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INSECTS OF CAMPBELL ISLAND.
COLEOPTERA: STAPHYLINIDAE

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The present work records 12 species of Staphylinidae from Campbell Island, 7 of them new to science and represents an increase of 8 on the previous list (Brookes, A. E., 1951, Cape Exped. Series, Bull. 5: 13–14). One species, *Atheta amicula* (Gravenhorst), is a European insect which has been recorded from various parts of the world, including New Zealand, and is obviously introduced. Another, *Arpediomimus kronei* (Kiesenwetter), is known also from the Auckland Islands and New Zealand, 2, *Omaliomimus albipenne* (Kiesenwetter) and *O. venator* (Broun), are found also on the Auckland and Macquarie Islands and one of the new species occurs also on the Auckland Islands. The remaining 7 appear to be restricted to Campbell Island. Nine genera are represented, 4 of them new. "*Atheta politula* Broun" which is included in Brookes' list is discussed below under *Colle campbellensis.*

With the exception of the above mentioned introduced *Atheta*, nothing has been published regarding the previously described species since the original descriptions. Full redescriptions of these are therefore given below in addition to the descriptions of the new taxa. Four of the genera contain only one or two species in addition to those from Campbell Island and descriptions of these are included for comparison.

My best thanks are due to Dr. J. L. Gressitt for the opportunity of examining the material collected by himself and his colleagues, to Mr. G. Ordish for the loan of the Campbell, Auckland and Macquarie Islands material in the Dominion Museum, Wellington, New Zealand and to Dr. R. Hertel (Dresden Museum), Dr. H. Freude (Bayerischen Staatssamlung) and M. G. Fagel (Institut Royal des Sciences naturelles de Belgique) for the loan of Kiesenwetter types.

The types of the new species described here are in the D. S. I. R., Nelson; paratypes in Bishop Museum, my own collection and in most cases also in the British Museum (Nat. Hist.).

The Campbell Island Staphylinidae belong to only 2 subfamilies which may be easily separated as follows:

ADULTS

Antennae inserted under the sides of the front of the head, the insertions not visible from above ..... OMALIINAE
Antennae inserted on vertex, the insertions clearly visible from above ..... ALEOCHARINAE

Larvae

Cercus 1-segmented; head with 0 or 5 ocelli on each side..... Omaliinae
Cercus 2-segmented; head with 1 ocellus on each side..... Aleocharinae

Subfamily Omaliinae

Key to genera (adults)

1. Segment 3 of maxillary palpus swollen, as long as and much broader than 4 (fig. 1d). Small yellowish brown species ca 2 mm long..... **Selonomus***
   Segment 3 of maxillary palpus not swollen, distinctly shorter than 4 and not much broader. Larger species..... 2
2. Head rather strongly produced in front of eyes (fig. 7a)..... **Arpediomimus**
   Head not much produced in front of eyes 3
3. Head without a ridge extending backwards from antennal tubercles, eyes more or less a continuation of dorsal surface of head..... **Omaliomimus**
   Head with a ridge extending backwards from antennal tubercles along inner margins of eyes, these by no means a continuation of dorsal surface..... 4
4. Narrower, more convex species, pronotum at most with very superficial impressions ..... **Allodrepa***
   Broader, more depressed species, pronotum with distinct median and lateral impressions ..... **Nesomalium***

Key to genera (larvae)

1. Front of head rounded (fig. 8e)..... 2
   Front of head notched or toothed in middle 4
2. Tarsal claws normal (fig. 11d)..... **Nesomalium***
   Tarsal claws thickened medially (fig. 8c)..... 3
3. Head less elongate (fig. 8a)..... **Arpediomimus**
   Head more elongate (fig. 4a)..... **Omaliomimus**
4. Antennal segment 2 scarcely longer than 1 (fig. 2f), front of head as fig. 2d, no ocelli..... **Selonomus***
   Antennal segment 2, 2× as long as 1 (fig. 16g), front of head as fig. 16e, 5 ocelli ..... **Allodrepa***

Genus **Selonomus** Steel, n. gen.

Eye small, post ocular region well developed, ocelli absent but "anteocellar" foveae distinct; gular sutures separate, closest just behind level of posterior margin of eye. Antenna with segment 2 subspherical, about as broad as 1, distinctly broader than 3, 6–11 with close, short, fine setae in addition to the sparse, rather long setae which are present on all segments. Labrum slightly emarginate in front, dorsal surface with a few rather long setae, front margin with a fringe of close-set short setae. Mandible short and stout, the right with a small tooth internally not far from apex, the left edentate. Maxilla and labium as fig. 1d.

Pronotum transverse, rather strongly margined at sides and base; side margin single (as seen from the side). Mesosternum with a short median longitudinal keel at base, its process sharp and extending between intermediate coxa for about 1/2 their length, not meeting metasternal process. Wings very short.

Tibiae finely setose. Tarsi, excluding claws, about 1/2 as long as respective tibiae, segments 1–4 very short, apparently fused and separated by sutures, 5 almost 2× as long as 1–4 together; segments 1–4 each with 1 or 2 long setae ventrally.

Type species: *Selonomus linearis* n. sp.

RANGE: at present only known from Campbell Island.

Selonomus differs from all described Omaliine genera in the structure of the maxillary palpus and the tarsi. These latter apparently consist of only 2 movable segments; as far as can be seen, segments 1–4 are separated only by sutures.

Selonomus linearis Steel, n. sp.

Rather depressed, the elytron almost flat. Body, legs and antenna pale or dark brownish yellow. Length: about 2 mm, without abdomen 0.8–0.9 mm. General shape as fig. 1a; in the specimens examined, the pronotum varied from 1.20–1.25× as broad as long and the sutural length of elytra from 0.86–0.97× length of pronotum.

Head not very shining, with a distinct ground sculpture which varies in intensity and is in the form of a polygonal network, with scattered punctures which are a little larger than the meshes of the ground sculpture; eyes very small, each consisting of only about 10 facets; antenna with segment 3 lightly transverse, 4 & 5 shorter than 3, distinctly transverse, 6–10 about equal in length but increasing gradually in breadth, 6 about 2×, 10 about 3×, as broad as long, 11 longer than 10, rounded apically. Pronotum about as shining as head and with similar ground sculpture, with scattered punctures which are a little coarser than those on head; median impressions distinct, sometimes connected. Elytron more shining than head and pronotum, with punctures which are distinctly coarser than those on pronotum and separated, on the average, by about 2× their diameter, surface between punctures indistinctly wrinkled. Abdomen about as shining as elytron, with a ground sculpture which in places is of the same type as on head but in the main is very superficial and incomplete; with scattered punctures which are so fine as to be scarcely visible (at a magnification of ×125). Last abdominal sternite of ♂ similar to *Allodrepa* (fig. 17e). Aedeagus as fig. 1 b, c, widened apical portion of each paramere membranous.

Larva: Head, thoracic and abdominal tergites and sternites, mouthparts, cercus and legs pale yellowish brown. Of the same general shape as *Arpediomimus* (fig. 8a) but head and pronotum as fig. 2a with ocelli absent, front of head as fig. 2d, antenna as fig. 2f, mandible as fig. 2 b, c, maxilla as fig. 2g, cercus as fig. 2e, and tarsal claws simple.

CAMPBELL I.: Perseverance Harbor, Lookout Bay, 3.II.1963, leaf mold under tussock (type locality); Monument Harbor, 19. I. 1963, tussock nr. beach; Moubray Hill, 6. II. 1963, low plants nr. summit; Tucker Cove, 26. II. 1963, leaf mold under tussock, 28. II. 1963, under stone; all collected by K. A. J. Wise. St. Col Ridge, 160–280 m, 9.XII.1961, moss on rock; Mt. Azimuth, 30. XI. 1961, moss; Courrejolles Peninsula, 200 m, 14. XII. 1961, *Colobanthus*; all collected by J. L. Gressitt.

This species can easily be recognized by its small size, narrow linear form, small eyes

and the absence of ocelli. The larva is characterised by the lack of ocelli, the structure of the maxilla and the shape of the front of the head.

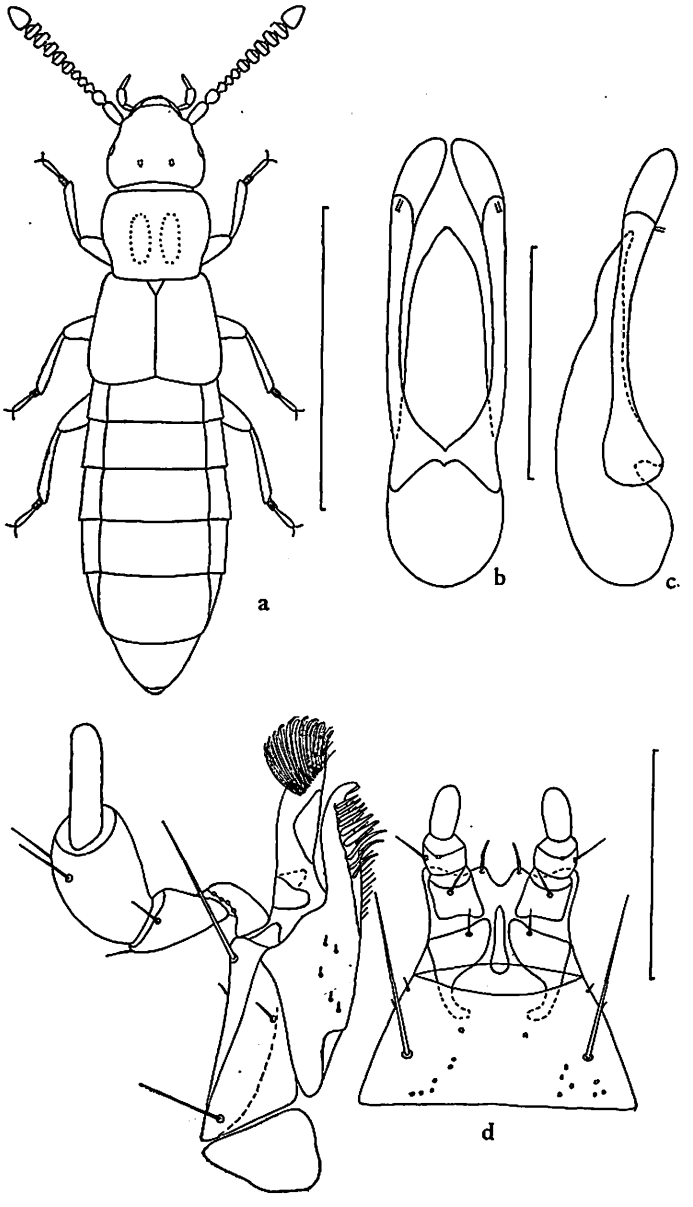

Fig. 1. *Selonomus linearis* n. sp. a, whole insect, scale=1 mm; b, aedeagus, ventral view, scale=0.2 mm; c, aedeagus, lateral view, same scale as b; d, maxilla and labium, scale=0.1 mm.

Genus **Omaliomimus** Jeannel

Omaliomimus Jeannel, 1940, Mém. Mus. Natl. Hist. Nat., Paris **14**: 117.

Head lightly convex between eyes which are more or less a continuation of the dorsal surface, frontal impressions narrow and weak, eyes moderate or rather large, the post ocular region variable, ocelli and anteocellar foveae distinct, antennal tubercles small; gular sutures separate. Antennal segment 2 narrower than 1, shorter than and about as broad as 3, 6–11 with close short fine setae in addition to the sparse rather long setae pre-

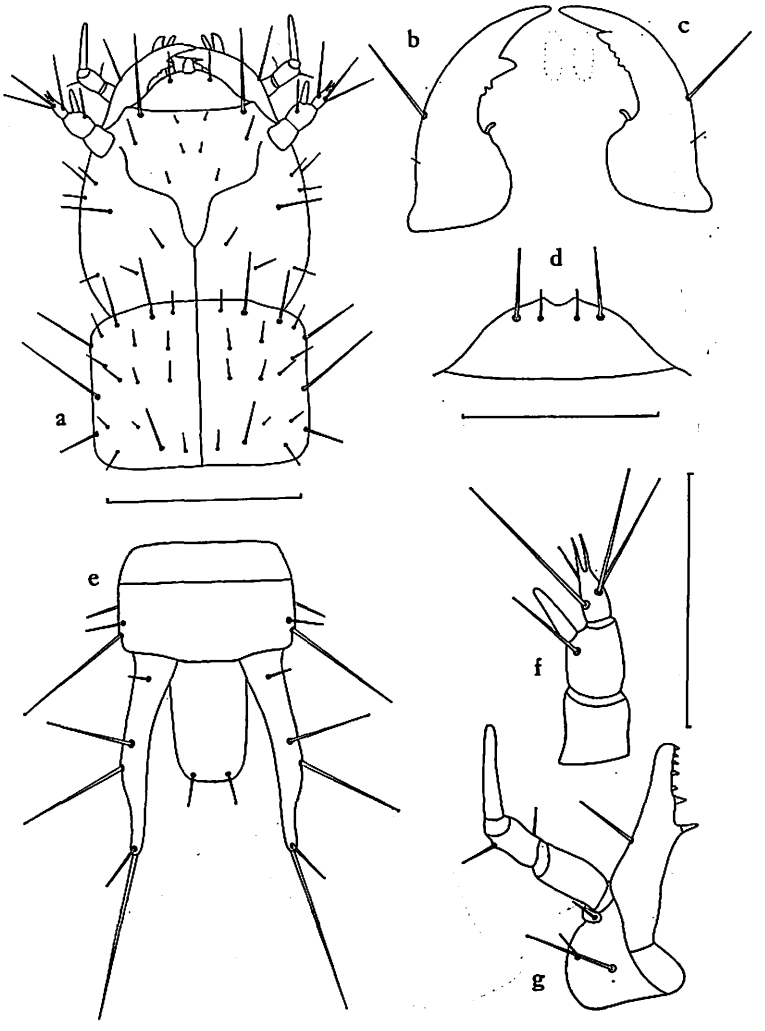

Fig. 2. *Selonomus linearis* n. sp., larva. a, head and pronotum, scale= 0.2 mm; b, left mandible, same scale as d; c, right mandible, same scale as d; d, front of head, scale=0.1 mm; e, apex of abdomen, same scale as a; f, antenna, scale=0.1 mm; g, maxilla, same scale as d.

sent on all segments. Labrum rather strongly emarginate in front, the upper surface with a few rather long setae, the anterior portion membranous and with a close fringe of short fine setae some of which are frayed. Mandible short and stout, the right with a small tooth internally not far from apex, the left edentate. Maxilla and labium as *Arpediomimus* (fig. 7f).

