# Auckland Island Coleoptera

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SUMMARY

A SHORT account is given of the scientific expeditions and visits of occasional nature by individuals who have contributed in various languages to the knowledge of the Coleopterous fauna of the Auckland Island group. The thirty-five species recorded have been placed in their systematic position, with related references, and when necessary, reasons are advanced for past or present synonymy, accompanied by original descriptions of species not readily accessible to New Zealand workers. A synonymic list of species is included.

## INTRODUCTION

The personnel of nearly every scientific expedition visiting the Auckland Islands has been without an entomologist sufficiently interested and qualified, to obtain a completely representative collection of the Coleoptera of these islands. All the naturalists who have paid brief visits, with one exception, have had other interests which relegated the collection of Coleoptera to a position of minor importance. The entomologist, G. V. Hudson, who accompanied the 1907 expedition, from which was derived the admirable work, *The Subantarctic Islands of New Zealand,* was at that time more interested in Lepidoptera than Coleoptera. and, in addition, experienced rather bad weather conditions which militated against obtaining a good collection in the short time at his disposal. It is to be regretted that this section of the fauna has received such an unsatisfactory survey, and additionally, the beetle micro-fauna, so plentiful in low and high altitudes in New Zealand, has received little attention; it is improbable that a representation equal to that of the larger forms would not be present. Two members included in this category are recorded from the Islands, *Melanophthalma globipennis* (Reitt.) [1·6 to 1·8 mm.] and *Acalles kronii* Kirsch [1 5 mm.]. This local lack of interest in small forms may be compared with the results of a visit made by the author to the Chatham Islands in 1944, when a number of new micro-forms previously unknown from there was obtained. Considering the species of large ground weevils taken by the early French collectors and by Hudson on the main island, it is surprising that in five months Krone did not find a single representative of this group, but again the converse is true, for Hudson took none of Krone's five Staphylinids, nor *Melanophthalma globipennis, Stenococcus aucklandiae* and *Carphurus venustus,* while neither found *Calathosoma rubromarginatum* nor *Geraniella nitidofuscus.* Representatives of groups not yet taken in the islands, but which might reasonably be expected to occur, are Pselaphids, Scydmaenids, Colydiids, Tenebrionids of the genus


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*Cilibe,* Chrysomelids, Longicorns, especially the Lamiid genus *Somatidia,* Anthribids, Cossonids, Leucanids and Scarabaeids.

## Historical

The history of collecting and recording Coleoptera from the Auckland Islands commences with the visit of the French Expedition in 1839 under Admiral D'Urville, in the corvettes *Astrolabe* and *Zelee.* Messrs Hombron and Jacquinot were the illustrators for the Coleopterous material described in 1841 by Guerin Meneville and in 1835 by Blanchard.* Guerin is responsible for three species and Blanchard described seven; these ten species comprise the total contribution by this expedition to the knowledge of the Coleopterous fauna of the islands.

The British Admiralty commissioned Sir James Ross to visit the southern and Antarctic regions in H.M.S. *Erebus* and *Terror* in the years 1839–43 and it was during this survey that the Auckland Islands were visited, when the period 20th November to 12th December, 1840, was spent at Port Ross. At this time a few beetles were obtained by members of the expedition, and these were presented ultimately to the British Museum and are referred to by A. White in his narrative and descriptions of insects obtained by the expedition. Of the ten species of Guerin and Blanchard, only seven were collected and nothing new was added.

A considerable advance in representation of species was made by H. Krone who, as photographer, accompanied the German scientific expedition to Auckland Island for observation of the transit of Venus. Approximately five months were spent on the island, towards the end of 1875 and into 1876, and amongst Krone's remarks on the Auckland Islands his statements relating to the insect fauna are worth repeating, "... but the world of insects seems like dead except for the extremely unpleasant sandflies and a big blue blowfly which occur near the coast in millions. Only after elaborate and expert searching is it possible now and then to find a beetle between October and February. Of the Lepidoptera only a few very inconspicuous species of Micro-Lepidoptera and one or two Noctuid moths occur. Of the Coleoptera collected during my whole, almost five months residence in the Auckland Islands, 28 species and 1 variety, amongst which are at least 18 new species and three new genera, 9 are represented as only single specimens, the others more or less in only very small numbers. I must not omit to mention that I could only collect in the northern parts of the Auckland Islands, since my duties as a member of the expedition of the German Reich for the observation of the transit of Venus did not permit collecting expeditions through the whole group of islands. Therefore an addition to the species described here should be expected by collections from the southern parts of the island group. Representatives of all species collected by me, also all the single specimens, have passed into the possession of the entomological collection of the Royal Zoological Museum at Dresden."

* The figures in the plates concerned with both Guerin and Blanchard species appear in *Voyage au Pole Sud* as credited to Hombron and Jacquinot, but the latter did not provide descriptions of the insects, although the figures themselves predate Blanchard's descriptions.

The beetles obtained by Krone were described by H. Kiesenwetter and T. Kirsch in 1877 and by E. Reitter (one species) in 1881. Of Krone's 28 species, 3 were obviously exotic, associated with the ships stores which were brought ashore during the five months stay, while another, "*Dryophthorus tuberculatus* Fabr."* not collected by earlier or later visitants, could have been transported readily from the mainland of New Zealand, a supposition made by Krone himself.

During one of his regular depot provisioning calls at the Auckland group in the *Hinemoa*, in January, 1901, Captain J. Bollons took two specimens of the large weevil *Heterexis laeviusculus* on Adams Island, feeding on *Ligusticum antipodum*. Accompanying him were Captain F. W. Hutton and the Hon. H. C. Butler. The former collected one specimen each of *Loxomerus brevis* (*cilicollis*) and *L. huttoni*, ". . . under stones in Carnley Harbour, near where the *Grafton* was wrecked.", while the latter took a single individual of *Inocatoptes incertus* on the main island These species and the one secured later by Cockayne were obtained incidental to the collection of botanical material.

Shortly afterwards, in June, 1903, L Cockayne travelled in the *Hinemoa* and called for short intervals at several localities in the islands. It was he who, without specifying the exact location, took *Steriphus insularis* (*Hycanus cockaynei*) amongst moss and there is no record of whether this is the natural habitat of *S. insularis*, or whether the single specimen obtained crawled out of the moss packing around other botanical material.

As an exhaustive approach to the treatment of all branches of natural science relating to the Auckland Islands, the November, 1907, expedition, consisting of New Zealand's leading scientists of those times, should have produced a comprehensive account and a representative collection of the faunal groups. That this expedition fell short of such an objective is due solely to the very limited time spent at the islands and to the bad weather conditions encountered. Undoubtedly the best efforts were made to present the findings of the expedition in scientific and attractive form, as is shown by the production of two volumes by the Philosophical Institute of Canterbury entitled, *The Subantarctic Islands of New Zealand*. Had Major Broun been a member of this group, there is no doubt that the Coleoptera would have been added to substantially in both numbers and additional species; he also had no knowledge of the German 1875 expedition, nor of the descriptions of beetles taken at that time. In the historical chapter in volume 1 (p. xxix), the French expedition was present at Campbell Island at the same time to observe the transit of Venus and following this short write-up is an abbreviated account of the German expedition to Auckland Island for the same purpose. The scientific accounts covering the flora, geology of the vicinity of Port Ross, and meteorology are mentioned; these are referred to additionally by title in the Bibliography in volume 2, but all references to entomology are absent.

A short visit was paid to the Port Ross area in 1914 by Dr T. H. Mortensen, the Danish collector of Echinoderms, when he secured

* Probably *Mitrastethus bituberculatus* Fabr.

some members of the family Carabidae; this collection is lodged in the Copenhagen Museum.

There is evidence that A. Hamilton, while Director of the Dominion Museum, Wellington, accompanied the *Hinemoa* on at least one of her trips to the island, for specimens of two species of Coleoptera obtained by him are present in the O'Connor collection in the Dominion Museum.

During the period of the 1939–45 war, members of the New Zealand military forces occupied the Auckland Islands at various points, being relieved at intervals of about twelve months. In order that additional data about the fauna could be obtained, the personnel was requested to collect zoological specimens; the organisation was known as the Cape Expedition and was under the leadership of Dr R. A. Falla, of the Canterbury Museum, Christchurch. As the Coleopterous material resulting from this expedition has not been examined by the writer, he is unable to compare it with the findings of previous expeditions.

Additional collections of insects were made in 1947 by a party landing stores at the depots on Auckland Island, in between the normal run of the *Ranui* to Campbell Island and her return to New Zealand. The four species of Staphylinids described recently by Cameron were obtained by this party.

## Systematic

Among genera and species excluded for various reasons by Mr E. B. Britton in his work on the Carabidae of New Zealand* is *Holcaspis pantomelas* (Blanch.); in his synonymy the localities given for this species are Auckland Island and Akaroa, which follows Blanchard's treatment in *Voyage au Pole Sud.* The latter gave Akaroa as type locality for his species *Dromius fossulatus,* an Asiatic insect, so it is possible that the Auckland Island record of *H. pantomelas* may also be incorrect. While doubt exists, it is better to exclude this species from the Auckland Islands list, for nothing approaching it in appearance has been taken by later collectors. Enderlein in 1909 listed *Triplax brouni* from the Auckland Islands, under Pascoe's original 1876 reference; *T. brouni* was described by Pascoe from Auckland and not Auckland Island material, received through Broun, so cannot be included in the fauna of the islands. This mistake is repeated by Kuhnt in the same year, with the additional error that this insect belonged to Auckland Island of Korea instead of the southern, New Zealand location.

Where new synonymy is present in species in the following work, this is indicated by the abbreviation (*n.syn.*).

### Order COLEOPTERA

### Family Carabidae

### Subfamily Migadopinae

The true position of the three genera of Migadopinae in New Zealand and the Auckland Islands is given by Jeannel in part of his key to the thirteen members in this subfamily, viz:—

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* *Trans. Proc. N.Z. Inst.*, 69, pp. 473–508. 1940

### Subfam. MIGADOPINAE nov.

1. Fourth joint of the anterior tarsi bilobed, the inside lobe projecting more than the external lobe. Left style of the copulatory organ elongated, but tending to lose its hairs. (Australasian subantarctic region) **2.**
Fourth joint of the anterior tarsi bilobed or not, but its two angles equally projecting. Left style of the copulatory organ always shortened, oval, apical part setiferous more or less thin and membranous, tending on the whole to take the conchoid type of the Harpalinae. (South America) .. **8.**

2. Anterior and intermediate tarsi with the four first joints enlarged and packed underneath in both sexes. Emargination of the pronotum very narrow **3.**
Anterior and intermediate tarsi enlarged and packed in the male, simple in the female. Emargination of the pronotum wide . **6.**

3. Pronotum cordiform. Large size (12 to 18 mm.), form elongate and slim, recalling that of Sphodridae, the head very large; elytra ovoid. Labial tooth bilobed. Left style very slender and ciliate (New Zealand and Auckland Islands) . .. 1. Gen. *Loxomerus* Chaud.
Pronotum trapezoidal, with the base wider than the apex .. .. .. **4.**

4 Labial tooth strongly bilobed; the ligula with four hairs forming a rosette. Small size (6 mm.), form short and squat, convex, of the form of *Amara*. Pronotum transverse; elytra strongly seriate punctate; coloration bronze. Left style long, lanceolate, without hairs; apical aperture inclined towards the left side. (New Zealand) . 7. Gen. *Amarotypus* Bates
Labial tooth large and entire; ligula with two hairs **5.**

5 Ninth stria not deviated towards the inside at the base. Large size (12 mm.), of the form of *Calathus*. Pronotum a little transverse, the elytra depressed; coloration brown, with the edges of the pronotum and those of the apical part of the elytra reddish. (Auckland Islands) . 2. Gen. *Calathosoma* nov.

Jeannel's generic synonymy of *Loxomerus* follows, also his table of Auckland Island and New Zealand species.

### Gen. *Loxomerus* Chaudoir

*Loxomerus* Chaudoir, 1842, *Bull. Moscou*, 15, p. 851; type: *nebrioides* Chaud.; 1861, *Bull. Moscou*, 34, p. 515.—*Lacordaire*, 1854, *Gen. Col.*, 1, p. 275.—*Heterodactylus Guerin-Meneville*, 1841, *Rev. Zool.*, p. 213; type: *nebrioides* Guer. (nec. *Heterodactylus* Spix, 1825, Ophiosauridae).

Subgen. *Pristancylus Blanchard*, 1853, *Voy. Pole Sud*, 4, p. 22; type: *brevis* Blanch. —*Euthenarus* Broun, 1902, *Trans. N.Z. Inst.*, 34, p. 176 (nec. *Euthenaris* Bates).

#### TABLE OF SPECIES

1. No mandibular hair. Striae 1 bis and 2 without a common basal trunk. (Subgen. *Loxomerus* s.str.). Large size (17 to 18 mm.). Eyes very protruding. Elytra elongate oval, very narrow at the base. Apex of the penis in the form of a high rounded sagittal blade, little attenuated, styles wider. (Fig. 11–15 and 19). (Auckland Islands) .. 1. *nebrioides* Guer.
Mandibular hair present. Striae 1 bis and 2 fused into a common trunk at the base. (Subgen. *Pristancylus* Blanch.) .. .. .. **2.**

2. Head of male very large, as wide as the pronotum; this is very retracted behind, nearly pedunculate

in its third basal part; anterior angles very protruding, the posterior sharply right angled; basal fossae elongate and oblique. Elytra little convex, very narrow in front, enlarged after the middle. Penis very long, apex bent to form a sickle, the left style very tapering at its extremity. Length 12 to 14 mm. (Fig. 16–17 and 20). (New Zealand) — 2. *capito* n.sp.

Head of male narrower than the pronotum; this is less narrow at the base, the anterior angles blunt, the posterior slightly rounded; basal fossae more superficial, not oblique on the inside. Elytra convex, in the form of a more regular oval, the greatest width at the middle .. .. .. — **3.**

3. Pronotum wider than long, with a very narrow marginal groove, the sides very rounded in front, shortly sinuate behind, the posterior angles slightly obtuse Elytra in the form of a short oval. Apex of the penis tapering to a sort of long stem and inflected, with a blunt tip. Length 11–13 mm. (Fig. 18 and 21). (Auckland Islands) .. .. — 3. *brevis* Blanch.

Pronotum as long as wide, marginal groove wider, the sides little arched in front, more longly sinuate behind, posterior angles right angles. Eyes little protruding. Pronotum with deeper basal fossae. Elytra short. Length 11 mm. (Auckland Islands) — 4. *huttoni* Br. (1)

(1) This species is unknown to me and is placed here only with reservations.

As Jeannel's references to the individual species are very incomplete and no mention is made of the 1877 German expedition or of material collected from other sources, this additional information is now included.

