type specimen. The present collections include a number of spiders similar to the type species but from many more localities in both Auckland and Campbell Is. It is now clear that speciation has taken place in this group and 2 further species are described below. The present known distribution of the 3 species now known seems allopatric and they could in fact be considered a single polytypic species. A re-examination of the spider described by me under the name *Chiracanthium wenhami* shows that this species should also be placed in *Gohia* and is recorded below from both the Auckland and the Campbell Is.

**Gohia falxiata** (Hogg) Figs. 47-50, 64.

*Rubrius falxiatus* Hogg, 1909, Subantarct. Is. of N. Zeal. 1: 170.

*Gohia falcata*: Dalmas, 1918, Ann. Soc. Ent. France 86: 403.

*Gohia falxiata*: Forster, 1956, Rec. Dom. Mus. 2 (4): 175.

♂: Measurements in mm. Total length 6.41. Cephalothorax, length 3.08; width 2.64. Abdomen, length 3.24; width 1.99.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.08	1.32	3.08	2.91	1.41	11.80
2	2.64	1.15	2.64	2.21	1.32	9.96
3	2.20	0.96	1.84	1.99	0.92	7.91
4	2.64	1.11	2.64	2.34	1.41	10.14
Palp	1.99	0.52	1.32		1.15	4.98
Chelicera	1.84					

*Color*: Carapace reddish brown with dark shading. Legs, palp and chelicerae pale brown. The abdomen of a specimen from Bivouac is dark, almost black, with 2 pale spots on dorsal surface at 1/4 followed by 6 chevrons. A specimen from Ranui Cove has almost white abdomen with very little black shading.

*Eyes*: The eye group occupies slightly more than 1/2 the width of the head in that region. Ratio of AME. ALE. PME. PLE=5.7.6.6. The AME are separated from each other by 5/5 of from the ALE by 4/5 of the width of an AME. The lateral eyes are subcontiguous. The PME are separated from each other by 9/5 and from the PLE by 7/5 of the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 19:15 and longer than wide in the front in the ratio of 16:15.

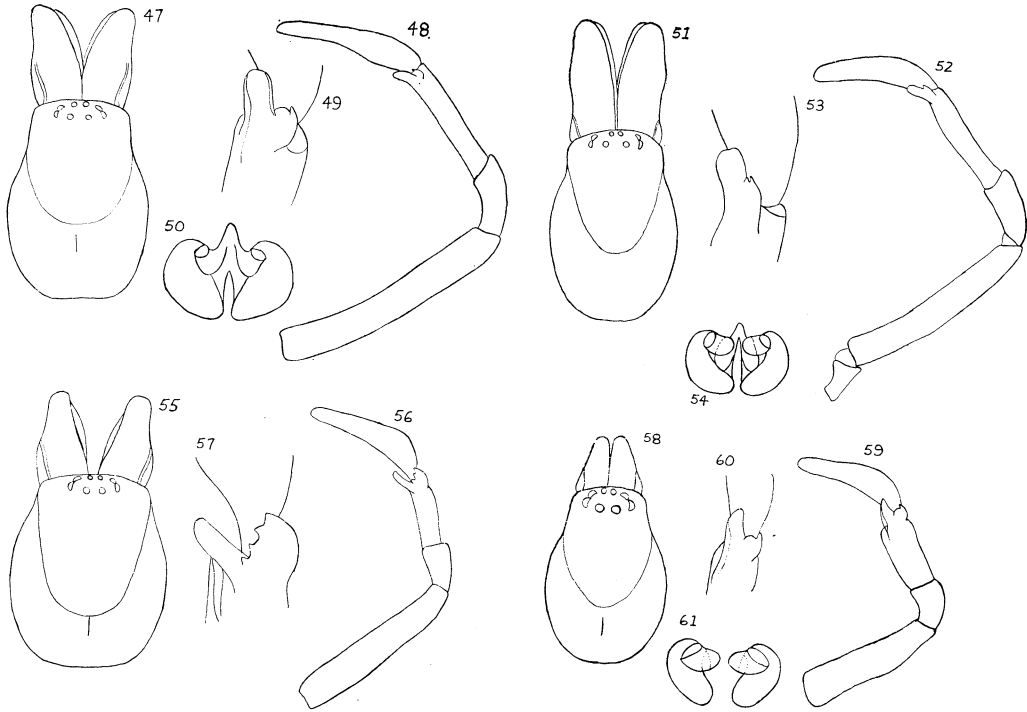
*Chelicerae*. Directed forward. Length equal to almost 3/5 the length of the cephalothorax. Promargin with 2 teeth of which the distal is large. Retromargin with 3 smaller teeth. Fang long and curved. The lateral condyle is small but there is a ridge extending down 1/3 of the length.

*Sternum*. Scutiform, longer than wide in the ratio of 20:17, terminated sharply posteriorly between coxae IV which are separated by a distance slightly less than their width.

*Legs*. Long and slender, clothed with fine hairs. Superior claws homogeneous, with 9-10 strong pectinations; inferior claw with 6 pectinations of which the anterior are long and curve down.

*Spines*. Leg 1, femur, dorsal 1.1, patella 0, tibia, ventral 2.2.0, elsewhere 0, metatarsus, dorsal 0, ventral 2.2.0, prolateral 0.0.1, retrolateral 0.0.1, tarsus 0; leg 2, tibia, ventral 2.2, elsewhere 0, metatarsus, dorsal 0, ventral 2.2.0, prolateral 0.0.1, retrolateral 0.0.1, tarsus 0; leg 3, tibia, dorsal 0.0.0.1.0, ventral 1.0.2.0.2, prolateral 0.1.0.1.0, retrolateral 0, metatarsus, dorsal 1.0.1.0.1, ventral 0.1.0.2.1, prolateral 0.0.1.0.2, retrolateral 0.0.1.0.2, tarsus 0; leg 4, tibia, dorsal 1.0.1.0.0, ventral 1.0.1.0.1, prolateral 0.1.0.1.0, retrolateral 0.1.0.1.0, metatarsus, dorsal 1.1.1, ventral 0.1.2, prolateral 0.1.2, retrolateral 0.1.2, tarsus 0. There are also strong setae on the mid- and distodorsal and the distal prolateral surfaces of the femora and the distodorsal surface of the patella. Trichobothria are distributed as follows: Leg 1, tibia, 4 on proximal 1/2 of dorsal surface, metatarsus, 2 small median, 1 long distal, tarsus, 2 small median, 2 long distal; leg 2, as above, but 3 on tarsus, situated on distal 1/2; leg 3, as for leg 2; leg 4, tibia, single row of 8, 4th and 8th long, metatarsus, 3 distal, tarsus, 5 progressively longer distally.

*Palp*. The palp is long and slender. Structure shown in figs. 48, 49, 64.



Figs. 47-61. *Gohia* spp. 47, *G. falxiata* (Hogg), cephalothorax and chelicerae of ♂; 48, same, retrolateral view of ♂ palp; 49, same, distal retrolateral portion of tibia of ♂ palp; 50, same, internal genitalia from below; 51, *G. clarki* n. sp., cephalothorax and chelicerae of ♂; 52, same, retrolateral view of ♂ palp; 53, same, distal retrolateral portion of tibia of ♂ palp; 54, same, internal genitalia from below; 55, *G. enderbyensis* n. sp., cephalothorax and chelicerae of ♂; 56, same, retrolateral view of ♂ palp; 57, same, distal retrolateral portion of the tibia of ♂ palp; 58, *G. wenhami* (Forster), cephalothorax and chelicerae of ♂; 59, same, retrolateral view of ♂ palp; 60, same, distal retrolateral surface of tibia of ♂ palp; 61, same, internal genitalia from below.

♀: Measurements in mm. Cephalothorax, length 3.24; width 2.64. Abdomen, length 3.96; width 2.64.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.28	0.88	1.84	2.03	0.96	7.99
2	2.43	0.88	1.99	1.84	1.11	8.25
3	2.21	0.88	1.55	1.76	0.96	7.36
4	2.43	0.96	1.99	2.28	1.09	8.75
Palp	1.32	0.52	0.88		0.96	3.68
Chelicera	1.69					

Cephalothorax yellow-brown with black shading. Legs pale brown with distinct dark blackish bands. Chelicerae reddish brown. Abdomen creamy white with an anteromedian dark band on dorsal surface and black shading on lateral margin extending back to 3 chevrons on posterior surface. General structure similar to ♂ but chelicerae although having a similar arrangement of teeth are much shorter, being little more than 1/2 the length of the cephalothorax. The internal genitalia are shown in fig. 50.



*Records*: AUCKLAND IS. Ranui Cove, on rata at night, 1. I. 1963, Johns; Ranui, 18. I. 1963, J. Moreland; Crozier Point, kelp on beach, 28. XII. 1962, Gressitt; Bivouac Hill, near rocky stream, 10. I. 1963, Gressitt; Ewing Island, 4. I. 1963, Gressitt.

**Gohia clarki** Forster, n. sp. Figs. 51–54, 63.

♂: Measurements in mm. Cephalothorax, length 2.72; width 2.28. Abdomen, length 2.87; width 1.88.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.64	1.11	2.64	2.51	1.32	10.22
2	2.43	1.01	2.20	2.20	1.04	8.88
3	1.91	0.88	1.44	1.76	1.04	7.03
4	2.49	0.88	1.92	2.03	1.11	8.43
Palp	1.76	0.48	1.11		0.96	4.31
Chelicera	1.63					

*Color*: Cephalothorax pale brown with slight black shading. Chelicerae uniform reddish brown. Legs pale brown with black bands. Abdomen heavily shaded with black. There are 2 pairs of white patches on anterodorsal surface followed behind by 5–6 pale chevrons. Ventral surface pale.

*Eyes*: The eye group occupies 1/2 the width of the head in that region. From above, the anterior row is straight and the posterior row slightly procurved. Ratio of AME. ALE. PME. PLE.=5.7.6.7. AME are separated from each other and from the ALE by 4/5 the diameter of an AME. Lateral eyes subcontiguous. The PME are separated from each other and from the PLE by 6/5 of the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 9.7 and longer than wide in the front in the ratio of 8.7. *Chelicerae*. Sternum, maxillae and labium as in *falxiata*. *Legs*. 1.2.4.3. Spines as in *falxiata* but with 3 pairs of spines on ventral surface of metatarsi of the 1st and 2nd pairs of legs. *Palp* (figs. 52, 53, 63). Cymbium long and slender. Embolus evenly curved, not sinuous. Tibial process with lateral flap not well developed and bearing 2 small teeth.

♀: Measurements in mm. Cephalothorax, length 2.64; width 1.76.

Leg	Femur	Patella	Tibia	Matatarsus	Tarsus	Total
1	1.92	0.88	1.68	1.55	0.96	6.99
2	1.76	0.75	1.36	1.51	0.92	6.30
3	1.58	0.71	1.18	1.43	0.88	5.78
4	2.03	0.88	1.68	1.68	0.88	7.15
Palp	1.11	0.44	0.67		0.88	3.10
Chelicerae	1.32					

Very similar in general structure to the ♂. The chelicerae are shorter and the anterior surface is swollen. The lateral boss, distinct but the ridge is absent. The teeth on the margin as in the ♂. Internal genitalia as in fig. 54.

*Types*: Holotype ♂, allotype ♀, Courrejolles Pen., on rock cliff, near Mollymawk colony, c. 230 m, Campbell I., 13. 11. 1963, Wise.

*Records*: CAMPBELL I. Courrejolles Point, 13. III. 1962, Clark; Courrejolles Pen., 200 m, from *Colobanthus* near Mollymawk nests, 14. XII. 1961, Gressitt; Mt. Lyall, 300 m, un-

der moss, 5. XII. 1961, Gressitt; St. Col Ridge, 180–280 m, ex moss on rocks, 30. XI. 1961, Gressitt; Beeman Camp, 9. XII. 1961, Gressitt.

Closely related to *falxiata* from which it is separated by the shorter cymbium of the ♂ palp, the reduction in size of the lateral flap of the tibial process and the evenly curved embolus.

**Gohia enderbyensis** Forster, n. sp. Figs. 55–57, 65.

♂: Measurements in mm. Cephalothorax, length 3.08; width 2.64. Abdomen, length 3.08; width 1.99.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.08	1.32	3.31	3.31	1.41	12.43
2	2.64	1.19	2.64	2.76	1.28	10.51
3	2.20	0.96	1.76	2.03	1.11	8.06
4	2.64	1.04	2.43	2.64	1.76	10.51
Palp	1.55	0.44	0.67		1.11	3.77
Chelicera	1.99					

*Color*: Carapace and chelicerae, dark brown without shading. Palps and legs uniform pale yellow-brown. Abdomen closely shaded with black with a few paler areas on dorsal surface which do not form a distinct pattern.

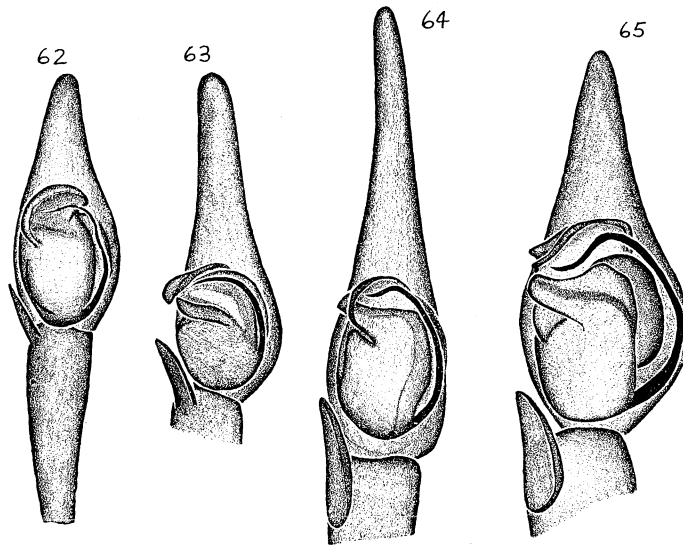
*Carapace*: Relatively wide (fig. 55) only slightly longer than wide. *Eyes*. The eye group occupies 1/2 the width of the head region. From above the anterior row is slightly recurved and the posterior row procurved. Ratio of AME. ALE. PME. PLE=4.8.6.7. The AME are separated from each other and from the ALE by a distance equal to the diameter of an AME. Lateral eyes subcontiguous. The PME are separated from each other and from the PLE by a distance equal to 7/4 the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 19.12 and longer than wide in the front in the ratio of 16:12. *Chelicerae*: There is a strong proximolateral ridge extending down almost 1/2 the length of the chelicerae. Fang strong, and almost as long as basal segment. There are 3 teeth on the retromargin and 2 on the promargin as in *falxiata*. Maxillae, labium as in *falxiata*. *Sternum*. Scutiform, longer than wide in ratio of 8:7, pointed posteriorly where it extends behind the 4th pair of coxae which are separated by a distance equal to 3/5 of their diameter. *Palp* (figs. 56, 57, 65). The tibial process possesses a large lateral flap with 3 teeth. Tibia short, not as long as cymbium. The embolus is sinuous distally and strong. *Legs*. 1.4.2.3. The spination is similar to *clarki* but the spines are mostly shorter. *Abdomen*. Closely clothed with short, dark hairs, but with a few long, erect, black hairs on dorsal surface. Colulus large, triangular, clothed with numerous hairs.

♀: Not known.

*Type*: Holotype ♂, Auckland Is., Enderby I., under stones on northern cliffs, 31. XII. 1962, Johns, Canterbury Museum.

*Records*: A further ♂ specimen with same data as holotype.

This species is readily distinguished by the form of the palp, the tibial process and short tibia. The rather squat outline of the cephalothorax is also characteristic.



Figs. 62-65. *Gohia* spp. 62, *G. wenhami* (Forster), ventral view of ♂ palp; 63, *G. clarki* n. sp., ventral view of ♂ palp; 64, *G. falxiata* (Hogg), ventral view of ♂ palp; 65, *G. enderbyensis* n. sp., ventral view of ♂ palp.

***Gohia wenhami* (Forster)** Figs. 58-61, 62.

*Chiracanthium wenhami* Forster, 1955, Rec. Dom. Mus. 2 (4): 181.

This species has been fully described previously (Forster, 1955) but at that time the relationship to *Gohia falxiata* was not recognised. The species is smaller than *falxiata*, *clarki* and *enderbyensis*. The short tibia of the ♂ palp is similar to that found in *enderbyensis* but is relatively stouter, while the tibial process is similar to *clarki*. The general spacing of the eyes is similar to the other species but the eyes themselves are relatively larger. Previously recorded from the Auckland Is., the present records extend the range to Campbell I.

**Records:** AUCKLAND IS. Crozier Point, 30.XII.1962, Gressitt. CAMPBELL I. Beeman Hill, 30-100 m, ex *Poa* roots and moss, 1-6.XII.1961, Gressitt; Beeman Camp, 13.XII.1961, Gressitt; Beeman Camp, 2-50 m, ex *Chrysobactron*, 19.XII.1961, Gressitt; St. Col-Lyall-Beeman, ex moss, 3, 5.XII.1961, Gressitt; St. Col Ridge, 180-280 m, ex moss on rocks, 24, 26, 30.XII.1961, Gressitt; St. Col Ridge, 200 m, ex moss on track, 24.XI.1961, Gressitt; Courrejolles Pen., 200 m, 14.XII.1961, Gressitt; Courrejolles Pen., mollymawk colony, ex moss, 14.XII.1961, Gressitt; Mt. Lyall, 200-400 m, ex moss, 3, 5, 12.XII.1962, Gressitt; Filhol Peak, 213 m, ex lichens and moss, 9.II.1963, Wise; Lookout Bay, 250 m, ex moss, 3.XII.1961, Gressitt; Beeman Hill, 25 m, 21.XI.1961, Gressitt; Moubray Hill, 200 m, ex moss, 12.XI.1961, Gressitt.

Genus **Huara** Forster, n. gen.

Large agelenid spiders with the anterior row of eyes straight when viewed from in front.