Pronotum transverse, convex or somewhat flattened, median impressions variable, sometimes very superficial, lateral impressions very superficial or absent; sides rounded or slightly emarginate on posterior 1/2. Mesosternum with or without an indistinct median longitudinal keel, its process narrow and pointed, extending backwards between the intermediate coxae for about 2/3 their length where it meets the metasternal process. Elytron and wing variable.

Abdomen with tergites of at least segments 4–6 closely punctured and pubescent, usually with an impunctate longitudinal median line, the pubescence rather long and directed obliquely inwards.

Tarsi somewhat variable in length, excluding claws 1/2 or less than 1/2 as long as the respective tibiae, segments 1, 3, & 4 short and about equal in length, 2 shorter than 1 and apparently partially fused to this, 5 varying from about 1.25 to about 1.5× as long as the 4 preceding together, according to the species; segments 1–4 densely setose beneath.

Type species: *Omalium litoreum* Broun.

RANGE: New Zealand, Campbell, Auckland and Macquarie Islands.

In the original description of this genus, Jeannel (*l. c.*) notes that it differs from *Omalium* Gravenhorst only in the structure of the aedeagus. It is, however, quite distinct from *Omalium* in a number of other characters, such as the absence of ridges on the head, the structure of the maxillary palpus, the not or only weakly carinate mesosternum, the structure and vestiture of the tarsi, the form of the last abdominal sternite of the ♂ and the absence of an accessory sclerite in the ♀. The larva is easily separable from that of *Omalium* by the absence of any teeth on the front of the head.

Omaliomimus is closely allied to *Antarctotachinus* Enderlein from the Crozet Islands but the two genera show minor differences in structure, particularly of the head and tarsi. *Antarctotachinus* also has no trace of the conspicuous abdominal pubescence of *Omaliomimus* and its habits are apparently quite different.

Besides the two species from Campbell Island, *Omaliomimus* contains a further four or five species from New Zealand which are not dealt with here. All the species appear to be associated with the seashore.

KEY TO CAMPBELL I. SPECIES OF OMALIOMIMUS

Eye moderate in size, temples well marked (fig. 3a) ..... **venator**
Eye large, temples virtually absent (fig. 5a) ..... **albipenne**

Omaliomimus venator (Broun)

Omalium venator Broun, 1909, Subantarct. Is. N. Zeal. 1: 98.

Rather depressed, not very shining. Body dark brown to almost black, apex of abdomen and sometimes also elytron lighter. Antennal segments 1–5 yellowish brown, remainder dark brown to black. Legs yellowish brown. Length: about 3 mm, without abdomen 1.9–

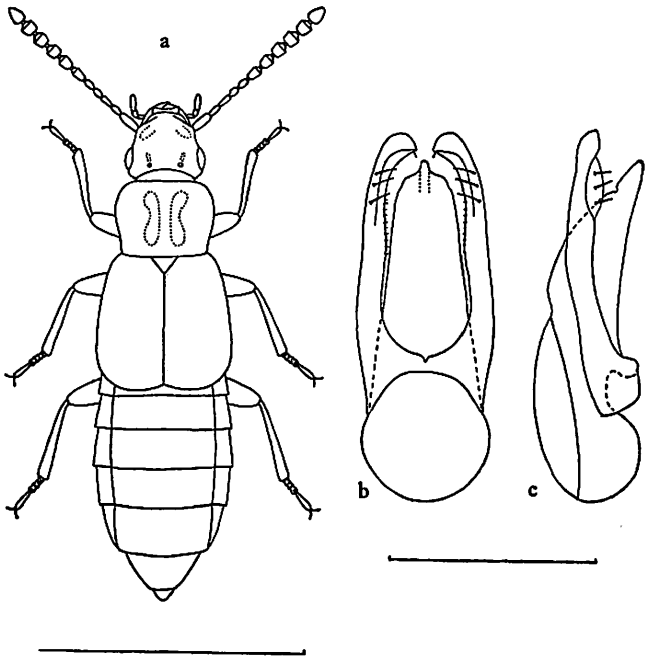

Fig. 3. *Omaliomimus venator* (Broun). a, whole insect, scale = 2 mm; b, aedeagus, ventral view, scale = 0.5 mm; c, aedeagus lateral view, same scale as b.

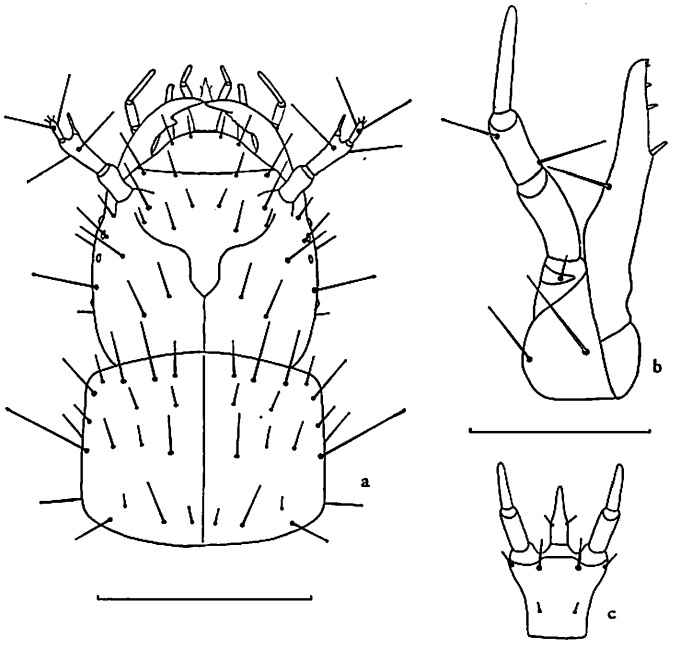

Fig. 4. *Omaliomimus venator* (Broun), larva. a, head and pronotum, scale=0.5 mm; b, maxilla, scale=0.2 mm; c, labium, same scale as b.

2.3 mm. General shape as fig. 3a, in the specimens examined, the pronotum varied from 1.23–1.32× as broad as long and the sutural length of the elytron from 1.42–1.55× length of pronotum.

Head with a well marked ground sculpture which is always in the form of a more or less regular polygonal network and is sometimes weaker between the anteocellar foveae; with a few very fine punctures; antenna similar to those of *albipenne* but with segments 6–10 less transverse, 10 only about 1.5× as broad as long. Pronotum with median impressions well marked and moderately deep, ground sculpture as on head, strong except between impressions where it is weaker or absent; with scattered very fine punctures. Elytron with ground sculpture similar to that on head and pronotum but varying greatly in strength in different examples, sometimes very weak; with fine shallow punctures which vary in density and/or indistinct longitudinal wrinkles. Abdomen with tergites 3–6 as in *albipenne*, 7–8 almost impunctate. Last tarsal segment shorter than in *albipenne*. Aedeagus as fig. 3 b, c.

Larva: Head, thoracic and abdominal tergites and sternites, mouthparts, cercus and legs yellowish brown to dark brown. Very similar to *Arpediomimus* (fig. 8a) but with head more elongate (fig. 4a), maxilla relatively broader (fig. 4b) and the 2 segments of the labial palpus subequal in length (fig. 4c).

Previously known only from Campbell I. but here recorded from the Auckland Is. and Macquarie I. Abundant at times under rotting seaweed on the shore. Specimens have been seen from Rocky Bay, Perseverance Harbor, Lookout Bay, Monument Harbor, Venus Cove, Tucker Cove, Northwest Bay and Shoal Point.

This species differs from all others in the genus in the well developed temples.

Omaliomimus albipenne (Kiesenwetter)

Omalium albipenne Kies., 1877, Dtsch. Ent. Zschr. **21**: 162.
Omalium variipenne Lea, 1920, Sci. Rep. Austral. Antarct. Exped. **8**: 30.
Omaliomimus flavipennis Cameron, 1947, Ann. Mag. Nat. Hist. ser. 11, **14**: 723. **New Synonymy.**

Slightly convex, moderately shining. Head black or almost black, pronotum reddish brown to black, elytron varying from entirely black to entirely yellow, the commonest forms are those with the elytron black with a larger or smaller more or less semicircular yellow patch on each, abdomen varying from entirely reddish brown to black with apex paler. Antenna with segments 1–5 yellowish brown, remainder darker. Legs reddish brown. Length: about 3.5 mm, without abdomen 2–2.5 mm. General shape as fig. 5a, in the specimens examined, the pronotum varied from 1.32–1.43× as broad as long and the sutural length of the elytron from 1.55–1.70× length of pronotum.

Head with ground sculpture very variable in strength, development and extent, usually distinct in the frontal impressions where it forms a more or less regular polygonal network, elsewhere weaker and less developed, sometimes almost completely absent; with a few fine punctures which are weak and indistinct; antenna with the last 6 segments forming a more or less well differentiated club, segment 6 not much broader than long, 10 about 2× as broad as long. Pronotum with median impressions variable, sometimes almost absent and never very deep, lateral impressions absent; ground sculpture very variable, usually distinct and forming a network in median impressions and at sides, elsewhere less developed or absent; on each side of middle with scattered fine punctures of different sizes. Elytral

sculpture very variable, consisting of fine punctures of different sizes which vary in density and are sometimes entirely or partly replaced by irregular, more or less longitudinal, wrinkles. Tergites of abdomen with ground sculpture varying in strength but forming a network over entire surface, those of segments 3–6 closely punctured and pubescent on each side of an impunctate mid line, the punctures coarser and stronger than those on front parts, tergites of segments 7–8 much less closely punctured. Aedeagus as fig. 5 b, c.

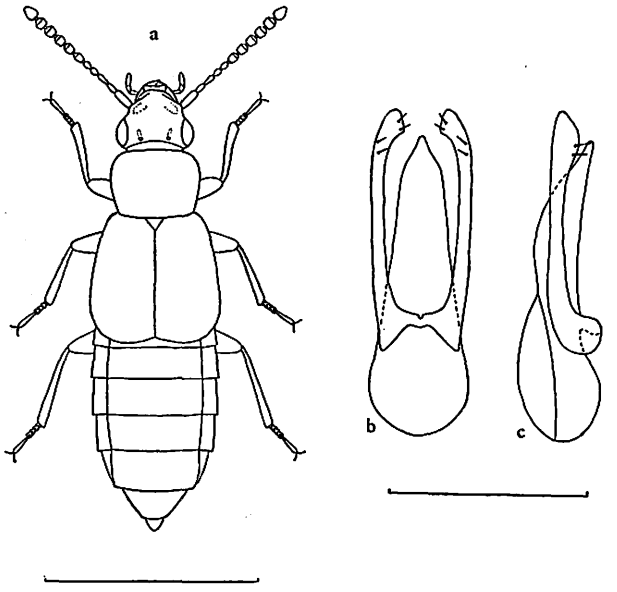

Fig. 5. *Omaliomimus albipenne* (Kiesenwetter). a, whole insect, scale = 2 mm; b, aedeagus, ventral view, scale = 0.5 mm; c, aedeagus, lateral view, same scale as b.

This species was previously known from the Auckland Is. (type locality) and Macquarie I. and is here recorded from Campbell I. It occurs under decaying seaweed etc. on the shore sometimes in numbers, but on Campbell I. appears to be less common than *O. venator* with which it is often found. Specimens have been seen from Monument Harbor, Northwest Bay and Middle Bay.

As can be seen from the description, *O. albipenne* is very variable in color and sculpture. It can, however, be easily separated from the other Campbell I. Omaliinae by the shape of the head and differs from New Zealand *Omaliomimus* spp. with a similarly shaped head by the short elytron and vestigial wings.

No larvae of this species were identified amongst the material examined. Gourlay (1950, Trans. Roy. Soc. N. Zeal. **78**: 183, 184) erroneously quotes *flavipennis* Cameron as a synonym of *Nesomalium pacificum*, and *zealandicum* Cam. as a synonym of *albipenne*.

Genus **Arpediomimus** Cameron

Arpediopsis Cam., 1917, Ent. Mon. Mag. **53**: 124 (*nec* Ganglbauer, 1895).
Arpediomimus Cam., 1917, *op. cit.*, 277.

Structurally similar to *Omaliomimus* but with the head noticeably produced in front of eyes, antennal tubercles extending backwards a short distance beyond antennal fossa in the form of a sharp keel visible from the side; ocelli present or absent. Mesosternum, abdominal puncturation and last sternite of ♂ variable (see species descriptions). Maxilla and labium as fig. 7b, the palpi somewhat variable, cf. fig. 6f. Ground sculpture in the form of a more or less regular polygonal network. Wings vestigial.

Type species: *Arpediopsis falklandicus* Cameron.

RANGE: Falkland Is., South Georgia, Auckland, Macquarie and Campbell Is., New Zealand (S. Island).

Arpediomimus is very close to *Omaliomimus* and the species have similar habits, being associated with seaweed etc. on the seashore. It can, however, be easily recognized by the shape of the head and contains only one species in addition to that occurring on Campbell I. The two species have not previously been compared so both are described below.

In the original description, Cameron stated that the tarsi were only 4-segmented and used this, together with the lack of ocelli in the type species, as the basis for a new tribe, Arpediomimini. Jeannel (1940, Mém. Mus. Natl. Hist. Nat., Paris **14**: 117) pointed out that 5 tarsal segments can, in fact, be recognized and this is confirmed here. The first two, however, may not be separately movable.

KEY TO THE KNOWN SPECIES OF ARPEDIOMIMUS

Ocelli absent..... **falklandicus**
Ocelli distinct..... **kronei**

Arpediomimus falklandicus (Cameron)

Arpediopsis falklandicus Cam., 1917, Ent. Mon. Mag. **53**: 124.