## Loxomerus nebrioides (Guerin)

*Loxomerus nebrioides* Guerin, *Rev. Zool.*, p. 214, 1841 (*Heterodactylus*); Chaudoir, *Bull. Mosc.*, 15, p. 854, 1842; Dieffenbach, *Travels in N.Z.*, p. 273, 1843 (*Heterodactylus*); Chaudoir, *Bull. Mosc.*, 17, p. 865, 1844; White, *Voy. Ereb. and Terror*, pt. 2, p. 5, 1846 (*Heterodactylus*); Chenu, *Encyc. Hist. Nat.*, 1, p. 116, 1850–61; Chenu, *Ibid.*, pp. 117, 118, 1850–61 (*Heterodactylus*); Lacordaire, *Hist. Nat. des Ins.*, 1, pp. 275–76, 1854; Chaudoir, *Bull. Mosc.*, 34, p. 515, 1861; Gemminger and Harold, *Cat. Col.*, 1, p. 53, 1868 (*Heterodactylus*); Krone, *Deutsch. Ent. Zeit.*, 21, p. 154, 1887; Kirsch, *Ibid.*, 21, p. 154, 1887; Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902 (*Heterodactylus*); Hutton, *Index Faun. Nov. Zeal.*, p. 144, 1904 (*Heterodactylus*); Enderlein, *Deutsch. Sudpol. Exped., Zool.*, 2, pt. 4, p. 502, 1909 (*Heterodactylus*); Broun, *Subant. Ids. N.Z.*, 1, p. 92, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Csiki, *Junk Col. Cat.*, pt. 92, p. 441, 1927; Hudson, *N.Z. Beetles and Larvae*, p. 176, 1934; Jeannel, *Rev. Franc. Ent.*, 5, fasc. 1, pp. 13–17, figs. 1, 11–15, 19, 1938; Larsson, *Saertryk Ent. Medd.*, 23, pp. 420–431, figs. 1–12, 1943 (describes larva).

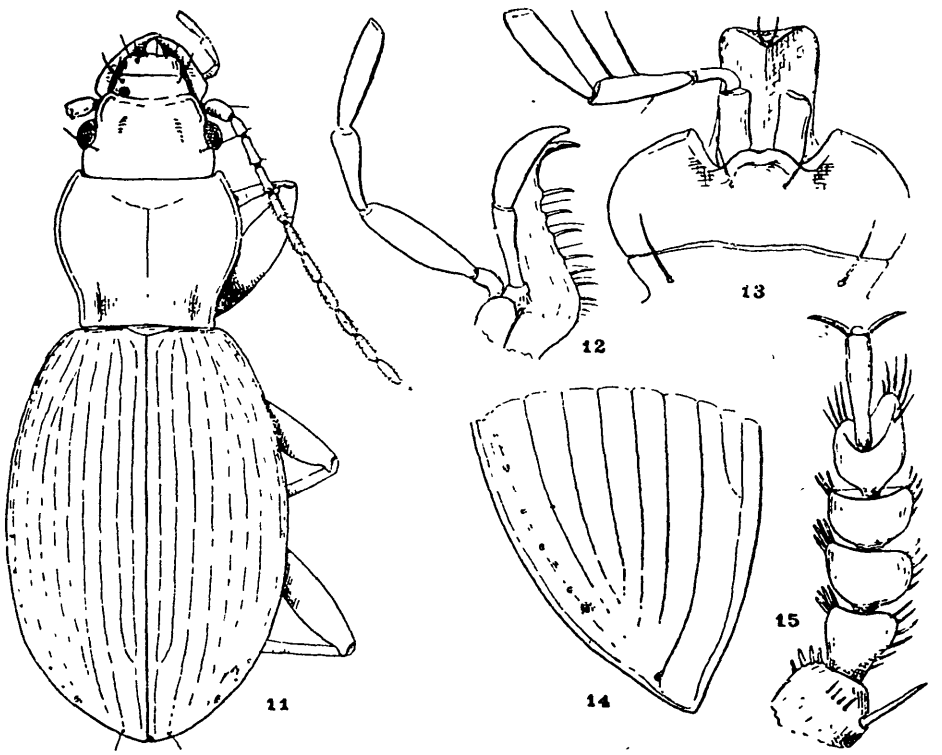
*Pristancylus castaneus* Blanchard, *Voy. au Pole Sud*, 4, p. 23, 1853; Hombron and Jacquinot, *Ibid.*, pl. 2, fig. 1; Gemminger and Harold, *Cat. Col.*, 1, p. 53, 1868 (*Heterodactylus*); Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902 (*Heterodactylus*); Hutton, *Index Faun. Nov. Zeal.*, p. 144, 1904 (*Heterodactylus*); Enderlein, *Deutsch. Sudpol. Exped., Zool.*, 2, pt. 4, p. 502, 1909; Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 95, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 356, 1923; Hudson, *N Z. Beetles and Larvae*, p. 174, 1934; Jeannel, *Rev. Franc. Ent.*, 5, fasc. 1, p. 17, 1938.

*Loxomerus ambiguus* Broun, *Subant Ids. N.Z.*, 1, pp. 81, 92, 1909; Hudson, *Ibid.*, 1, p. 60, 1909; Hudson, *Trans N Z. Inst.*, 54, p. 358, 1923; Csiki, *Junk Col. Cat.*, pt. 92, p. 441, 1927; Hudson, *N.Z. Beetles and Larvae*, p. 176, 1934; Jeannel, *Rev. Franc Ent.*, 5, fasc 1, p 17 1938.

Larsson states that Dr T. H. Mortensen spent a short time at Port Ross and found this species very plentiful, collecting "a rather large

number of adults," although Krone, photographer to the German 1877 expedition, who stayed for five months at the head of Port Ross, had the contrary experience. "Venus Valley. Dug out in the humus when rooting out an old *Metrosideros*, on the place where the observatory was built, on November 2nd. (Only one specimen.)" Hudson took one specimen at Port Ross in 1907, described by Broun as *L. ambiguus;* this is now in the Hudson collection at the Dominion Museum, correctly identified as *L. nebrioides*; Jeannel, in error, locates this type in the British Museum. The Guerin Meneville type is in the Paris Museum.

Mortensen also discovered two immature and one third instar larva, which Larsson refers to *L. nebrioides;* these were found "underneath bits of wood in the virgin forest on the 29th. Nov., 1914." Larsson has minutely described and figured the third instar larva (Plate 23).



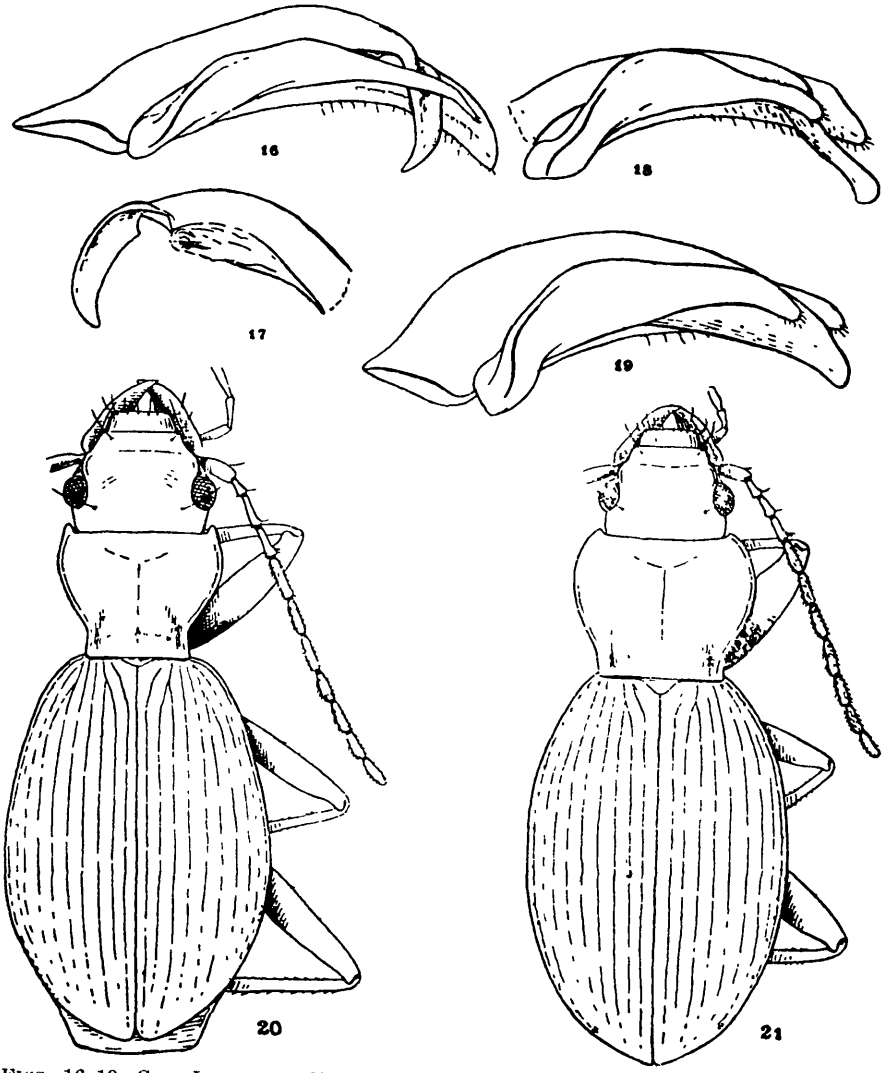

FIGS. 11–15. Gen *Loxomerus* Chaud.; *L. nebrioides* Guer., of the Auckland Islands. — FIG 11. Male, × 5. — FIG. 12. Right maxilla, × 10. — FIG. 13. Labium, ventral surface, × 10. — FIG. 14. Apex of the left elytron — FIG 15. Left anterior tarsus of male. (*After Jeannel*). *Photograph, R. Blick.*

## **Loxomerus brevis** (Blanchard)

*Loxomerus brevis* Blanchard, *Voy. au Pole Sud*, 4, p. 23, 1853 (*Pristancylus*); Hombron and Jacquinot, *Ibid.*, pl. 2, fig. 2; Gemminger and Harold, *Cat. Col.*, 1, p 53, 1868 (*Pristancylus*); Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902 (*Pristancylus*); Hutton, *Index Faun. Nov. Zeal.*, p. 144, 1904 (*Pristancylus*); Enderlein, *Deutsch. Sudpol. Exped., Zool.*, 2, pt. 4, p. 502, 1909 (*Pristancylus*); Broun, *Subant Ids. N.Z.*, 1, pp 81, 95, 1909 (*Pristancylus*); Hudson,

*Trans. N.Z. Inst.*, 54, p. 356, 1923 (*Pristancylus*); Csiki, *Junk Col. Cat.*, pt. 92, p. 442, 1927 (*Pristancylus*); Hudson, *N.Z. Beetles and Larvae*, p. 174, 1934 (*Pristancylus*); Jeannel, *Rev. Franc. Ent.*, 5, fasc. 1, pp. 16–17, 1938.

*Loxomerus cilicollis* Broun, *Trans. N.Z. Inst.*, 34, p. 176, 1902 (*Euthenarus?*); Hutton, *Ibid.*, 34, p. 176, 1902 (*Euthenarus*); Hutton, *Index Faun. Nov. Zeal.*, p. 148, 1904 (*Euthenarus*); Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 94, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Hudson, *Ibid.*, 54, p. 358, 1923 (*Euthenarus*); Csiki, *Junk Col. Cat.*, pt. 92, p. 441, 1927; Hudson, *N.Z. Beetles and Larvae*, p. 176, 1934, Hudson, *Ibid.*, p. 177, 1934 (*Euthenarus*); Jeannel, *Rev. Franc. Ent.*, 5, fasc 1, p. 17, 1938




FIGS. 16–19. Gen. *Loxomerus* Chaud, male copulatory organs. × 21. — FIGS. 16–17. *L. capito*, n.sp., of New Zealand (17, apex of the penis seen from the right side). — FIG. 18. *L. brevis* Bl., of the Auckland Islands. — FIG 19. *L. nebrioides* Guer., of the Auckland Islands. (*After Jeannel*).

FIGS. 20–21. Gen. *Loxomerus* Chaud., × 7. — FIG. 20. *L. capito*, n.sp., of New Zealand. — FIG 21. *L. brevis* Blanch., of the Auckland Islands.

(*After Jeannel*) *Photograph, R. Blick.*

*Loxomerus fossulatus* Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 93, pl. 5, fig. 4, 1909; Hudson, *Ibid.*, p. 60, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Csiki, *Junk Col. Cat.*, pt. 92, p. 441, 1927; Hudson, *N.Z. Beetles and Larvae*, p. 176, 1934; Jeannel, *Rev. Franc. Ent.*, 5, fasc. 1, p. 17, 1938.

*Loxomerus brevis*, a species which varies greatly in size, has been collected at Auckland Island by members of the French expedition in 1853 and by Hudson in 1907. In Hudson's list of the Coleoptera of the Auckland Islands,* *L. fossulatus* and *L. ambiguus* are given. This record is extended by Broun (pp. 93–94) to cover the earlier species *L. cilicollis*, from which it is apparent that he did not re-examine these insects or their descriptions, otherwise he might have discovered their synonymy. Hutton secured his single mutilated specimen of *L. cilicollis* from Carnley Harbour, while Hudson took three *L. fossulatus*, one from Carnley Harbour and two from Enderby Island, while an additional specimen was collected on Adams Island by Mr (now Professor) J. S. Tennant. Hudson sent one of his specimens to Broun for description and this is probably the one which went to the British Museum with the Broun collection and is referred to by Jeannel when stating that the type is in that Museum. Two of the original four specimens of *L. fossulatus* are now in the Hudson collection in the Dominion Museum, correctly placed, while the type of *L. cilicollis*, which should be in the Canterbury Museum, cannot be found

Jeannel figures *L. brevis* and the New Zealand species *L. capito*.

### **Loxomerus huttoni** Broun

*Loxomerus huttoni* Broun, *Trans. N.Z. Inst.*, 34, p. 177, 1902 (*Euthenarus*); Hutton, *Ibid.*, p. 176, 1902 (*Euthenarus*); Hutton, *Index Faun. Nov. Zeal.*, p. 148, 1904 (*Euthenarus*), Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 94, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Hudson, *Ibid.*, 54, p. 358, 1923 (*Euthenarus*); Csiki, *Junk Col. Cat.*, pt. 92, p. 441, 1927; Hudson, *N.Z. Beetles and Larvae*, p. 176, 1934; Hudson, *Ibid.*, p. 177, 1934 (*Euthenarus*); Jeannel, *Rev. Franc. Ent.*, 5, fasc., 1, pp. 16–17, 1938.

As with *L. cilicollis*, the type of this species cannot be located in the Canterbury Museum. It is with reservations that Jeannel admits the presence of *L. huttoni* in his key to species, for it may prove to be synonymous with *L. brevis*. The only individual found was collected by Hutton under a stone at Carnley Harbour in 1901.