Legs with a double row of spines on the ventral surfaces of tibiae and metatarsi, trichobothria on tibiae, metatarsi and tarsi and a scopula on the ventral surface of all tarsi. Spinnerets short, colulus well developed. Male with a free median apophysis.

Type species: *Gohia antarctica* Berland, 1931.

This genus includes 3 species, all from the Auckland Is. *H. antarctica* Berland, *H. sorenseni* Forster and *H. grossa* n. sp. The genus is related to *Myro* from which it is separated mainly by the straight anterior row of eyes when viewed from in front, whereas this row is strongly procurved in *Myro*. In the ♂ palp the well developed but free median apophysis is characteristic and is not present in this form in *Myro*. This character also separates the genus from *Gohia*. The presence of a thick covering of hairs on the ventral surface and distal portion of the tarsus is also lacking in both *Myro* and *Gohia*.

**Huara antarctica** (Berland) Figs. 69–71, 79–80.

*Gohia antarctica* Berland, 1931, Rec. Cant. Mus. 3 (6) : 359.

*Chiracanthium antarcticum*: Forster, 1955, Rec. Dom. Mus. 2 (6) : 177.

This species has been adequately described by the previous authors but figures of the ♂ palp and epigynum and internal genitalia have been included in the present paper for comparison (figs. 69–71, 79, 80). The species has been previously recorded from most of the islands in the Auckland group but re-examination of the material from Ocean I. and Ross I. previously identified as *H. antarctica* may show that these specimens are in fact *H. grossa* n. sp.

*Records*: AUCKLAND IS. Ranui Cove, under logs, 27.XII.1962, Johns; Bivouac Peak, 450 m, under stones, 6.I.1963, Johns; Bivouac, 15.I.1963, Gressitt; Bivouac, ex tussock, 16. I. 1963, Gressitt; Bivouac, under rocks, 16.I.1963, Gressitt; Bivouac, ex *Pleurophyllum*, 17. I. 1963, Gressitt; Terror Cove, Port Ross, 10. I. 1963, Wise; Ewing I., 4–6. I. 1963, Gressitt.

**Huara sorenseni** (Forster) Figs. 72–76.

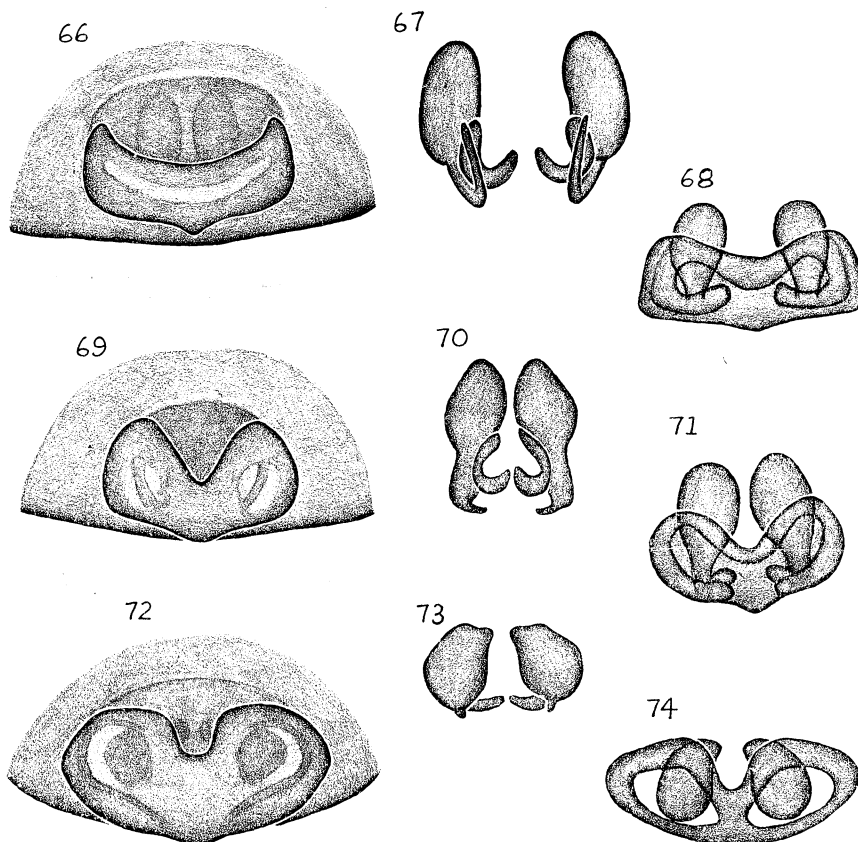
*Chiracanthium sorenseni* Forster, 1955, Rec. Dom. Mus. 2 (4) : 179.

*Records*: AUCKLAND IS. Observation Point, 27.XI.1962, Gressitt; Crozier Point, under stones on beach, 28. XII. 1962, Wise; Terror Cove, Port Ross, 10. I. 1963, Wise; Deas Head, under rata logs, 18.I.1963, Johns; Tucker Point, under moss, 19.I.1963, Gressitt; Bivouac Hill, 400 m, near rocky stream, 10. I. 1963, Gressitt; Bivouac, 400 m, under rocks, 13. I. 1963, Gressitt; French I., from petrel burrows, 2. I. 1963, Gressitt; Ranui Cove, ex rata, 1. I. 1963, Gressitt.

**Huara grossa** Forster, n. sp. Figs. 66–68, 77–78.

♀: Measurements in mm. Cephalothorax, length 7.48; width 4.40. Abdomen, length 9.71; width 8.36.

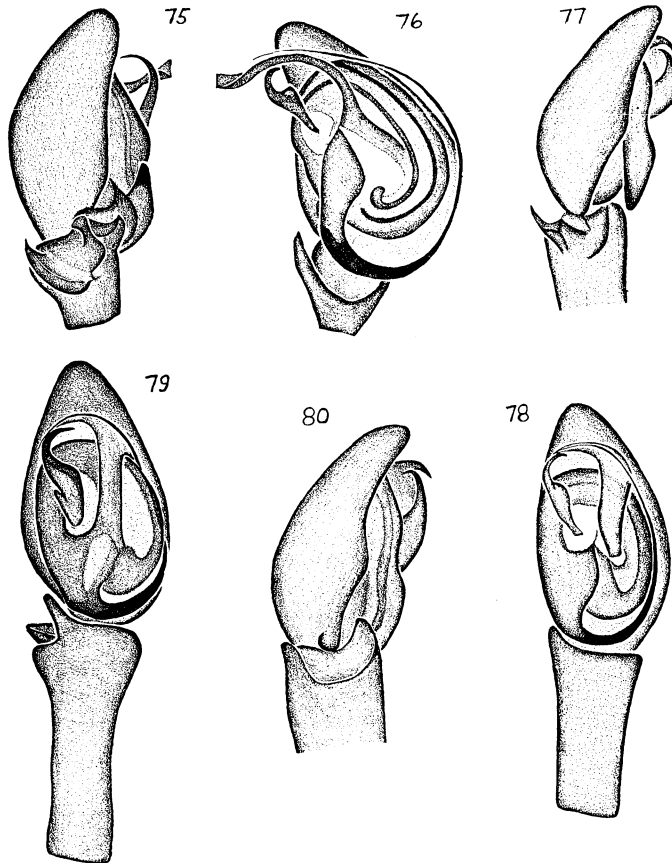
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.04	3.08	7.06	5.72	2.71	25.61
2	6.16	2.83	6.16	5.61	2.43	23.19
3	5.72	2.64	4.40	5.72	2.20	20.68
4	6.16	2.64	7.06	7.04	3.08	25.98
Palp	2.64	1.32	1.95		2.64	8.55



Figs. 66-74. *Huara* spp. 66, *H. grossa* n. sp., epigynum; 67, same, internal genitalia from above; 68, same, internal genitalia from below; 69, *H. antarctica* (Berland), epigynum; 70, same, internal genitalia from above; 71, same, internal genitalia from below; 72, *H. sorenseni* (Forster), epigynum; 73, same, internal genitalia from above; 74, same, internal genitalia from below.

*Color*: Cephalothorax deep reddish brown, eyes surrounded with black. Abdomen yellow-brown, heavily shaded with grey. There are a few pale marking on the anteromedian dorsal surface and rather indistinct rows of small pale patches along the lateral margins. Chelicerae dark brown, almost black. Legs, palp and sternum uniform reddish brown. *Cara-pace*. Head region no higher than thoracic region and not clearly separated from the thorax. Width of head region only 4/7 the maximum width of thorax. Lateral margins almost parallel. Thoracic region widest between the 2nd pair of legs. Fovea long and narrow, not deep. *Eyes*. Eye group relatively compact, taking up 5/8 the width of the head in that region. From above, the anterior row is straight and the posterior row is recurved. From in front the anterior row is slightly procurved and the posterior row strongly procurved. The eye group is placed on a low swelling which projects forward over the clypeus. Ratio of AME. ALE. PME. PLE=7.22.25.25. The AME are separated from each other by 5/7 and from the ALE by 10/7 of the diameter of an AME. The ALE and PME are separated from each other by 8/7 while the PME are separated from each other by

15/7 and from the PLE by 10/7 of the diameter of an AME. The median ocular quadrangle is wider behind than in front in the ratio of 65.19 and longer than wide in the front in the ratio of 54.19. *Chelicerae*. Stout, swollen on proximal anterior surface of basal segment and with a prominent lateral boss. There are 2 strong teeth on both pro- and retromargins and a thick scopula behind the promargin. There is a further scopula on the retrolateral surface but more proximal. *Labium*. Slightly longer than wide, matched proximally, lateral margins converging slightly anteriorly. Anterior margin incurved. *Maxillae*. Lateral margins relatively straight but diverging so that the distal width is the greater. Longer than this width in ratio of 11.7. There is a thick scopula on the inner distal margin with the apical hairs longer and forming a tuft. *Sternum*. Longer than wide in ratio of 8 : 7. Almost oval in outline, indented anteriorly. There appear to be sclerotic strips extending between the legs and back to the lorum of the pedicel. *Palp*. Spines, femur, dorsal 1.1.1, patella 0, tibia, dorsal, 2.0.0, tarsus dorsal 2.0.0, prolateral 2.2.2, retrolateral



Figs 75-80. *Hura* spp. 75, *H. sorenseni* (Forster), retrolateral view of ♂ palp; 76, same, ventral view of ♂ palp; 77, *H. grossa* n. sp., retrolateral view of ♂ palp; 78, same, ventral view of ♂ palp; 79, *H. antarctica* (Berland), ventral view of ♂ palp; 80, same retrolateral view of ♂ palp.

1.1.1.2 A single row of 5 trichobothria are present on the tibia. Claw with single row of 5 strong teeth. *Legs.* Spines distributed as follows: Leg 1, femur, dorsal 0.1.1.0, prolateral 0.0.0.2, patella 0, tibia, dorsal 0, ventral 2.1.2.2, prolateral 0.0.1.1; leg 2, femur, dorsal 2.2.10, patella 0, tibia, dorsal 0, ventral 2.2.2.0.1, prolateral 0.1.0.1.0, metatarsus, dorsal 0.0.1, ventral 2.2.2, prolateral 0.1.1, retrolateral 0.0.1; leg 3, femur, dorsal 2.2.3, patella 0, tibia, dorsal 1.0.1, prolateral 0.1.1, retrolateral 0.1.1, ventral 2.1.2, metatarsus, dorsal 0.1.1.1, prolateral 1.1.1, retrolateral 1.1.1, ventral 2.2.2; leg 4, femur, dorsal 1.1.3, patella 0, tibia, dorsal 0.1, prolateral 1.1, retrolateral 1.1, ventral 2.1.2, metatarsus, dorsal 1.1.2, prolateral 1.1.1, retrolateral 1.1.1, ventral 2.2.2, tarsus 0. Trichobothria present on tibiae, metatarsi, and tarsi of all legs and are distributed as follows: Leg 1, tibia 1.1.1, metatarsus 1.1.1.1.1.1.1, tarsus 1.1.1.1.1.1.1; leg 2, tibia 2.2.2.1, metatarsus 1.1.1.1.1.1.1.1, tarsus 1.1.1.1.1.1.1; leg 3, tibia 2.2.2.1, metatarsus 1.1.1.1.1.1.1, tarsus 1.1.1.1.1.1.1; leg 4, tibia 2.2.2.2, metatarsus 1.1.1.1.1.1.1, tarsus 1.1.1.1.1.1.1.1. Superior claws similar with 11 long teeth. Inferior claw small, apparently smooth. Distoventral surfaces of metatarsi and ventral surfaces of tarsi heavily clothed with hairs, particularly legs 3 and 4. Hairs on distal surface of tarsi seem to form a scopula so that the inferior claw is difficult to see. *Abdomen.* Ovoid, closely clothed with small, inconspicuous, adpressed hairs and fewer, long, erect hairs. The epigynum has the form shown in fig. 66. The internal genitalia are simple and is shown in fig. 67. The spinnerets are short and squat. Colulus distinct, triangular, closely clothed with short hairs.

♂: Measurements in mm. Cephalothorax, 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 ♀. The palp is shown in figs. 77, 78.

*Types:* Holotype ♂, allotype ♀, Auckland Is., Ocean I., 3. I. 1963, J. C. Yaldwyn, Dominion Museum.

*Records:* AUCKLAND IS. Ocean I., under logs and *Stilbocarpa*, 28. XII. 1962, Johns; Ocean I., Port Ross, 29. XII. 1962, Wise; Ewing I., 1 m from high water, under log, 27. XII. 1962, Knox; Ewing I., on *Olearia* at night eating wetas, 14. I. 1963, Johns; French I., ex petrel burrows, 2. I. 1963, Gressitt; Rose I., under stones in black-backed gull colony, 8. I. 1963, Knox.

This species is closely related to *sorenseni*. It is immediately separated from both other known species by its large size and the difference in the form of the epigynum and the ♂ palp.

#### Genus **Hina** Forster, n. gen.

Carapace without distinct head region, lateral margins subparallel. Eyes subequal, in 2 rows, anterior row straight from above. Chelicerae short, lacking lateral condyles, a single tooth on promargin, 3 on retromargin. Legs 1.4.3.2. Trichobothria in 2 rows on tibiae,

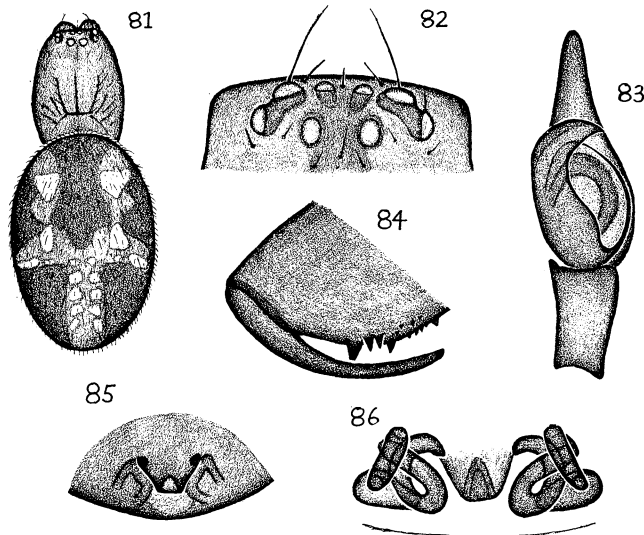
single row on metatarsi and tarsi. Scopulae lacking. Internal genitalia of ♀ convoluted.

Type species: *Ostearius delli* Forster 1955.

This genus is related to *Gohia*, *Huara* and *Myro*. It is separated from all of these genera by the number and arrangement of teeth of the chelicerae and the absence of lateral boss. The shape of the carapace is also characteristic and quite different in outline from these genera. The only known species *Hina delli* (Forster) has been recorded from the Auckland and Campbell Islands and the Antipodes.

***Hina delli*** (Forster) Figs. 81–86.

*Records*: CAMPBELL I. Beeman Hill, 25 m, 21. XI. 1961, Gressitt; St. Col Ridge, 180–280 m, ex moss on rock, 4, 7, 9, 13. XII. 1961, Gressitt; Tucker Cove, ex lichens on *Dracophyllum*, 1. II. 1963, Rennell; above Tucker Cove, ex lichens on *Dracophyllum*, 28. II. 1963, Wise. AUCKLAND IS. Crozier Point, ex kelp on beach, 28. XII. 1962, Gressitt; Ranui Cove, beating *Myrsine*, 29. XII. 1962, Johns; Ranui Cove, 2 m, ex light trap, 19. I. 1963, Gressitt; Laurie Harbor, Grey Duck Creek, 9. I. 1963, Wise; Ocean I., ex *Cassinia*, 28. XII. 1962, Johns; Rose I. ex *Carex*, 18. I. 1963, Johns.



Figs. 81–86. *Hina delli* (Forster). 81, dorsal surface of ♀; 82, eyes of ♀ from above; 83, ventral view of ♂ palp; 84, ♂ chelicerae; 85, epigynum; 86, internal genitalia ventral view.

Genus **Hahnia** Koch, 1841

***Hahnia hickmani*** Forster, n. sp. Figs. 87–92.

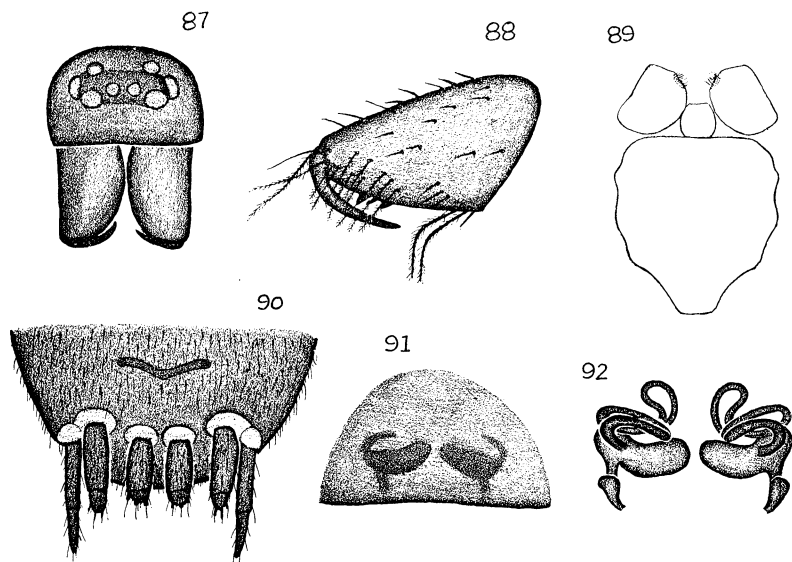
♀: Measurements in mm. Total length 1.32. Cephalothorax, length 0.61; width 0.57. Abdomen, length 1.17; width 0.90.



Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.51	0.19	0.36	0.31	0.37	1.74
2	0.54	0.18	0.45	0.36	0.37	1.90
3	0.49	0.18	0.32	0.33	0.31	1.63
4	0.58	0.25	0.45	0.45	0.39	2.12
Palp	0.25	0.09	0.16		0.24	0.74

*Color*: Cephalothorax pale, legs light brown. Base of abdomen yellow, but heavily shaded with blackish brown; 6 chevrons down the dorsal surface, the posterior 2 almost straight.

*Eyes*: The eye group is compact, occupies  $3/4$  of the head width in that region. When viewed from the front the AME is situated well behind the ALE so that the anterior row is strongly procurved while the posterior row is less strongly procurved (fig. 87). Ratio of AME. ALE. PME. PLE= $3.8.6.8$ . The AME, ALE, and PLE are all contiguous, while the PME are separated from the PLE by a distance equal to  $2/3$  the diameter of an AME. The AME are separated from each other by  $2/3$  the diameter of an AME. The ALE are separated from each other by  $8/3$ , and the PLE are separated from each other by  $18/3$  the diameter of an AME. The PME are separated from each other by  $4/3$  of this diameter of an AME. *Chelicerae* (fig. 88). Relatively short, without lateral boss. Two teeth on retromargin, 1 on promargin. There is a thin scopula of barbed hairs and 2 similar hairs distally, and proximoventrally. Remaining hairs smooth. *Maxillae* (fig. 89). Squat, longer than wide in ratio of  $11 : 7$ , directed across the labium. Outer margins straight, inner margins curved. *Labium* (fig. 89). Wider at base than long in ratio of  $3 : 2$ . *Ster-*



Figs. 87-92. *Hahnia hickmani* n. sp. 87, cephalothorax and chelicerae of ♀ from in front; 88, ♀ chelicerae; 89, sternum, maxillae and labium; 90, posteroventral surface of abdomen and showing spinnerets and posterior spiracle; 91, epigynum; 92, internal genitalia, ventral view.

*num.* Scutiform, wider than long in ratio of 27 : 23; broadly clavate behind between coxae IV, which are separated from each other by a distance equal to  $1\frac{1}{3}$  of their diameter. *Legs.* 4.2.1.3. Clothed with setose hairs, spines absent. Trichobothria distributed as follows: Legs 1 and 2, tibia 2.1.1, metatarsus 1.1, tarsus 1.1; leg 3, tibia 2.1, metatarsus 1.1, tarsus 1.1, superior claws similar, with 7 long teeth increasing in length distally. Inferior claw with 2 teeth near base. Tarsal organ present on all tarsi at  $\frac{3}{4}$  the length of each segment. *Palp.* Clothed with setose hairs. Tibia with 2 trichobothria. Claw small with a single tooth. Tarsal organ subdistal. *Abdomen.* Epigynum as in fig. 91, rather indistinct. Internal genitalia as in fig. 92. Six spinnerets in a straight row, the length of the outer pair are slightly more than  $\frac{1}{3}$  of the length of the abdomen. The ratio of length of the spinnerets from the outer pair is 15.12.7. The posterior spiracle opens from a distinct groove well separated from the spinnerets (fig. 90).

*Types:* Holotype ♀, Ranui Cove, Auckland I., ex rata leafmold, 3.I.1963, Gressitt.

*Record:* AUCKLAND IS. Rose I., ex dead leaves of *Carex*, 8.I.1963, Gressitt.

The species is named for Professor V. V. Hickman who described a species of this genus from the Crozets. The relationships of *H. hickmani* lie with the quite extensive New Zealand fauna which has not yet been described.

#### Family TOXOPIDAE Hickman

#### Genus *Laestrygones* Urquhart, 1893

*Laestrygones albiceres* Urquhart Figs. 93–98.

*Lycosa proxima* Urq., 1885, Trans. N. Zeal. Inst. **18**: 201 (preoccupied).

*Laestrygones albiceres* Urq., 1893, *Ibid.* **26**: 217.

*Stiphidion minutissimum*, Hogg: 1909, Subantarct. Is. N. Zeal. **1**: 157.

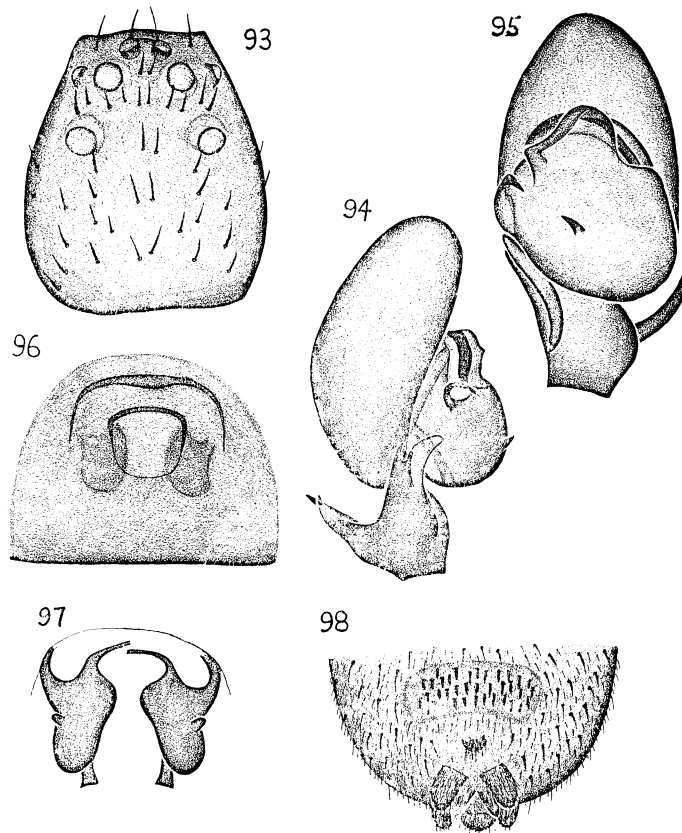
*Stiphidiellum minutissimum*: Dalmas, 1917, Ann. Soc. Ent. France **86**: 325.

*Laestrygones urquharti* Bryant, 1933, (for *Lycosa proxima* Urq. preoccupied) Rec. Cant. Mus. **4** (1): 7.

*Laestrygones minutissimum* (Hogg) Forster, 1955, Rec. Dom. Mus. **2** (4): 186.

This species was first recorded from the Subantarctic Is. by Hogg, who under the impression that the thickened plate on the ventral surface was a cribellum placed it in the cribellate genus *Stiphidion* Simon. In an earlier paper I (Forster, 1955) noted the true nature of this plate and transferred the species to *Laestrygones* Urquhart, a genus which the original author placed in the family Oxyopidae and subsequent authors (Bryant, 1933, Forster, 1955) placed in the little known family Perissoblemmidae. A recent revision of the New Zealand spiders of the family Toxopidae by me (in press) has shown clearly that *Laestrygones* falls into this family. Furthermore, an examination of specimens from many parts of New Zealand, the Chatham Is. and the present collections from the Auckland and Campbell Is. show that the spiders are all part of a single widespread species. The habits of this species differ from those of all other known New Zealand species of this family which are all nocturnal spiders living on the forest floor or among rocks and shingle in a few mountain regions. *L. albiceres* is found in shrubs and grass and is active during the daylight hours and is normally collected by sweeping.

The ♀ has been fully described previously (Forster 1955) except for the internal geni-



Figs. 93-98. *Laestrygones albiceres* (Urquhart). 93, cephalothorax of ♀; 94, retrolateral view of ♂ palp; 95, ventral view of ♂ palp; 96, epigynum; 97, internal genitalia, ventral view; 98, postero-ventral surface of abdomen of ♀.

talia which are shown in fig. 97.

The ♂ is similar to the ♀ in most respects. The palp is shown in figs. 94-95.

*Records*: CAMPBELL I. Beeman, 30 m, ex sedge, 16. XII. 1961, Gressitt; Beeman, 20 m, ex *Poa litorosa*, 16. XII. 1961, Gressitt; Beeman Hill, ex *Poa* roots, 30-100 m, 16. XII. 1961, Gressitt; Beeman Hill, 2-50 m, ex peat, 21, 25. XI. 1961, Gressitt; Beeman, 30 m, sweeping sedge, 27. VII. 1962, Rennell; Beeman Hill, ex *Coprosma*, 2. XII. 1961, Gressitt; Beeman Camp, 2-50 m, ex *Coprosma*, 26-30. XI. 1961, Gressitt; Beeman Beach, ex *Poa*, moss turf and *Chrysobactron*, 15. XII. 1961, Gressitt; Tucker Cove, 1-50 m, ex *Colobanthus* and *Poa*, 20-25. XI. 1961, Gressitt; Tucker Cove, 1-50 m, ex *Poa*, 1-5. XII. 1961, Gressitt; Tucker Cove, 20 m, 5. XII. 1961, Gressitt; Tucker Cove, beaten from *Pittosporum*, 26. II. 1963, Wise; Tucker Cove, beating *Coprosma*, 9. IV. 1962, Rennell; Tucker Cove, ex grass, 1. XII. 1961, Gressitt; Moubray Hill, Davis Point, 200 m, ex *Poa* 12. XII. 1961, Gressitt; Lookout Beach, ex dead fern 16, 9. XII. 1961, Gressitt; Lookout Beach, under stones and kelp, 3. II. 1963, Wise; Lyall-Beeman Saddle, 70 m, ex *Poa* roots, 3, 12. XII. 1961, Gressitt; Shoal Point, sweeping

tussock, 29.VII.1962, 21.X.1962, 1.XII.1962, Rennell; North-West Bay, ex tussock, 30.XII.1962, Rennell; Perseverance Harbor, ex leafmold from base of *Chrysobactron*, 24.II.1963, Wise. AUCKLAND IS. Crozier Point, 30.XII.1962, Gressitt; Crozier Point, ex kelp on beach, 28.XII.1962, Gressitt; Ranui Cove, ex leafmold rata forest, 3.I.1963, Gressitt; West Coast slope, below Stony Peak, 650 m, ex *Danthonia*, 19.I.1963, Gressitt; Ocean I., under logs and *Stilbocarpa*, 28.XII.1962, Johns; Rose I., ex *Poa*, 8.I.1963, Gressitt; French I., ex *Poa* leaves, 2.I.1963, Gressitt.

#### Family AMAUROBIOIDIDAE

Genus *Amaurobioides* Cambridge, 1883

##### *Amaurobioides maritima* Cambridge

This intertidal spider has been previously recorded from South Africa, Australia, New Zealand and the Auckland and Campbell Is.

*Records*: CAMPBELL I. North West Bay, ex kelp on rocks, 29.XI.1961, Gressitt; Davis Point, ex moss, 12.XII.1961, Gressitt; Beeman Camp, under rocks on beach, 11.XII.1961, Gressitt. AUCKLAND IS. Crozier Point, intertidal rocks, 28.XII.1962, Johns; Ewing I., under rocks near kelp, 1.I.1963, Gressitt.

#### Family LYCOSIDAE

Genus *Lycosa* Latreille, 1804

The presence of a lycosid spider in the Auckland Is. was noted by me in 1955, when 2♀ specimens in poor condition were examined from Auckland I. and Ocean I. A further specimen in good condition is now available and is described below:

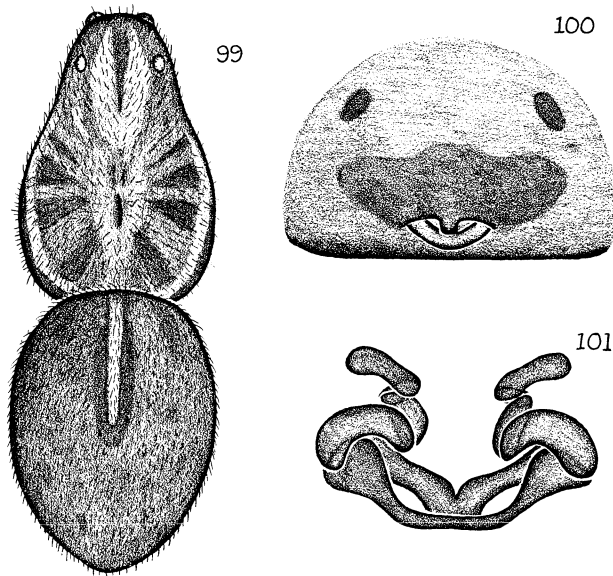
##### *Lycosa subantarctica* Forster, n. sp. Figs. 99–101.

♀: Measurement in mm. Cephalothorax, length 5.28; width 3.73. Abdomen, length 3.96; width 3.51.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.87	1.32	2.20	2.03	1.55	9.97
2	2.91	1.55	1.92	2.16	1.43	9.97
3	2.87	1.32	1.88	2.43	1.43	9.93
4	3.52	1.63	2.64	3.56	1.99	13.34
Palp	1.32	0.71	0.75		1.32	4.10

*Color*: Cephalothorax dark reddish brown with black shading as in fig. 99. Abdomen mottled black and brown, with a pale median longitudinal band running back from the anterior margin down 2/3 of the length of the dorsal surface.

*Eyes*: Ratio of AME. ALE. PME. PLE=6.8.8.13. AME separated from each other by 5/6 and from the ALE by 8/6 of the diameter of an AME. PME separated from each other by 7/6 and from the ALE by 8/6 of this diameter. PLE separated from each other by 54/6 and from the PME by 25/6 of the diameter of an AME. The clypeus is narrow, equal in width to the diameter of an AME. *Carapace*. Head relatively narrow, width equal to 5/8 the widest portion of the thoracic region. Fovea distinct. *Chelicerae*. Strong,



Figs. 99-101. *Lycosa subantarctica* n. sp. 99, dorsal surface of body of ♀; 100, epigynum; 101, internal genitalia, dorsal view.

with 2 stout teeth on each margin. *Maxillae*. Converging slightly over labium. Outer distal margin distended and rounded. Distal width greater than proximal width in ratio of 3.2. *Labium*. As wide as long. Anterior margin straight, provided with long black hairs. *Sternum*. Longer than wide in ratio of 19.15. Almost oval in outline, lateral margins evenly curved, terminated sharply behind between the 4th pair of coxae which are separated by  $1/5$  their width. *Abdomen*. Densely clothed with short hairs and fewer long, erect hairs. The epigynum is shown fig. 100 and the internal genitalia in fig. 101.

*Type*: Holotype ♀, Bivouac to Mt. Eden, 350 m, Auckland Is., 18. I. 1963, Gressitt, Dominion Museum.

*Records*: AUCKLAND IS., IV-V. 1944, E. G. Turbott; Ocean I., late April, 1944, Turbott, Auckland Museum.

This lycosid belongs to a group which is common in lowland country throughout New Zealand, and also which occurs on the Chatham Is. At present the nomenclature of these forms is confused, but the species described above seems quite distinct from the New Zealand forms examined. It is related to the widespread N. Z. species *Lycosa adumbrata* Urquhart and *L. ralphi* Simon from the Chatham Is.

#### Family THERIDIIDAE

Genus *Icona* Forster, 1955

*Icona* Forster, 1955, Rec. Dom. Mus. 2: 189.—Levi & Lorna, 1962, Bull. Mus. Comp. Zool. 127 (1): 61.

This genus was established in 1955 for *I. alba* Forster, based on specimens from Enderby I. in the Auckland Group. Levi (1962) in his revision of the genera of the family Theridiidae retained the genus and pointed out that it was related to the widespread genus *Enoplognatha*. This relationship is further demonstrated with the description below of a 2nd species from Auckland Is. the ♂ of which possesses greatly enlarged chelicerae, a character usually found in *Enoplognatha*. With the description of further material from New Zealand it may be considered advisable to place *Icona* as a synonym of *Enoplognatha*.

A spider described from the Crozets by Hickman (1939) under the name of *Drapetsica*

*antarctica* was subsequently transferred to *Ringina* by Tambs-Lyche (1954) who in the same paper described *Ringina crozetensis* also from the Crozets. This genus shares many characters with *Icona* including the unusual arrangement of the cheliceral teeth in the ♀. Unfortunately *R. antarctica* is known only from 1 immature ♀ and *R. crozetensis* from a damaged, and one-time dried, ♀ specimen. Both of these authors considered their species to be linyphiids, while *Icona* is undoubtedly a typical theridiid, but nevertheless subsequent examination may prove these spiders to be congeneric, and if this is so the distribution pattern for the genus would be very similar to that of *Myro*.

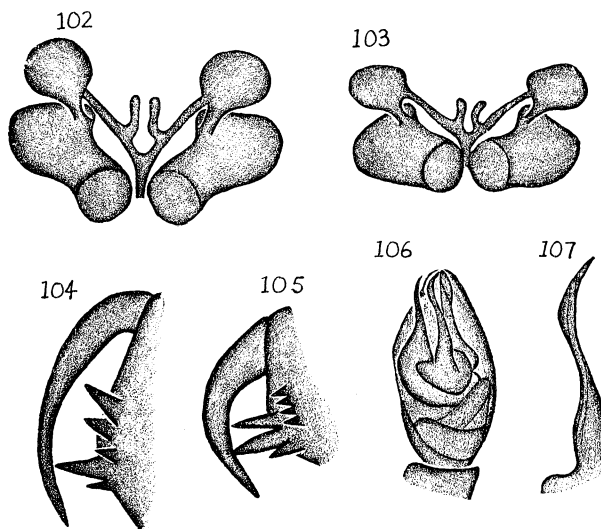
**Icona alba** Forster      Figs. 102-107.