Rather depressed. Body yellowish brown, head and abdomen, except apex, often darker than pronotum and elytron. Legs and antenna yellowish brown, the latter sometimes darker apically. Length: 4.5–5 mm, without abdomen 2–2.5 mm. General shape as fig. 6a; in the specimens examined, the pronotum varied from 1.22–1.31× as broad as long and the sutural length of the elytron from 1.02–1.14× length of pronotum.

Head moderately shining, ocelli absent, on each side with a rounded black fovea in the position of the normal anteocellar fovea; ground sculpture not very strong but distinct except between the foveae and on clypeus; impunctate or with a few weak punctures on each side which are much larger than meshes of ground sculpture; antenna with segment 6 conical, longer than broad, 10 less than 1.5× as broad as long. Pronotum with median impressions distinct, the lateral very superficial; ground sculpture strong except between the impressions where it is sometimes absent so that there are 3 shining longitudinal ridges; impressions with a few weak punctures that are much larger than the meshes of the ground sculpture. Mesosternal and metasternal processes very short (fig. 6d). Elytron with scattered weak punctures similar in size to those on pronotum but still weaker, sometimes scarcely visible, the surface between the punctures varying from smooth and shining to distinctly wrinkled, the wrinkles mainly longitudinal; occasionally with ground sculpture at extreme base. Abdomen with well marked ground sculpture, the tergites impunctate along the midline, on each side with distinct setiferous punctures which are not much finer than those on pronotum, on the tergite of the 3rd segment they are separated by scarcely more than their diameter but become gradually more diffuse on the following tergites. Intermediate trochanters toothed in ♂ (fig. 6d), simple in ♀. Aedeagus as fig. 6 b, c the parameres with a few fine setae and numerous spherical granules apically, last sternite of ♂ as fig. 6e.

FALKLAND IS.: Port Stanley, M. Cameron (type locality). Carcass I., 6. I. 1954, R. Banks.

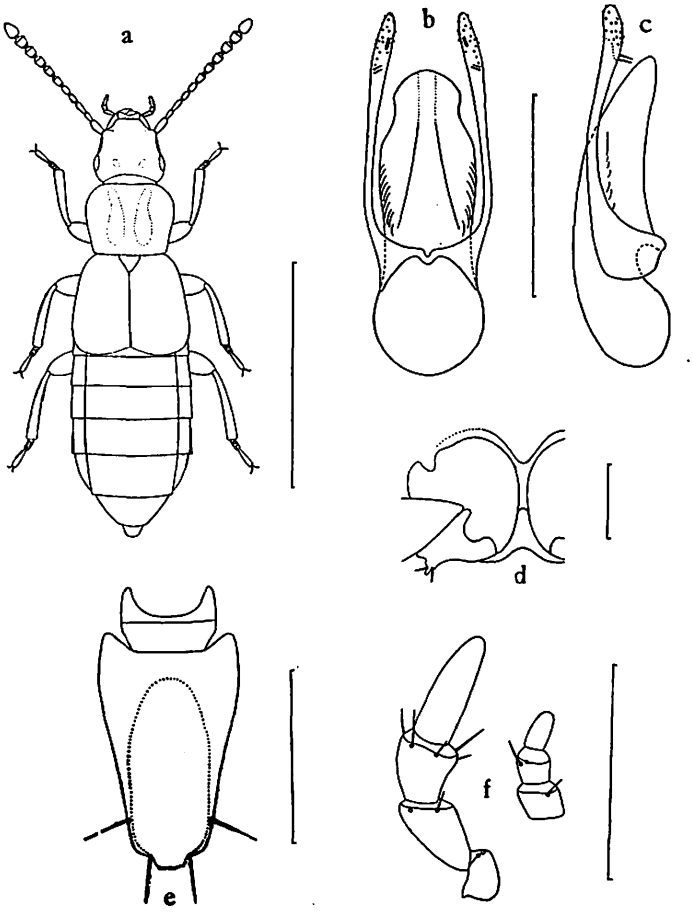

Fig. 6. *Arpediomimus falklandicus* (Cameron). a, whole insect, scale=2 mm; b, aedeagus, ventral view, scale=0.5 mm; c, aedeagus, lateral view, same scale as b; d, intermediate coxae, meso- and metasternal processes of ♂, scale = 0.2 mm; e, last abdominal sternite of ♂, scale=0.5 mm; f, maxillary and labial palpi, scale=0.2 mm.

SOUTH GEORGIA: Bird I., 8. I. 1958, W. N. Bonner.

This species has not previously been recorded from outside the Falkland Is.

Arpediomimus kronei (Kiesenwetter)

Omalium kronei Kies., 1877, Dtsch. Ent. Z. **21**: 161.
Omalium longiceps Broun, 1914, Bull. N. Z. Inst. **1**: 89.

Rather depressed. Body dark brown, apex of elytron and sometimes also head and pronotum paler. Legs and antennal segments 1–5 yellowish brown, remainder of antenna

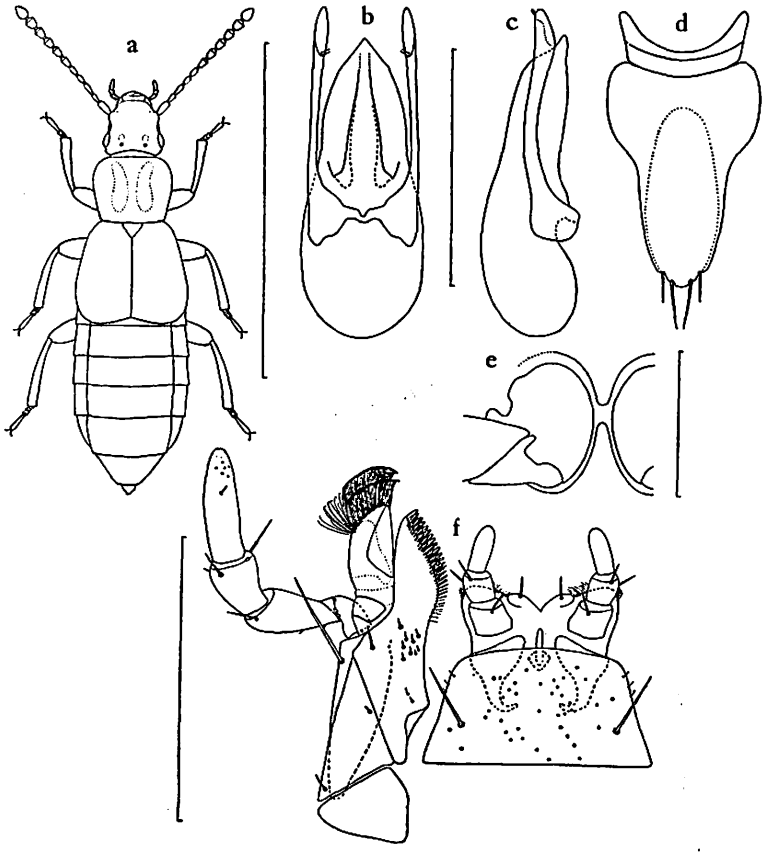

Fig. 7. *Arpediomimus kronei* (Kiesenwetter). a, whole insect, scale=5 mm; b, aedeagus, ventral view, scale=1 mm; c, aedeagus, lateral view, same scale as b; d, last abdominal sternite of ♂, scale=0.5 mm; e, intermediate coxae, meso- and metasternal processes of ♂, scale=0.5 mm; f, maxilla and labium, scale =0.5 mm.

darker. Length: 5–8 mm, without abdomen 3–4 mm. General shape as fig. 7a, in the specimens examined, the pronotum varied from 1.17–1.19× as broad as long and the sutural length of the elytron from 1.18–1.24× length of pronotum.

Head not very shining, ocelli distinct, anteocellar foveae rounded; ground sculpture distinct, sometimes less marked on clypeus and in front of anteocellar foveae; each side of middle with scattered fine punctures which vary in size from scarcely larger than to about 2× width of the meshes of the ground sculpture; antenna with segment 6 conical, longer than broad, 10 about 1.5× as broad as long. Pronotum on each side of middle with a distinct but not very deep longitudinal impression, lateral impressions absent; ground sculpture as on head, much weaker between and external to the median impressions so that the surface there is rather shining; each side of middle with scattered fine punctures similar to those on head. Meso- and metasternal processes as fig. 7e. Elytron rather dull,

the surface longitudinally wrinkled and with a strong ground sculpture which is much less regular than that on pronotum; with not very close punctures similar in size to those on pronotum but often indistinct. Abdomen about as shining as elytron, with a strong ground sculpture of the same type as on pronotum; tergites of segments 3–7 each with 3–4 large setiferous punctures on each side, which form 2 longitudinal rows on abdomen, and with scattered very fine punctures which are at most as large as the meshes of the ground sculpture. Intermediate trochanters simple in both sexes. Aedeagus as fig. 7 b, c, parameres with close, very short pubescence apically (beyond dotted line in fig. 7c), sternite of last abdominal segment of ♂ as fig. 7d.

Larva: Head, thoracic and abdominal tergites and sternites, mouthparts, cercus and legs dark brown. General shape as fig. 8a, front of head as fig. 8e, antenna as fig. 8d, mandible as fig. 9 b, c, position of ocelli as fig. 8b, maxilla and labium as fig. 9a, tarsal claws modified, fig. 8c.

Originally described from the Auckland Is. (*kronei*) and South Island, New Zealand (*longi-*

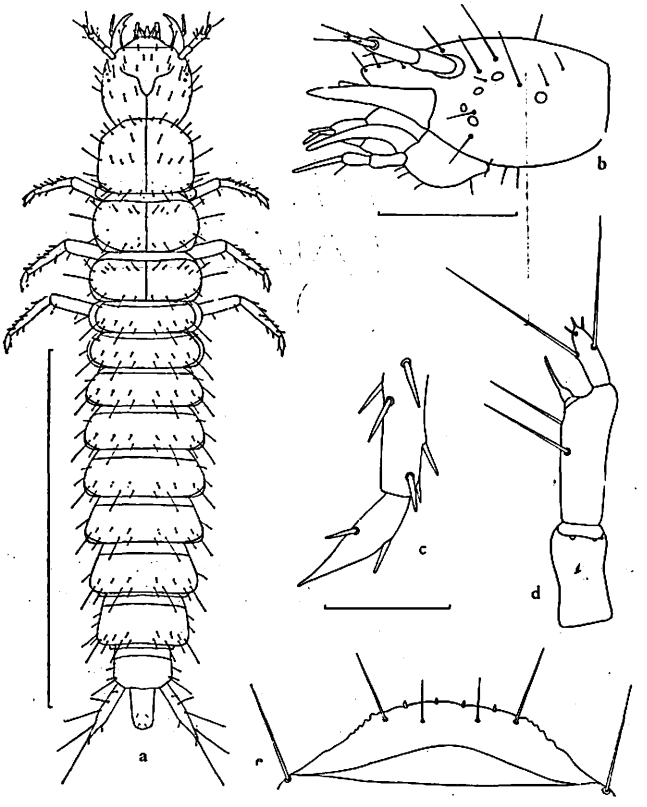

Fig. 8. *Arpediomimus kronei* (Kiesenwetter), larva. a, whole insect, scale=0.5 mm; b, side of head; c, tarsal claw, scale=0.2 mm; d, antenna, same scale as c; e, front of head, same scale as c.

ceps), here recorded for the first time from Campbell I. The original Auckland Is. specimen was collected by Krone away from the coast but would appear to have been a 'straggler'; several further specimens have been seen from the Auckland Is., all from the shore. The New Zealand specimens known up to now were all collected by Philpott and are labelled 'Lake Hakapoua'. It is, however, known (*teste* Gourlay, *l. c.*: 183) that Philpott collected on the sea coast on the way to Lake Hakapoua as well as at the lake itself. The association of these specimens is therefore not known.

A large number of specimens have been seen from Campbell Island, all from the seashore, from Rocky Bay, Beeman Beach, Northwest Bay, Lookout Bay, Monument Harbor and Venus Bay.

A. kronei is easily separated from *falklandicus* by the distinct ocelli, the less transverse pronotum, the longer elytron, the structure of the mesosternum, the puncturation, particularly of the abdomen, the structure of the aedeagus and the shape of the last abdominal sternite of the ♂.

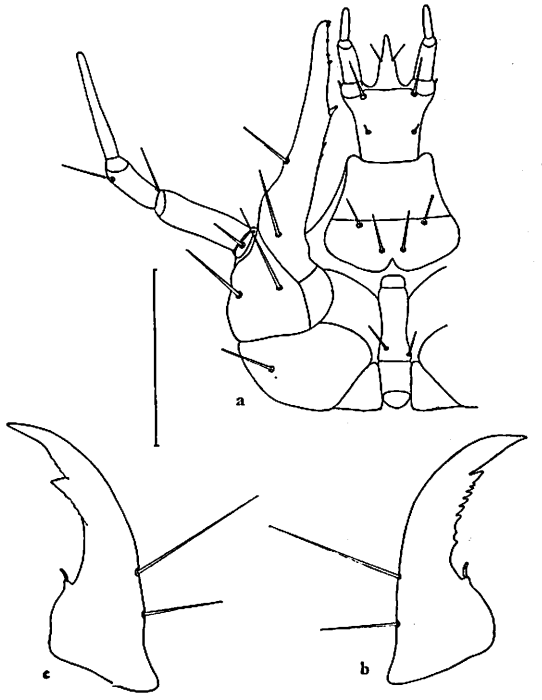

Fig. 9. *Arpediomimus kronei* (Kiesenwetter), larva. a, maxilla and labium, scale=0.3 mm; b, left mandible, same scale as a; c, right mandible, same scale as a.

Genus **Nesomalium** Steel, n. gen.

Structurally similar to *Omaliomimus* but each side of head with a more or less distinct ridge which includes the antennal tubercles and extends from above the base of the mandible at least to the level of the eye and sometimes almost to the base of the head, the sides of the head therefore vertical or almost vertical above the eyes which are in no way a continuation of the dorsal surface; frontal impressions distinct, broad and rather deep, sometimes extending backwards almost as far as ocelli. Antenna with segment 6 distinctly broader than 5, the last 6 segments forming a more or less well differentiated club.