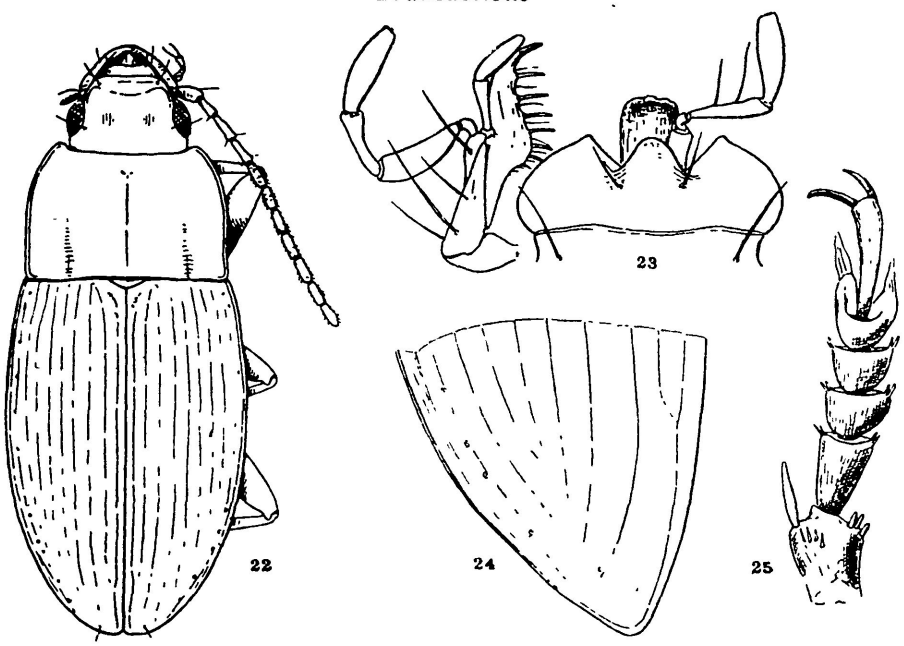
## Genus *Calathosoma* Jeannel

*Calathosoma* Jeannel, 1938, *Rev. Franc. Ent.* Paris, 5, p. 18.

### **Calathosoma rubromarginatum** (Blanchard)

*Calathosoma rubromarginatum* Blanchard, *Voy. au Pole Sud.*, 4, p. 24, 1853 (*Calathus*); Hombron and Jacquinot, *Ibid*, pl. 2, fig. 3 (*Calathus*); Lacordaire, *Hist. nat. des Inds.*, 1, p 342, 1854 (*Calathus*); Gemminger and Harold, *Cat. Col.*, 1, p. 364, 1868 (*Calathus*); Putzeys, *Ann. Soc. Ent. Belg.*, 16, p. 91, 1873 (*Calathus*); Broun, *Man. N.Z. Coleopt.*, 1, p. 19, 1880 (*Calathus*); Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902 (*Calathus*); Hutton, *Index Faun. Nov Zeal.*, p. 143, 1904 (*Calathus*); Enderlein, *Deutsch. Sudpol. Exped., Zool.*, 2, pt. 4, p. 502, 1909 (*Calathus*); Broun, *Subant. Ids. N.Z.*, 1, p. 96, 1909 (*Calathus*); Hudson, *Trans. N.Z. Inst.*, 54, p. 356, 1923 (*Calathus*); Csiki, *Junk Col. Cat.*, pt. 115, p. 787, 1931 (*Calathus*); Hudson, *N.Z. Beetles and Larvae*, p. 174, 1934 (*Calathus*); Jeannel, *Rev. Franc. Ent.*, 5, fasc. 1, p. 18, 1938; Larsson, *Saertryk Ent. Medd.*, 23, p. 420, 1943 (*Calathus*).

* *Subant. Ids. N.Z.*, 1, p. 60, 1909.




FIGS. 22–25. Gen *Calathosoma*, nov., *C. rubromarginatum* Blanch., of the Auckland Islands. — FIG. 22. Male, × 8.5 — FIG 23. Right maxilla and labium, ventral surface, × 32 — FIG 24 Apex of the left elytron. — FIG. 25. Right anterior tarsus of male. (*After Jeannel*). *Photograph, R. Blick.*

This is a relatively uncommon species; since the original was described by Blanchard, it has been collected only by Mortensen, who found four specimens. Broun, in Vol. 1 of his *Manual*, on p. 19, has made the following note under *Calathus zeelandicus* Redt., which is not mentioned in his later work on the Auckland Islands 1907 collections, "Mr. Bates doubts whether this species really belongs to the genus *Calathus* and adds that *C. rubromarginatus* Blanch., from the Auckland Islands, is decidedly not a *Calathus*, having, according to Chaudoir, four joints of the male anterior tarsi dilated and brush-like beneath." Hutton, in referring to *C. rubromarginatum*, makes use of this reference, for he recapitulates this statement. Jeannel has given its true position by the erection of the genus *Calathosoma*, which is stated to be closely related to *Loxomerus;* he also designates the characters of *C. rubromarginatum* in greater detail than Blanchard and compares features found in *Loxomerus*.

## Subfamily HARPALINAE

### Genus OOPTERUS Guerin

*Oopterus* Guerin, 1841, *Rev. Zool.*, p. 123. *Zolus* Sharp, 1886, *Trans. Roy. Dublin Soc.*, p 371. *Pseudoopterus* Csiki, 1928. *Junk Col. Cat.*, pt. 97, p. 225 (*n.syn.*).

The conspicuous point which emerges when examining the original descriptions of the genus *Oopterus* and of its two first described species, *O. clivinoides* Guer. and *O plicaticollis* Blanch., is the lack of detailed information concerning essential characters. These have been extended by Kirsch and Broun, who did not acknowledge their

omission in the genus and in the Guerin and Blanchard species, to such an extent that Kirsch created two new species and Broun one, while Csiki, without indicating any distinguishing characters, erected a new genus *Pseudoopterus*, based on the Kirsch species *O. guerinii* and *O. laticollis*, and *O. plicaticollis* Blanch. Even then, the descriptions of the species complex is a record of the varying values placed by the authors on characters in their species; their methods of describing like features is often characterised by different terminology. The present tentative synonymy of these species is based on as complete an analysis as is possible of all characters present in the descriptions, but may be varied should examination become possible of the material under review. In the circumstances, a key to the species is not attempted.*

**Oopterus clivinoides** Guerin

*Oopterus clivinoides* Guerin, *Rev. Zool.*, p. 123, 1841; Dieffenbach, *Travels in N.Z.*, p. 273, 1843; White, *Voy. Ereb. and Terr.*, pt. 2, p. 5, 1846; Chenu, *Encyc. Hist. Nat.*, 1, p. 187, 1850–61; Blanchard, *Voy. au Pole Sud.*, 4, p. 43, 1853; Hombron and Jacquinot, *Ibid.*, pl. 2, fig. 16; Lacordaire, *Hist. nat. des Ins.*, 1, p. 243, 1854, Atlas, pl. 10, fig. 1; Gemminger and Harold, *Cat. Col.*, 1, p. 241, 1868; Krone, *Deutsch. Ent. Zeit.*, 21, p. 154, 1877; Kirsch, *Ibid.*, p. 158, 1877; Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902; Hutton, *Index Faunae Nov. Zeal.*, p. 149, 1904; Enderlein, *Deutsch. Sudpol. Exped., Zool.*, 2, pt. 4, p. 501, 1909; Broun, *Subant. Ids. N.Z.*, 1, p. 86, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Jeannel, *L'Abeille*, 30, p. 246, 1926; Csiki, *Junk Col. Cat.*, pt. 126, p. 1678, 1933; Hudson, *N.Z. Beetles and Larvae*, p. 177, 1934.

*Oopterus guerinii* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 158, 1877 (*n.syn.*); Krone, *Ibid.*, p. 154, 1877; Csiki, *Junk Col. Cat.*, pt. 97, p. 225, 1928 (*Pseudoopterus*).

*Oopterus tripunctatus* Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 87, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 60, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 177, 1934.

Data relating to habitus and location are given by Krone and Hudson, whose references are respectively, "From the densely covered moss, lichen and *Hymenophyllum* swamp humus in the virgin forest of the main island, northern part and about 600 feet above sea level, at the foot of the basalt rocks on the Hooker Hills. End of November." "This smart-looking little beetle was very common under logs and amongst moss at Carnley Harbour. Seven specimens were also taken at Enderby Island." Five specimens of *O. clivinoides* are lodged in the Hudson collection in the Dominion Museum.

**Oopterus plicaticollis** Blanchard

*Oopterus plicaticollis* Blanchard, *Voy. au Pole Sud*, 4, p. 44, 1853; Hombron and Jacquinot, *Ibid.*, pl. 2, fig. 15; Chenu, *Encyc. Hist. Nat.*, 1, p. 187, 1850–61; Lacordaire, *Hist. nat. des Ins.*, 1, p. 244, 1854; Gemminger and Harold, *Cat Col.*, 1, p. 241, 1868; Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902; Hutton, *Index Faun. Nov. Zeal.*, p. 149, 1904; Enderlein, *Deutsch. Sudpol. Exped. Zool.*, 2, pt. 4, p. 501, 1909; Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 87, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 358, 1923; Csiki, *Junk Col. Cat.*, pt. 97, p. 225 (*Pseudoopterus*); Hudson, *N.Z. Beetles and Larvae*, p. 177, 1934.

*Oopterus laticollis* Kirsch, *Deutsch. Ent. Zeit.*, 2, p. 159, 1877 (*n.syn.*); Krone, *Ibid.*, p. 154, 1877; Csiki, *Junk Col. Cat.*, pt 97, p. 225, 1928 (*Pseudoopterus*).

The description of *O. laticollis* is given, for comparison with the more accessible descriptions of the other members in *Oopterus*.

* Jeannel (*L'Abeille*, 30, p. 246, 1926) states that the New Zealand species of *Oopterus* belong to a new genus in the Merizodini and are not congeneric with *O. clivinoides* Guer. in the Harpalinae.

*Oopterus laticollis* Kirsch n sp.: Obovate, shining, black, anterior tibiae and tarsi ferrugineous, femora yellow; head longitudinally impressed on both sides, close to the eyes barely sulcate; thorax one and a half times as wide as long, towards the base less narrow, hind angles projecting slightly outwards, smooth above, base impressed on both sides; elytra oval, at the apex obtusely pointed, striate, the striae sometimes punctate, the first stria recurved to form a fold at the apex, on the third three punctures.

Long. 4, lat. 1¾ mill.

Somewhat smaller than *Trechus latus* Putz., but very similar to the latter, black, sometimes the lateral margins of the elytra, and the back part of the suture reddish, the antennae, tibiae and feet rust red, the recurved margin of the thorax and of the elytra and the femora yellowish. The head on each side with a longitudinal impression and between that and the eye a little short furrow. Thorax 1½ times wider than long, broadest in front of the middle, towards the back narrowing less than towards the front, curved at the sides in front of the tapering back corners which project somewhat towards the outside, on top flatter than *Trechus latus*, smooth, at the base on each side broadly and flatly impressed, close by the back corners with a short impressed line which is bordered at the outside by a slightly raised little fold. The elytra oval, more than 1½ times wider than the thorax, crenate at the base, at the apex jointly bluntly elongated, on top as in *Trechus latus* flatly convex, more distinctly striate than in the former, the striae more or less distinctly punctate, the first one at the apex recurved and pointing towards the front in the shape of a sharply raised longitudinal fold, the third one with three impressed points

Of this species Krone remarks, "In the neighbourhood of the basaltic foothills, Deas Head on the steeply sloping woody coast under dense shrubs broken by seal tracks and at the foot of arborescent *Aspidium venustum*. Beginning of December."

## Family STAPHYLINIDAE

### Subfamily ARPEDIOMIMINAE

### Genus ARPEDIOMIMUS Cameron

*Arpediomimus* Cameron, 1917, *Ent Mon. Mag*, 53, p. 277.
*Arpediopsis* Cameron, 1917 (preoccupied), *Ibid*, p. 124.

This is evidently a subantarctic group, for its two members are *A. kronii* and *A. falklandicus*, the latter from the Falkland Islands. With the exception of *A. kronii*, Fauvel examined all of Krone's material and gave a key to *Omalium albipenne*, *O. insulare*, *O. pacificum* and *O. subcylindricum*; as *O. subcylindricum* appears to belong to a new genus, the key is no longer significant.

**Arpediomimus kronii** (Kiesenwetter)

*Arpediomimus kronii* Kiesenwetter, *Deutsch. Ent. Zeit.*, 21, p. 161, 1877 (*Omalium*) (*n.syn.*); Krone, *Ibid.*, p. 155, 1877 (*Omalium*); Fauvel, *Ann. Mus. Civ., Gen.*, 10, p. 188, 1877 (*Omalium*): Duvivier, *Munich Cat.*, Suppl. 1, Staphyl., p. 199, 1883 (*Homalium*); Fauvel, *Rev. d'Entom*, 4, p. 311, 1885 (*Homalium*); Bernhauer, Schubert and Scheerpeltz, *Junk Col Cat.*, pt. 19, p 54, 1910 (*Omalium*)

*Omalium longiceps* Broun, *N Z Inst. Bull.*, 1, pt. 2, p 89, 1914 (*n.syn.*); Hudson, *N.Z. Beetles and Larvae*, p. 181, 1934.

*A. kronii* was obtained by Krone "At the foot of an old *Dracophyllum longifolium* Hook. in dense virgin forest from the boggy humus of Auckland Island somewhat above Venus Valley towards the north, December 1874 Only one specimen." In habitus it differs from *A. falklandicus*, which was taken on sandy beaches in the vicinity of Port Stanley, in decaying kelp, *Macrocystis pyrifera*. The New Zealand record of *A kronii* is due to Philpott, who found a pair at Hakapoua, Southland, in March, 1911; this extends the range of the

Fig. 1—Maxilla, *Creophilus oculatus* (Fabr.).
*Photograph, R. Blick.*

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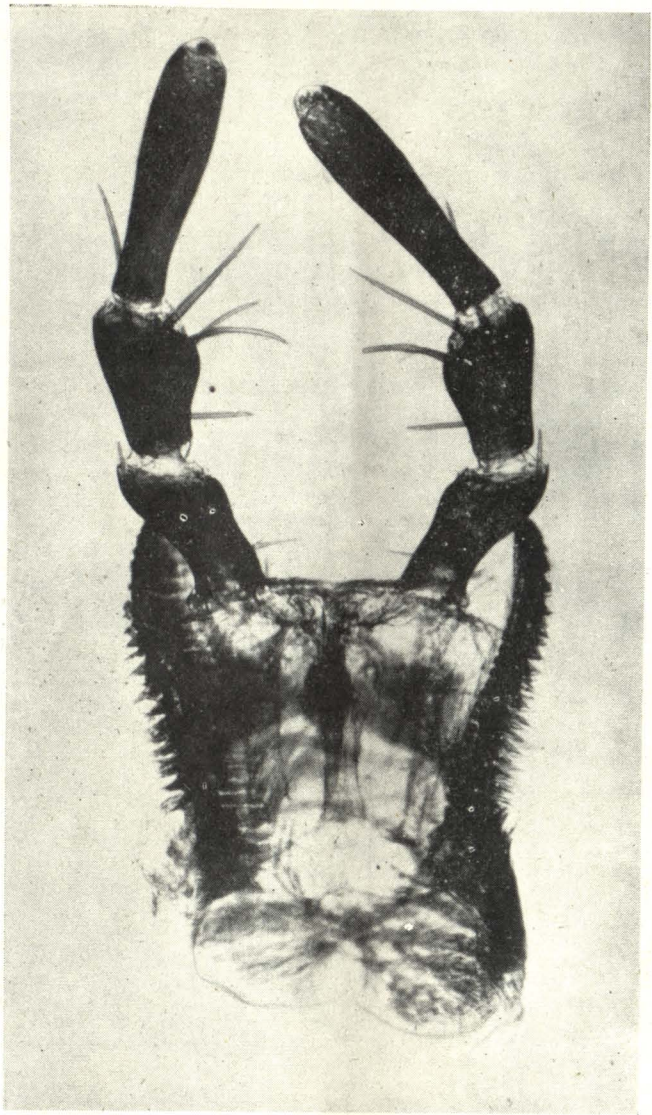

FIG. 2—Labium, *Creophilus oculatus* (Fabr.).