*Icona alba* Forster, 1955, Rec. Dom. Mus. 2: 190.

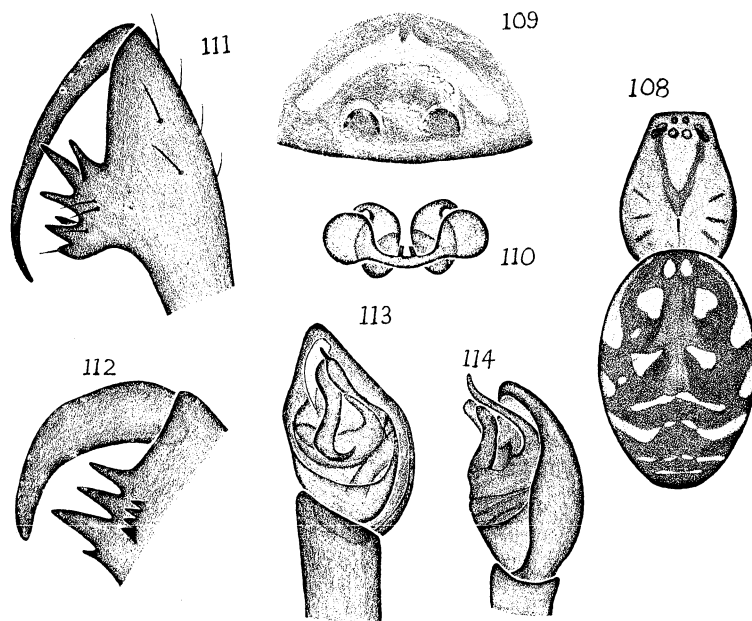
This species was originally recorded from Enderby I. The present collections extend the range to other islands in the Auckland Group and also to Campbell I. The species has been fully described previously, but illustrations are included in the present paper which show more clearly the structure of the internal genitalia, the ♂ palp and the arrangement of teeth on both ♂ and ♀ chelicerae and also permit comparison with *T. drama* n. sp. The specimens from Campbell I. are in fact easily separable from the Auckland I. specimens. Their legs are much shorter and stouter and there appears to be a slight difference in the shape of the seminal receptacles (figs. 102, 103). No ♂♂ have yet been found on Campbell I.

**Records:** AUCKLAND IS. Ranui Cove, beating leaves of *Myrsine divaricata*, 27. XII. 1962, Johns; Ranui, ex *Coprosma*, 29. XII. 1962, Gressitt; Ranui Cove, beating *Polystichum*, 4. I. 1963, Johns; Ranui Cove, 4 m, ex Malaise trap, 4 m, 5-7. I. 1963, Gressitt & Wise; Ranui Cove, 2 m, ex light trap, 2 m, 7. I. 1963, Gressitt & Wise; same data, 18. I. 1963; Observation Point, ex *Poa*, 27. XII. 1962, Gressitt; Crozier Point, sweeping *Myrsine*, 28. XII. 1962, Wise; Crozier Point, ex kelp on beach, 28. XII. 1962, Gressitt; Crozier Point, 28. XII. 1962, Wise; Crozier Point, 30. XII. 1962, Gressitt; Ocean I., 29. XII. 1962, Gressitt; Ocean I., ex *Stilbocarpa*, 29. XII.

1962, Gressitt; Ocean I., beating *Histiopteris incisa*, 30. XII. 1962, Johns; Ewing I., from light trap, 5, 6. I. 1963, Gressitt; Ewing I., 4, 6. I. 1963, Gressitt; Enderby I., Port Ross, 18. I. 1963, Wise; Enderby I., Port Ross, under stones and logs, 18. I. 1963, Wise; French I., from petrel burrows, 2. I. 1963, Gressitt; Rose I., ex herbs, 8. I. 1963, Gressitt; Bivouac, 430 m, 10. I. 1963, Wise; Bivouac Hill, 450 m, near rocky stream, 10. I. 1963, Gressitt; Bi-



Figs. 102-107. *Icona alba* Forster. 102 & 103, internal genitalia, ventral view (102, Auckland Is.; 103, Campbell Is.); 104, chelicera of ♂; 105, chelicera of ♀; 106, ventral view of ♂ palp; 107, embolus.



Figs. 108-114. *Icona drama* n. sp. 108, dorsal surface of body of ♀; 109, epigynum; 110, internal genitalia, dorsal view; 111, ♂ chelicera; 112, ♀ chelicera; 113, ventral view of ♂ palp; 114, retrolateral view of ♂ palp.

vouac Hill, ex wet rocks, 14. I. 1963, Gressitt; Bivouac, ex tussock, 16. I. 1963, Gressitt; Grey Duck Creek, Laurie Harbor, 9. I. 1963, Wise; Webling, Bay, 13. I. 1963, Wise. CAMPBELL I. Beeman Hill, ex *Coprosma*, 2. XII. 1961, Gressitt; Beeman Hill, 2. II. 1963, Wise; Tucker Cove, 1-50 m, 1-5. XII. 1961, Gressitt; Tucker Cove, 3. V. 1947, Sorensen; Tucker Cove to St. Col Ridge, 30. XI. 1961, Gressitt; Monument Harbor, ex tussock, 9. II. 1963, Wise.

***Icona drama* Forster, n. sp.** Figs. 108-114.

♀: Measurements in mm. Total length 3.48. Cephalothorax, length 1.44; width 1.26. Abdomen, length 2.16; width 1.62.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.52	0.72	2.34	2.16	0.98	8.70
2	1.98	0.54	1.44	1.51	0.90	6.37
3	1.62	0.52	1.08	1.17	0.72	5.11
4	1.98	0.54	1.53	1.53	0.84	6.42
Palp	0.72	0.25	0.45			

**Color:** Carapace pale yellow with faint shading behind eyes. Abdomen greyish black with pale markings on dorsal surface as illustrated in fig. 108. Ventral surface of abdomen with a white sublateral line along each side behind level of epigynum. Sternum and legs brown.

**Eyes:** From above both rows appear straight. From in front the anterior row is straight

but the posterior row is procurved. Ratio of AME. ALE. PME. PLE = 4.7.7.7. AME separated from each other by  $3/4$  and from the ALE by  $4/4$  of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by  $5/4$  and from the PLE by  $6/4$  of the diameter of an AME. Median ocular quadrangle wider behind than in front in ratio of 7 : 5 and longer than wide in front in the ratio of 6 : 5. Clypeus broad, equal to  $16/4$  of the diameter of an AME. *Carapace*. Low, head region not clearly separated from the thoracic region. Fovea distinct, longitudinal. *Chelicerae* (fig. 112). Retromargin with a row of 4 small, even, closely spaced, teeth; promargin with 4, of which the distal 3 are large and the proximal small. Fang short and straight. *Maxillae*.  $2\times$  as long as wide, lateral margins straight and parallel, converging over labium. *Labium*. Broad, wider than long in ratio of 3 : 2. *Sternum*. Almost triangular in outline with posterior apex bluntly pointed and extending back beyond coxae IV. *Legs*. Long and slender. Covered with short, sparsely serrate hairs. Spines absent. Trichobothria distributed as follows:—Legs 1–2, tibia 1.1.1.1, metatarsus 1 median; leg 3, tibia 1.2.1, metatarsus 1 median; leg 4, tibia 1.1.1.1.1, metatarsus 0. Tarsal comb lacking. Superior claws similar, with 8 teeth, inferior claw with 2 teeth. There are 2 or 3 serrate bristles at base of claws which appear to be weak spurious claws. Tarsal organ prominent and situated at  $1/3$  of length of the segment. *Palp*. Clothed with smooth hairs, spines absent. Tibia with 3 trichobothria arranged 2.1. Tarsal organ at  $2/3$  of length of tarsus. Tarsal claw well developed with a row of 11 small uniform teeth. *Abdomen*. Ovoid, longer than wide in ratio of 8 : 5. The epigynum is typical and is shown in fig. 109. Internal genitalia consists of 2 large atria leading into round seminal receptacles as in *I. alba* but with the appearance shown in fig. 110. Colulus distinct with 2 hairs.

♂: Measurements in mm. Total length 3.63. Cephalothorax, length 1.80; width 1.35. Abdomen, length 1.89; width 1.35.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	3.06	0.81	2.91	2.70	1.22	10.70
2	2.52	0.72	1.98	1.91	0.99	8.12
3	1.89	0.54	1.33	1.44	0.79	5.99
4	2.70	0.63	1.89	1.91	0.95	8.08
Palp	1.35	0.27	0.98		0.41	3.01

Many of the characters are the same as for ♀. Only the following need mention: Chelicerae divergent and greatly enlarged being almost  $4/5$  the length of the carapace. Six teeth are borne on a large swelling at about halfway (fig. 111). When compared with *T. alba* the 6 teeth would appear to consist of 3 promarginal and 3 retromarginal. Trichobothria present as follows: Leg 1, tibia 1.1, metatarsus 1; legs 2 and 3, tibia 1.1.1.1, tibia 1.1.1, metatarsus 0; leg 4, tibia 1.1.1, metatarsus 0. Structure of palp similar to *S. alba* and is shown in figs. 113, 114. There are 2 trichobothria on the tibia.

*Types*: Holotype ♂, allotype ♀, Bivouac Hill, Auckland Is., 450 m, near rocky stream, 17. I. 1963, Gressitt, Dominion Museum, Wellington.

*Records*: AUCKLAND IS. Bivouac, 420 m, 6. I. 1963, Wise; Bivouac Hill, 450 m, from wet rocks, 14. I. 1963, Gressitt; same data, 15. I. 1963.



Genus *Pholcomma* Thorell, 1869

In 1955 I described *Erigone antipodiana* from the Antipodes I. Dr. H. W. Levi subsequently pointed out that this species should be transferred to *Pholcomma*, a widespread genus of the family Theridiidae; this genus is in fact strongly represented in New Zealand by many undescribed species. The present collections include a single ♀ specimen which may eventually prove to be identical with *P. antipodiana* (Forster) which is known from a single ♂ but in the meantime is described below as new.

***Pholcomma hickmani*** Forster, n. sp. Figs. 115-117.

♀: Measurements in mm. Total length 1.41. Cephalothorax, length 0.57; width 0.45. Abdomen, length 0.90; width 0.72.

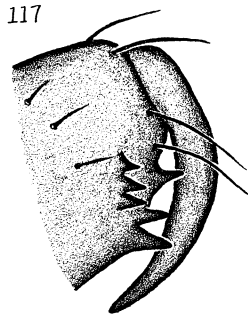
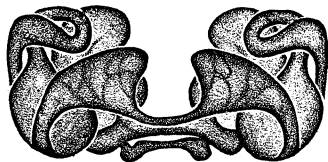
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.45	0.16	0.31	0.24	0.24	1.40
2	0.37	0.18	0.27	0.21	0.27	1.30
3	0.32	0.14	0.21	0.19	0.23	1.09
4	0.45	0.16	0.27	0.21	0.23	1.32
Paip	0.18	0.07	0.09		0.19	0.53

*Color*: Cephalothorax and legs pale uniform yellow-brown. Abdomen grey.

*Eyes*: Eyes large and occupying entire width of head. From in front the anterior row is straight and the posterior row precurved. Ratio of AME. ALE. PME. PLE=3.6.6.6. The AME are separated from each other and from the ALE by 2/3 of the diameter of an AME. The lateral eyes are contiguous. PME are separated from each other by 5/3 and from the PLE by 4/3 of the diameter of an AME. Median ocular quadrangle wider behind than in front in the ratio of 17.8 and longer than wide in the front in the ratio of 13.8. The clypeus is broad, the width being equal to 10/3 of the diameter of an AME. *Chelicera* (fig. 117). Promargin with 3 small teeth in a close line, contiguous at their base.



115



117

Figs. 115-117. *Pholcomma hickmani* n. sp. 115, epigynum; 116, internal genitalia, ventral view; 117, ♀ chelicera.

Three teeth on the retromargin are larger and more widely spaced. *Maxillae*. Longer than wide in ratio of 9.5, curved in over the labium. *Labium*. Evenly rounded, almost 2× as wide as long. *Sternum*. Scutiform, as wide as long. Broadly truncate posteriorly between coxae IV which are separated from each other by a distance slightly more than 2× their width. *Legs*. 1.4.2.3. Clothed with sparsely serrate hairs, tarsal comb and spines lacking. Trichobothria distributed as follows: Legs 1 and 2, tibia 2.1, metatarsus 1; legs 3, tibia 1.1, metatarsus 0; leg 4, tibia 1.2, metatarsus 0. Tarsal organ present, at 1/3 the length of each segment. Superior claws similar. The 1st 2 pairs of which appear smooth, while the 2nd 2 pairs have 2 small teeth. Inferior claw of same length as superior

claws and smooth. *Palp.* A single trichobothrium present on mid dorsal surface of tibia. Tarsal organ situated at  $2/3$  the length of the tarsus. Claw long, straight and smooth. *Abdomen.* Ovoid, lightly clothed with short hairs. Colulus large, epigynum simple with 2 depressions, fig. 115. Internal genitalia as shown in fig. 116.

*Type:* Holotype ♀, Beeman Hill, Campbell I., ex moss, 2. III. 1963, Wise, Dominion Museum, Wellington.

### Family SYMPHYTOGNATHIDAE Hickman 1931

#### Genus *Textricella* Hickman, 1845

The genus *Textricella* is abundantly represented in New Zealand and also occurs in Eastern Australia and New Guinea. I recorded *T. aucklandica* from the Auckland Is. in 1955 and a further species *T. wisei* n. sp. is described below from Campbell I. It is of interest to note that the 2 subantarctic species are not actually closely related to each other but belong to 2 distinct species groups, which also occur in N. Z. These 2 groups differ in the number of eyes present, as well as the form of the ♂ and ♀ genitalia. The New Zealand species are strictly forest dwellers and the occurrence of *T. campbellensis* in open tussock country is most interesting when looked at in relation to the conditions which possibly prevailed in the South I. of New Zealand during periods of maximum glaciation.

#### *Textricella wisei* Forster, n. sp. Figs. 118–121.

♂: Measurements in mm. Total length, 0.89. Cephalothorax, length 0.43; width 0.31. Abdomen, length 0.48; width 0.32.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.31	0.12	0.25	0.12	0.19	1.00
2	0.29	0.09	0.21	0.12	0.21	0.92
3	0.25	0.07	0.18	0.11	0.19	0.80
4	0.32	0.09	0.27	0.11	0.23	1.02
Palp	0.12	0.05	0.07		0.11	0.35

*Color:* Cephalothorax and appendages pale yellow-brown, without markings. Abdomen, yellow-brown but dorsal plate darker.

*Eyes* (fig. 118): Six eyes, AME lacking. Ratio of ALE.PME.PLE=3.2.3. Lateral eyes contiguous. ALE separated from each other by a distance equal to  $10/3$  the diameter of an ALE. PME separated from each other by  $3/3$  and from the PLE by  $4/3$  the diameter of an ALE. Width of clypeus equal to  $8/3$  the diameter of an ALE. *Chelicerae* (fig. 118): Without protuberances. Promargin with a median peg and a small tooth on the proximal and distal surfaces. Retromargin with a bifid proximal tooth and a single distal tooth. *Maxillae, labium* and *sternum* typical for the genus. *Legs.* 4.1.2.3. Without spines, clothed with smooth hairs. Trichobothria are present as follows: Legs 1 and 2, tibia 2.1, metatarsus 1; leg 3, tibia 2.1, metatarsus 0; leg 4, tibia 1.1.1.1, metatarsus 0. Superior claws with 8 minute teeth. Inferior smooth. Tarsal organ well developed and subproximal. *Palp* (fig. 119). Very similar in structure to *T. plebeia* Forster. *Abdomen.* Dorsal plate extending back  $2/3$  the length of the abdomen. Spinnerets typical. Colulus present.

♀: Measurements in mm. Total length 1.04. Cephalothorax, length 0.46; width 0.32.

Abdomen, length 0.72; width 0.48.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	0.33	0.12	0.28	0.12	0.25	0.10
2	0.33	0.11	0.25	0.12	0.23	0.04
3	0.29	0.11	0.18	0.11	0.23	0.92
4	0.36	0.11	0.32	0.16	0.27	1.22
Palp	0.11	0.05	0.05		0.07	0.30

Similar to ♂ in most characters. Abdomen creamy-white. There are 3 strong teeth on the promargin of the chelicera and 2 on the retromargin. Internal genitalia shown in fig. 120.

*Types*: Holotype ♂, allotype ♀, Beeman Hill, Campbell I., ex *Dracophyllum* leafmold, 2. III. 1963, Wise.

*Records*: CAMPBELL I. Tucker Cove, ex *Dracophyllum* leafmold, 1. II. 1963, Wise; Beeman Hill, ex moss, 2. III. 1963, Wise.

This species is most closely related to *T. plebeia* Forster from Codfish I., a small island off Stewart I., but may be separated from it by the form of the ♂ palp and ♀ genitalia.

#### Family ARGIOPIDAE

##### Genus *Araneus* Clerck, 1757

#### *Araneus pustulosus* Walck

This species, under the name *Araneus verrucosus* was recorded from both the Auckland and Campbell Is. by Hogg but subsequent collectors have failed to find it on Campbell I. It is common in New Zealand.

*Records*: AUCKLAND IS. Port Ross, Erebus Cove, in boatshed, 9. I. 1963, Wise; Port Ross, Terror Cove, 10. I. 1963, Wise; Ranui Cove, beating *Myrsine*, 27. XII. 1962, Johns; Ranui Cove, 4 m, ex Malaise Trap, 16-18. I. 1963, Gressitt & Wise; Ocean I., 3. I. 1963, Gressitt; Rose I., beating top branches of *Metrosideros*, 11. I. 1963, Johns; Enderby I., under *Metrosideros* bark, 31. XII. 1962, Johns.