Pronotum transverse, the sides scarcely to strongly emarginate on posterior 1/2, median and lateral impressions distinct, rather deep. Mesosternum with or without a basal keel. Wings variable.

Puncturation of abdominal tergites very fine on each side of an impunctate midline, the pubescence much shorter and finer than in *Omaliomimus*. Last abdominal sternite of ♂ variable. Tarsi variable.

Labium (fig. 13c) and maxillary palpus (fig. 13b) similar to *Omaliomimus*.

Ground sculpture in the form of a more or less regular polygonal network, the network is less developed when the sculpture is very weak.

Type species: *Nesomalium campbellensis* n. sp.

RANGE: At present known only from Campbell I. and the Auckland Is.

Although similar structurally, the species of *Nesomalium* are quite different from *Omaliomimus* in general appearance (cf. *e. g.* figs. 3a, 10a). At present, four species are known which can be separated into two distinct species groups, each of which contains one species from Campbell I. and one from the Auckland Is. These groups differ in the size of the frontal impressions of the head, the shape of the pronotum, the condition of the mesosternum, the structure of the tarsi, the form of the last abdominal sternite of the ♂ and the form of the aedeagus. The four species are all described below.

KEY TO THE KNOWN SPECIES OF NESOMALIUM

1. Sides of pronotum only slightly emarginate on posterior 1/2 (fig. 10a) 2
   Sides of pronotum strongly emarginate on posterior 1/2 (fig. 13a) 3
2. Campbell I. species. Tergite of abdominal segment 4 without a small closely punctulate and pubescent patch on each side of midline..... **campbellensis**
   Auckland Is. species. Tergites of abdominal segment 4 with a closely punctulate and pubescent patch on each side of midline..... **pacificum**
3. Campbell I. species. Elytron shorter, sutural length 1.09–1.20× as long as pronotum. Size smaller, about 3 mm..... **imitator**
   Auckland Is. species. Elytron longer, sutural length 1.22–1.28× as long as pronotum. Size larger, about 4 mm ..... **insulare**

Nesomalium campbellensis Steel, n. sp.

Not very convex, head, pronotum and elytron shining, abdomen less shining. Body dark brown to black, margins of pronotum, sides and apex of elytron narrowly paler, humerus and apex of abdomen also pale. Antenna with segments 1–5 pale or dark brown, the remainder black or almost black. Legs pale or dark yellowish brown. Length: 3–5 mm, without abdomen 1.8–2.6 mm. General shape as fig. 10a, in the specimens examined, the pronotum varied from 1.28–1.43× as broad as long and sutural length of elytron from 1.19–1.38× length of pronotum.

Head with post ocular region broadly or rather sharply rounded to neck, frontal impressions long, often extending backwards as far as ocellus, lateral ridges distinct, usually traceable nearly to base of head; frontal impressions varying from closely, almost rugosely punctured to very sparsely punctured, the punctures fine and strong, area between the impressions always less closely punctured, sometimes almost impunctate; ground sculpture varying from almost absent to distinct, though not very strong, over almost the entire surface; antenna with segment 6 scarcely broader than long, 10 about 1.33× as broad as long. Pronotum with median impressions distinct and rather deep but variable in length, sometimes evanescent on anterior 1/3, lateral impressions distinct; punctures similar to those on head, varying in density, separated in closely punctured specimens by little more than their diameter, in sparsely punctured examples by much more; ground sculpture usually distinct in impressions though sometimes absent, weak or absent elsewhere. Mesosternum

not keeled. Sculpture of elytron very variable, consisting basically of punctures similar to those on pronotum arranged in irregular longitudinal rows; on the disc these punctures tend to form longitudinal wrinkles and are sometimes almost completely obscured; ground sculpture absent or indistinct. Wings vestigial. Abdomen with strong ground sculpture, finely and moderately closely punctured and pubescent, the punctures much finer and weaker than on front parts. Last tarsal segment about 1.5× as long as the preceding 4 together. Aedeagus as fig. 10b–d, last sternite of ♂ as *pacificum*, fig. 12d.

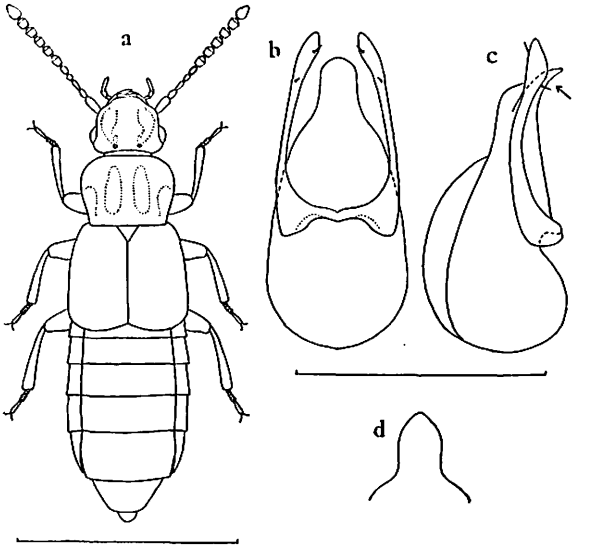

Fig. 10. *Nesomalium campbellensis* n. sp. a, whole insect, scale=2 mm; b, aedeagus, ventral view, scale =1 mm; c, aedeagus, lateral view, same scale as b; d, apex of median lobe of aedeagus viewed from direction of arrow in c, same scale as b.

Larva: Head, thoracic and abdominal tergites and sternites, mouthparts, cercus and legs dark brown. Very similar to *Arpediomimus* (fig. 8a) with the head (fig. 11a) of the same shape. The maxilla is however, rather more curved (fig. 11b), the 2 segments of the labial palpus subequal in length (fig. 11c) and the tarsal claws (fig. 11d) are simple.

CAMPBELL I.: Common and

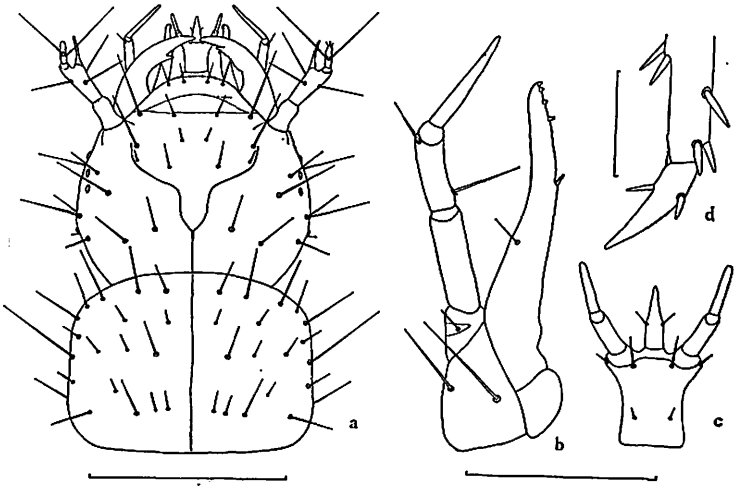

Fig. 11. *Nesomalium campbellensis* n. sp., larva. a, head and pronotum, scale=0.5 mm: b, maxilla, scale=0.2 mm; c, labium, same scale as b; d, tarsal claw, scale=0.1 mm.

widespread in a variety of situations, in carrion, birds' nests, penguin colonies, in litter, under stones and occasionally under seaweed on the shore. The type is from Moubray Hill, 200 m, 3. I. 1963, under dead Royal Albatross, K. Rennell. A large number of specimens were also seen from Rocky Bay, Courrejolles Peninsula, Mt. Lyall Ridge, St. Col, Mt. Azimuth, Beeman Camp, Venus Bay, Lookout Bay, Shoal Point, Northwest Bay and Tucker Cove.

All the examples seen from Courrejolles Peninsula, including one collected by Sorensen in 1947, are very small. Only one or two similar specimens have been seen from other parts of the island and these were associated with larger examples. The smallest specimens

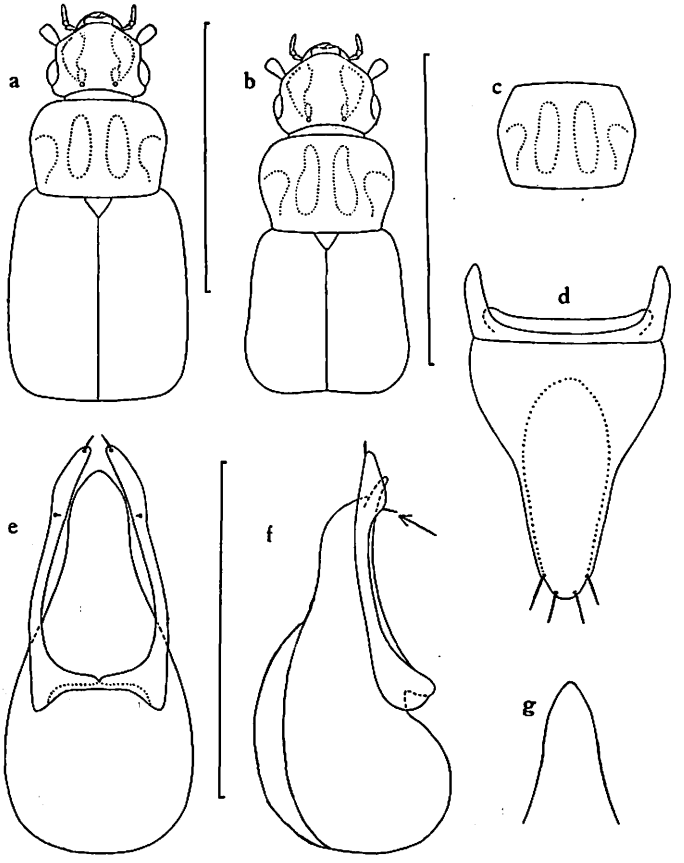

Fig. 12. *Nesomalium pacificum* (Kiesenwetter). a, head, pronotum and elytra of long winged form, scale=2 mm; b, head, pronotum and elytra of short winged form, scale=2 mm; c, pronotum, to show variation in shape, same scale as b; d, last abdominal sternite of ♂, same scale as e; e, aedeagus, ventral view, scale=1 mm; f, aedeagus, lateral view, same scale as e; g, apex of median lobe of aedeagus viewed from direction of arrow in f, same scale as e.

have the front parts very sparsely punctured and virtually no ground sculpture, and the antenna relatively short with segment 3 scarcely longer than 2.

Nesomalium pacificum (Kiesenwetter)

Omalium pacificum Kies., 1877, Dtsch. Ent. Z. **21**: 164.
Omalium zealandicum Cameron, 1947, Ann. Mag. Nat. Hist. ser. 11, **14**: 723. **New Synonymy.**

This species is so close to the preceding that a full description is unnecessary. The color and size range are the same, as is the sculpture except that the punctures on the front parts are, on the average, rather closer and those on the elytron are more distinct. The elytron is, however, longer and the aedeagus different.

There are two distinct forms, a long winged and a short winged, the latter being apparently much the commoner; of the 27 specimens examined only 4 are long winged. The general shape of the two forms is shown in fig. 12 a, b and a variation in the form of the pronotum in fig. 12c. The head varies in both forms between the extremes shown, as does the pronotum. In the examples examined, the pronotum varied from 1.3–1.4× as broad as long in both forms, the sutural length of the elytron varied from 1.86–1.95× length of the pronotum in the long winged form and from 1.43–1.54× this length in the short winged form. In all the specimens, the tergite of abdominal segment 4 has a small grayish, closely punctulate and pubescent patch on each side of middle. Aedeagus as fig. 12e–g, last abdominal sternite of ♂ as fig. 12d.

AUCKLAND IS.: Widespread in similar habitats to the preceding species. Described from main island and Enderby I., specimens have also been seen from Ocean, Ewing and Rose Is.

Gourlay (*loc. cit.*) confused the synonymy of this species and *Omaliomimus albipenne*, see above under *O. albipenne*.

Nesomalium insulare (Kiesenwetter)

Omalium insulare Kies., 1877, Dtsch. Ent. Z. **21**: 163.

Rather depressed, shining. Body pale or dark reddish brown with clypeal area of head darker. Antenna reddish brown, the last 6 segments scarcely darker than the remainder. Legs reddish brown. Length: about 4 mm, without abdomen 2.4–2.5 mm. General shape as fig. 13a; in the specimens examined, the pronotum varied from 1.35–1.38× as broad as long and the sutural length of the elytron from 1.22–1.28× length of pronotum.

Head with frontal impressions rather broad but short, extending only to level of anterior margin of eye, lateral ridges rounded, distinct to about level of middle of eye; rather sparsely punctured along midline, closely punctured elsewhere with punctures moderately fine and rather strong and separated, on the average, by less than their diameter; ground sculpture more or less distinct behind eyes, weak or absent elsewhere; antenna as in *campbellensis*. Pronotum with median impressions distinct and rather deep, sometimes meeting in front and behind, lateral impressions distinct; punctures similar to those on head and normally separated by less than their diameter, sometimes rugose in impressions; ground sculpture absent except along margins. Mesosternum with a distinct median longitudinal keel on basal 1/2. Elytron with punctures which are coarser and somewhat less strong than those on pronotum and arranged in irregular longitudinal rows, the inner 4–5 of which

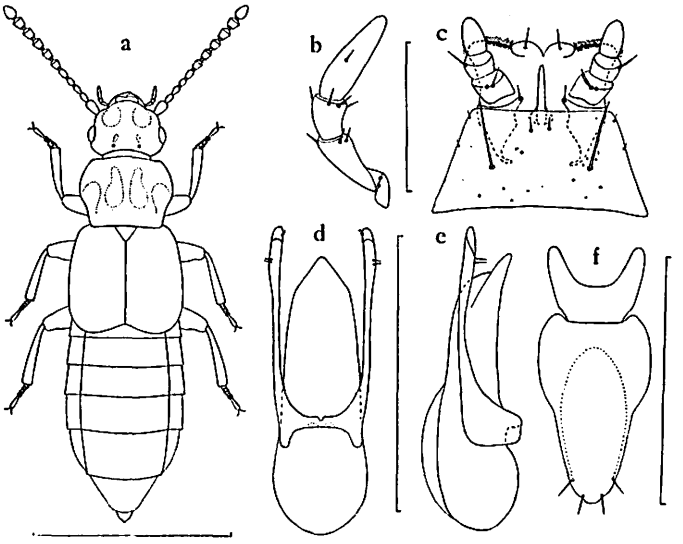

Fig. 13. *Nesomalium insulare* (Kiesenwetter). a, whole insect, scale=2 mm; b, maxillary palpus, scale=0.2 mm; c, labium, same scale as b; d, aedeagus, ventral view, scale=1 mm; e, aedeagus, lateral view, same scale as d; f, last abdominal sternite of ♂, scale=1 mm.

are impressed, the punctures in the rows separated by distinctly less than their diameters; elytron often with an indistinct longitudinal ridge at about middle; ground sculpture absent. Wings vestigial. Abdomen with strong ground sculpture, with moderately close, short, fine pubescence and extremely fine, scarcely visible punctures. Last tarsal segment only very slightly longer than the preceding 4 together. Aedeagus as fig. 13d, e, last abdominal sternite of ♂ as fig. 13f.