*Photograph, R. Blick.*

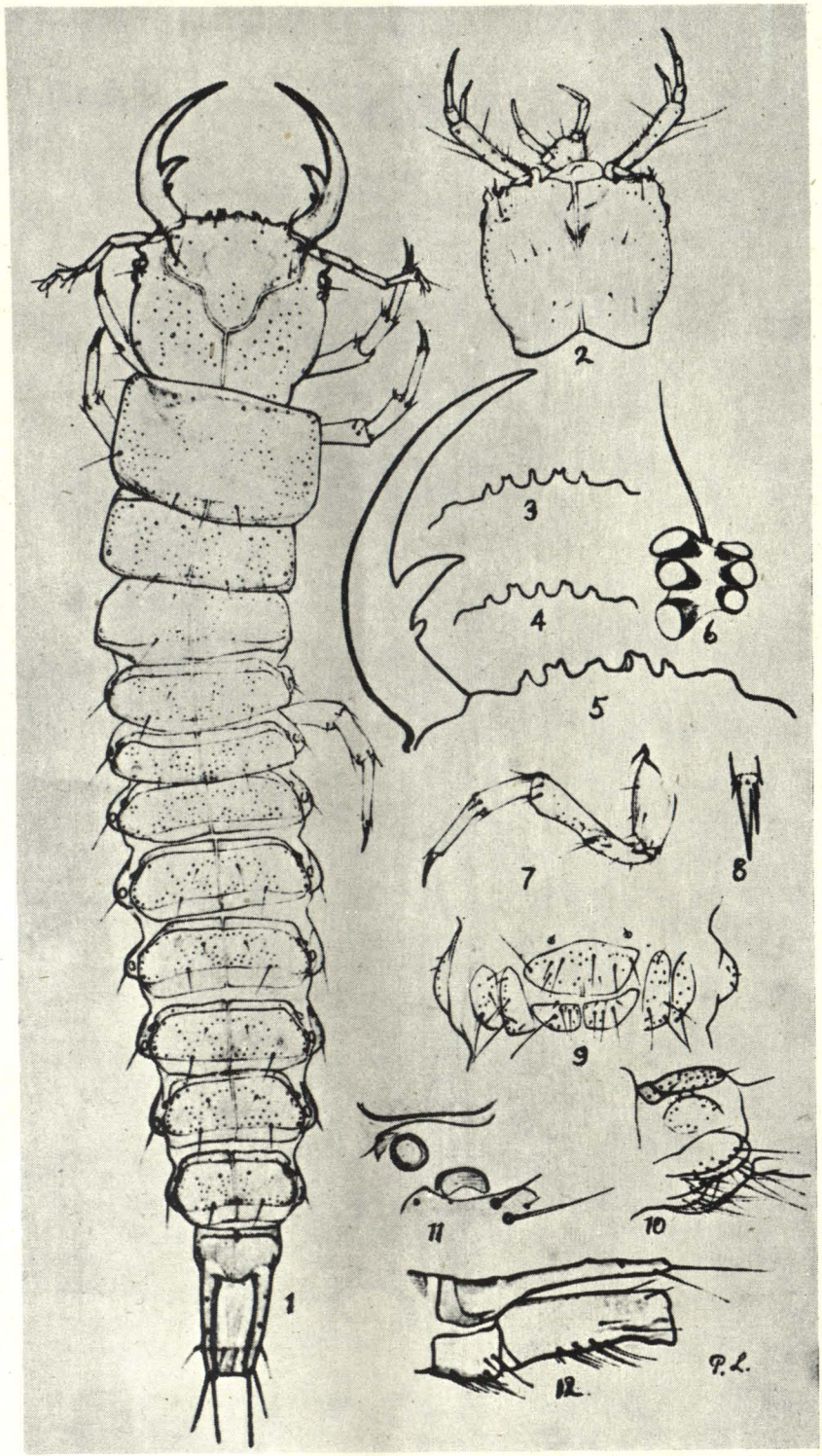


FIG. 1—*Loxomerus nebrioides* Guer. Habitus (3rd stage larva). FIG. 2—Head seen from the lower surface (3rd stage larva). FIGS. 3 and 4—Nasus (2nd stage larva). FIG. 5—Mandible and margin of front with nasus (3rd stage larva). FIG. 6—Group of ocelli of the left side (3rd stage larva). FIG. 7—Right posterior leg, lower surface (3rd stage larva). FIG. 8—Tarsus of the left posterior leg, dorsal surface (3rd stage larva). FIG. 9—Fifth abdominal segment seen from the lower surface (3rd stage larva). FIG. 10—Fifth abdominal segment of the left side. FIG. 11—Cuticle of segment between tergite and epipleurite of the left side of the fifth abdominal segment (3rd stage larva). At the left the annular stigma, at the right the auriculiform capsule. FIG. 12—Apex of the abdomen of the left side, (*After Larsson.*) *Photograph, R. Blick,*

species to what is probably its northern limits. The association of the Hakapoua material is not known, as Philpott collected on the sea coast en route to Lake Hakapoua, as well as at the lake itself.

## Subfamily OMALIINAE

### Genus OMALIUM Gravenhorst

*Omalium* Gravenhorst, 1802, *Col. Micropt. Brunsvic.*, p. 111.

**Omalium insulare** Kiesenwetter

*Omalium insulare* Kiesenwetter, *Deutsch. Ent. Zeit.*, 21, p. 163, 1877; Krone, *Ibid.*, p. 155, 1877; Fauvel, *Ann. Mus. Civ. Gen.*, 10, pp. 187, 189, 1877; Duvivier, *Munich Cat.*, Suppl. 1, Staphyl., p. 199, 1883 (*Homalium*); Fauvel, *Rev. d'Entom.*, 4, p. 311, 1885 (*Homalium*); Bernhauer, Schubert and Scheerpeltz, *Junk Col. Cat.*, pt. 19, p. 54, 1910.

The original description of *O. insulare* is now given.

*Omalium insulare* Ksw.: Oblong, somewhat shining, piceous or reddish piceous, legs full yellow brown, head, thorax and elytra rugulose punctate, abdomen opaque, alutaceous, obsoletely sparsely punctate, base of thorax narrowed sinuately, four foveae, two subarcuate discoidal and two at the sides

Long. 4 mill.

Antennae subequal to the head and thorax, towards the apex slightly thickened, rust red. Head somewhat shining, wide, with the clypeus broadly rotundate-truncate, unequal, the front between the eyes on both sides deeply foveolate, clypeus longitudinally impressed on both sides, in the middle somewhat swollen, smooth, unequally more strongly punctate, disc black with the sides red. Thorax subcordate, towards the base moderately narrowed with the base and apex truncate, the sides in the middle strongly rotundate; towards the base sinuately narrowed, basal angles rectangular, and the front *obtuse*; transverse, not very convex, *unequal*, with four impressions, disc with two subarcuate foveae, on both sides laterally the fovea stretches from the posterior angles to the middle, somewhat shining, more boldly less densely and unequally punctate. Scutellum, broad, smooth, shining. Elytra broader and a little longer than the thorax with bolder rugulose punctuation, some lines elevated, sometimes furrows obsolete, glabrous. Abdomen moderately elongate, alutaceous, sparingly minutely obsoletely punctate, rare larger punctures subseriate. Legs rusty red brown.

Krone's notes regarding *O insulare* are: "From the damp boggy plateau of the Hooker Hills, overgrown with grass tufts, from the bog. November 1874."

**Omalium (Omaliomimus?) pacificum** Kiesenwetter

*Omalium pacificum* Kiesenwetter, *Deutsch. Ent. Zeit.*, 21, p. 163, 1877; Krone, *Ibid.*, p. 155, 1877; Fauvel, *Ann. Mus. Civ. Gen.*, 10, pp. 188, 190, 1877; Duvivier, *Munich Cat.*, Suppl. 1, Staphyl., p. 199, 1883 (*Homalium pacifrons*); Fauvel, *Rev. d'Entom.*, 4, p. 311, 1885 (*Homalium*); Bernhauer, Schubert and Scheerpeltz, *Junk Col. Cat.*, pt. 19, p. 55, 1910

*Omaliomimus flavipennis* Cameron, *Ann. Mag. Nat. Hist.*, (11), 14, p. 723, 1948 (*n.syn.*).

Kiesenwetter's description follows:

*Omalium pacificum* Ksw.: Somewhat shining, piceous, antennae at the base, abdomen at the apex, and legs dull yellow brown, head and thorax thickly, elytra more densely punctate, the two foveae oblong, subarcuate, elytra a little broader and longer than the thorax. Long. 3 mill.

This species is very like *Omalium rivularum;* this species is very distinct with a wider head, the base less constricted, wider in front of the eyes, more broadly rotundate, with smaller *less convex* eyes; with the sixth antennal joint more thickened, thorax a little longer, more densely punctate, narrower and shorter elytra; in the remaining characters very like *O. rivularum.*

Although the number of specimens collected is not given by Krone, they must have been represented plentifully, for he says, "Out of the swamp ground underneath laid out animal corpses; main island, and especially Enderby Island; together with *Cyclonotum pictum*

Ksch. and *Choleva antipoda* Ksch. Beginning of December until end of January."

Cameron's *O. flavipennis* is placed provisionally as a synonym of this species, which is left in *Omalium* for the same reason. Both authors compare it with European species, instead of those of New Zealand in *Omalium*, while Kiesenwetter's description is insufficient to allow of accurate comparison and the types must be examined together before this synonymy can be accepted finally. It is apparent that Cameron did not know of Kiesenwetter's descriptions, or Fauvel's work on the four species, concerned here, for he must necessarily have had to refer to them.

Specimens examined by Cameron of this species were taken on 27.5.47 and were from Port Ross, close to one of Krone's type localities. By a typographical error, Auckland is given as the locality of Cameron's species, instead of Auckland Island; a similar error exists with his *O. zealandicum*. Cameron's *O. flavipennis*, *O. zealandicum*, *Quedius secretus* and *Q. aliiceps* are not Cape Expedition material.

**Omalium subcylindricum** Kiesenwetter

*Omalium subcylindricum* Kiesenwetter, *Deutsch. Ent. Zeit.*, 21, p. 164, 1877; Krone, *Ibid.*, p. 155, 1877; Fauvel, *Ann. Mus. Civ. Gen.*, 10, pp. 187, 190, 1877; Duviviei, *Munich Cat.*, Suppl. 1, Staphyl., p. 200, 1883 (*Homalium*); Fauvel, *Rev. d'Entom.*, 4, p 311, 1885 (*Homalium*); Bernhauer, Schubert and Scheerpeltz, *Junk Col Cat.*, pt. 19, p. 57, 1910

When a re-examination of *O. subcylindricum* is made it will probably be found that it does not belong to this genus, as may be judged from its description and the remarks of Fauvel, who states, "This insect constitutes a very special group in *Homalium* and must perhaps become the type of a new genus, near *Hadrognathus*, whose elongate and subcylindrical form it has."

Here is Kiesenwetter's description.

*Omalium subcylindricum* Ksw.: Elongate, subcylindric, somewhat shining, fuscous, antennae and legs dull yellow brown; punctate, elytra a little broader and longer than the thorax, with sparse grey hairs. Long. 2.5 mill.

Fuscous or fusco-piceous. Antennae rust red, at the apex darker, slightly thickened. Head slightly convex, base and apex foveolate on both sides, more densely, less finely, punctulate, base not at all constricted. Thorax wider than the head, almost equal in length and breadth, narrowed towards the base, at the sides near the front angles dilate rotundate, front angles strongly rounded, the hind obtusely rounded, slightly convex, on the disc barely channelled, strongly but less densely punctate. Elytra a little broader than the thorax, strongly punctate, subdepressed, posterior angles outwardly rounded, more sparingly and minutely grey haired. Legs pale yellow-brown. Elongate in size, strikingly subcylindric.

Krone collected it "From the dense growth of white flowering Compositae and of tall grasses. In the depression of the hills bordering on Venus Valley in the west on December 31st, 1874 and beginning of January, 1875 caught in a butterfly net. Together with *Acalles kronii*." The Composite plant referred to by Krone is *Olearia lyallii*.

**Omalium albipenne** Kiesenwetter

*Omalium albipenne* Kiesenwetter, *Deutsch. Ent. Zeit.*, 21, p. 162, 1877; Krone, *Ibid.*, p. 155, 1877; Fauvel, *Ann. Mus. Civ. Gen.*, 10, pp. 187, 188, 1877; Fauvel, *Rev. d'Entom.*, 4, p. 311, 1885 (*Homalium*): Bernhauer, Schubert and Scheerpeltz, *Junk Col. Cat.*, pt. 19, p. 51, 1910.

*Omalium zealandicum* Cameron, *Ann Mag. Nat. Hist.*, (11), 14, p. 723, 1948 (*n.syn.*).

As is usual with most necrophagous associations, *O. albipenne* is a common but local species and is present in several colour variants, according to Kiesenwetter's description.

*Omalium albipenne* Kiesw.· Somewhat shining, black, piceous or rusty red brown, elytra pale, sometimes towards the apex black or piceous, base of the antennae and legs dull yellow brown, head glabrous, thorax more finely unequally punctate, smooth in parts, two slightly bow shaped longitudinal foveae, elytra densely rugosely punctate, abdomen more strongly densely punctate, opaque. Long. 3.5–4 mill.

Black, piceous, rusty red brown or dull yellow brown, elytra pale, towards the apex pitchy black, antennae at the base and the legs dull yellow brown. Antennae subequal in length to the head and thorax, joints 1–5 more slender, dull yellow brown, the following abruptly larger, black, penultimate a little broader than long, covered with grey hair. Head smooth, sparsely and more finely punctate, slightly convex, front between the eyes deeply bifoveolate, piceous or dull yellow brown, mouth dull yellow brown. Thorax a little wider than the head, narrower than elytra, smooth, subquadrate, slightly transverse, narrowed towards the base, the sides towards the apex rotundate, posterior angles obtuse, anterior rotundate; thorax not very convex, uneven, with two longitudinal foveae less deep, slightly bowed, in the foveae alutaceous, less finely, more sparingly punctate, the punctures of varying sizes. Elytra smooth, less finely and more densely alutaceous, punctate, one and a half times as long and as wide as the thorax, the external apical angles rotundate, the internal rectangular. Wings not flat Abdomen opaque, densely and less finely punctate, greyish haired. Legs dull yellow brown

var. a. Piceous unicolorous, rare.

var. b. Head, thorax and elytra except for a large white humeral spot, piceous or pitchy black; the abdomen at the apex testaceous.

var. c. Piceous, elytra white.

var. d. Reddish testaceous, or testaceous, elytra lighter or barely lighter.