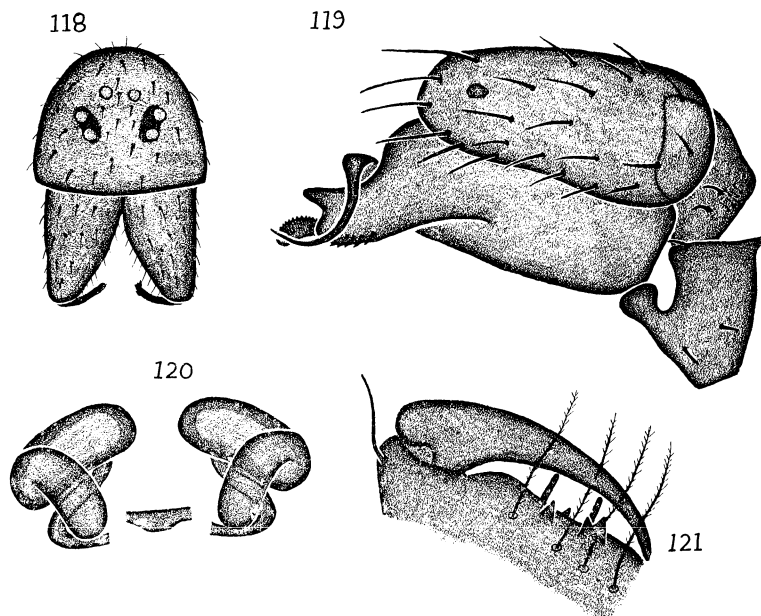
#### Family LINYPHIIDAE

##### Genus *Mynoglenes* Simon, 1905

#### *Mynoglenes insolens* Simon, 1905

Previously recorded from Chatham Is., Auckland Is., Campbell I., and Macquarie I., the range of the species is now extended to the Snares.

*Records*: AUCKLAND IS. Bivouac, 420 m, 7. I. 1963, Wise; Terror Cove, Port Ross, 10. I. 1963, Wise; Crozier Point, ex kelp on beach, 28. XII. 1962, Gressitt; Shore north of Lookout Point, under kelp, 31. XII. 1962, Wise; Ranui Cove, under logs in rata forest, 14. I. 1963, Wise; French I., 2. I. 1963, Gressitt; Ewing I., 4-6. I. 1963, Gressitt; Ewing I., rocks lying on soil 1 m above high water, 27. XII. 1962, Johns; Rose I., 8. I. 1963, Gressitt; Rose I., ex *Poa*, 8. I. 1963, Gressitt. CAMPBELL I. Perseverance Harbor, Lookout Bay, under *Stilbocarpa*, 3. II. 1963, Wise; Perseverance Harbor, 4 m, from shag resting place, on plants



Figs. 118-121. *Textricella wisei* n. sp. 118, cephalothorax and chelicerae from in front; 119, prolateral view of ♂ palp; 120, internal genitalia, ventral view; 121, ♂ chelicera.

growing on guano, 25. VII. 1962, Rennell; Perseverance Harbor, ex base of *Chrysobactron*, 24. II. 1963, Wise; Lookout Bay, ex *Chrysobactron*, 3. XII. 1961, Gressitt; Shoal Point, 7. II. 1963, Wise; Beeman Station, under timber on ground, 14. II. 1963, Wise; Beeman Cove, 3. III. 1962, Clark; Smoothwater Bay, ex leafmold under sedge, 16. II. 1963, Wise; Davis Point, ex moss, 12. XII. 1962, Gressitt; Courrejolles Pen., mollymawk Colony, 220 m, under stones, 12. II. 1963, Rennell. SNARES I. Near Station Point, under *Olearia* logs, 22-28. I. 1961, Mannerling.

***Mynoglenes marrineri*** Hogg, 1909 (See photo, p. 519)

This species has been recorded from the Auckland, Campbell and Antipodes Is. But it is apparently a rare species on the Auckland Is. and is not present in the present collections from this area.

**Records:** CAMPBELL I. Rocky Bay, ex *Anisotome*, 28. XI. 1961, Gressitt; Rocky Bay, penguin colony, under *Tillaea*, 18. II. 1963, Wise; Tucker Cove, 4. XII. 1961, Gressitt; Tucker Cove, 4 m, under boards, 15. XII. 1962, Rennell; Tucker Cove, beaten from *Pittosporum*, 26. II. 1963, Wise; Tucker Cove, 1 m, by shore, Rennell; Tucker Cove, 4. XII. 1961, Gressitt; Tucker Cove, 1-50 m, ex *Colobanthus* and *Poa*, 21-25. XI. 1961, Gressitt; Monument Harbor Beach, ex kelp, 17. XII. 1961, Gressitt; Monument Harbor, ex tussock, 9. II. 1963, Wise; Camp Cove, 2 m, under tussock, 20. XII. 1961, Rennell; Shoal Point, 1. XII. 1962, Rennell; Venus Bay, ex tussock, 2. II. 1963, A. Wright; Venus Cove, 0-2 m, 2. II. 1963, Rennell; Lookout Bay beach, under stone and kelp, 3. II. 1953, Wise; Lookout Bay, ex kelp, 19. XII. 1961, Gressitt; Lookout Bay, ex *Hebe*, 19. XII. 1961, Gressitt; Lookout Bay, ex herbs on

boulder beach, 19. XII. 1961, Gressitt; Lookout Bay, under rocks at high tide level, 19. XII. 1961, Gressitt; Lookout Bay beach, ex *Poa*, 19. XII. 1961, Gressitt; Lookout Bay, 3 m, ex *Stilbocarpa polaris*, 30. XII. 1961, Rennell; Lookout Bay Beach, ex dead fern, 16, 19. XII. 1961, Gressitt; Middle Cove, Northwest Bay, 5. II. 1963, Wise; Northwest Bay, beach ex kelp on rocks, 29. XI. 1961, Gressitt; Northwest Bay, ex tussock, 30. XII. 1962, Rennell; Beeman Station, 8. II. 1963, Wise; Beeman Point, ex sedge leafmold, 28. II. 1963, Wise; Beeman Hill, 150 m, ex *Pleurophyllum*, 12. XII. 1961, Gressitt; Beeman Hill, 198 m, ex *Pleurophyllum*, 11. XII. 1961, Gressitt; Beeman Hill, 30–100 m, ex *Poa* roots and moss, 1–6. XII. 1961, Gressitt; Beeman Camp, 20 m, 11. XII. 1961, Gressitt; Beeman Camp area, Perseverance Harbor, 1958–1959; Lyall-Beeman Saddle, 70 m, ex *Pleurophyllum*, 3, 5, 8, 12. XII. 1961; Gressitt; Smoothwater Bay, ex leafmold from under tussock, 16. II. 1963, Wise; Courrejolles Pen., 240 m, 13. II. 1963, Wise; Courrejolles Pen., mollymawk colony, 14. XII. 1961, Gressitt; St. Col Ridge, on rock, 4, 7, 9, 13. XII. 1961, Gressitt.

Genus *Linyphia* Latreille, 1804

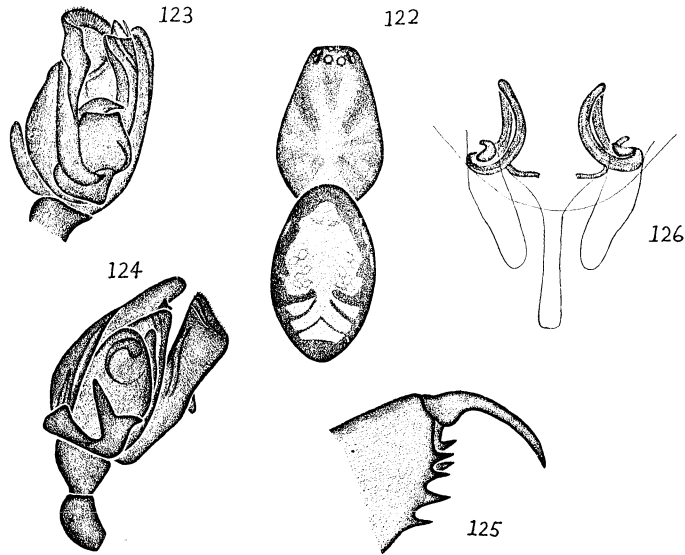
*Linyphia aucklandensis* Forster, n. sp. Figs. 122–126.

♀: Measurements in mm. Total length 2.54. Cephalothorax, length 1.26; width 0.99. Abdomen, length 1.44; width 0.90.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.58	0.36	1.36	1.35	1.04	5.69
2	1.62	0.41	1.53	1.33	0.99	5.88
3	1.26	0.36	0.99	0.99	0.66	4.26
4	1.64	0.29	1.31	1.26	0.81	5.31
Palp	0.54	0.18	0.36		0.54	1.62

**Color:** Cephalothorax pale yellow-brown with fairly uniform black shading. Abdomen mainly creamy white but with black markings on anterodorsal surface and lateral margins. The lateral markings extend to the central line posteriorly to form broken chevrons. Pale regions of dorsal surface are further broken with mottled white areas. Legs yellow-brown.

**Eyes:** From above the anterior row is slightly recurved and the posterior row slightly procurved. The AME are placed on a low mound which overhangs the clypeus. Ratio of AME. ALE. PME. PLE = 3.5.5.4. AME separated from each other by 2/3 and from the ALE by 4/3 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other and from the PLE by a distance equal to the diameter of an AME. Median ocular quadrangle wider behind, than in front, in the ratio of 11 : 8 and longer than wide in the front, in the ratio of 12 : 8. The width of the clypeus is equal to 11/3 of the diameter of an AME. **Carapace.** Low, widening evenly from the anterior margin to between legs 2 and 3 where the width is 11/14 the total length of the carapace. There is no fovea present. **Chelicerae.** There are 3 strong teeth on promargin and 2 on retromargin. **Maxillae.** Directed across the labium. Squat, as wide as long. Outer margins slightly curved. **Labium.** Broad, 2× as wide as long, anterior margin strongly rebordered. **Sternum.** Broadly scutiform, only slightly longer than wide. Anterior margin procurved. Posterior end, broadly obtuse, extending behind coxae IV, which are separated by a distance equal to their width. Lateral margins evenly curved and drawn out into small points between the coxae. **Legs.** Clothed with smooth hairs and stronger bristles on femora, patel-



Figs. 122-126. *Linyphia campbellensis* n. sp. 122, dorsal surface of ♀; 123, ventral view of ♂ palp; 124, retrolateral view of ♂ palp; 125, ♂ chelicera; 126, outline of epigynum and internal genitalia, ventral view.

lae and tibiae. The bristles are arranged as follows: Leg 1, femur, prolateral 1, patella, prolateral 1, distal, tibia, 4 proximo-ventral in a group, prolateral 1, retrolateral 1; leg 2, femur, dorsal 1.1, patella, 1 distodorsal, tibia, retrolateral 1.1, dorsal 1, metatarsus, 1 proximo-dorsal; leg 3, femur, dorsal 1, patella, 1 distodorsal, tibia, dorsal 1.1, retrolateral 1 distal; leg 4, patella, dorsal 1.1, tibia, dorsal 1.1, retrolateral 1 distal, metatarsus, dorsal 1 proximal. Trichobothria are present only on the tibiae. Leg 1, 1.1.1.1.2.1.1; leg 2 and 3, 1.1.1.1.1; leg 4, 1.1.2.1.1. Superior claws similar each with 12 short teeth. Superior claw with a single tooth. There are 3 or 4 serrate bristles forming false claws at the base of the claws. Tarsal organ distinct, and is subdistal in position. *Palp*. Bristles are present as follows: Patella, 1 distodorsal, tibia 1.1 distodorsal, 2 distal prolateral. Tarsus, 2.2 retrolateral, 1.1 dorsal. Tibia with 2 trichobothria, claw long, slender and smooth. Tarsal organ subdistal. *Abdomen*. Ovoid, slightly less than 2× as long as wide. Shiny, clothed with short hairs. Epigynum with a long slender scape and 2 lateral projections. The internal genitalia are small and are shown in fig. 126. Prominent colulus present.

♂: Measurements in mm. Total length 2.81. Cephalothorax, length 1.26; width 0.99. Abdomen, length 1.62; width 0.90.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.72	0.36	1.71	1.53	1.11	6.43
2	1.62	0.36	1.54	1.41	0.99	5.92
3	1.26	0.31	0.99	0.99	0.71	4.26
4	1.56	0.28	1.35	1.26	0.81	5.06
Palp	0.45	0.14	0.12		0.37	

The carapace is a much darker reddish brown but otherwise as in ♀. General structure as in ♀. There appear to be fewer trichobothria present on the tibiae and a single trichobothrium on the 1st 3 metatarsi. The distribution is as follows: Leg 1, tibia, 1.1.1, metatarsus, 1; leg 2, tibia, 1.1, metatarsus, 1; leg 3, tibia, 1.1.1.1, metatarsus, 1; leg 4, tibia, 1.1.1.1, metatarsus, 0. The bulb of the palp is complex and is shown in figs. 123, 124. The paracymbium is large and forked distally.

*Types*: Holotype ♀, allotype ♂, Port Ross, Ocean I., Auckland Is., on *Stilbocarpa*, 29. XII. 1962, Wise, Dominion Museum.

*Records*: AUCKLAND IS. Ranui Cove, rata forest, beating ferns, 4. I. 1963, Johns; Port Ross, under log, 27. VIII. 1947, Sorensen; Crozier Point track, swept from *Polystichum vestitum*, 28. XII. 1962, Wise; Deas Head, under rata logs, 18. I. 1963, Johns; Ewing I., 4, 6. I. 1963, Gressitt; Ewing I., ex *Polystichum*, 4, 6. I. 1963, Gressitt; Ocean I., ex *Stilbocarpa*, 29. XII. 1963, Wise; French I., ex *Poa*, 1. I. 1963, Gressitt.

Both this species and the species described below have been placed in *Linyphia* until the New Zealand fauna is revised and a more appropriate generic placing can be made.

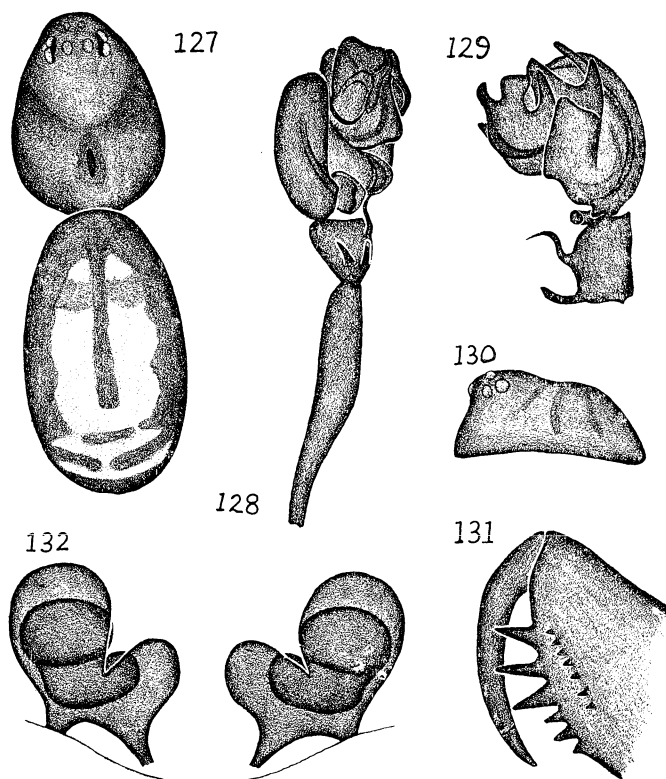
***Linyphia setosa*** Forster, n. sp. Figs. 127–132.

♂: Measurements in mm. Total length 2.14. Cephalothorax, length 0.83; width 0.79. Abdomen, length 1.33; width 0.90.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.62	0.28	1.69	1.48	0.99	6.06
2		Missing				
3	1.17	0.28	0.93	0.99	0.81	4.18
4	1.44	0.28	1.26	1.17	0.83	4.98
Palp						

*Color*: Cephalothorax and appendages dark-brown. Abdomen blackish brown with a pale pattern on dorsal surface as shown in fig. 127.

*Carapace*: Almost circular in outline, high profile as in fig. 130. Fovea deep, prominent, sunken between swellings on lateral surfaces of thoracic region. *Eyes*. Compact, occupying 4/7 the width of the head. Ratio of AME. ALE. PME. PLE=3.4.4.4. From in front both rows are slightly recurved. From above both rows are strongly procurved. AME separated from each other and from the ALE by 2/3 of the diameter of an AME. Lateral eyes contiguous. PME separated from each other by 3/3 and from the PLE by 2/3 of the diameter of an AME. Median ocular quadrangle wider behind than in front in ratio of 11.8 and longer than wide in the front in the ratio of 10.8. *Chelicerae*. Length slightly more than 1/2 the length of carapace. A row of 6 teeth present on the retromargin of which the distal 3 are large and a row of 7 minute uniform sized teeth are present on the promargin. *Maxillae*. Margins straight, about 3× as long as wide, converging over labium. *Labium*. Margins evenly curved and rebordered, almost 3× as wide as long, and appears to be fused to the sternum. *Sternum*. Scutiform, as wide as long. Terminated broadly behind coxae IV. *Legs*. Long and slender. Clothed with short smooth hairs, spines and bristles absent. Trichobothria distributed as follows: Leg 1, metatarsus 1 at 3/4, tarsus 0; leg 3, 1.1 at 1/3 metatarsus 1 at 1/4; leg 4, tibia 1.1.1.1.1.1, metatarsus 0, tarsus 0. Tarsal organ subdistal. Superior claws similar, with 6–7 minute teeth. Inferior claws with



Figs. 127-132. *Linyphia setosa* n. sp. 127, dorsal surface of ♂; 128, retrolateral view of ♂ palp; 129, ventral view of ♂ palp; 130, carapace from the side; 131, ♀ chelicera; 132, internal genitalia, ventral view.

single tooth. *Palp.* The form of the palp is shown in figs. 128, 129. *Abdomen.* Rather elongate, longer than wide in ratio of 7 : 5. There is a sclerotic thickening on the anterior dorsal surface with well-defined stridulating ridges. The area beyond the epigastric furrow is thickened. Spinnerets short and stout, closely spaced. Colulus large.