Larva unknown.

AUCKLAND IS.: Main island, Hooker Hills, in boggy area, XI. 1874, Krone; Ranui Cove, 27. XII. 1962, J. L. Gressitt. Apparently an uncommon species.

Nesomalium imitator Steel, n. sp.

Moderately shining to rather dull. Body reddish brown with clypeal area and disc of pronotum dark brown to almost black. Antenna pale or dark reddish brown, scarcely darker apically. Legs reddish brown to dark brown. Length: about 3 mm, without abdomen 1.9–2 mm. General shape of front parts as fig. 14a, in the specimens examined the pronotum varied from 1.33–1.39× as broad as long and the sutural length of the elytron from 1.09–1.20× length of pronotum.

So closely allied to *insulare* that a full description is unnecessary. Head as in *insulare* but with the punctures finer and distinctly less close, the ground sculpture distinct at least on basal 1/2, indistinct elsewhere. Pronotum with punctures similar to *insulare*, but weaker, sometimes so superficial as to be almost absent, ground sculpture distinct over most of

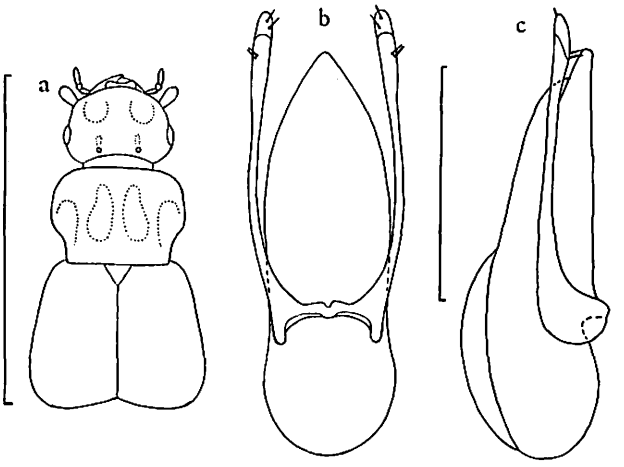

Fig. 14. *Nesomalium imitator* n. sp. a, head, pronotum and elytra, scale=2 mm; b, aedeagus, ventral view, scale =0.5 mm; c, aedeagus, lateral view, same scale as b.

surface. Aedeagus as fig. 14 b, c, last abdominal sternite of ♂ as *insulare*, fig. 13f.

Larva unknown.

CAMPBELL I.: Lookout Bay, leaf mold under *Stilbocarpa*, 3. II. 1963, K. A. J. Wise (type and 1 paratype), 30. XI. 1961, K. P. Rennell (2 paratypes); nr. Station, under debris, 23. X. 1961, Wise (1 paratype).

Like *insulare*, from which it differs in the smaller size, different sculpture of head and pronotum, shorter elytron and the shape of the aedeagus, this species appears to be not very common. No larvae were found amongst the material examined.

Genus **Allodrepa** Steel, n. gen.

Moderately convex species. Head on each side with a ridge which includes antennal tubercles and extends from above the base of the mandible to the eye, eye rather small and in no way a continuation of the dorsal surface of head, temples well developed; frontal impressions distinct though rather short; ocelli and anteocellar foveae distinct. Antenna with segment 2 ovoid, narrower than 1, broader than and not much shorter than 3. Labrum emarginate in front, upper surface with a few rather long setae, anterior portion not membranous and with a fringe of close set fine short setae. Mandible short and stout, the right with a small tooth internally not far from apex, the left edentate. Maxilla as *Arpediomimus* (fig. 7f), maxillary palpus as fig. 15c.

Pronotum convex, lightly transverse, at most with faint traces of median impressions, the lateral sometimes more marked but still very weak; sides straight or emarginate on posterior 1/2. Mesosternum with an indistinct median keel on about anterior 1/2, its process extending backwards between the intermediate coxa for about 1/3 of their length, not meeting the metasternal process. Wings vestigial.

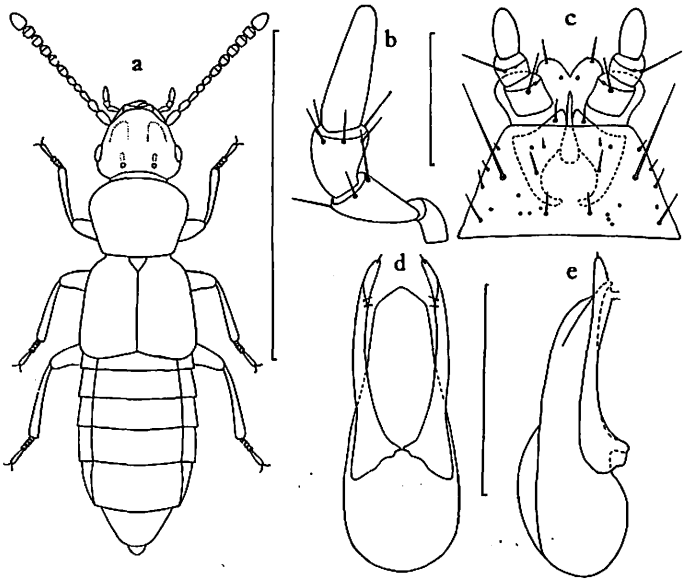

Fig. 15. *Allodrepa decipiens* n. sp. a, whole insect, scale=2 mm; b, maxillary palpus, scale=0.1 mm; c, labium, same scale as b; d, aedeagus, ventral view, scale=0.5 mm; e, aedeagus, lateral view, same scale as d.

Tibiae finely setose; tarsi with segments 1–4 short, 1–2 apparently fused and separated by sutures, 5 about 1.25× as long as the 4 preceding together; segments 1–4 densely setose below.

Last abdominal sternite of ♂ as fig. 17e.

Type species: *Allodrepa decipiens* n. sp.

RANGE: At present known only from Campbell Island and the Auckland Islands.

This genus differs from the other Campbell I. genera in the more convex form, the lightly transverse pronotum with at most traces of impressions and the structure of the ligula. It contains two closely allied species, one from Campbell I. and one from the Auckland Is., both of which are described below.

KEY TO KNOWN SPECIES OF ALLODREPA

Sides of pronotum more or less straight posteriorly (fig. 15a), the puncturation finer.
Campbell I. ..... **decipiens***
Sides of pronotum distinctly emarginate posteriorly (fig. 17a), the puncturation coarser.
Auckland Is. ..... **subcylindricum**

Allodrepa decipiens Steel, n. sp.

Head and pronotum greasy lustrous, elytron and abdomen more shining. Body dark yellowish brown to almost black. Antenna with segments 1–5 yellowish brown, the remainder

darker, sometimes almost black. Legs yellow. Length: about 3 mm, without abdomen 1.5–1.7 mm. General shape as fig. 15a, in the specimens examined, the pronotum varied from 1.19–1.25× as broad as long and the sutural length of the elytron from 1.08 to 1.12× length of pronotum.

Head with ground sculpture distinct and rather strong throughout; with fine, not very strong punctures which vary, in different specimens, from about 1.5× to rather more than 2× as wide as meshes of ground sculpture and are separated, on the average, by about 2× their diameter; antenna with segment 6 about as long as broad, 10 a little more than 1.5× as broad as long. Pronotum with strong ground sculpture, the punctures similar to those on head, separated by 2× their diameter or a little less, sometimes with an impunctate median space. Elytron with ground sculpture very weak and indistinct, with somewhat obliquely impressed punctures which are about as close as those on pronotum but rather coarser. Abdomen with ground sculpture distinct but less strong than on head and pronotum; moder-

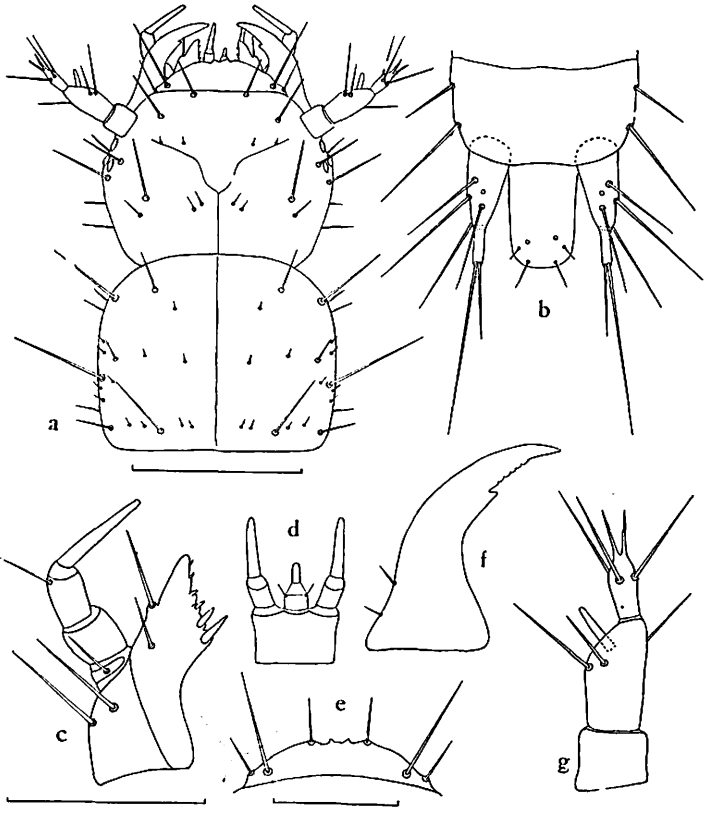

Fig. 16. *Allodrepa decipiens* n. sp., larva. a, head and pronotum, scale=0.2 mm; b, apex of abdomen, same scale as a; c, maxilla, scale=0.1 mm; d, labium, same scale as c; e, front of head, scale=0.1 mm; f, mandible, same scale as c; g, antenna, same scale as c.

ately closely punctured and pubescent, punctures as coarse as those on elytron but very weak and sometimes indistinct. Aedeagus as fig. 15 d, e.

Larva: Similar in general form to *Arpediomimus* (fig. 8a), but with head as fig. 16 a, e, antenna as fig. 16g, maxilla and labium as fig. 16 c, d, mandible (fig. 16f) without a prostheca, cercus as fig. 16b each with a lightly sclerotized area about 1/3 from apex which gives the appearance of 2 segments, tarsal claws simple, ocelli closer, arranged almost in a circle. Head, thoracic and abdominal tergites and sternites, antenna, mouthparts and legs yellowish brown.

CAMPBELL I.: Shoal Point (type locality), Monument Harbor, Beeman Hill, Tucker

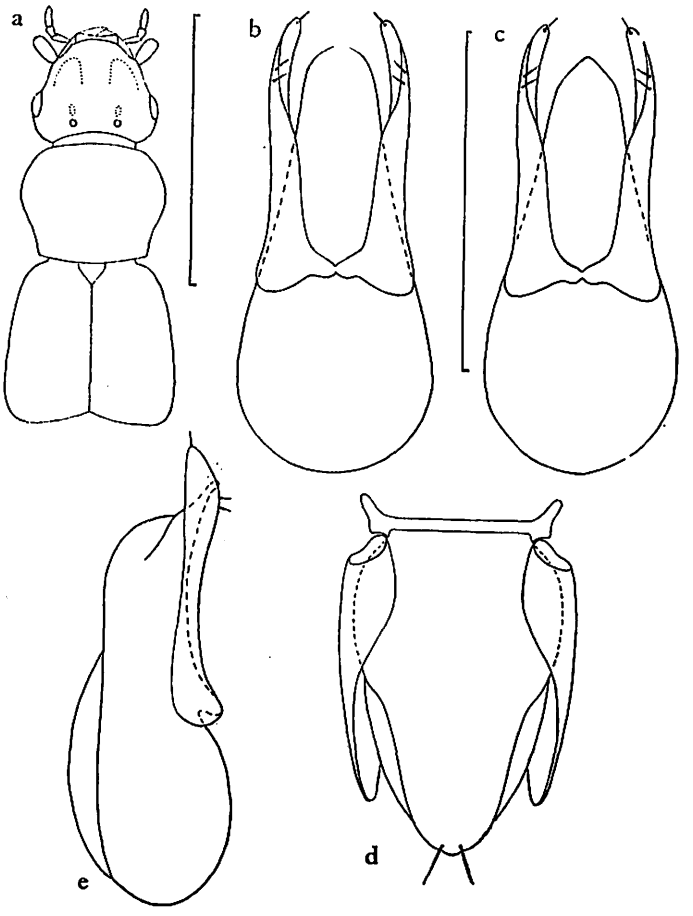

Fig. 17. *Allodrepa subcylindricum* (Kiesenwetter). a, head, pronotum and elytra, scale=1 mm; b, aedeagus, ventral view, scale=0.5 mm; c, aedeagus, ventral view, same scale as b; d, aedeagus, lateral view, same scale as b; e, last abdominal sternite of ♂.