Very immature individuals are reddish testaceous, there occur rarely however individuals with pale white elytra. Piceous individuals vary greatly.

The species in all characters and in the impressed mouth parts (properly examined) agrees with the true *Omalium*

Krone secured a series of this species in its special association: "Only on sand dunes on the south side of Enderby Island, amongst old bones of sea birds and seals lying about, on January 26th. and 27th. 1875."

The type localities from which Cameron's *O. zealandicum* was obtained, are Musgrave Peninsula Carnley Harbour, and Adont Station.

## Subfamily STAPHYLININAE

### GENUS CREOPHILUS (Kirby, M. S.) Samouelle

*Creophilus* (Kirby, M. S.) Samouelle, 1819, *Entom. Comp.*, p. 172; Mannerheim, 1831, *Mem. pres. Acad. St. Petersb.*, 1, (5), p. 440.

#### **Creophilus oculatus** (Fabricius)

*Creophilus oculatus* Fabricius, *Syst. Ent.*, p. 265, 1775 (*Staphylinus*); Goeze, *Ent Beitr*, 1, p. 724, 1777 (*Staphylinus*); Fabricius, *Spec. Ins.*, 1, p. 335, 1781 (*Staphylinus*); Fabricius, *Mant. Ins.*, 1, p. 220, 1787 (*Staphylinus*); Fabricius, *Ent. Syst.*, 1, pt. 2, p. 521, 1792 (*Staphylinus*); Fabricius, *Ibid.*, Index, p. 158, 1796 (*Staphylinus*); Fabricius, *Syst. Eleuth.*, 2, p. 592, 1801 (*Staphylinus*); Gravenhorst, *Mon. Col. Micr.*, p. 126, 1806 (*Staphylinus*); Olivier, *Ent. Hist. Nat. des Ins.*, 3, p. 11, 1795 (*Staphylinus*); Olivier, *Ibid.*, 7, no. 42, pl 2, fig. 19, 1808 (*Staphylinus*); Boisduval, *Voy. Astrol.*, 2, p. 54, pl. 9, fig. 1, 1835 (*Staphylinus*); Nordmann, *Symb. Mon. Staph.*, p. 23, 1837; Silbermann, *Rev. Entom.*, 5, p. 291, 1837 (*Staphylinus*); Erichson, *Gen. Staph.*, p. 352, 1840 (*Staphylinus*); Erichson, *Ibid.* (Fogg translation), *Pap. Roy. Soc. Tasm.*, 3, (2), p. 312, 1859 (*Staphylinus*); Hofrathe and Gravenhorst, *Zeitschr fur Entom. (Germar)*, 2, p. 218, 1840; Dieffenbach, *Travels in*

*N.Z.*, 2, p. 273, 1843 (*Staphylinus*); White, *Voy. Ereb. and Terr.*, pt. 2, p. 6, 1846 (*Staphylinus*); Motschulsky, *Etud. Entom.*, 6, p. 49, 1857; Gemminger and Harold, *Cat. Col.*, 2, p. 575, 1868; Wakefield, *Trans. N.Z. Inst.*, 5, p. 299, 1873 (*Staphylinus*); Murray, *Jour. Linn. Soc.* (*Zool.*), 11, pp. 57, 89, 1873 (*Staphylinus*); Hutton, *Trans. N.Z. Inst.*, 6, p. 160, 1874 (*Staphylinus*); Fauvel, *Tijdsch. voor Ent.*, 18, pp. 2, 4, 1875; Broun, *Trans. N.Z. Inst.*, 8, pp. 265, 271, 1876 (*Staphylinus*); Krone, *Deutsch. Ent. Zeit.*, 21, p. 154, 1877 (*Staphylinus*); Kiesenwetter, *Ibid.*, p. 161, 1877 (*Staphylinus*); Fauvel, *Ann. Mus. Civ. Gen.*, 10, p. 250, 1877 (*Emus*); Broun, *Man. N.Z. Coleopt.*, 1, p. 107, 1880 (*Staphylinus*); Reitter, *Ver. naturf. ver. Brunn*, 18, p. 166, 1880; Broun, *N.Z. Jour. Sci.*, 1, p. 9, 1882–83 (*Staphylinus*); Fauvel, *Rev. d'Entom.* 4, p. 311 (*Emus*), p. 312, 1885; Olliff, *Proc. Linn. Soc. N.S.W.*, (2), 2, p. 493, 1887; Hudson, *Man N.Z. Ent.*, p. 25, pl. 1, fig. 5, 1892 (*Staphylinus*); Hutton, *Trans. N.Z. Inst.*, 30, p. 155, 1898 (*Staphylinus*); Alfken, *Zool. Jahrbuch*, 5, p. 604, 1903; Hutton, *Index Faun. Nov. Zeal.*, p. 183, 1904 (*Staphylinus*); Walker, *Ent. Mon. Mag.*, (2), 40, pp. 72, 121, 1904; Broun, *Trans. N.Z. Inst.*, 41, p. 145, 1909; Broun, *Trans. N.Z. Inst.*, 42, p. 292, 1910; Bernhauer and Schubert, *Junk Col. Cat.*, pt. 57, p. 399, 1914 (*Staphylinus*); Hudson, *Trans. N.Z. Inst.*, 54, p. 362, 1923 (*Staphylinus*); Brookes, *Rec. Cant. Museum*, 2, p. 268, 1925; Hudson, *N.Z. Beetles and Larvae*, pp. 45, 180, 1934 (*Staphylinus*); Steel, *Proc. Linn. Soc. N.S.W.*, 74, pp. 57, 59–61, 1949.

*Staphylinus huttoni* Broun, *Man. N.Z. Coleopt.*, 1, p. 108, 1880 (*n.syn.*); Fauvel, *Rev. d'Entom.*, 4, p. 312, 1885; Hutton, *Index Faun. Nov. Zeal.*, p. 183, 1904; Walker, *Ent. Mon. Mag.*, (2), 40, p. 125, 1904; Bernhauer and Schubert, *Junk Col. Cat.*, pt. 57, p. 398, 1914; Hudson, *Trans. N.Z. Inst.*, 54, 6. 362, 1923; Tillyard, *Insects of Austr. and N.Z.*, pp. 208, 209, pl. 17, fig. 27, text-fig. R 37, 1926; Hudson, *N.Z. Beetles and Larvae*, p. 180, 1934.

*Creophilus oculatus*, one of the commonest associates of carrion in secondary and tertiary stages of decomposition, has a very wide distribution, as it has been recorded from the Kermadecs, Chatham Islands, Auckland Islands, and throughout New Zealand; Fauvel gives it additionally from Eastern Australia (requires confirmation), and Steel has now recorded it from Rockhampton, Queensland. Olliff, in 1887, regarded *C. oculatus*, in error, as a New Zealand form of *C. erythrocephalus* Fab.

At the Nelson Freezing Works, adults have been observed, during the summer and autumn, visiting the wool-sorting benches in large numbers, where they fly on to the benches and seek out large Calliphorid maggots. These are grasped with the needle-sharp mandibles, so that the anterior and posterior ends are pinned together, when the beetles will crawl to the edge of the bench, extend their wings and fly off, to consume their prey later on. This predatory habit was again verified by personal observation in January, 1948, in the Moa Basin, near Lake Coleridge, Canterbury, when Calliphorid maggots in a deer carcase were attacked by *C. oculatus*. Larvae of *C. oculatus* are associated with animal carcases and also subsist on Calliphorid maggots

At the Auckland Islands, where large numbers of birds and seals were killed by the German expedition, Calliphorid maggots must have been in the vicinity of the camp in very large numbers and it is thus that the association of *C. oculatus* occurred, for Krone took the species "With moss tufts from the edge of the brook at Venus Valley (Seeliger's Creek) which served to proof the crack in the photographic darkroom. Probably transferred into the latter and collected in it in small numbers in November and December."

Figures 1 and 2 (Plates 21, 22) are respectively the maxilla and the labium of *C. oculatus*; Tillyard's text-figure R 37 is a rather diagrammatic representation of the labium,

Genus QUEDIUS Stephens

*Quedius* Stephens, 1829, *Nom. Brit. Ins.*, p. 22 (n.n.);
1832, *Ill. Brit. Ent.* (*Mand.* 5), p. 215.

**Quedius secretus** Cameron

*Quedius secretus* Cameron, *Ann. Mag. Nat. Hist.*, (11), 14, p. 725, 1948.

The type locality of *Q. secretus* is Musgrave Peninsula, Carnley Harbour, and it was obtained from leaf mould; it was probably taken at the same time as *Q. aliiceps*.

**Quedius aliiceps** Cameron

*Quedius aliiceps* Cameron, *Ann. Mag. Nat. Hist.*, (11), 14, p. 726, 1948

Apart from colour, this species differs from *Q. secretus* mainly in thoracic characters and in the abdominal punctation and pubescence. Collected on Musgrave Peninsula, Carnley Harbour, 19.5.47.

Subfamily ALEOCHARINAE

Genus SIPALIA Mulsant and Rey

*Sipalia* Mulsant and Rey, 1853, *Ann. Soc. Linn. Lyon* (n.s.), 1, p. 32, pl. 2, figs. 1–2; 1853, *Opusc. Ent.*, 2, p. 45.
*Leptusa* Kraatz, 1858, *Naturgesch. Ins. Deutsch.*, 2, p. 60.
*Geostiba* Thomson, 1858, *Ofvers. svenska Vetensk. Akad. Forh.*, 15, p. 33.
*Pachygluta* Thomson, 1858, *Ibid.*, 15, p. 34.
*Halmaeusa* Kiesenwetter, 1877, *Deutsch. Ent. Zeit.*, 21, p. 160.

The generic synonymy is as represented by Fauvel in 1877, with the addition of *Geostiba*. Fenyes, when dealing with the Aleocharinae in *Genera Insectorum* in 1918, made no reference to Fauvel's opinion and repeated the substance of Kiesenwetter's generic diagnosis, in which was incorporated details contained in the specific description. *Sipalia* is given, with twenty-eight other genera, as a synonym of *Homalota* by Gemminger and Harold in 1868. The final generic position of *Sipalia antarctica* will need further investigation.

**Sipalia antarctica** (Kiesenwetter)

*Sipalia antarctica* Kiesenwetter, *Deutsch. Ent. Zeit.*, 21, p. 161, 1877 (*Halmacusa*); Krone, *Ibid.*, p. 154, 1877 (*Halmaeusa*); Fauvel, *Ann. Mus. Civ. Gen.*, p. 293, 1877; Eichelbaum, *Mem. Soc. Ent. Belg.*, 17, p. 208, 1909 (? *Halmacusa*); Fenyes, *Gen. Insect.*, Fasc. 173a, p. 79, 1918 (*Halmaeusa*); Bernhauer, Schubert and Scheerpeltz, *Junk Col. Cat.*, pt. 82, p. 556, 1926 (*Leptusa*).

Kiesenwetter described the species as follows:

*Halmaeusa antarctica* Ksw. n.sp. Elongate, pitchy red, the abdomen before the apex black, behind slightly dilate, more strongly, more densely punctate, thorax subrotundate, elytra much shorter than the former. Long. 2.5–3 mill.

Head rounded, not at all prolongate, in the front at the base slightly narrowed, eyes small and not very convex; head convex, somewhat shining, more densely punctate. Antennae rust red, towards the apex infuscate. Thorax subrotundate, base and apex truncate, in front a little, behind to a greater extent, narrowed, the sides rounded, front angles rotundate, the hind obtuse, slightly convex, with very fine sparse grey hairs. Elytra equal in length to the thorax, or a little narrower, nearly twice as short, apex truncate, more densely and more strongly punctate, shining, grey haired. Abdomen towards the apex gradually slightly dilated, somewhat shining, less densely and boldly punctate, the second last dorsal segment of the male with an obsolete carina, striking. Legs rust red.

Of this species Krone says, "From the dense and high grass tufts of the plateau above Venus Valley on the main island caught in a butterfly net: midsummer, 31st. December."

## Family SILPHIDAE

### Genus PARACATOPS Portevin

*Paracatops* Portevin, 1907, *Ann. Soc. Ent. France*, 76, p. 69.

Paracatops was erected by Portevin to receive *Choleva antipoda* Kirsch as genotype, of which he gives these details:

> *Paracatops* nov. gen. Mesosternum not carinate. Second joint of palpi wide, third very small.
>
> By its elytra parallel striate to their base and its simple mesosternum, this genus is intermediate between *Catops* and *Anemadus*. It is distinguished both from the one and the other by the singular form of its maxilliary palpi whose second joint is dilated into a broad oval and the last narrow and very short. I create this genus for *Choleva antipodum* Kirsch (*Deutsch. Ent. Zeitschr.*, 1877, p. 144), of Auckland.

**Paracatops antipodum** (Kirsch)

*Paracatops antipodum* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 164, 1877 (*Choleva*); Krone, *Ibid.*, p. 155, 1877 (*Choleva*); Portevin, *Ann. Soc. Ent. France*, 76, p. 69, 1907; Portevin, *Ann. Soc. Ent. Belg.*, 58, p. 192, 1914; Jeannel and Hatch, *Junk Col. Cat.*, pt. 95, p. 209, 1928.

*Catops avivorus* Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 101, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 60, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 363, 1923 (*Choleva*); Jeannel and Hatch, *Junk Col. Cat.*, pt. 95, p. 189, 1928; Hudson, *N.Z. Beetles and Larvae*, p. 187, 1934 (*Choleva*).

An examination of the descriptions of *Choleva antipoda* Kirsch and *Catops avivorus* Broun leaves no doubt of the synonymy, so it is not necessary here to give the description by Kirsch. Apparently, by an error of proof reading, *Choleva* was given by Broun as the genus with *Catops* a synonym, yet Broun left his species *C. avivorus* under *Catops;* later Hudson referred to it as *Choleva*.

Krone's remarks concerning this species are: "Collected always together with the lazy *Cyclonotum pictum* Ksh. from the laid out corpses. On the Auckland and Enderby Islands. End of November until February." In the general notes by Hudson of insects collected at the Auckland Islands, he refers to *Catops avivorus*: "A long series of this necrophagous beetle was found by Mr H. D. Cook in a bird's skull on a small island in Camp Cove, Carnley Harbour." Broun, in the descriptive section, erroneously credits them to Hudson; the latter supplied the detail that *C. avivorus* was found within the head of a kingfisher. Six of these specimens are in the Hudson collection in the Dominion Museum.

## Family LATHRIDIIDAE

### Genus MELANOPHTHALMA Motschoulsky

*Melanophthalma* Motschoulsky, 1866, *Bull. Soc. imp. Nat. Moscou*, 39 (2), p. 269.

Sharp* draws attention to an important matter regarding distinctions occurring in *Melanophthalma*, *Corticaria* and *Corticarina*, which has significance, considering that Belon places *M. globipennis* in the subgenus *Corticarina*, a position which appears to be untenable.

**Melanophthalma globipennis** (Reitter)

*Melanophthalma globipennis* Reitter, *Mitth. Munch. ent. Ver.*, p. 139, 1881 (*Corticaria*); Belon, *Classif. Lathrid., Lyons*, p. 203, 1897 (subgen. *Corticarina*); Belon, *Gen Insect.*, Fasc. 3, p. 35, 1902 (subgen. *Corticarina*); Hetschko, *Junk Col. Cat.*, pt. 85, p. 69, 1926.