♀ : Measurements in mm. Cephalothorax, length 0.40; width 0.59. Abdomen length 1.26; width 0.41.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.62	0.25	1.71	1.44	1.08	6.10
2	1.44	0.31	1.26	1.19	0.82	5.02
3	1.16	0.29	0.93	1.03	0.68	4.09
4	1.16	0.31	1.08	1.04	0.72	4.31
Palp	0.54	0.25	0.29		0.46	1.54

The single specimen examined has been dried but the general characters including the relative size and placing of the eyes seems to be similar to the ♂. Trichobothria are distributed on the tibiae and metatarsi as follows: Legs 1 & 2, tibia, 1.1 distal, metatarsus, 1 at 3/4; leg 3, tibia 1.1 proximal, metatarsus, 1 proximal; leg 4, tibia, 1.1.1.1, metatarsus



0. The epigynum does not appear to have any characteristic structure but this may have been due to the poor state of preservation. The internal genitalia are shown in fig. 132. Tibia of palp with 4 trichobothria distributed 2.1.1. Tarsal organ at  $3/4$  of the length of the tarsus. Tarsal claw straight and smooth. There is a spine on the distal prolateral surface of the tibia and 2 spines on the tarsus, 1 mid-ventral and the other mid-prolateral.

*Types*: Holotype ♂, Tucker Cove, Campbell I., under boards, I. 1947, Sorensen. Allotype ♀, Rocky Bay, Campbell I., ex *Anisotome*, 28. XI. 1961, Gressitt, Dominion Museum, Wellington.

This species may have been introduced from New Zealand. The New Zealand linyphiids have not yet been studied in detail and I have placed this species in *Linyphia* until such time as the New Zealand fauna is revised.

### Family ATTIDAE

#### Genus *Clynotis* Simon, 1901

#### *Clynotis barresi* Hogg Figs. 133-137.

*Clynotis barresi* Hogg, 1909, Subantarctic Is. of N. Zeal. 1: 176.—Forster, Rec. Dom. Mus. 2 (4): 200.

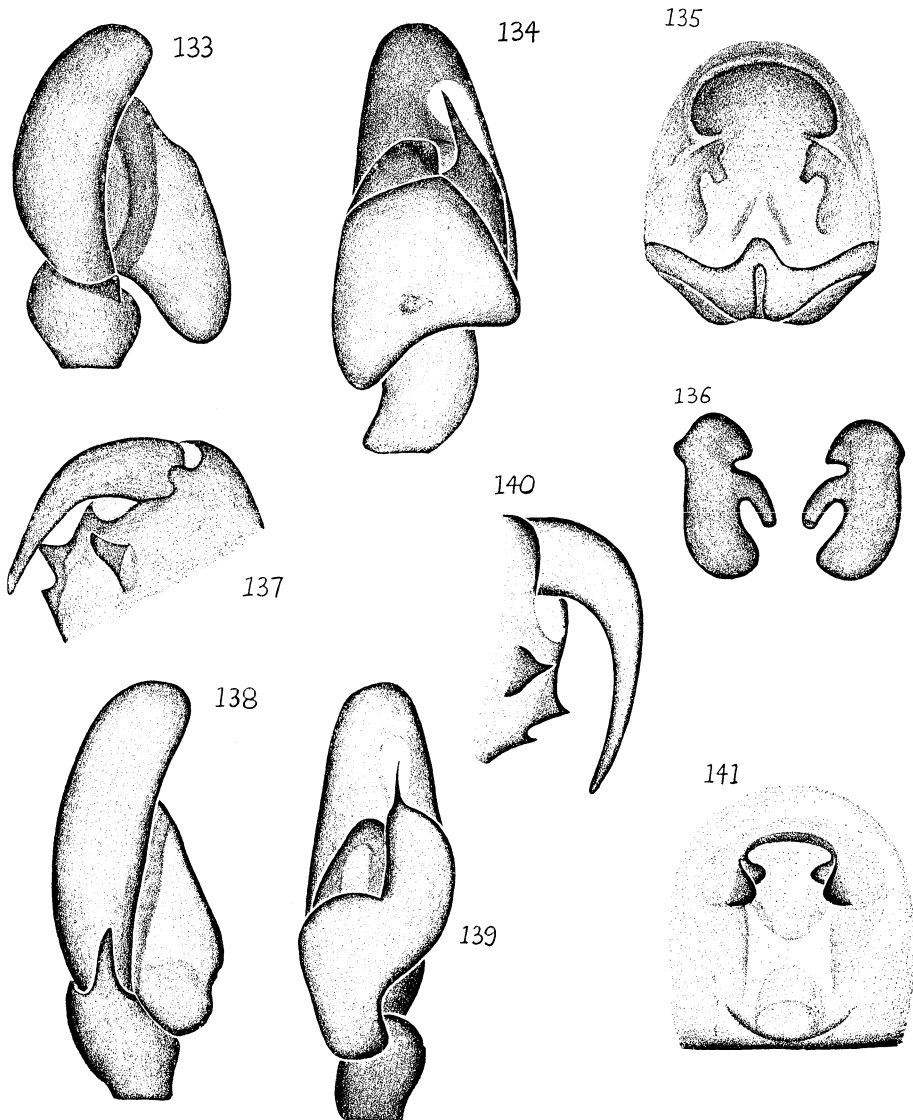
*Clynotis barresi*: Dalmas, 1917, Ann. Soc. Ent. France 86: 419.

♀: Measurements in mm. Total length 7.12. Cephalothorax, length 2.64; width 1.56. Abdomen, length 4.40; width 2.84.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.32	0.96	0.96	0.81	0.52	4.57
2	1.24	0.67	0.75	0.69	0.39	3.74
3	1.12	0.52	0.52	0.77	0.48	3.41
4	1.56	0.67	0.88	0.96	0.52	4.59
Palp	0.76	0.27	0.31		0.67	2.01

*Color*: Appendages and cephalothorax yellow-brown. Area around eyes black and area enclosed by eyes paler than rest of cephalothorax. Abdomen cream mottled with white.

*Eyes*: Ratio of AME. ALE. PME. PLE = 22.15.3.15. The eyes in the anterior row are subcontiguous. The PME are separated from the ALE by  $14/22$ , from the PLE by  $15/22$  and from each other by  $77/22$  of diameter of an AME. The PLE are separated from each other by a distance equal to  $64/22$  of the diameter of an AME. The quadrangle formed by lateral eyes is wider behind than in front in the ratio of 94.90 and wider in front than long in the ratio of 90:61. *Chelicerae*. Vertical, short and stout. Promargin with 2 strong teeth, retromargin with a single tooth which is broad at base (fig. 137). *Maxillae*. Distended distally where it is 2× the proximal width. *Labium*. Notched at base, widest at the base but evenly rounded anteriorly. *Sternum*. Scutiform, longer than wide in the ratio of 12:7. Terminating posteriorly with blunt point between coxae IV, which are separated by a distance equal to slightly less than  $1/2$  the width of a coxa. *Legs*. Few spines distributed as follows: Leg 1, tibia, ventral 2.2, 1p, metatarsus, 2.2, tarsus 0; leg 2, tibiae, ventral 1r. 2, metatarsus, ventral 2.2; leg 3, tibia, distal 1p, metatarsus, distal ventral 2, distal prolateral 2, distal retrolateral 2; leg 4, tibia, ventral 1.1p, retrolateral 1 distal, metatarsus, ventral 2 distal, prolateral 2 distal, retrolateral 2 distal. *Ab-*



Figs. 133-141. *Clynotis* spp. 133, *C. barresi* Hogg, retrolateral view of ♂ palp; 134, same, ventral view of ♂ palp; 135, same, epigynum; 136, same, internal genitalia, ventral view; 137, same, ♂ chelicera; 138, *C. archeyi* (Berland), retrolateral view of ♂ palp; 139, same, ventral view of ♂ palp; 140, same, ♂ chelicera; 141, same, epigynum.

*domen.* Closely clothed with small, pale, and inconspicuous hairs and fewer long erect hairs. Epigynum as in fig. 135. Internal genitalia simple as illustrated in fig. 136.

♂: Measurements in mm. Total length 6.21. Cephalothorax, length 3.08; width 1.76. Abdomen, length 3.08; width 1.68.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	2.20	1.76	1.76	0.76	0.88	6.66
2	1.55	0.67	0.94	0.88	0.70	4.74
3	1.43	0.48	0.76	0.96	0.52	4.15
4	1.62	0.88	0.94	1.18	0.52	5.14
Palp	0.92	0.35	0.16		0.80	2.23

*Color*: ♂ is much darker than ♀. Appendages very dark brown, almost black. Apart from conspicuous orange-brown area enclosed by eyes, cephalothorax is also blackish brown. The base color of abdomen is cream but there is broad median dorsal band which is posteriorly broken into chevrons. The lateral margins flecked with brown and there are 3 indistinct parallel longitudinal brown bands down the ventral surface. Most structural features as in ♀. Palp as shown in figs. 133, 134.

*Previous records*: The type specimens come from Campbell I. I recorded (Forster, 1955) specimens from both Auckland and Campbell Is. and tentatively identified an immature specimen from the Antipodes Is. as this species.

*Present records*: AUCKLAND I. Ranui Cove, beating *Metrosideros*, 27.XII.1962, Johns; Ranui Cove, beating *Myrsine*, 27. XII. 1962, Johns; above Ranui Cove, on beach, 7.I.1963, Johns; Observation Point, 27. XII. 1962, Gressitt; Crozier Point track, swept from *Myrsine*, 28. XII. 1962, Wise; Stony Peak to Bleak Hill, under stones, 11. I. 1963, Gressitt; Bivouac Peak, 450 m, under stones, 6.I.1963, Johns; Bivouac Hill, nr. rocky stream, 10.I.1963, Gressitt; Bivouac, ex tussock, 16. I. 1963, Gressitt. OCEAN I., beating *Cassinia veauvilliaea*, 28. XII. 1962, Johns; French I., 2. I. 1963, Gressitt; Ewing I., ex *Stilbocarpa*, 4-6.I.1963, Gressitt; Rose I., ex dead leaves of *Carex*, 8.I.1963, Gressitt; Rose I., under dead wood, 8. I. 1963, Gressitt; Rose I., 8.I.1963, Gressitt; Rose I., Enderby I., under stones and logs, 18. I. 1963, Wise; Deas Head, under rata logs, 18.I.1963, Johns. CAMPBELL I. Mt. Lyall, 200-400 m, 3, 5. 12.XII.1961, Gressitt; Mt. Lyall, 200-400 m, ex moss, 3, 5.12.XII.1961, Gressitt; Mt. Lyall, 250 m, 12. XI. 1962, Rennell; Lookout Bay, ex *Hebe* on shore, 16, 19. XII. 1961, Gressitt; Lookout Bay, ex *Chrysobactron*, 3. XII. 1961, Gressitt; Lookout Beach, ex *Dracophyllum*, 3. XII. 1961, Gressitt; Lookout Bay, ex *Coprosoma*, 19. XII. 1961, Gressitt; St. Col Ridge, 180 m, ex moss on rock, 7.XII.1961, Gressitt; St. Col Peak, 240 m, on rock, 23.II. 1963, Wise; St. Col Peak, 250 m, ex low plants on rock, 23.II.1963, Wise; Beeman Beach, on rocks, 1961, Rennell; Beeman, 10 m, ex *Dracophyllum*, 19. XII. 1961, Gressitt; Beeman-Tucker, ex *Pleurophyllum criniferum*, 8. XII. 1961, Gressitt; Tucker Cove, 0.3 m, ex *Dracophyllum*, 7. XII. 1962, Rennell; Courrejolles to Mt. Azimuth, 14. XII. 1961, Gressitt; Courrejolles Pen., mollymawk colony, 230 m, ex cushion plants and *Tillaea*, 12. II. 1963, Rennell; Courrejolles Pen., 230 m, mollymawk colony on rock cliff, 13.II.1963, Wise; Garden Cove, ex *Dracophyllum*, 25. XI. 1961, Gressitt; Shoal Point, 1. XII. 1962, Rennell; Shoal Point, 7. II. 1963, Wise; Northwest Bay, ex tussock, 30. XII. 1962, Rennell; Venus Cove, 0.2 m, 2. II. 1963, Rennell; Mt. Dumas, 400 m, to summit, under stones, 6. II. 1963, Wise; Monument Harbor, 9. II. 1963, Wise.

The present collections although extensive do not resolve the problem raised by *Cosmophasis archeyi* Berland which was described from a ♂ and a ♀ specimen collected in the Auckland Is. This species is closely related to *C. barresi* and the palp and epigynum of the type specimens are shown in figs. 138-141. I have previously suggested (1955) that the specimens were actually collected from Bluff in the South I. of New Zealand in the same

way as *Rubrius rufus* which was also described by Berland in his paper. However with the recognition of speciation within the Auckland Islands as shown in *Gohia* it is possible that *C. archeyi* is in fact a rare species from the Auckland Is.

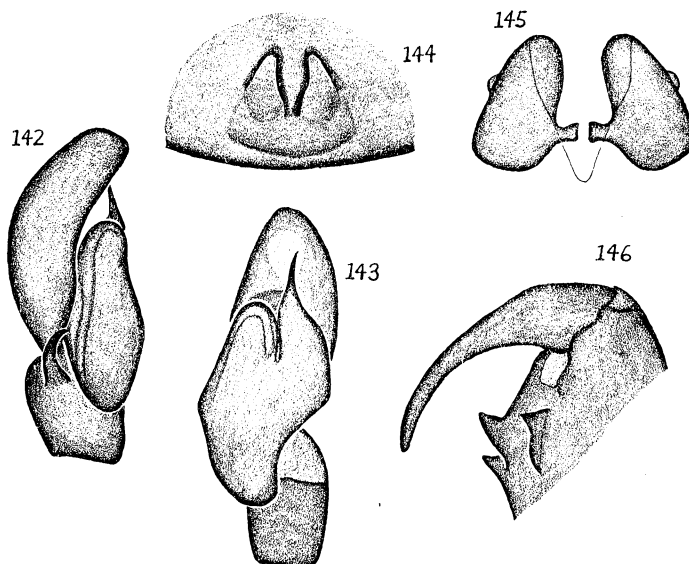
***Clynotis knoxi* Forster, n. sp.** Figs. 142–146.

♂: Measurements in mm. Total length 4.96. Cephalothorax, length 2.25; width 1.62. Abdomen, length 2.88; width 1.71.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.80	0.83	1.62	0.99	0.63	5.97
2	1.26	0.81	0.92	0.72	0.54	4.35
3	1.08	0.57	0.64	0.75	0.45	3.49
4	1.35	0.63	0.90	0.90	0.47	4.25

*Color*: Lateral margins of the cephalothorax dark red-brown. The area enclosed by the eyes cream, with the central region behind the eyes pale brown. Abdomen cream, mottled, with a prominent longitudinal band down the median dorsal surface, terminating at 2/3 where it becomes wider. Legs pale yellow-brown but anterior pair dark brown.

*Eyes*: Ratio of AME. ALE. PME. PLE=21.11.4.12. AME are separated from each other by 2/21 and from the ALE by 5/21 of the diameter of an AME. PME separated from the ALE by 5/21 and from the PLE by 15/21 and from each other by 65/21 of the diameter of an AME. PLE separated from each other by a distance equal to 60/21 of the diameter of an AME. Ocular quadrangle formed by the lateral eyes, wider behind than in front in the ratio of 17 : 5 and wider behind than long in the ratio of 17 : 11. *Cara-*



Figs. 142–146. *Clynotis knoxi* n. sp. 142, retrolateral view of ♂ palp; 143, ventral view of ♂ palp; 144, epigynum; 145, internal genitalia, ventral view; 146, ♂ chelicera.

*pace*. Longer than wide in ratio of 4 : 3, closely clothed with adpressed white hairs and with fewer, erect, black hairs. *Chelicerae*. Stout, vertical, promargin with 2 strong teeth, retromargin with a single tooth expanded at base (fig. 146). *Maxillae*. Slightly divergent, outer margins swelling out distally where the width is greater than that at base in ratio of 5 : 3. Length equal to 2× the distal width. There is a thick scopula of apically expanded hairs on the inner distal surface. *Labium*. Longer than wide in the ratio of 5 : 4. Evenly rounded, anterior margin straight. *Sternum*. Longer than wide in ratio of 37 : 51. Anterior margin procurved, lateral margins evenly curved, without sharp lateral projections. Bluntly terminated posteriorly in front of coxa IV. *Legs*. 1.4.2.1. Anterior pair well developed; much longer than in ♀ but not as stout. Clothed with recumbent barbed setae and erect smooth setae. *Spines*. Leg 1, tibia, ventral, 0.2.2, metatarsus, ventral 0.2.2, tarsus 0; leg 2, tibia, ventral 0.1.1, metatarsus, ventral 0.2.2, tarsus 0; leg 3, femur, dorsal 1.1.2, tibia, ventral 0.0.2, prolateral 0.0.1, retrolateral 0.0.1, metatarsus, ventral 0.1.2, prolateral 0.0.1, retrolateral 0.0.1, dorsal 0.0.1; leg 4, femur dorsal 1.1.1, tibia, ventral 1.0.2, prolateral 0.0.1, retrolateral 0.0.1, metatarsus, ventral 0.1.2, prolateral 0.0.1, retrolateral 0.0.1, dorsal 0.0.1. Trichobothria are distributed as follows: Leg 1, tibia 1.1; leg 2, tibia 1.1, metatarsus 1, subdistal, tarsus 1.1; leg 3, tibia 1.1, metatarsus 1.1.1, tarsus 1; leg 4, tibia 1.1.1, metatarsus 1.1.1, tarsus 1.1. Superior claws similar each with a proximal row of 9 short teeth. Scopula thick, with spatulate hairs. *Palp*. As shown in figs. 142, 143. Tibia with a strong, sharply terminated, curved process. *Abdomen*. Thickly clothed with fine brown hairs and fewer erect black hairs. Spinnerets short, colulus well developed.