Cove, Venus Cove, Lookout Bay, Northwest Bay, 33 specimens, mostly collected from tussocks but 1 or 2 beaten from *Anisotome* flower heads.

Allodrepa subcylindricum (Kiesenwetter)

Omalium subcylindricum Kies., 1877, Dtsch. Ent. Z. **21**: 164.

Very similar in size, color and general facies to *decipiens* but more shining with ground sculpture less strong on head, pronotum and abdomen, and virtually absent on elytron, punctures on head, pronotum and abdomen stronger and coarser and sides of pronotum emarginate on posterior 1/2. Aedeagus also differs.

General shape of front parts as fig. 17a; in the specimens examined, the pronotum varied from 1.19–1.27× as broad as long and the sutural length of the elytron from 1.08–1.15× length of pronotum. Aedeagus as fig. 17b–d, apex of median lobe somewhat variable in shape.

Larva unknown.

AUCKLAND IS.: Described from specimens collected by Krone nr. Venus Valley in 1875 by sweeping *Olearia lyalli*. Specimens also seen from Bivouac Hill and Crozier Point on main island, French I. and Ewing I., all collected from tussocks and low vegetation.

Subfamily Aleocharinae

Key to genera (adults)

1. Tarsal formula 4–4–5 2
   Tarsal formula otherwise..... 3
2. Scutellum large, not concealed by pronotum, head at least as broad as pronotum ... . **Baeostethus**
   Scutellum small, hidden by pronotum, head distinctly narrower than pronotum...**Halmaeusa**
3. Tarsal formula 4–5–5 (small black species 1.5–2 mm long) ..... **Atheta**
   Tarsal formula 5–5–5 (larger, brown species, about 5 mm long) ..... **Colle***

Key to genera (larvae)

1. Gland on abdominal segment 8 very large, segment strongly sclerotized and produced backwards and slightly upwards in middle (fig. 21a) 2
   Abdominal segment 8 normal 3
2. Antenna long (fig. 19c), front of head as fig. 19f ..... **Baeostethus**
   Antenna shorter (fig. 21e), front of head as fig. 21b ..... **Halmaeusa**
3. Antenna very short (fig. 25c), front of head as fig. 25b ..... **Atheta**
   Antenna longer (fig. 27c), front of head as fig. 27b..... **Colle***

Genus **Baeostethus** Broun

Baeostethus Broun, 1909, Subantarct. Is. N. Zeal. **1**: 96.

Head prominent, eye small, setose between the facets, temples bordered behind and partially bordered below. Labrum transverse, finely membranous in front, the anterior angles rounded, front margin rounded. Mandible with several teeth, fig. 18g. Maxilla and labium

as fig. 18b, segments 1 & 2 of the labial palpus fused, with traces of a separation on inner side only, palpus therefore appearing 2-segmented.

Prosternum carinate, pronotal epipleuron not visible from side. Mesosternal process very short, rounded apically, scarcely extending backwards at all between coxae which are almost contiguous. Scutellum normal, not concealed by pronotum. Metasternum very short. Elytron very short, scarcely emarginate inside posterior angles. Wings vestigial.

Abdomen broadest about middle, narrowed in front and behind, anterior tergites scarcely transversely impressed behind basal ridge, segment 7 about as long as 6, its tergite with-

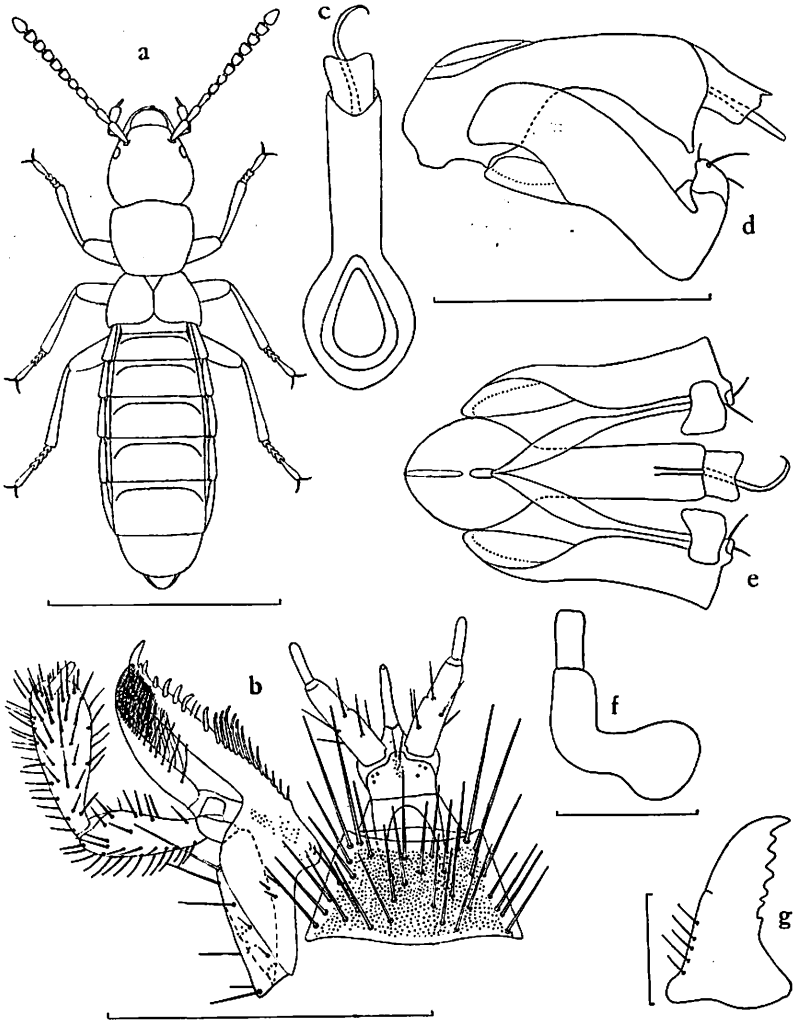

Fig. 18. *Baeostethus chiltoni* Broun. a, whole insect, scale=2 mm; b, maxilla and labium, scale=0.5 mm; c, median lobe of aedeagus, dorsal view, same scale as d; d, aedeagus, lateral view, scale=0.5 mm; e, aedeagus, ventral view, same scale as d; f, spermatheca, scale=0.1 mm; g, mandible. scale=0 2 mm.

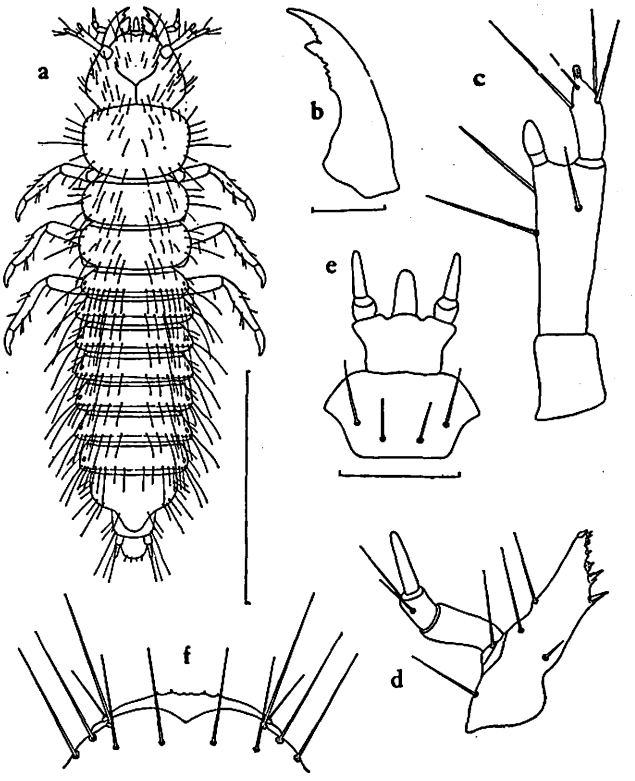

Fig. 19. *Baeostethus chiltoni* Broun, larva. a, whole insect, scale=2 mm; b, mandible, scale=0.2 mm; c, antenna, same scale as e; d, maxilla, same scale as e; e, labium, scale=0.2 mm; f, front of head, same scale as e.

out a membranous fringe on posterior margin.

Legs moderately long and slender, tarsal formula 4–4–5, anterior and intermediate tarsi with segments 1–3 short and subequal in length, 4 about as long as the preceding 3 together, posterior tarsi with segments 1–4 short and more or less equal in length, 5 not quite as long as 2–4 together.

Type species: *Baeostethus chiltoni* Broun.

RANGE: at present known only from Campbell I.

This genus would appear to be closest to *Liparocephalus* Mäklin from the west coast of North America, which it resembles in general facies. It differs, however, in the form of the labrum, mandible, maxilla and ligula, the hairy eyes, the less bordered temples and the mesosternal process. The larva (described below) is also similar to *Liparocephalus* but differs in the shape of the head and the structure of the maxillary palpus.

The one species known so far is found on the seashore below high water mark. It cannot be confused with any other staphylinid from the New Zealand area.

Baeostethus chiltoni Broun

Baeostethus chiltoni Br., 1909, Subantarct. Is. N. Zeal. **1**: 97.

Rather dull. Head, pronotum, elytron, antenna and legs pale or dark yellowish brown, abdomen dark brown. Length: about 5 mm, without abdomen 1.75–2 mm. General shape as fig. 18a, in the specimens examined, the pronotum varied from 1.10–1.16× as broad as long and the sutural length of the elytron from 0.36 to 0.4× length of pronotum.

Head with an irregular impression on disc, eyes small and flat, with relatively coarse facets; very closely punctured and pubescent behind level of antennal insertions, punctures rather superficial and much finer than facets of eyes, separated by about their diameter towards front and by only about 1/2 their diameter posteriorly; surface between punctures with an indistinct ground sculpture in the form of an irregular polygonal network; antenna with segment 6 about as long as broad, 10 rather more than 1.25× as broad as long. Pronotum with a rather broad longitudinal median impression at least on posterior 1/2, very closely punctured and pubescent, the punctures a little weaker and finer than those on head, ground sculpture as on head. Elytron very closely punctured and pubescent, the punctures similar in size to those on pronotum but a little stronger and obliquely impressed so that the surface appears granulate, ground sculpture as on head. Abdomen with puncturation and pubescence similar to that on elytron. Aedeagus as fig. 18 d, e, spermatheca as fig. 18f.

Larva: Head, thoracic and abdominal tergites and sternites, antenna, mouthparts and legs dark brown. General shape as fig. 19a, front of head as fig. 19f, antenna as fig. 19c, maxilla and labium as fig. 19 d, e, mandible as 19b, apical abdominal segments as *Halmaeusa*, fig. 21a, but segment 8 a little shorter, tarsal claws as *Arpediomimus* (fig. 8c).

CAMPBELL I.: described from Perseverance Harbor, specimens also seen from Tucker Cove, Beeman Beach and Venus Cove.

Genus **Halmaeusa** Kiesenwetter

Halmaeusa Kies., 1877, Dtsch. Ent. Z. **21**: 161.
Antarctophytosus Enderlein, 1909, Dtsch. Südpol. Exp. **10**: 377. **New Synonymy.**
Paraphytosus Cameron, 1917, Ent. Mon. Mag. **53**: 125. **New Synonymy.**
Austromalota Brèthes, 1925, Comun. Mus. Nac. B. Rivadavia **2**: 170. **New Synonymy.**

Head prominent, temples bordered behind and below. Labrum transverse, very finely membranous in front, anterior angles rounded, anterior margin almost straight. Mandible short and stout, the right with a very small tooth at about middle internally, the left edentate. Maxilla similar to *Colle* (fig. 26g), labium as fig. 20b, segments 1 & 2 of labial palpus fused and with traces of a separation on inner side only, palpus thus appearing 2-segmented.

Prosternum carinate, pronotal epipleura visible from side. Mesosternal process narrow and pointed, extending between intermediate coxa for more than 1/2 their length and meeting metasternal process. Scutellum rather short, rounded apically, normally completely hidden by pronotum. Metasternum and elytron short, the latter distinctly emarginate inside posterior angles. Wings vestigial.

Abdomen slightly widened from base to about middle, slightly narrowed posteriorly, tergites of segments 3–5 rather strongly transversely impressed behind basal ridges, that of

segment 6 much less strongly impressed. Segment 7 about as long as 6, its tergite without a membranous fringe apically. Spermatheca as fig. 20f.

Legs moderately long and slender, tibiae setose, tarsal formula 4–4–5. Anterior and intermediate tarsi with segments 1–3 short, 1 slightly longer than the other 2, 4 a little longer than the 3 preceding together; the posterior with segments 1–4 short, 1 a little longer than the other 3, 5 about as long as 2–4 together.

Type species: *Halmaeusa antarctica* Kiesenwetter.

RANGE: Subantarctic Islands (Auckland, Campbell and Macquarie Is., Falkland Is., South Georgia, Prince Edward Is., Crozet Is., Kerguelen I.).

This genus is very close to *Leptusa* Kraatz with which (as *Sipalia* Mulsant & Rey) it was synonymized by Fauvel (1877, Ann. Mus. Civ. Genova **10**: 125) but differs in the much longer, differently formed ligula. In the past it has (as *Antarctophytosus*) been compared with *Phytosus* Curtis from which it differs markedly in the form of the labial palpus and tibiae as well as in habits. *Phytosus* is restricted to the seashore, where it burrows in the sand, whilst *Halmaeusa* occurs in a variety of habitats, in litter, amongst vegetation, under stones, etc. and only occasionally on the shore.

In addition to the 3 species from the Auckland and Campbell Is., there is a further species, **H. atriceps** (Waterhouse) n. comb. from the Falkland Is. and other S. Atlantic islands, which is not included here. This species was described in detail by Jeannel (1940, Mem. Mus. Hist. Nat., Paris **14**: 106–14) who separated it into 3 subspecies. It is larger than the Campbell and Auckland Is. species (length 3.5–4.5 mm) and differently colored, with head and abdomen, except apex, dark brown and the pronotum, elytron and abdominal apex reddish. The relatively large head and only moderately convex pronotum are similar to *nesiotes*, whilst the fine and rather indistinct puncturation is like that of *sparsepunctata*. The aedeagus is of the same type but the parameres are differently shaped.