A translation of Reitter's description of *M. globipennis* is now given.

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* *Ent. Mon. Mag.*, 46, pp. 105-108, 1910.

*Corticaria globipennis* n.sp. Ferruginous fuscous, densely punctate, convex, finely pubescent, legs testaceous, antennae nigrofuscous, with the base testaceous, the club three segmented, all the joints oblong, the last larger, elongate; head scarcely narrower than the thorax, this narrow, hardly transverse, sides lightly rounded in middle, base very lightly transversely impressed, the impression more or less trifoveate, with the fovea sometimes very indistinct, elytra shortly oval, subglobose, the sides very much widened, rounded, densely and strongly punctate. Auckland Islands. Royal Museum in Dresden.

Allied to and resembling *C. gibbosa*, the head is, however, scarcely narrower than the thorax, the latter with much more superficial impressions, the elytra almost hemispherical.

Although members of this genus may be taken in great numbers when the correct association is encountered, only Krone has found *M. globipennis*, of which he makes casual mention: "A *Corticaria* and a brown Curculionid, with a light arrow shaped pointed marking on its back were also collected from the main Auckland Island around Port Ross."

## Family COCCINELLIDAE

### Genus STENOCOCCUS Weise

*Stenococcus* Weise, 1895, *Ann. Ent. Soc. Belg.* 39, p. 144.

Weise separates *Stenococcus* from the New Zealand Rhizobiinae formerly under *Scymnus*, which, in supplying his generic key to these two groups, he places in a new genus *Adoxellus*, to include in particular *A. flavihirtus* (Broun) and *A. picinus* (Broun). The key to *Adoxellus* and *Stenococcus* is reproduced, according to Weise.

1 Body with wings. To this belongs the other Rhizobiinae
1′ Body wingless. Line of the femora is a complete arch. The front edges of the thorax are not or scarcely emarginate, the front corners completely rounded 2
2 Body rounded, arched, on top with rather long upright hairs, partly dark blue or metallic coloured. Head small, eyes rather coarsely granulate, convergent towards the top. Elytra at the back pointed into a short common and blunt point Line of the femora short, hardly bent *Adoxellus* Ws.
2′ Body slim, nearly parallel, little arched, top evenly, very closely and finely dotted, with very fine bloom-like hairs. Head rather large, eyes finely granulate, their inside edges are nearly parallel, hardly noticeably divergent to the top. Elytra at the back jointly rounded Line of femora rather large, reaching over the middle of the segments *Stenococcus* Ws.

This key will need some modifications and additions to embrace all the species listed in New Zealand up till now as *Scymnus*. An additional alteration in the Coccinellids has also been made under this reference. Until now, *Crassiculus venustus* Pasc. has been consistently placed in New Zealand literature under *Cranophorus;* Weise puts it in *Crassiculus*, which he describes as being close to *Cranophorus*.

### **Senococcus aucklandiae** (Kirsch)

*Stenococcus aucklandiae* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 173, 1877 (*Rhizobius*); Krone, *Ibid.*, p. 156, 1877 (*Rhizobius*); Weise, *Ann. Ent. Soc. Belg.*, 39, pp. 143, 144, 1895; Korchefsky, *Junk Col. Cat.*, pt. 118, p. 87, 1931.

The description by Kirsch of *Stenococcus aucklandiae* is included here, in its original form.

*Rhizobius aucklandiae*: Oblong, pubescent, closely punctate, blackish fuscous, antennae, palpi, the sides of the thorax, the oblique discoidal vitta of the elytra and the lateral margin (broader at apex) and the legs sulphur yellow. Long. 3, wide 1½ mill

Male: head and thorax sulphur yellow, on the latter a large basal black spot.

Belonging to the third group of Mulsant's amongst the Rhizobii *s.str.* In shape and size rather resembling our *R. litura*, also just as evenly and densely punctulate and pilose. Black-brown, the mouth parts, antennae, apex of abdomen and legs yellowish, rarely the femora somewhat brownish. The head in the male yellow, in the female black. Thorax in the male wider than in the female, yellow with a large, semi-circular black spot on the base, reaching near to the front margin, leaving free on each side only a quarter of the black margin, in the female black, at the sides more or less broadly yellow-edged, the yellow colouring towards the front broadening, in the lightest specimens leaving free only the middle third of the front margin. Elytra varying greatly in the markings according to the prevalence of the yellow or dark colouring, sometimes yellow with a joint dark longitudinal spot reaching up to somewhat over the middle and with a dark longitudinal band indicated faintly only in the middle.

*S. aucklandiae* was taken by Krone under circumstances rather peculiar for members of this family: "Collected under the laid out corpses in the virgin forest at Port Ross, Jan. 1875."

## Family BYRRHIDAE

### Genus LIOCHORIA Pascoe

*Liochoria* Pascoe, 1875, *Ann. Mag. Nat. Hist.*, (4), 16, p. 212.
*Epichorius* Kirsch, 1877, *Deutsch. Ent. Zeit.*, 21, p. 165 (*n.syn.*).

In the New Zealand Byrrhidae it is difficult to recognise where generic characters end and specific features commence and a much more exhaustive study is needed, accompanied by examination of large numbers of specimens, before the position becomes clear. *Liochoria* has the bisinuate base to the thorax and elytra of *Pedilophorus*, and there remains for distinction only the perfoliate joints 6–10 of the antennae. A provisional key, assembled from the important characters of genera, available from descriptions, is now presented.

| | | |
|---|---|---|
| 1 | Scutellum absent; thorax and elytra truncate at base; body subrotundate, convex . | 2 |
| | Scutellum present; thorax and elytra bisinuate at base; body oviform, convex .. | 3 |
| 2 | Antennae 11-jointed .. | *Synorthus* Broun |
| | Antennae 7-jointed . | *Cytilissus* Broun |
| 3 | Antennae simple, club 5–6 jointed | *Pedilophorus* Steffahny (= *Morychus* Erichson) |
| | Antennae with joints 6–10 perfoliate, club 6-jointed | *Liochoria* Pascoe (= *Epichorius* Kirsch) |

### **Liochoria pedinoides** (Blanchard)

*Liochoria pedinoides* Blanchard, *Voy. au Pole Sud*, 4, p. 175, 1853 (*Rygmodus*) [*nec Rygmodus pedinoides* White, 1846] (*n.syn.*); Hombron and Jacquinot, *Ibid.*, pl. 2, fig 17 [*non* 16] (*Rygmodus*); Enderlein, *Deutsch. Sudpol. Exped., Zool.*, 2, pt. 4, p. 503, 1909 (*Rygmodus*).
*Epichorius aucklandiae* Kirsch, *Deutsch. Ent. Zeit.*, 21, p 166, 1877 (*n.syn.*); Krone, *Ibid.*, p. 155, 1877; Pic, *Junk Col. Cat.*, pt. 58, p. 52, 1914.
*Liochoria sumptuosa* Broun, *Subant. Ids N.Z.*, 1, pp. 81, 103, 1909 (*n.syn.*); Hudson, *Ibid*, p. 60, 1909; Dalla Torre, *Junk Col. Cat.*, pt. 33, p. 16, 1911; Hudson, *Trans. N Z. Inst.*. 54, p. 373, 1923; Hudson, *N Z Beetles and Larvae*, p. 194, 1934.

Blanchard has caused some confusion in the two species referred to in *Voyage au Pole Sud* as *Rygmodus pedinoides* White and *Pseudhelops tuberculatus* Guer. While correctly describing the latter, figure 16 in plate 2 represents this species and not figure 17; the apical elytral elevations are not present in figure 16, but have been transferred to figure 17, which also possesses the legs of *P. tuberculatus* A reversal of the names has occurred in figures 16 and 17, which is

apparent additionally from Blanchard's remarks in his descriptions of the two species, but he would still be incorrect in considering figure 17 as *Rygmodus pedinoides,* for the figure, with the omission of the two characters just mentioned, is identical with the species later described by Kirsch as *Epichorius aucklandiae.* Blanchard's description, in conjunction with figure 17, while somewhat confused, due to substitution of characters, is still sufficiently clear for the retention of his species *Rygmodus pedinoides* cannot be included in the fauna of the island as the record is based on a misconception. That Kirsch recognised Blanchard's error is apparent, though he did not regard the latter's description of *Rygmodus pedinoides* as sufficient to equal his own species, *Epichorius aucklandiae*: "The illustration given *l.c.* by Blanchard is a very clear picture of the above described animal, especially the shape, colour and sculpture of the elytra coincided completely, only the legs are not right, since they are drawn heteromerous and do not bear the lamella. In the text in the description of the sculpture of the elytra the 3–4 tubercles in front of the apex of *Pseudhelops tuberculatus* Guer. are combined with the sculpture of the above described species (K.)." Under his reference to *P. tuberculatus* and the two figures in question, Kirsch again sees the analogy of Blanchard's description with his *E. auchlandiae.* "Comparing the descriptions of the elytral sculpture by Guerin and Blanchard, one sees that they do not refer to the same species. For our specimens Guerin's description applies while not a trace can be found of the 'irregular transverse elevations' (after Blanchard), which are also indicated in the illustration in the *Voyage Pole Sud.* As mentioned above, the illustration and also a part of the description referred probably to *Epichorius aucklandiae.*"

Blanchard comments on what he considers to be *R. pedinoides.* "This species does not appear to be very rare in the Auckland Islands." Krone also collected *L. pedinoides.* "This unique specimen landed on my camera on January 21st. 1875, while I was taking photographs at the southern coast of Rose Island." It appears much more probable that Krone's specimen crawled into the folds of his camera while it was on the ground and was noticed later, for the species is apterous; from the narrative of others it should be plentiful and would not have been his only specimen had Krone collected systematically. Hudson obtained two individuals under logs at Carnley Harbour and one from Enderby Island; Dr. Benham secured one at Erebus Cove.

**Liochoria longula** Broun

*Liochoria longula* Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 104, 1909; Hudson, *Ibid.*, p. 60, 1909; Dalla Torre, *Junk Col. Cat.*, pt. 33, p. 16, 1911; Hudson, *Trans. N.Z. Inst.*, 54, p. 373, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 194, 1934.

Hudson secured two specimens under logs at Carnley Harbour, of which one, a mutilated specimen, was sent to Broun; this is the type, which is probably in the British Museum as the second specimen, a perfect individual, is in the Hudson collection in the Dominion Museum.

Family HYDROPHILIDAE

Genus NAMOSTYGNUS Broun

*Namostygnus* Broun, 1909, *Subant. Ids. N.Z.*, p. 98.

**Namostygnus pictus** (Kirsch)

*Namostygnus pictus* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 159, 1877 (*Cyclonotum*); Krone, *Ibid.*, p. 154, 1877 (*Cyclonotum*); Zaitev, *Horae Soc. Ent. Ross.*, 38, p. 404, 1908 (*Coelostoma*): d'Orchmont, *Ann. Soc. Ent. Belg.*, 57, p. 320, 1913; Kirsch, *Junk Col Cat.*, pt. 79, p. 109, 1924; d'Orchmont, *Occ. Pap. Bishop Mus., Hawaii*, 13. (13), p. 157, 1937.

*Namostygnus rufipes* Broun, *Subant. Ids. N.Z.*, 1, pp. 81, 99, 1909; d'Orchmont, *Ann. Soc. Ent. Belg.*, 57, p. 320, 1913; Hudson, *Trans. N.Z. Inst.*, 54, p. 360, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 195, 1934; d'Orchmont, *Occ. Pap. Bishop Mus., Hawaii*, 13, (13), p. 157, 1937.

Krone took this species "From the laid out corpses of skinned birds (Cormorants, gulls, albatrosses, etc) also from seal corpses in which it crawls about lazily, collected on the main Island and on Enderby Island, always together with the very agile *Choleva antipoda* Ksch. End of November until into February. The variety of it was collected from seal corpses on Enderby Island on January 26th." Hudson obtained the specimen described by Broun, but does not give any details of the association or whether more than one was taken; there are no individuals of *N. pictum* in the Hudson collection in the Dominion Museum.

Family MALACHIIDAE

Genus CARPHURUS Erichson

*Carphurus* Erichson, 1840, *Entomographien*, p. 132.

**Carphurus venustus** Kirsch

*Carphurus venustus* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 167, 1877; Krone, *Ibid.*, p. 155, 1877; Greiner, *Junk Col. Cat.*, pt. 159, p. 10, 1937.

Although the description of *C. venustus* is preceded by the abbreviation Ksw., the name Kirsch appears in brackets at the end. Krone does not refer specifically to this insect, and as it appears in the group of species described by Kirsch it is credited to him. The form of the description is as follows.

*Carphurus venustus* Ksw. Dark, mouth, clypeus, shoulders of the prothorax, and the legs partly dull yellow brown.

Long. 3.5 mill

Antennae serrate, brown, base dull yellow brown. Head a little wider than the thorax, eyes convex, moderately prominent, fuscous, somewhat shining, vertex transversely rugose, covered with long, erect hair, front, clypeus and mouth dull yellow brown, labrum and the base of the mandibles infuscate. Thorax dull yellow brown, shining, subquadrate, longer than wide, base and apex truncate, apex subrotundate, with the sides not very rounded, all the angles obtuse, at the base broadly transversely impressed, covered with long erect black hair. Elytra at the apex twice as long as the thorax, shoulders piceous, shoulders and lateral border dull yellow brown, somewhat shining, rugose, less finely punctate, sparingly black haired. Abdomen elongate, elytra projecting beyond. Legs dark, front tibiae dull yellow brown (Kirsch).

Some New Zealand Dasytids, now in the genus *Dasytes*, will be transferred ultimately to the Malachiidae, as the extrusion of abdominal vesicles, characteristic of the Malachiidae, has been observed personally, in living specimens.

*C. venustus* was found by Krone "At the north coast from the beautiful scarlet red flowers of *Metrosideros lucida* Hook. in January 1875; caught in a butterfly net."

Family ELATERIDAE

Subfamily ELATERINAE

Genus GERANIELLA nom. nov.

*Geraniella* nom nov., pro *Geranus* Sharp. 1877

It has been necessary to rename Sharp's genus *Geranus*, which lapses by preoccupation to Bonaparte's *Geranus* (Aves) of 1854.

**Geraniella nitidofuscus** (Blanchard)

*Geraniella nitidofuscus* Blanchard, *Voy. au Pole Sud*, 4, p. 88, 1853 (*Elater*); Hombron and Jacquinot, *Ibid.*, pl. 6, fig. 10, 1853 (*Elater*); Gemminger and Harold, *Cat. Col.*, 5, p. 1563, 1869 (*Limonius*); Schwarz, *Gen. Ins.*, Fasc. 46c, p. 287, 1907 (*Geranus*); Enderlein, *Deutsch. Südpol. Exped.*, Zool. 2, pt. 4. p. 502, 1909 (*Limonius*); Schenkling, *Junk Col. Cat.*, pt. 88, p. 88, 1927 (*Geranus*).