♀: Measurements in mm. Total length 5.48. Cephalothorax, length 2.63; width 1.71. Abdomen, length 2.88; width 1.80.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	1.41	0.96	1.08	0.72	0.54	4.71
2	1.26	0.82	0.83	0.63	0.42	3.96
3	0.97	0.64	0.72	0.81	0.42	3.56
4	1.55	0.79	0.99	0.96	0.52	4.81
Palp	0.84	0.36	0.36		0.66	2.22

Similar to ♂ in general color but cephalothorax paler and anterior pair of legs not so heavily pigmented. Four or 5 imperfectly defined chevrons usually visible along posterior 1/2 of dorsal surface of abdomen. Chelicerae, maxillae, labium and sternum as in ♂. Number and disposition of spines and trichobothria on legs differ slightly from the ♂. *Spines*: Legs 1 & 2, tibia, ventral 0.2.2, metatarsus, ventral 2.2; leg 3 femur, dorsal 0.1.1, tibia, ventral 0.0.2, prolateral 0.0.1, retrolateral 0.0.1, metatarsus, ventral 0.0.2, dorsal 0.0.2, prolateral 0.0.1, retrolateral 0.0.1; leg 4, femur, dorsal 0.1.1.1, tibia, ventral 0.0.2, retrolateral 0.0.1, metatarsus, ventral 0.0.2, dorsal 0.0.2, prolateral 0.0.1, retrolateral 0.0.1. Trichobothria: Legs 1 & 2, tibia, 1.1, metatarsus, 1.1.1, tarsus, 1.1; leg 3, tibia, 1.1.1, metatarsus, 1.1.1, tarsus, 1.1; leg 4, tibia, 1.1.1, metatarsus, 1.1.1.1, tarsus, 1.1.1. *Palp*. Heavily clothed with hairs, spines absent, 2 trichobothria on tibia. Claw lacking. Epigynum as shown in fig. 144. Internal genitalia simple, as in fig. 145.

*Types*: Holotype ♂, allotype ♀, Snares Is., (6.5), Hoho Bay and East Coast, beating *Olearia*, 31.I.1961, Mannering, Canterbury Museum.

*Records*: SNARES IS. South side of Hoho Bay, beating from *Senecio*, 31.I.1961, Mannering; SE promontory, beaten from *Hebe*, 31.I.1961, G. A. Knox; nr. Station Pt., beaten

from *Senecio*, 2. II. 1961, Knox; nr. Station Pt., beaten from *Carex*, 2. II. 1961, Knox; nr. Station Pt., beaten from *Polystichum vestitum*, 7. II. 1961, Mannering.

### Order OPILIONES

Harvestmen belonging to the genus *Neonuncia* (Suborder Laniatores), have been recorded previously from both Auckland and Campbell Is. The 2 species known from the Auckland Is., *N. enderbyi* (Hogg) and *N. eastoni* Forster are represented in the present collections but *N. campbelli* Forster, from Campbell I. has not been rediscovered. Extensive series of long-legged harvestmen of the suborder Palpatores have been collected for the first time from both areas and 4 species, 1 from Campbell I. and 3 from the Auckland Is. are described below. A further species from Snares is also described as this species is related to *P. rennelli* n. sp. from Campbell I. These species are all closely related to New Zealand forms, most of which are as yet undescribed. The taxonomy of this group of harvestmen is at present not very soundly based. A number of apparently polymorphic characters have not been recognised by earlier workers. The most obvious is the striking difference in the form of the chelicerae and the color and sclerotisation of the body between ♂♂ and ♀♀ of many species. In addition to sexual dimorphism there also appear to be present dimorphic ♂ forms in much the same way as I have demonstrated (Forster, 1954) for many New Zealand Laniatores. The Palpatores with 2 forms of ♂ seem to possess the body color pattern typical for the ♀ in the 1 form, while the carapace of the other form is usually heavily pigmented and sclerotised. Of the 4 species described below *P. mila* n. sp. is represented by 2 forms of ♂.

### Suborder PALPATORES

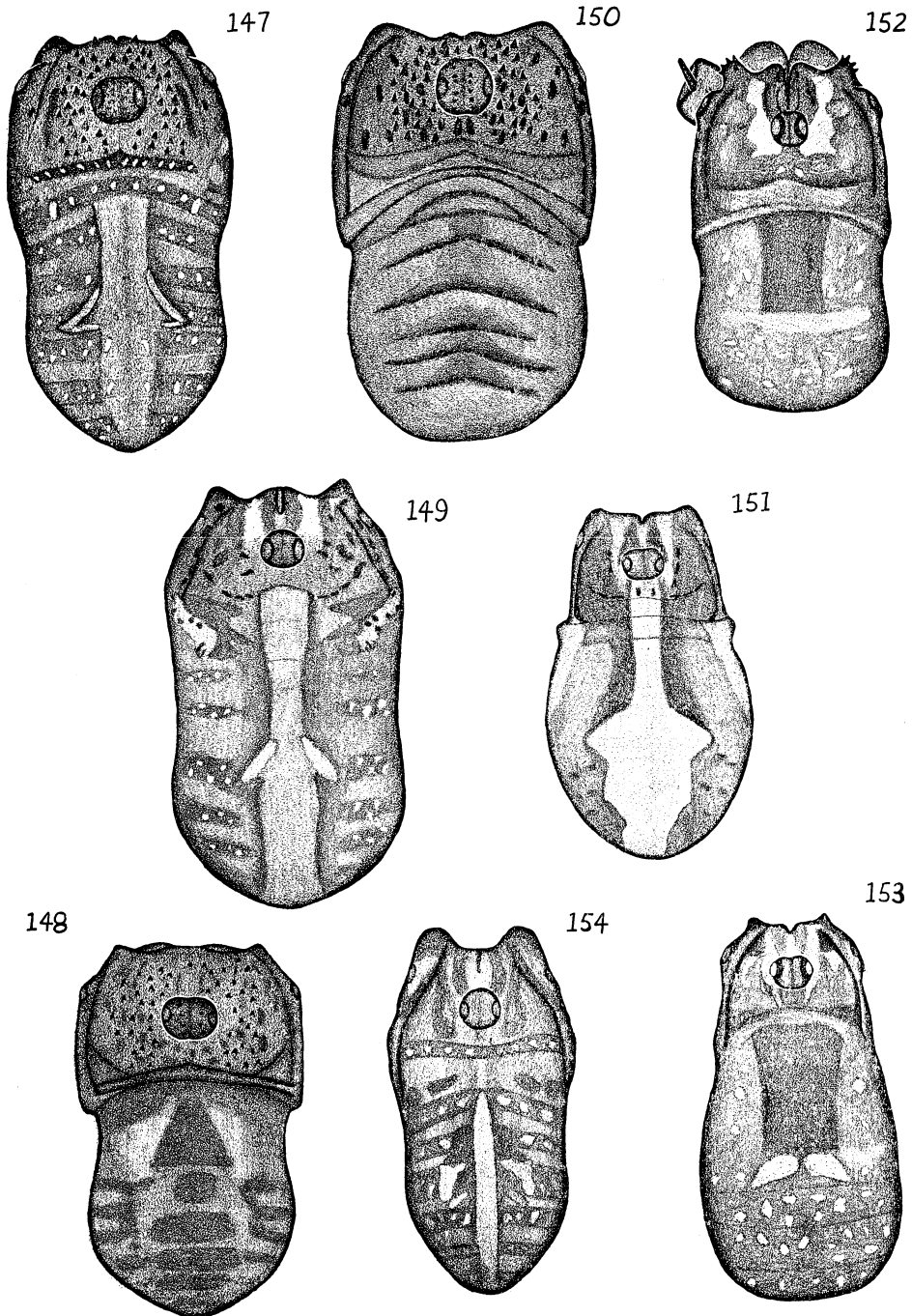
#### Family PHALANGIIDAE

#### Genus *Pantopsalis* Simon, 1879

***Pantopsalis johnsi*** Forster, n. sp. Figs. 150–151, 159–160, 166–168.

♂: Measurements in mm. Length of body 4.40; width of body 3.16. Leg 1, 29; leg 2, 52; leg 3, 27; leg 4, 37. Chelicerae. Basal segment 6.1. Segment 2, 8.3. Palp-femur 1.8, patella 0.9, tibia 1.0, tarsus 2.2, total 5.0. The legs, body and chelicerae are dark brown, heavily shaded with sooty black. There are numerous small, irregularly shaped, black spots on the carapace arranged in segmental rows across the abdomen. The palp is also dark but there are pale areas on the patella and tibia. The carapace is sclerotised and there are numerous small denticles surrounding the eyemound, and with a few on the eyemound itself. *Pedipalp* slender without swellings or processes, slightly shorter than the basal segment of the chelicerae. There are no denticles on the femur and the claw is smooth. *Chelicerae* large, total length slightly more than 3× length of body, both segments strongly and uniformly denticulate, segments 2, 2× as wide as the basal. Arrangement of teeth and denticles on both fixed and movable fingers is shown in fig. 160. Legs long and slender, 2.4.1.3. Femur denticulate, other segments smooth. Form of penis as shown in figs. 166, 167.

♀: Measurements in mm. Length of body 4.48; width of body 3.52. Leg 1, 20; leg



Figs. 147-154. *Pantopsalis* spp. 147, *P. mila* n. sp., dorsal surface of body of ♂ (form); 148, same, dorsal surface of body of ♂ (typical); 149, same, dorsal surface of body of ♀; 150, *P. johnsi* n. sp., dorsal surface of body of ♂; 151, same, dorsal surface of body of ♀; 152, *P. distincta* n. sp., dorsal surface of body of ♂; 153, same, dorsal surface of body of ♀; 154, *P. snaresensis* n. sp., dorsal surface of body of ♂.

2, 35; leg 3, 21; leg 4, 25. *Chelicerae*. Basal segment 1.1. Segment 2, 2.1. Palp-femur 1.55, patella 1.04, tibia 0.96, tarsus 2.20, total 5.75. Pattern on dorsal surface of body is shown in fig. 151. Lateral and ventral surfaces mottled with white. Eyemound and surface immediately surrounding eyemound is reddish. Palp white with reddish shading. Legs dark brown with numerous patches. Dorsal surface of basal segment of chelicerae white and ventral surface brown. Proximal 1/2 of segment 2 brown. Distal 1/2 pale yellow. Scute not heavily sclerotised and is smooth. Chelicerae short and smooth. Total length less than length of body. *Legs*. 2.4.3.1. Relatively shorter than in ♂. Femora not denticulate. Palp slender, slightly longer than length of body. Prolateral surfaces of patellae and tibiae distended but not forming processes. Claw smooth. The receptaculum seminis of ovipositor is shown in fig. 168.

*Types*: Holotype ♂, allotype ♀, Deas Head, Auckland Is., under rata bark, 18. I. 1963, Johns, Canterbury Museum.

*Records*: AUCKLAND IS. Deas Head, under logs, 18.I.1963, Johns; Lindley Pt., under logs in rata forest, 18.I.1963, Johns; same locality, 30.XII.1962, Johns; Lindley Pt., under rata bark, 30.XII.1962, Johns.

***Pantopsalis mila* Forster, n. sp.** Figs. 147-149, 155-156, 163-165.

♂: Measurements in mm. Length of body 5.28; width of body 3.08. Leg 1, 29; leg 2, 53; leg 3, 31; leg 4, 37. Palp-femur 1.76, patella 0.88, tibia 0.88, tarsus 2.44, total 5.96. *Chelicera*. Basal segment 11.4. Segment 2, 13.2. The typical form is dark sooty black. There is a rather indistinct segmental pattern of darker shading on the abdomen as shown in fig. 148, and a few black patches on the carapace. The body of a secondary form is illustrated in fig. 147. In this form the legs and chelicerae are pale brown and the carapace is not as heavily sclerotised.

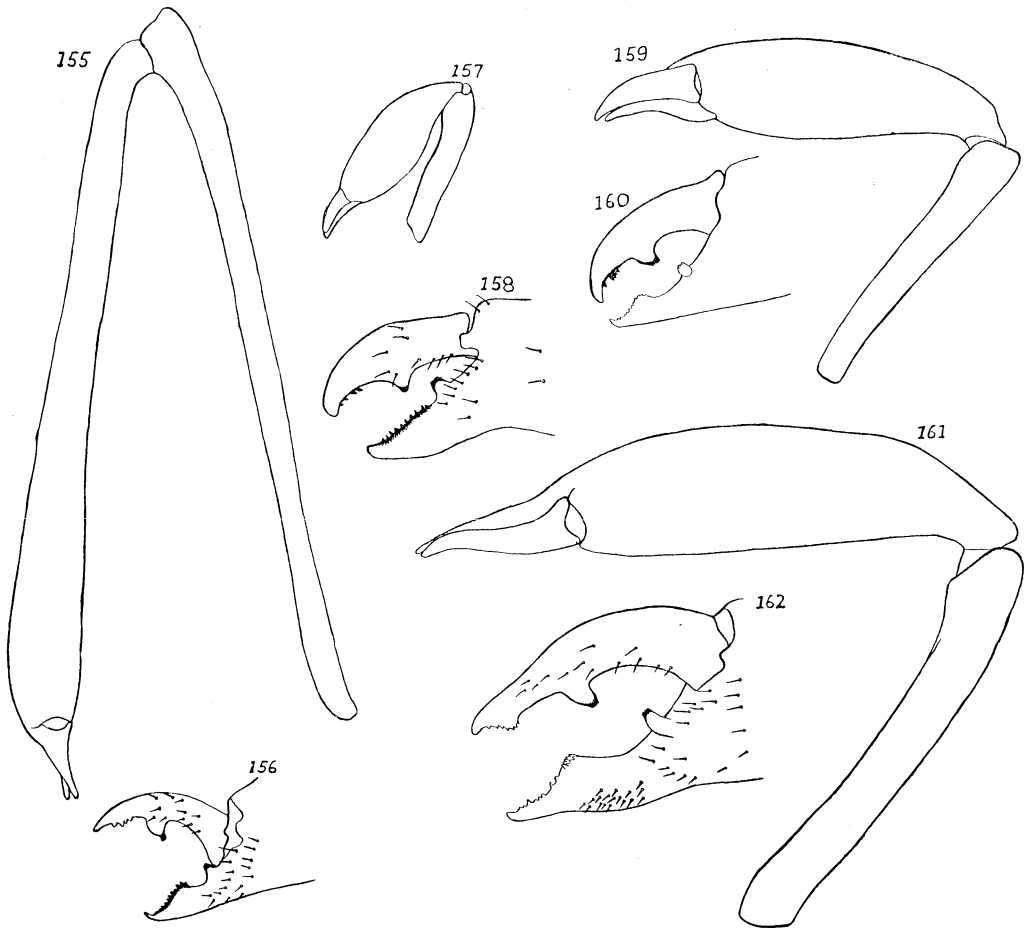
In both forms there are numerous small denticles on the carapace and also on the eyemound. Chelicerae relatively longer than in *johnsi*, equal in length to 4.5× length of body. Segment 2 is also more slender than *johnsi*. Both segments closely covered with strong denticles. Teeth and denticles on the fingers are shown in fig. 156. Palp smooth and slender, without processes. Claw smooth. Penis as in figs. 163, 164. Legs 2.4.3.1, long and slender, femora of all legs covered with small denticles.

♀ (immature): Measurements in mm. Length of body 4.41; width of body 3.08. Leg 1, 16; leg 2, 26; leg 3, 14; leg 4, 22. Palp-femur 1.32, patella 0.88, tibia 0.84, tarsus 1.56, total 4.60. *Chelicera*. Basal segment 0.88. Segment 2, 1.76. The color pattern of body shown in fig. 149. Pale central area flushed with pink. Body and eyemound without denticles. Chelicera smooth and short, total length much less than length of the body. Palp as in *johnsi* without denticles but with swellings on prolateral surfaces of patellae and tibiae. Receptaculum seminis of ovipositor illustrated in fig. 165.

*Types*: Holotype ♂, Terror Cove, Port Ross, Auckland Is., on rata trunk with cockroaches, 10. I. 1963, Wise. Allotype ♀, Terror Cove, Port Ross, on seashore cliff, 10. I. 1963, Wise, Dominion Museum, Wellington.

*Records*: AUCKLAND IS. Deas Head, under rata bark, 18.I.1963, Johns; Lindley Pt., under rocks in supralittoral, lying among fallen leaves of *Poa litorosa* and *Poa foliosa*, 18. I.1963, Johns. *P. johnsi* and *P. mila* are closely related and it is interesting to find them





Figs. 155-162. *Pantopsalis* spp. 155, *P. mila* n. sp., prolateral view of ♂ chelicera (denticles not drawn); 156, same, fingers of chelicera, ventral; 157, *P. snaresensis* n. sp., prolateral view of ♂ chelicera (denticles not drawn); 158, same, fingers of chelicera, ventral view; 159, *P. johnsi* n. sp. prolateral view of ♂ chelicera; 160, same, fingers of chelicera, ventral view; 161, *P. distincta* n. sp., prolateral view of ♂ chelicera; 162, same, fingers of chelicera, ventral view.

living together. Apart from genitalic characters, the 2 species are easily separated by the form of the chelicerae in the ♂ and the body pattern of the ♀.