KEY TO THE CAMPBELL AND AUCKLAND IS. SPECIES OF HALMAEUSA

1. Head, pronotum and elytron closely and rather strongly punctured; size larger (2.5–3 mm) 2
   Head, pronotum and elytron less closely, weakly and rather indistinctly punctured; size smaller (2–2.5 mm) ..... **sparsepunctata***
2. Head much narrower than pronotum (fig. 20a) ..... **antarctica**
   Head broader in relation to pronotum (fig. 22a) ..... **nesiotes***

Halmaeusa antarctica Kiesenwetter

Halmaeusa antarctica Kies., 1877, Dtsch. Ent. Z. **21**: 161.
Antarctophytosus macquariensis Womersley 1937, Rep. Brit. Austr. N. Z. Antarct. Res. Exp. (B) **4**: 27. **New Synonymy.**

Moderately shining to rather dull. Body reddish brown to dark brown, head sometimes darker than remainder, the entire upper surface with fine, yellowish setae which arise from punctures or granules. Antenna with 1st 4 or 5 segments and sometimes also the last, reddish, remainder dark brown. Legs reddish brown. Length: about 3 mm, without abdomen 1.3–1.5 mm. General shape as fig. 20a; in the specimens examined, the pronotum varied from 1.14–1.29× as broad as long.

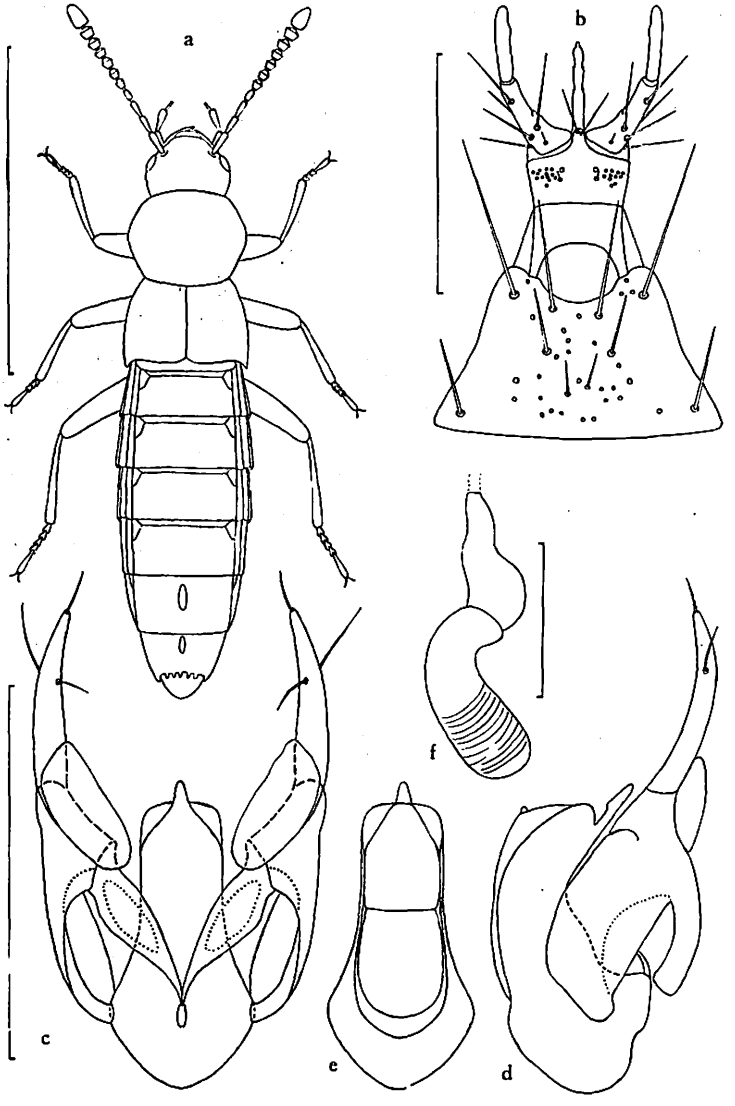

Fig. 20. *Halmaeusa antarctica* (Kiesenwetter). a, whole insect, scale= 2 mm; b, labium, scale=0.2 mm; c, aedeagus, ventral view, scale=0.5 mm; d, aedeagus, lateral view, same scale as c; e, aedeagus, median lobe, dorsal view, same scale as c; f, spermatheca, scale=0.1 mm.

Head with close punctures which are a little larger than the facets of the eyes and separated, except in front, by less than their diameter, ground sculpture variable; antenna with segment 6 less than 1.5× as broad as long, 10 rather less than 2× as broad as long. Pronotum rather convex, with puncturation and ground sculpture as on head, punctures separated on the average by about their diameter. Elytron with punctures which are stronger and a little coarser than those on pronotum and obliquely impressed, separated by about

their diameters, ground sculpture variable. Tergites of abdomen closely and rather strongly granulate, the granules about as large as elytral punctures, ground sculpture variable.

♂. Elytron raised on each side of suture to form a distinct but not sharp longitudinal ridge, the surface granulate rather than punctate between these ridges. Tergite of abdominal segment 7 with granules elongate and with a flat median longitudinal tubercle just behind middle; that of segment 8 with similar granules and a shorter flat tubercle, the apical margin emarginate over its entire width and with several fine teeth. Aedeagus as fig. 20 c–e.

♀. Elytron and abdominal tergites not modified.

Larva: Head, thoracic and abdominal tergites and sternites, antenna, mouthparts and legs yellowish brown. General shape as *Baeostethus* (fig. 19a) but segment 8 longer, fig. 21a, front of head as fig. 21b, antenna as fig. 21e, maxilla and labium as fig. 21 c, d, mandibles each with a tooth internally as in *Baeostethus* (fig. 19b) but less crenulate, tarsal claws simple, rather long.

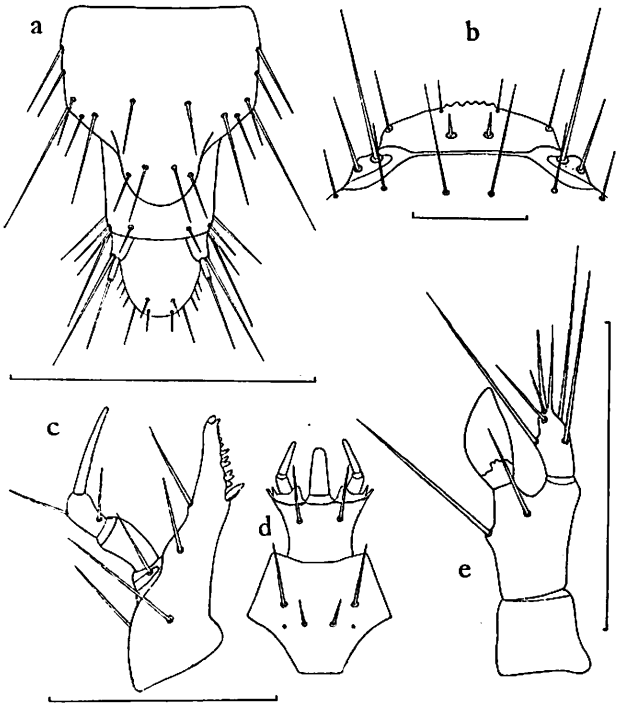

Fig. 21. *Halmaeusa antarctica* (Kiesenwetter), larva. a, apex of abdomen, scale=0.5 mm; b, front of head, scale=0.1 mm; c, maxilla, scale=0.2 mm; d, labium, same scale as c; e, antenna, scale=0.2 mm.

Auckland & Macquarie Is. No specimens seen from Campbell I.

The ground sculpture of this species varies considerably in strength in different specimens. At one extreme, it is very distinct over the entire upper surface, giving a dull appearance; at the other, it is moderately distinct on the head and pronotum, less distinct on the elytron and absent from the tergites except for traces on those of segments 7 & 8.

Halmaeusa nesiotes Steel, n. sp.

Moderately shining. Head, pronotum and abdomen black or almost black, elytron reddish brown to dark brown, apex of abdomen reddish brown, the entire upper surface with fine, yellowish setae which arise from the punctures or granules. Antenna with the first 3–4 and the last segments reddish, the remainder dark brown. Legs pale or dark reddish brown. Length: about 3 mm, without abdomen 1.2–1.4 mm. General shape as fig. 22a; in

the specimens examined, the pronotum varied from 1.14–1.19× as broad as long.

Head with punctures which are a little larger than eye facets and separated, except in front, by at most their diameter, ground sculpture distinct; antenna with segment 6 about 1.5× as broad as long, 10 about 2× as broad as long. Pronotum moderately convex, ground sculpture and puncturation as on head. Elytron lightly impressed along suture, ground sculpture not very distinct, the punctures similar in size and density to those on pronotum but obliquely impressed and appearing more or less granulate. Abdominal tergites moderately closely granulate, the granules a little smaller than punctures of elytron, ground sculpture absent or very indistinct except on those of segments 7 & 8.

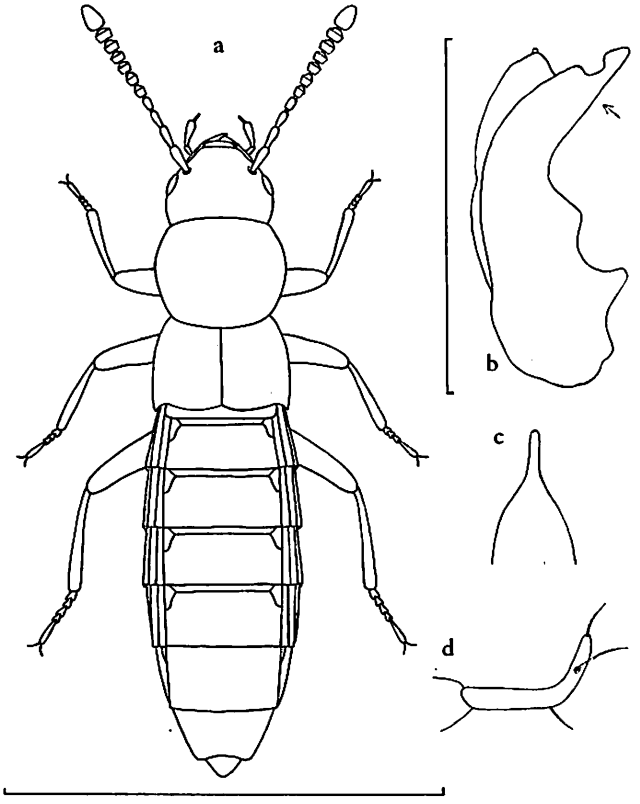

Fig. 22. *Halmaeusa nesiotes* n. sp. a, whole insect, scale =2 mm; b, median lobe of aedeagus, lateral view, scale= 0.5 mm; c, apex of median lobe of aedeagus viewed from direction of arrow in b, same scale as b; d, apex of paramere, lateral view, same scale as b.

♂. Elytron more distinctly granulate in sutural area. Tergites of abdominal segments 7 & 8 much more coarsely granulate, that of segment 8 emarginate apically over its entire width. Aedeagus as fig. 22 b–d.

♀. Apical margin of tergite of segment 8 very slightly emarginate in middle.

Larva: unknown.

CAMPBELL I.: Courrejolles Penin., 200 m, low plants in mollymawk colony, 13.II.1963, K. A. J. Wise (type), 14.XII.1961 J. L. Gressitt; Rocky Bay, under stone in penguin rookery and amongst *Colobanthus*, 20. XII. 1961, Gressitt; Beeman Beach, amongst *Colobanthus* etc., Wise, 19.XII.1961, Smooth Water Bay, under moss on rocks, 3.I.1963, K. Rennell.

AUCKLAND IS.: Ewing I., in dried kelp, 1.I.1963, Enderby I., Port Ross, swept from grass, 2.I.1963, amongst *Tillaea moschata*, 31. XII. 1962; all K. A. J. Wise.

In puncturation this species resembles *H. antarctica* but is easily separated by the relatively larger head and the less convex pronotum. The punctures on the head, pronotum and elytron are a little finer and closer, as are the granules on the abdomen, and the aedeagus and ♂ secondary sexual characters are different. Although widespread, *H. nesiotes* does not appear to be at all common and only 9 specimens were collected.

Halmaeusa sparsepunctata Steel n. sp.

Head and pronotum rather dull, elytron and abdomen sometimes more shining. Body dark brown, apex of abdomen, and sometimes also pronotum, paler. Antenna with the first 3 or 4 segments yellowish brown or reddish brown, the remainder dark brown. Legs reddish brown. Length: about 2.5 mm, without abdomen 0.9–1.1 mm. General shape as fig. 23a; in the specimens examined, the pronotum varied from 1.16–1.25× as broad as long.

Head with a strong ground sculpture and weak, indistinct punctures which are about as large as facets of eyes and separated by rather more than their diameter; antenna with segment 6 a little more than 1.5× as broad as long, 10 rather more than 2× as broad as long. Pronotum rather convex, with strong ground sculpture, the punctures similar in size to those on head, very weak and indistinct and separated, on the average, by about 2× their diameter. Elytron with ground sculpture varying from as strong as on head and pronotum to much weaker, punctures similar in size and density to those on pronotum but obliquely impressed. Abdominal tergites with ground sculpture moderate, with distinct but not very strong granules which are of about the same size as elytral punctures, separated by about 2× their diameter on those of segments 3 & 4, gradually becoming sparser on those of 5–8.

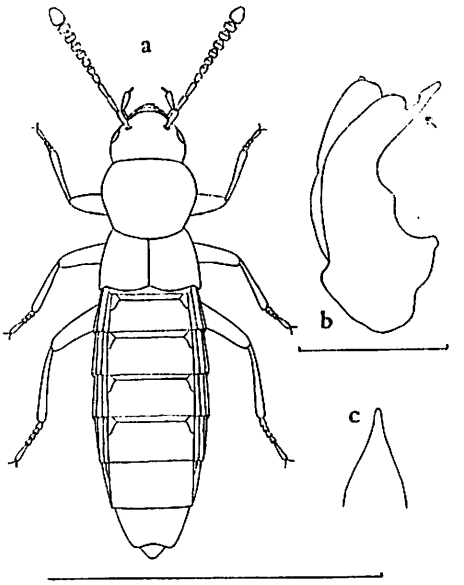

Fig. 23. *Halmaeusa sparsepunctata* n. sp. a, whole insect, scale=2 mm; b, median lobe of aedeagus, lateral view, scale =0.2 mm; c, apex of median lobe of aedeagus viewed from direction of arrow in b, same scale as b.