No record from the Islands has occurred of *G. nitidofuscus* since the insect was obtained in 1853, from which Blanchard made his description, which is now given in detail. The species is well illustrated in colour by Hombron and Jacquinot.

*Elater nitido-fuscus*, pl. 6, fig. 10: Chestnut red, shining; antennae and legs concolorous, pilose; thorax hairy, densely punctate, almost smooth in the middle; elytra narrowed to the apex, sulcate-punctate, interstices punctulate. Long. 8–9 millim.

Of the form of *Elater* (*Limonius*) *nigripes*, but proportionately a little broader, entirely or wholly of a reddish chestnut brown, shining and clothed with a very fine pubescence. Head convex, rounded in front, punctate and hairy. Antennae slender, very weakly dentate, reaching the base of the thorax, of a paler brown than that of the body, more testaceous, and clothed with a rather close pubescence Thorax perceptibly convex and bluntly depressed towards the posterior edge, a little broadening towards the back, with its edges slightly arcuate, and each of its posterior angles prolonged to a long sharp point, directed outwards a little; its surface slightly pubescent and furnished with big punctures; these punctures rather close towards the edges, but not so close towards the centre and completely disappearing in the middle. The elytra at their base, as wide as the distance between the two thoracic points, attenuated gradually towards the end and rounded at the extremity, perceptibly convex, pubescent and of the same shade as the other parts of the body, with rather deep and strongly punctate grooves and the intervals slightly rugose, and furnished with irregular little punctures. Legs testaceous brown This insect was discovered in the Auckland Islands.

With Sharp's species of *Geraniella* as synonyms of *G. lineicollis* White, the New Zealand and Auckland Island members can be separated, as in the key.

KEY TO THE SPECIES OF *Geraniella*

| | | |
|---|---|---|
| 1 | Thorax longitudinally impressed in the middle .. .. | *lineicollis* White |
| | Thorax not longitudinally impressed in the middle | 2 |
| 2 | Unicolorous; apex of elytra rounded .. .. .. | *nitidofuscus* Blanch. |
| | Bicoloured; apex of elytra spinose . .. .. | *collaris* Pasc. |

Family TENEBRIONIDAE
Subfamily ADELIINAE
Genus PSEUDHELOPS Guerin

*Pseudhelops* Guerin, 1841, *Rev. Zool.*, p. 125

Gemminger and Harold in 1870 synonymise *Pheloneis* with *Pseudhelops* and Broun points out* that Carter separates the Australian *Adelium* from *Pheloneis;* although Carter refers to the Gemminger and Harold synonymy in other particulars, he does not deal with the status of *Pseudhelops*. The position of *Pheloneis* requires thorough investigation before the true generic relationships of the representatives in it can be decided. In some instances, e.g., *Pheloneis bullatum* Pasc. = *P. intricatum* Bates (♂), male tarsal details allow of placement in *Pheloneis*, while the same character in the female would cause

* *Bulletin* 1, *N.Z. Inst.*, p. 323, 1915.

it to become *Pseudhelops,* quite apart from the essentially male character in *P. bullatum* of the internal middle dilation of the front tibiae.

**Pseudhelops tuberculatus** Guerin

*Pseudhelops tuberculatus* Guerin, *Rev. Zool.*, p. 125, 1841; Dieffenbach, *Travels in N.Z*, p. 274, 1843; White, *Voy. Ereb. and Terr.*, pt. 2, p. 11, 1846; Blanchard, *Voy au Pole Sud*, 4, p. 175, 1853; Hombron and Jacquinot, *Ibid.*, pl. 2, fig 16 (*non* 17), 1853; Chenu, *Encyc. Hist. Nat.*, 3, p. 167, 1860; Gemminger and Harold, *Cat. Col.*, 7, p. 2007, 1870; Hutton, *Trans. N.Z. Inst.*, 34, p. 176, 1902 (*Adelium*); Enderlein, *Deutsch. Sudpol. Exped.*, Zool. 2, pt. 4, p. 503, 1909; Broun, *Subant. Ids. N.Z*, 1, pp. 81, 106, 1909; Hudson, *Ibid.*, p. 60, 1909; Geiben, *Junk Col. Cat.*, pt. 28, p. 513, 1911; Hudson, *Trans. N.Z. Inst.*, 54, p. 384, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 202, 1934.

*Pseudhelops substriatus* Broun, *Bull.* 1, *N.Z. Inst.*, p. 47, 1910; Hudson, *Trans. N.Z. Inst.*, 54, p. 384, 1923; Hudson, *N.Z. Beetles and Larvae,* p. 202, 1934.

*Pseudhelops nodosus* Broun, *Bull.* 1, *N.Z. Inst.*, p. 47, 1910 (*n.syn.*); Hudson, *Trans. N.Z. Inst.*, 54, p. 384, 1923; Hudson, *N.Z. Beetles and Larvae,* p. 202, 1934.

It has already been noted† that *P. substriatus* Broun is a synonym of *P. tuberculatus* Guer.: *P. nodosus* also belongs here

Krone found the species plentiful, for he states: "Underneath half peeled off bark on old *Metrosideros* trunks. The color varied between copper, bronze, bluish black and dark violet. In December and January at the time of the best *Metrosideros* bloom. On the main island." Of *P. tuberculatus* Hudson says: "This is one of the commonest beetles on Auckland Island. It occurred in profusion under the bark of the rata-trees round Carnley Harbour, and was also found on Enderby Island. It has a considerable superficial resemblance to *Adelium amaroides*, a common and widely distributed New Zealand species."

## Family CURCULIONIDAE

### Subfamily Otiorrhynchinae

Two genera are represented in this subfamily, *Aucklandius (Catodryobius* of Broun) and *Heterexis*. The latter is sufficiently distinct, in possessing apical scrobes, but the relationship of *Catodryobius* is very unsatisfactory; after making a comparative examination of all the described characters there emerge only two which can give distinction, in that *Catodryobius* has a cariniform mesosternal process and has the second ventral abdominal segment half the length of the first. Ventral characters of Hudson's specimens of *Catodryobius* could not be seen as they were all stuck tightly to their card mounts and permission for their removal was not obtained. *Catodryobius* is undoubtedly a synonym of *Aucklandius*.

### Genus Aucklandius (Blanchard)

*Aucklandius* Blanchard, 1853, *Voy. au Pole Sud*, 4, p. 208 (*Oclandius*); Gemminger and Harold, *Cat. Col.*, 8, p. 2242, 1871.

*Catodryobius* Broun, 1909, *Subant Ids. N.Z*, 1, p. 108 (*n.syn.*).

Gemminger and Harold in 1871 changed *Oclandius*, a *nomen geographicum*, to *Aucklandius*, giving the locality of the genotype *A. cinereus* (Blanch.) incorrectly as Auckland.

**Aucklandius cinereus** (Blanchard)

*Aucklandius cinereus* Blanchard, *Voy au Pole Sud*, 4, p. 203, 1853 (*Oclandius*); Hombron and Jacquinot, *Ibid*., pl. 13, fig. 17, 1853 (*Oclandius*); Lacordaire,

† *N.Z. Beetles and Larvae*, p. 202, 1934.

*Hist. Nat. des Ins.*, 6, p. 622, 1863 (*Oclandius*); Gemminger and Harold, *Cat. Col*, 8, p. 2242, 1871; Lona, *Junk Col. Cat.*, pt. 162, p. 507, 1938.

*Catodryobius benhami* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 110, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 60, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 388, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 213, 1934; Lona, *Junk Col. Cat.*, pt. 160, p. 239, 1937.

*Catodryobius tetricus* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 110, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 61, pl. 3, figs. 11–13, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 388, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 213, 1934; Lona, *Junk Col. Cat.*, pt. 160, p. 239, 1937.

*Catodryobius erubescens* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 111, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 61, pl. 3, fig. 1, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 388, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 213, 1934; Lona, *Junk Col. Cat.*, pt. 160, p. 239, 1937.

This species consists of a very variable number of forms, paralleling in diversity of appearance the New Zealand *Phaedropholus o'connori* Broun and *Pparchus gourlayi* Brookes, which latter species Sir G. A. K. Marshall states is a synonym of the former. In *P. o'connori* and *P. gourlayi* the divergence which exists here is carried to its extreme in a highly metallic form found in the north-western part of the South Island; this range of variability gives almost an exact parallel to the *Aucklandius* complex. Blanchard's genotype belongs to the colour form of *Catodryobius erubescens*, and of it he remarks: "This lovely species was discovered at the Auckland Islands." The two specimens of *A. cinereus* in the O'Connor collection in the Dominion Museum, under the name of *Catodryobius tetricus*, are again quite different in form and coloration from those taken by Hudson and Benham. The host association of this weevil is unknown.

The types of *Catodryobius benhami*, *C. tetricus* and *C. erubescens* are presumably in the Hudson collection in the Dominion Museum, for Broun seldom designated type material.

**Aucklandius grandis** (Broun)

*Aucklandius grandis* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 112, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 61, pl. 3, fig. 15, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 388, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 213, 1934; Lona, *Junk Col. Cat.*, pt. 160, p. 239, 1937

This very distinct species is the largest member of the genus, and as Broun says "may be readily identified by a glance at the subcostate elytral interstices." It is noted by Hudson as "Discovered by Mr. Browne in a mollyhawk's nest on Disappointment Island. Some weevil-larvae were also found, which are probably referable to this species." The type of *A. grandis* is in the Hudson collection in the Dominion Museum.

## Genus HETEREXIS Broun

*Heterexis* Broun, 1901, *Trans N.Z. Inst.*, 34, p. 179

**Heterexis laeviusculus** Broun

*Heterexis laeviusculus* Broun, *Trans. N.Z. Inst*, 34, p 179, 1901 (*Lyperobius*); Hutton, *Ibid.*, pp. 175, 176, 1901 (*Lyperobius*); Hutton, *Index Faun. Nov. Zeal.*, p. 203, 1904 (*Lyperobius*); Broun, *Subant Ids. N.Z.*, 1, pp. 82, 114, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 388, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 213, 1934; Lona, *Junk Col. Cat.*, pt. 160, p. 240, 1937.

*Heterexis sculptipennis* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 114, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 61, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 388, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 213, 1934; Lona, *Junk Col. Cat.*, pt. 160, p. 240, 1937.

The setae on the apex of the rostrum of *H. laeviusculus* are duplicated in *H. sculptipennis*, which is said by Broun, quite incorrectly, to possess only two; the others have been broken off in *H. sculptipennis*, but their position on the rostrum of the type is plainly shown. That ocular lobes are absent in *H sculptipennis*, might also almost apply to *H. laeviusculus* and a series of Heterexis from Adams Island will probably show this to be a variable character; the difference in size has no specific value. The original pair of *H. laeviusculus* was taken on the high land on the way to the albatross nesting ground on Adams Island in 1901 by Captain J. Bollons, while feeding on *Ligusticum antipodum*, and the pair of *H. sculptipennis* was obtained on Adams Island in 1907 by R. Speight. The type specimen of *H. sculptipennis* is in the Hudson collection in the Dominion Museum.

### Subfamily Leptopinae

### Genus Inocatoptes Broun

*Inocatoptes* Broun, 1901, *Trans. N.Z. Inst.*, 34, p. 178

**Inocatoptes incertus** Broun

*Inocatoptes incertus* Broun, *Trans. N.Z. Inst.*, 34, p. 178, 1901; Hutton, *Ibid.*, pp. 175, 176, 1901; Hutton, *Index Faun. Nov. Zeal.*, p. 202, 1904; Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 113, 1909; Hudson, *Trans. N.Z. Inst.*, 54, pp. 388, 389, 1923; Schenkling and Marshall, *Junk Col. Cat.*, pt. 114, p. 19, 1931; Hudson, *N.Z. Beetles and Larvae*, p. 214, 1934.

The type of *I. incertus*, which was taken on the main Island by the Hon. H. C. Butler, is not greatly removed from the teneral state and possesses both mandibular cusps; as Broun states, the type is lodged in the Canterbury Museum.

### Genus Steriphus Erichson

*Steriphus* Erichson, 1842, *Arch. Naturgesch.*, 8 (1), p. 190

**Steriphus insularis** (Blanchard)

*Steriphus insularis* Blanchard, *Voy. au Pole Sud.*, p. 208, 1853 (*Gromilus*) (*n.syn.*); Hombron and Jacquinot, *Ibid.*, pl. 14, fig. 11, 1853 (*Gromilus*); Lacordaire, *Hist. Nat. des Ins.*, 6, p. 621, 1863 (*Gromilus*); Gemminger and Harold, *Cat. Col.*, 8, p. 2361, 1871 (*Gromilus*); Schenkling and Marshall, *Junk Col. Cat.*, pt. 114, p. 17, 1931 (*Gromilus*).

*Steriphus opacus* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 169, 1877 (*n.syn.*); Krone, *Ibid.*, p. 156, 1877; Schenkling and Marshall, *Junk Col. Cat.*, pt. 114, p. 14, 1931.

*Hycanus cockaynei* Broun, *Ann. Mag. Nat. Hist.*, (7), 15, p. 546, 1905 (*n.syn.*); Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 116, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 391, 1923; Schenkling and Marshall, *Junk Col. Cat.*, pt. 106, p. 54, 1929; Hudson, *N.Z. Beetles and Larvae*, p. 216, 1934.

Although Blanchard described *S. insularis* in *Gromilus*, he failed to characterise the genus, which is *nomen nudum*. Kirsch evidently did not see Blanchard's description of *Gromilus insularis*, otherwise he would have recognised the synonymy of his species *Steriphus opacus*. Broun's *Hycanus cockaynei* is a synonym of *S. insularis*. Blanchard's description of *S. insularis*, though omitting many details when compared with the descriptions of Kirsch and Broun, is now given.

*Gromilus insularis*. Pl. 14, fig. 11: Slightly narrow, oblong, wholly dark piceous, sparingly fuscous-pilose; rostrum fairly short and antennae rufescent; prothorax obsoletely sulcate: elytra striate-punctate, interstices flat. Long. 5–6 millim.

This small insect is oblong in shape, rather narrow, wholly dirty darkish brown with sparse brownish hairs. Rostrum almost the length of the head,

smooth, reddish. Antennae of this same colour, with their scape rather thick, the first joint of the funicle elongated, the following lenticular and haired and the club short and very swollen. Prothorax cylindrical, much broader than long, cut straight at the base and the apex, weakly furrowed in the middle and slightly pubescent. Elytra oval, rather narrow, almost flat above, sloping towards the ends, with rather finely punctate striae, the interstices flat and the whole surface covered with sparse dirty-brown hair. Legs rather long, blackish; hairy, with the femora markedly swollen. The whole of the undersurface of the body black and rather smooth.

This species was taken at the Auckland Islands.

Concerning *S. insularis*, Krone found "Two specimens together with *St. veneris* on January 21st. 1875, from the south coast of Rose Island." Dr L. Cockayne found one specimen among moss in July, 1903; as he has given no details of locality, this insect may have been obtained from his botanical material brought back to New Zealand.

**Steriphus veneris** Kirsch

*Steriphus veneris* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 168, 1877; Krone, *Ibid.*, p. 156, 1877; Schenkling and Marshall, *Junk Col. Cat.*, pt. 114, p. 14, 1931.