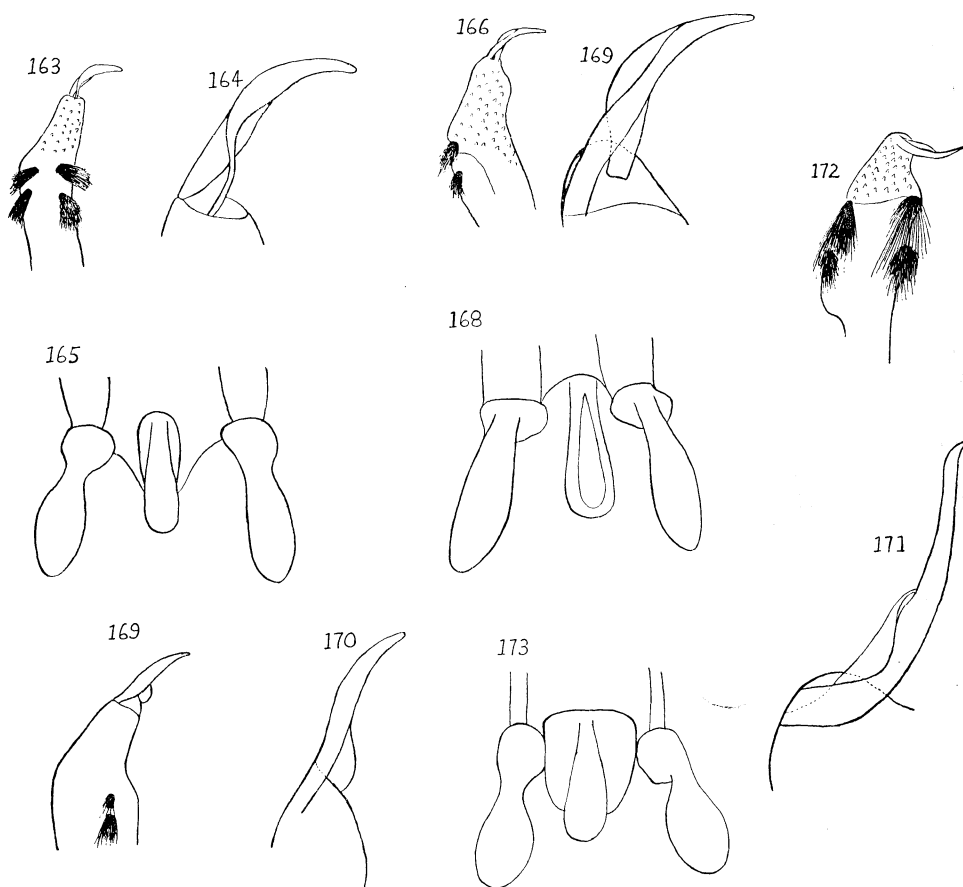
***Pantopsalis distincta* Forster, n. sp.** Figs. 152-153, 161-162, 171-173.

♂: Measurements in mm. Length of body 4.84; width of body 3.21. Leg 1, 27; leg 2, 45; leg 3, 26; leg 4, 32. Palp-femur 2.64, patella 1.12, tibia 114, tarsus 3.76, total 8.66. Chelicera. Basal segment 7.04. Segment 2, 9.68.

Dorsal surface of body shown in fig. 152. Pale areas on each side of eyemound extending to anterior margin of carapace and the rectangular dark patch on anterior median surface of abdomen are distinctive. Chelicerae are a uniform reddish brown, palp are

white and legs dark brown with pale bands. The carapace is smooth apart from a group of denticles placed on a projection at each anterolateral margin (fig. 152). Eyemound is smooth. Chelicerae large, almost  $3.5\times$  as long as body, closely denticulate on both segments. Segment 2 is swollen,  $2\times$  as wide as basal segment. Processes and denticles on fingers shown in fig. 162. Legs long and slender, 2.4.1.3, all femora covered with denticles. Palp slender without processes but with a slight swelling on prodistal surface of patella and numerous denticles on femur. Penis as in figs. 171, 172.

♀: Measurements in mm. Length of body 5.28; width of body 3.52. Leg 1, 18; leg 2, 32; leg 3, 15; leg 4, 25. Palp-femur 1.56, patella 0.91, tibia 1.06, tarsus 2.03, total 5.56. Chelicera. Basal segment 1.11. Segment 2, 1.61. The color pattern of the abdomen is somewhat similar to the ♂ (fig. 153). The pale areas on each side of the eyemound



Figs. 163-173. *Pantopsalis* spp. 163, *P. mila* n. sp., penis; 164, same, distal portion of penis; 165, same, receptaculum seminis; 166, *P. johnsi* n. sp., penis; 167, same, distal portion of penis; 168, same, receptaculum seminis; 169, *P. snaresensis* n. sp., penis; 170, same, distal portion of penis; 171, *P. distincta* n. sp., penis; 172, same, distal portion of penis; 173, same, receptaculum seminis.

are pink whereas in the ♂ they are white. The dark rectangle on the abdomen is more pronounced and the paler areas on the abdomen are more numerous. Chelicerae small and smooth, less than 1/2 length of body. There is a well developed process on the prodistal surface of the patella of the palp. Claw smooth. Legs 2.4.1.3, smooth. Receptaculum seminis of ovipositor shown in fig. 173.

*Types*: Holotype ♂, allotype ♀, Lindley Pt., Auckland Is., under logs in rata forest, 18. I. 1963, Johns, Canterbury Museum.

*Records*: AUCKLAND IS. Deas Head, under rata logs, 18. I. 1963, Johns.

*P. distincta* is quite distinct from the 2 previously described species. The presence of a patella process in the ♀ should, under the present taxonomic situation, place the species in *Megalopsalis* Roewer, which is separated from *Pantopsalis* by only this character. However an unpublished study of the N. Z. species indicates that these processes are often secondary sexual characters present only in the ♀ (as in this species) and are also extraordinarily well developed in the earlier stages of development, but become progressively smaller as the animal passes through successive instars. There seems little virtue in placing these species in separate genera.

***Pantopsalis snaresensis* Forster, n. sp.** Figs. 154, 157–158, 169–170.

♂: Measurements in mm. Length of body 4.24; width of body 2.64. Leg 1, 19; leg 2, 36; leg 3, 23; leg 4, 27. Palp-femur 1.43, patella 0.93, tibia 0.88, metatarsus 2.43, total 5.67. Chelicerae. Basal segment 1.91. Segment 2, 3.31. Color pattern of dorsal surface of body shown in fig. 154. The dark areas range from reddish to dark brown. Area in front of eyemound is pink. Eyemound is white. Proximal 1/2 of the pedipalp femur blackish brown but remainder of palp is pale. Legs reddish with paler bands. Chelicerae pale yellow but there is dark brown shading on the retrolateral surface of the basal segment. Body lightly sclerotised and without denticles. Eyemound also smooth. Pedipalp slender, almost 1.5× length of body. Pedipalp without processes, but distal prolateral surfaces of patella and tibia swollen. Chelicerae relatively short, slightly shorter than pedipalps. Segment 2 is distended and 2× as wide as basal segment. Basal segment provided with very few small scattered denticles, while segment 2 closely covered with denticles on dorsal surface and a few scattered denticles on the ventral surface, arrangement of teeth and denticles on fingers is shown in fig. 158. Legs 2.4.3.1, smooth, without denticles. Form of penis as shown in figs. 169–170.

*Type*: Holotype ♂, Snares Is., vicinity of Station Pt., 30. I. 1961, Mannering, Canterbury Museum.

*Records*: A number of immature specimens with the following data: SNARES IS. sweeping *Polystichum vestitum*, 7. II. 1961, Mannering; Snares I., Hoho Bay and East Coast, beating *Olearia*, 3. I. 1961, Mannering.

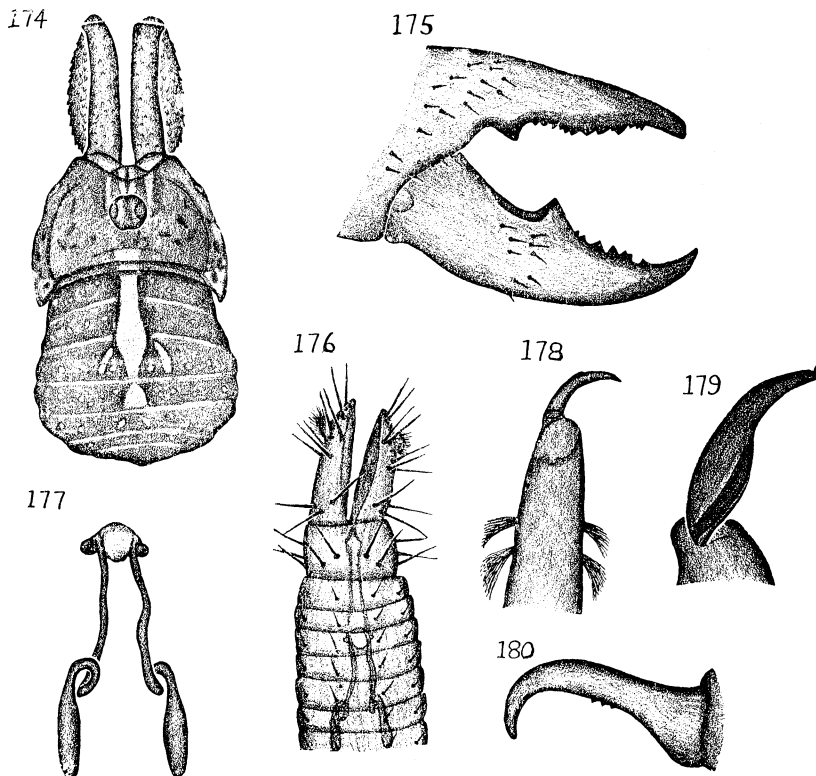
***Pantopsalis renelli* Forster, n. sp.** Figs. 174–180.

♂: Measurements in mm. Length of body 3.61; width of body 2.20. Leg 1, 17.6; leg 2, 29.1; leg 3, 16.8; leg 4, 22.0. Palp-femur 0.88, patella 0.65, tibia 0.65, tarsus 1.53, total 3.71. Chelicera. Basal segment 3.08. Segment 2, 3.52. Color pattern of dorsal surface of body shown in fig. 174. Median band, eyemound and area around eyemound flushed

with pink. Legs dark brown flecked with white. Chelicerae pale yellow with darker shading on the retrolateral surfaces of the basal segment. Palps pink with white patches.

Body and eyemound are smooth, without denticles, and lightly sclerotised. Femora of all legs with few minute denticles but otherwise legs smooth. Palp also smooth, without processes. Claw has 2-3 minute teeth (fig. 180). Chelicerae relatively slender, segment 2 slightly wider than basal segment. Both segments closely denticulate and their total length is equal to  $2\times$  the length of body. Teeth and denticles on inner surface of fingers shown in fig. 175. Penis is typical, as shown in figs. 178, 179.

♀: Measurements in mm. Length of body 6.62: width of body 3.52. Leg 1, 14; leg 2, 28; leg 3, 16; leg 4, 20. Palp-femur 1.32, patella 0.81, tibia 0.83, tarsus 1.98, total 4.94. Chelicera. Basal segment 1.12. Segment 2, 2.24. Color pattern on dorsal surface of body similar to ♂ but median band is broader and extends from anterior margin of carapace to posterior margin of abdomen. Legs brown mottled with white. Palp as in ♂ but the pink shading is less extensive. Chelicerae with reticulate white markings on dorsal surface. Body and eyemound smooth. Chelicerae only one half of the length of the body and smooth. Palps smooth, prolateral surfaces of patella and tibia swollen but



Figs. 174-180. *Pantopsalis renelli* n. sp. 174, dorsal view of ♂; 175, fingers of ♂ chelicera; 176, ovipositor; 177, receptaculum seminis; 178, penis; 179, distal portion of penis; 180, claw of ♂ palp.

without an apophysis. Legs smooth. Ovipositor as in fig. 176. The receptaculum seminis is long and tubiform (fig. 177).

*Types*: Holotype ♂, allotype ♀, Venus Cove, Campbell I., ex tussock, 0–2 m, 2. II. 1963, Rennell, Dominion Museum, Wellington.

*Records*: CAMPBELL I. Beeman Hill, ex *Coprosma*, 2. XII. 1961, Gressitt; Beeman Camp, 2–50 m, ex *Chrysobactron*, 26–30. XI. 1961, Gressitt; Beeman Camp, 2–30 m, ex *Coprosma*, 26–30. XI. 1961, Gressitt; Beeman Camp, 30 m, 27. XI. 1961, Gressitt; Beeman Camp, 25 m, 27. II. 1961, Gressitt; Beeman Camp, 250 m, ex *Pleurophyllum criniferum*, 6–11. XII. 1961, Gressitt; Beeman Camp, ex *Poa*, 13. XII. 1961, Gressitt; Beeman Station, under timber on ground, 14. II. 1963, Wise; Beeman, sweeping *Coprosma*, 27. VII. 1962, Rennell; same data 15. VIII. 1962; Beeman Hill, 30–100 m, ex *Poa* roots and moss, 1–6. XII. 1961, Gressitt; Beeman Hill, 2. II. 1963, Wise; Beeman Point, beaten from *Pittosporum*, 28. II. 1963, Wise; Beeman to Tucker Cove, ex *Pleurophyllum criniferum*, 8. XII. 1961, Gressitt; Tucker, ex *Poa* and sedge, 5. XII. 1961, Gressitt; Tucker Cove, 1–50 m, ex *Colobanthus* and *Poa*, 21–25. XI. 1961, Gressitt; Tucker Cove, ex *Dracophyllum*, 25. XI. 1961, Gressitt; Tucker Cove, 1–50 m, ex *Coprosma*, 1–5. XII. 1961, Gressitt; Tucker Cove, 1. II. 1963, Wise; Tucker Cove, beaten from *Pittosporum*, 26. II. 1963, Wise; Beeman Hill, 25 m, 21. XI. 1961, Gressitt; Lookout Bay Beach, 2–50 m, ex *Coprosma*, 3. XII. 1961, Gressitt; Lookout Bay Beach, ex dead fern, 16–19. XII. 1961, Gressitt; Lookout Bay Beach, 3 m, ex *Stilbocarpa polaris*, 30. XII. 1961, Rennell; Lookout Bay Beach, ex *Poa*, 19. XII. 1961, Gressitt; Northwest Bay, ex Tussock, 30. XII. 1962, Rennell; Shoal Pt., 0–10 m, sweeping Tussock, 27. VII. 1962, Rennell; Venus Cove, ex Tussock, 2. II. 1963, A. Wright; Venus Bay, ex Tussock, 2. II. 1963, Wright; Middle Cove, Northwest Bay, 5. II. 1963, Wise; summit of Mt. Dumas, 400 m, under stones, 6. II. 1963, Wise; Monument Harbor, ex Tussock, 9. II. 1963, Wise.

#### Suborder LANIATORES

#### Family TRIAENONYCHIDAE

#### Genus *Neonuncia* Forster, 1954

#### *Neonuncia enderbyi* (Hogg) 1909

*Records*: AUCKLAND IS. Ranui Cove, under logs, 1. I. 1963, Johns; Ranui Cove, under logs in rata forest, 14. I. 1963, Wise; Terror Cove, Port Ross, 10. I. 1963, Wise; Deas Head, under rata logs, 18. I. 1962, Johns; Enderby Is., under logs in rata forest, 31. XII. 1962, 19. I. 1963, Johns; Ocean I. under logs and *Stilbocarpa*, 28. XII. 1962, Johns.

#### *Neonuncia eastoni* Forster

*Neonuncia eastoni* Forster, 1954, Cant. Mus. Bull. 2: 129.

This species was previously known only from Stony Peak on Auckland I. It is apparently much rarer than *N. enderbyi* and would seem to live at higher altitudes. The present material extends the distribution of the species to Enderby I.

*Records*: AUCKLAND IS. Bivouac, 420 m, 6. I. 1963, Wise; Bivouac Peak, 450 m, under stones, 6. I. 1963, Johns; Bivouac Hill, nr. rocky stream, 10. I. 1963, Gressitt; Bivouac, ex tussock, 16. I. 1963, Gressitt; Meggs Hill, Mt. Eden, 120–1150 m, 5. I. 1963, Wise; Enderby I., rata forest under logs, 17. I. 1963, Wise.

## LITERATURE

- Berland, L. 1925. Spiders of the Chatham Islands. *Rec. Cant. Mus.* **2**: 295-300.
- 1931. Araignées des Iles Auckland et Campbell. *Ibid.* **3**: 357-65.
- 1947. Croisière du Bougainville aux îles australes françaises. XVI Araignées. *Mem. Mus. Nat. Hist. Nat. n. ser.* **20** (1): 53-64.
- Bristowe, W. S. 1931. Spiders collected by the Discovery Expedition, with a description of a new species from South Georgia. *Discovery Reports* **3**: 1387-1400.
- Cambridge, O. P. 1876. On a new order and some new genera of Arachnida from Kerguelen's Land. *Proc. Zool. Soc. Lond.* **1876**: 258-65.
- Dalmas, Comte de. 1918. Araignées de Nouvelle Zélande. *Ann. Soc. Ent. France* **86**: 317-430.
- Enderlin, G. 1909. Die Spinnen der Crozet-Inseln und von Kerguelen. *Deutsche Südpolar-expedition 1901-1903.* **10** (2): 535-40.
- Forster, R. R. 1954. The New Zealand harvestmen (sub-order Laniatores). *Cant. Mus. Bull.* **2**: 1-329.
- 1955. Spiders from the subantarctic islands of New Zealand. *Rec. Dom. Mus.* **2** (4): 167-203.
- 1956. New Zealand spiders of the family Oonopidae. *Rec. Cant. Mus.* **7** (2): 89-169.
- 1959. The spiders of the family Symphytognathidae. *Trans. R. Soc. N. Zeal.* **86** (3-4): 269-329.
- Hickman, V. V. 1939. Opiliones and Araneae. *B. A. N. Z. Antarctic Research Expedition 1929-1931. Reports Series B,* **4** (5): 157-87.
- 1951. The identity of spiders belonging to the genus *Amaurobioides* Cambridge. *Pap. Proc. R. Soc. Tasmania*: 1-2.
- Marples, R. R. 1959. The dictynid spiders of New Zealand. *Trans. R. Soc. N. Zeal.* **87** (3-4): 336-61.
- Simon, E. 1905. Arachnides des Iles Chatham (Ergebnisse einer Reise nach dem Pacific 1896-1897). *Zool. Jahrb. Syst.* **21**: 415-24.
- Tambs-Lyche, Hans. 1954. Arachnoidea from South Georgia and the Crozet Islands with remarks on the subfamily Masoninae. *Scientific Results of the Norwegian Expeditions 1927-1928 et sqq. Instituted and Financed by Consul Lars Christensen.* No. 35.
- Tullgren, A. 1902. Spiders collected in the Aysen Valley, in South-Chile by Mr. P. Dusen. *Bihang K. Svenska Vet. AK. Handl.* **28** (1-4): 3-75.