♂. Tergite of abdominal segment 8 emarginate apically over its entire width, the emargination sometimes very lightly crenulate. Aedeagus as fig. 23 b, c, the parameres as in *antarctica*.

♀. Posterior margin of tergite of abdominal segment 8 at most very slightly emarginate in middle.

Larva: apparently not separable from that of *H. antarctica*.

CAMPBELL I.: The commonest Aleocharinae on the island, found amongst vegetation, in litter, in penguin and mollymawk colonies and Albatross nests and, one specimen only, amongst seaweed on the shore. Specimens seen from: Rocky Bay (type locality), Courrejolles Peninsula, Beeman Hill, Mt. Azimuth, Mt. Lyall, Lookout Bay, Tucker Cove, Shoal Point, Monument Harbor and Smooth Water Bay.

Easily separated from the other Campbell I. species by the sparser, very weak puncturation of the front parts.

Genus **Atheta** Thomson

Atheta Thoms., 1858, Skand. Col. **1**: 39.

This cosmopolitan genus is so well known that a full description is unnecessary here. It can easily be separated from the other genera dealt with by the tarsal formula. The single species concerned belongs to the subgenus *Amidobia* Thomson (=*Microdota* Mulsant and Rey).

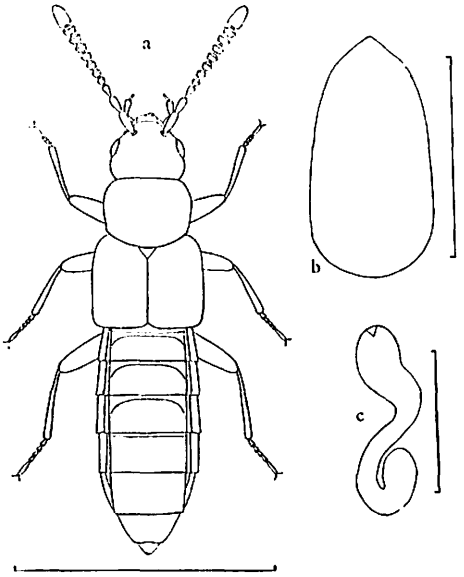

Fig. 24. *Atheta amicula* (Stephens). a, whole insect, scale=1 mm; b, outline of median lobe of aedeagus, ventral view, scale=0.2 mm; c, spermatheca, scale=0.2 mm.

Atheta amicula (Stephens)

Homalota amicula Steph., 1832, Ill. Brit. Ent. Mandib. 5: 132.

Body black, legs and antenna dark brown. Length: 1.5–2 mm. General shape as fig. 24a.

♂. Tergite of abdominal segment 8 broadly truncate and more or less distinctly emarginate, very finely crenulate, the posterior angles toothed. Aedeagus with median lobe broad (fig. 24b).

♀. Tergite of segment 8 more or less distinctly emarginate in middle, posterior angles rather sharply rounded. Spermatheca characteristic (fig. 24c).

Larva: Head, thoracic and abdominal tergites and sternites, mouthparts, cercus and legs pale yellowish brown. General shape as *Baeostethus* (fig. 19a) but abdominal segment 8 simple as in *Colle* (fig. 27d), head rounded, clypeal region as fig. 25b, antenna as fig. 25c, maxilla as fig. 25a.

This common European species has been described several times so is only briefly charac-

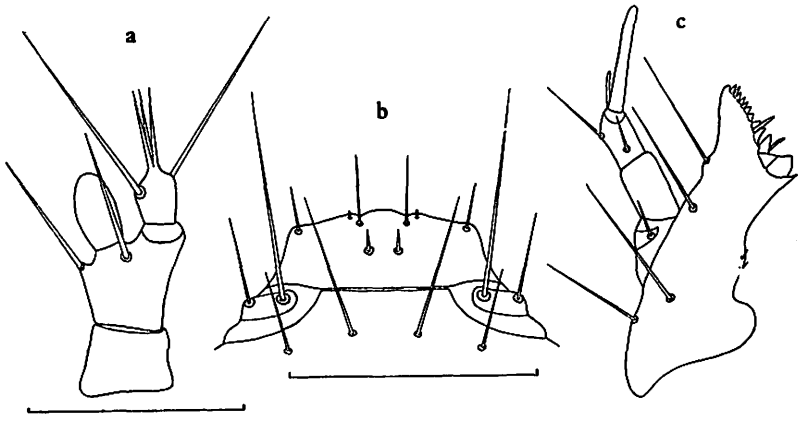

Fig. 25. *Atheta amicula* (Stephens), larva. a, maxilla, scale=0.1 mm; b, front of head, scale=0.1 mm; c, antenna, same scale as b.

terized here. The larva, however, does not appear to have been described before. In addition to Europe, *A. amicula* has been recorded from various other parts of the World, including New Zealand, and has obviously been artificially introduced into Campbell Island. A number of specimens, adults and larvae, were collected at Beeman Camp, in chicken yard debris in Dec. 1961.

Genus **Colle** Steel, n. gen.

Head prominent, temples finely bordered behind but not below. Labrum transverse, very finely membranous in front, anterior angles rounded, front margin almost straight. Mandible stout, curved and pointed apically, the right with a very small tooth at about middle internally, the left edentate. Remainder of mouthparts as fig. 26g, segments 1 & 2 of labial palpus fused, with traces of a separation on the inner side only, so that the palpus appears 2-segmented.

Prosternum carinate, the pronotal epipleura not visible from side. Mesosternal process narrow and pointed, extending between intermediate coxae for about 1/2 their length and meeting intercoxal process of metasternum; the intermediate coxae almost touching. Scutellum normal. Hind margin of elytron slightly emarginate inside posterior angles. Wings rudimentary.

Abdomen more or less parallel-sided for most of its length, tergites of segments 3–5 with a transverse impression behind basal ridge, segment 7 about as long as 6, posterior margin of its tergite with a fine whitish membranous fringe.

Legs moderately long and slender, tibia setose, tarsal formula 5–5–5, tarsal segments 2–4 subequal in length, a little shorter than 1, 5 about as long as 3+4.

Type species: *Colle campbellensis* n. sp.

RANGE: at present known only from Campbell I.

This genus differs in the structure of the labial palpus from all others known to me which have the tarsal formula 5–5–5, 4-segmented maxillary palpus and head not produced in front.

Colle campbellensis Steel, n. sp.

Head, pronotum and elytron rather dull, the abdomen more shining. Body dark reddish brown to dark brown, the head and abdomen, except apex, darker than remainder; the entire dorsal surface with fine, light colored recumbent pubescence which arises from punctures or granules. Antenna and legs reddish brown. Length: about 3 mm, without abdomen 1.3–1.6 mm. General shape as fig. 26a; in the specimens examined, the pronotum varied from 1.06–1.12× as broad as long and the sutural length of the elytron from 0.78–0.89× length of pronotum.

Head evenly convex with a strong ground sculpture in the form of a polygonal network, the meshes of which are about as long as broad, with moderately close punctures which are about as large as the meshes of the ground sculpture but so weak as to be very difficult to see. Antenna with segment 6 about 1.5× as broad as long, 10 about 2× as broad as long. Pronotum evenly convex in front, sometimes with a superficial median impression on apical 1/2, with ground sculpture and puncturation as on head, the pubescence directed outwards on each side of middle, obliquely backwards at sides. Elytron with

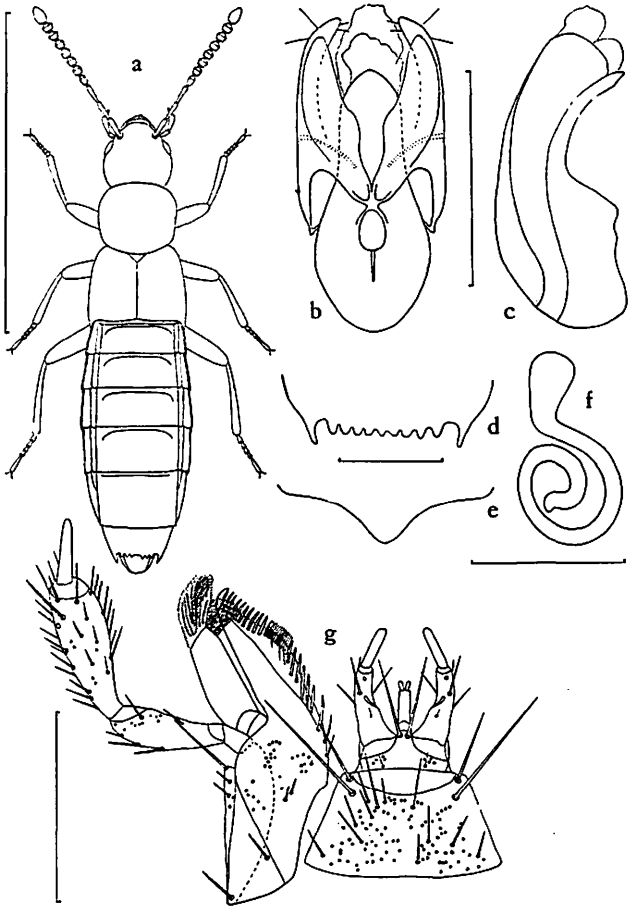

Fig. 26. *Colle campbellensis* n. sp. a, whole insect, scale =2 mm; b, aedeagus, ventral view, scale=0.5 mm; c, aedeagus, lateral view, same scale as b; d, apex of tergite of abdominal segment 8 of ♂, scale=0.2 mm; e, apex of sternite of abdominal segment 8 of ♂, same scale as d; f, spermatheca, scale=0.2mm; g, maxilla and labium, scale=0.2 mm.

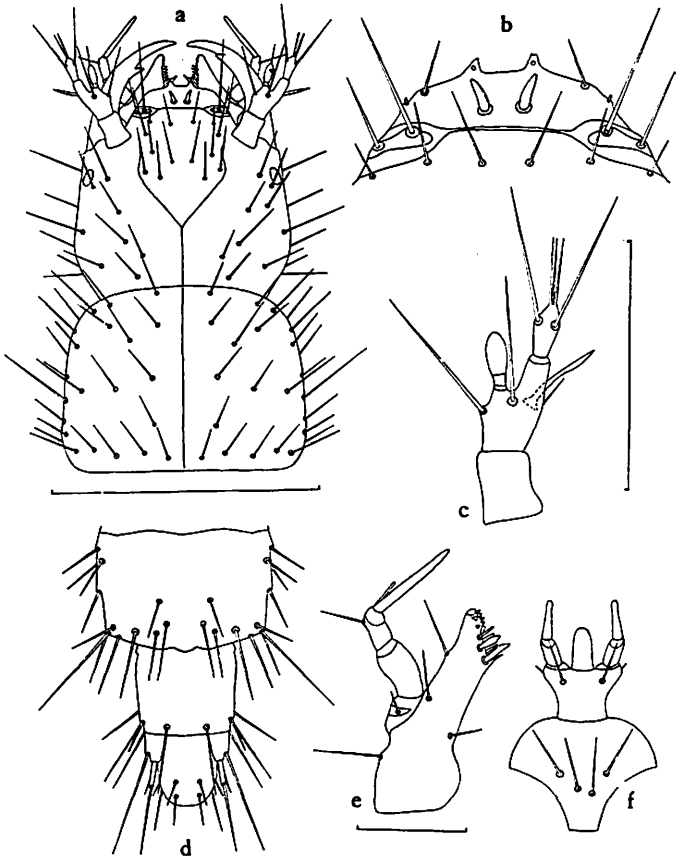

Fig. 27. *Colle campbellensis* n. sp., larva. a, head and pronotum, scale=0.5 mm; b, front of head, same scale as c; c, antenna, scale=0.2 mm; d, apex of abdomen, same scale as a; e, maxilla, scale=0.1 mm; f, labium, same scale as e.

ground sculpture rather weaker than on head and pronotum, punctures obliquely impressed and appearing as granules. Abdominal tergites with ground sculpture much weaker and less regular than on front parts, the meshes strongly transverse; those of segments 3–6 moderately closely, those of 7–8 less closely, granulate.

♂. Tergite of abdominal segment 8 as fig. 26d, the sternite produced backwards in middle (fig. 26e), aedeagus as fig. 26 b, c.

♀. Tergite of abdominal segment 8 with posterior angles rounded and posterior margin almost straight, the sternite emarginate in middle posteriorly, spermatheca characteristic (fig. 26).

Larva: Head, thoracic and abdominal tergites and sternites, antenna, mouthparts, cercus and legs yellowish brown. General shape as *Baeostethus* (fig. 19a), but with abdominal segment 8 simple (fig. 27d), head and pronotum as fig. 27a, front of head as fig. 27b, antenna as fig. 27c, maxilla and labium as fig. 27 e, f.

CAMPBELL I.: Mt. Honey, 550 m, amongst low vegetation nr. summit, 24. II. 1962, K. A. J. Wise (type locality); Perseverance Harbor, Berlese funnel; St. Col Peak, ca 250 m, base of tussock, 23.II.1963; Tucker Cove, in leaf mold, 6.IX.1947 and 3.III.1963; Beeman Point, 5 m, amongst *Dracophyllum*, 19.XII.1961 and in leaf mold, 28.II.1963, 18 specimens in all.

The insect included by Brookes (*l. c.*: 29) under the name "*Atheta politula* Broun" probably represents this species. The record was based on one specimen collected in leaf-mold in 1942 and determined by Dr. Cameron. *A. politula* was never described by Broun and the few examples standing under this name in his collection, although they consist of more than one species, are superficially not unlike *C. campbellensis*. The references given by Brookes for *politula* refer to quite a different insect, *Ischnoderus politulus* (Broun), which does not occur on Campbell I.