*Hycanus frontalis* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 116, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 61, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 391, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 216, 1934.

Broun's description, which is readily accessible, makes the repetition of Kirsch's description unnecessary. Krone has given details, under *S. insularis*, of where his material was collected Hudson's three specimens were found under logs on Enderby Island, not, as is stated by Broun in the description, under a log at Carnley Harbour. Two of these insects are in the Hudson collection in the Dominion Museum, the third is probably in the Broun collection at the British Museum.

## Subfamily ERIRRHININAE

### Genus PERISTOREUS Kirsch

*Peristoreus* Kirsch, 1877, *Deutsch. Ent. Zeit.*, 21, p. 170.

*Dorytomodes* Marshall, 1926, *Ann. Mag. Nat. Hist.*, (9), 18, pp. 9–10 (*n.syn.*).

In 1926 Marshall erected the genus *Dorytomodes* to accommodate the many species of New Zealand weevils previously referred by Broun to *Dorytomus* and *Erirhinus*, creating *D. aciphyllae* the genotype. *Dorytomodes* is preoccupied by *Peristoreus* and *P. innocens* Kirsch becomes the genotype. Kirsch characterises the genus fully.

*Peristoreus* Kirsch nov. gen. *Storeus* relationship. Rostrum, long, cylindric, thin, curved; scrobes submedian, lateral. Scape of the antennae reaching the eyes, funicle 7-jointed, the two first joints obconic, the first twice as long and thick as the second, the last rounded, subtransverse; club oval, moderately thick. Eyes lateral, small, finely granulate. Thorax transverse, rounded at the sides, base and apex truncate. Scutellum punctiform. Elytra much broader at the base than the thorax, almost parallel, apex rounded. Anterior coxae contiguous; femora dentate; tibiae short, nearly straight, third tarsal joint wider, bilobed; claws dilated at the base. The second abdominal segment separated from the first by a suture curved in the middle, equal to the two following. Body very finely pubescent.

The species has quite the appearance of a *Dorytomus*, but the sutures of the middle abdominal segments are curved at the sides. Following the table given by Pascoe in the *Ann. Mag. of Nat. Hist.*, pf 1873, 182, for the determination of the Storeid genera, one would come to *Xeda*, Pasc., but the species described in the following cannot be placed there because of the long rostrum, the toothed femora, the unscaled body and the differing shape of the thorax and the elytra.

**Peristoreus innocens** Kirsch

*Peristoreus innocens* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 171, 1877; Krone, *Ibid.*, p. 156, 1877; Klima, *Junk Col. Cat.*, pt. 140, p. 146, 1934.

*Eririhinus dracophyllae* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 118, 1909 (*n.syn.*); Hudson, *Ibid.*, p. 61, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 392, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 218, 1934 (*Dorytomodes*); Klima, *Junk Col. Cat.*, pt. 140, p. 28, 1934 (*Dorytomodes*).

It is not necessary to give Kirsch's description of *P. innocens*, as this is sufficiently covered by Broun's account of *Eririhinus dracophyllae*, which gives even more detail. Krone came across the species quite by accident: "Collected only two specimens at the beginning of November 1874, when felling trees at Venus Valley in preparation for the observatory. When *Dracophyllum longifol.* Hook was flowering." Hudson had no difficulty in securing *P. innocens* (*E. dracophyllae*): "This beautiful little weevil was extremely common on the *Dracophyllum*, which was in flower at the time, at Carnley Harbour and Port Ross, 20th. to 27th. November."

### Subfamily Eugnominae

### Genus Pactolotypus Broun

*Pactolotypus* Broun, 1909, *Subant. Ids. N.Z.*, 1, p. 119.

The confusion relating to this insect, caused by Voss, is cleared up by Marshall, who refers to the synonymy by Voss of Broun's *Pactolotypus striatus* with the above species; under the same reference (p. 328), Marshall also places *Pactolotypus* in his key to the New Zealand genera of the Eugnominae. The genus is monotypic.

**Pactolotypus depressirostris** (Kirsch)

*Pactolotypus depressirostris* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 169, 1877 (*Cyttalia*); Krone, *Ibid.*, p. 156, 1877 (*Cyttalia*); Klima, *Junk Col. Cat.*, pt. 140, p. 85, 1934 (*Cyttalia*), Voss, *Arb. morph. tax. Ent.*, 4, pp. 40–42, 1937; Marshall, *Trans. Roy. Soc N.Z*, 67, p. 336, 1938.

*Pactolotypus striatus* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 119, pl. 5, fig. 5, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 394, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 220, 1934; Voss, *Arb. morph. tax. Ent*, 4, pp. 40–42, 1937; Marshall, *Trans. Roy. Soc. N.Z.*, 67, p. 336, 1938.

Krone collected *P. depressirostris* "From the *Veronica* and *Coprosma* bushes in the virgin forest above Venus Valley at Auckland Island. Caught in a butterfly net End of December 1874." In his introductory remarks on the Auckland Island beetles, Hudson makes no reference to this insect, but Broun comments on it and refers in the description to three specimens submitted to him by Hudson. None of these is in the Hudson collection in the Dominion Museum, so should be located in the Broun collection at the British Museum.

### Subfamily Cryptorrhynchinae

### Genus Pachyderris Broun

*Pachyderris* Broun, 1909, *Subant Ids. N.Z.*, 1, p 121

**Pachyderris punctiventris** Broun

*Pachyderris punctiventris* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 121, 1909; Hudson, *Ibid.*, p. 61, 1909; Hudson, *Trans. N.Z. Inst.*, 54, p. 395, 1923; Hudson, *N.Z. Beetles and Larvae*, p 222, 1934; Hustache, *Junk Col. Cat.*, pt. 151, p. 125, 1936.

No comment is required regarding this species, of which only one specimen was obtained by Hudson at Carnley Harbour; the genotype is in the Hudson collection in the Dominion Museum.

### Genus Acalles Schoenherr

*Acalles* Schoenherr, 1852, *Isis* (Oken), p. 586; 1826, *Curc. disp meth.*, p. 295

**Acalles kronii** Kirsch

*Acalles kronii* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 172, 1877; Krone, *Ibid.*, p. 156, 1877; Hustache, *Junk Col. Cat.*, pt. 151, p. 122, 1936.

*Acalles piciventris* Broun, *Subant. Ids. N.Z.*, 1, pp. 82, 120, 1909 (*n.syn.*); Hudson, *Trans. N.Z Inst.*, 54, p. 396, 1923; Hudson, *N.Z. Beetles and Larvae*, p. 223, 1934; Hustache, *Junk Col. Cat.*, pt. 151, p. 123, 1936.

Although Kirsch, when describing features of the thorax of *A. kronii*, makes this statement, "in front of the scutellum slightly crenate," it is hardly possible he would recognise the presence of a scutellum and retain his species in the genus *Acalles* and the statement is more probably incorporated for reference to that part of the thorax, coveniently referred to in that manner. No other reference to a scutellum occurs in the description of *A. kronii*, even when compared by Kirsch with *A. planidorsus* Regarding this character the type of *A. kronii* will need re-examination, for if a scutellum is present the species will probably be placed in *Pachyderris:* it has not been possible to examine *Acalles piciventris* Broun, which may be in the Broun collection in the British Museum.

*A. kronii* was collected "From the grass tufts in the depression to the west and above Venus Valley together with *Omalium subcylindricum* Kiesw., caught in a butterfly net; also from the white flowering Composite shrub at Venus Valley, end of December and beginning of January." *A. piciventris*, which was taken by Hudson at Carnley Harbour, is without doubt a synonym of *A. kronii*.

**Acalles planidorsus** Kirsch

*Acalles planidorsus* Kirsch, *Deutsch. Ent. Zeit.*, 21, p. 172, 1877; Krone, *Ibid.*, p. 156, 1877; Hustache, *Junk Col. Cat.*, pt. 151, p. 123, 1936.

The original description by Kirsch now follows.

*Acalles planidorsus*: Oblong, covered with pale tawny squamulae (densely seriate and erect on the elytra), fuscous, the apical half of the rostrum, antennae, legs and elytra paler, with an oblique obsolete black fascia on the last, behind the middle; rostrum smooth in the middle, with the sides striate-punctate; antennae with the first two joints of the funicle elongated, the following very short, rotundate; thorax with the sides rounded, the base in the middle emarginate, flattened, the disc at the back sub-impressed, densely punctate; elytra not much wider than the thorax, subparallel, punctate-striate; with the femora unarmed. Long 2¼, wide 1 mill.

Differs from the two species of the same size, *pumilus* and *lifuanus* Montrouz., in the sculpture of the thorax and of the elytra. Dark brown, thorax on the back disc and a fairly broad oblique band immediately behind the middle of the elytra, blackish, the apical half of the rostrum, antennae, elytra and legs brownish red; the base of the rostrum, head and thorax fairly densely (the suture still more strikingly densely) covered with oblique, elytra with erect pale bluish yellow little scaly bristles. Rostrum along the middle small and shining, at the sides faintly striate-punctate. Thorax somewhat broader than long, rounded at the sides, in front narrower than at the back, in the middle of the base crenate, flattened on top and on the hind half slightly impressed, densely punctate. Elytra almost twice as long as and little broader than the thorax, behind the middle hardly noticeably broader than at the shoulders, fairly flat on top, deeply punctate-striate, the punctures of the striae much larger than those of the thorax. Legs erect-bristly, femora without tooth.

Of *A. planidorsus* Krone says: "Only one specimen from the grass tufts on the plateau between Krone's creek and Port Ross caught in a butterfly net, January 1875."

### Introduced Species

While it is feasible that some of the introduced species recorded now might have become established as a result of contacts made by whalers and sealers earlier than the advent of the German expedition, it is unlikely that all would have done so. Unfavourable climatic factors and the absence of specialised breeding conditions would preclude survival of those listed except possibly *Necrobia rufipes* Fab. Krone mentions *Dryophthorus tuberculatus* Fab. taken on the "Alexandrine" and states that the species might have been brought either from Melbourne or New Zealand; this is evidently the New Zealand *Mitrastethus bituberculatus* Fab. and as it has not yet been recorded as occurring on the islands, it is excluded in the faunal representation. All the other species concerned are associates of stores of ships of those times, and as the "Alexandrine" must have landed stores in considerable quantity, the species would be present in the vicinity of the camp. Those mentioned by Krone are given, along with his remarks.

### Family TROGOSITIDAE

**Trogosita mauritanica** Linnaeus

"Beside some remains which are found here and there in humus between mosses etc. I collected only one living specimen out of the damp swamp soil of the main highland towards the end of December."

### Family CLERIDAE

**Necrobia rufipes** Fabricius

"At the height of Pig Point between low damp scrub and grass tufts caught in a butterfly net, in January. In this place there was a settlement of N.Z. whale hunters in 1848–50. Animal remains, for instance, dolphin skulls and bones are still lying about between the ruins of some dilapidated huts."

### Family CURCULIONIDAE

**Calandra oryzae** Linnaeus (**Sitophilus**)

"One specimen collected in our house on Auckland Island, probably accidentally introduced from Melbourne with rice husks, which were used as packing for provisions, or with our rice provisions themselves. Nov. 1874."

### Synonymic List of Auckland Island Coleoptera

#### Order COLEOPTERA

#### Family Carabidae

#### Subfamily Migadopinae

1. *Loxomerus nebrioides* (Guer.)
   - ***Pristancylus castaneus*** Blanch.
   - ***Loxomerus ambiguus*** Broun
2. *Loxomerus brevis* (Blanch.)
   - ***Loxomerus cilicollis*** Broun
   - ***Loxomerus fossulatus*** Broun
3. *Loxomerus huttoni* Broun
4. *Calathosoma rubromarginatum* (Blanch.)

#### Subfamily Harpalinae

5. *Oopterus clivinoides* Guer.
   - ***Oopterus guerinii*** Kirsch
   - ***Oopterus tripunctatus*** Broun

6. *Oopterus plicaticollis* Blanch.
   ***Oopterus laticollis*** Kirsch

Family STAPHYLINIDAE
Subfamily ARPEDIOMIMINAE

7. *Arpediomimus kronii* (Kies.)
   ***Omalium longiceps*** Broun

Subfamily OMALIINAE

8. *Omalium insulare* Kies.
9. *Omalium* (*Omaliomimus*?) *pacificum* Kies.
   ***Omaliomimus flavipennis*** Cam.
10. *Omalium subcylindricum* Kies
11. *Omalium albipenne* Kies.
    ***Omalium zealandicum*** Cam.

Subfamily STAPHYLININAE

12. *Creophilus oculatus* (Fabr.)
    ***Staphylinus huttoni*** Broun
13. *Quedius secretus* Cam
14. *Quedius aliiceps* Cam.

Subfamily ALEOCHARINAE

15. *Sipalia antarctica* (Kies.)

Family SILPHIDAE
Subfamily CHOLEVINAE

16. *Paracatops antipodum* (Kirsch)
    ***Catops avivorus*** Broun

Family LATHRIDIIDAE
Subfamily CORTICARIINAE

17. *Melanophthalma globipennis* (Reitt.)

Family COCCINELLIDAE
Subfamily RHIZOBIINAE

18. *Stenococcus aucklandiae* (Kirsch)

Family BYRRHIDAE

19. *Liochoria pedinoides* (Blanch.)
    ***Epichorius aucklandiae*** Kirsch
    ***Liochoria sumptuosa*** Broun
20. *Liochoria longula* Broun

Family HYDROPHILIDAE
Subfamily SPHAERIDIINAE

21. *Namostygnus pictum* (Kirsch)
    ***Namostygnus rufipes*** Broun

Family MALACHIIDAE

22. *Carphurus venustus* Kies.

Family ELATERIDAE
Subfamily ELATERINAE

23. *Geraniella nitidofuscus* (Blanch.)

Family TENEBRIONIDAE
Subfamily ADELIINAE

24. *Pseudhelops tuberculatus* Guer.
    ***Pseudhelops substriatus*** Broun
    ***Pseudhelops nodosus*** Broun

Family CURCULIONIDAE

Subfamily OTIORRHYNCHINAE

25. *Aucklandicus cinereus* (Blanch.)
    *Catodryobius benhami* Broun
    *Catodryobius tetricus* Broun
    *Catodryobius erubescens* Broun
26. *Aucklandicus grandis* Broun
27. *Heterexis laeviusculus* Broun
    *Heterexis sculptipennis* Broun

Subfamily LEPTOPINAE

28. *Inocatoptes incertus* Broun
29. *Steriphus insularis* (Blanch.)
    *Steriphus opacus* Kirsch
    *Hycanus cockaynei* Broun
30. *Steriphus veneris* Kirsch
    *Hycanus frontalis* Broun

Subfamily ERIRRHININAE

31. *Peristoreus innocens* Kirsch
    *Erirhinus diacophyllae* Broun

Subfamily EUGNOMINAE

32. *Pactolotypus depressirostris* (Kirsch)
    *Pactolotypus striatus* Broun

Subfamily CRYPTORRHYNCHINAE

33. *Pachyderris punctiventris* Broun
34. *Acalles kronii* Kirsch
    *Acalles piciventris* Broun
35. *Acalles planidorsus* Kirsch

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