

A New Genus and Six New Species of Coleoptera.

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THE new species described in this paper are mostly forms collected by Mr E. Fairburn during a trip to Stephen and D'Urville Islands in January of this year.

The most interesting is a large weevil belonging to the genus *Phaeophanus*, taken on D'Urville Island. A most remarkable feature surrounding this genus is the distribution of four distinct species between Stephen (2), The Brothers, and D'Urville Islands, situated in close proximity to each other in Cook Strait.

Phaeophanus rugosus Broun, the genotype, is endemic on The Brothers; *P. o'connori* Broun, and *P. inornatus* Broun, on Stephen; and *P. fairburni* n. sp. described herein, on D'Urville Island. None of the above four species have been found on the mainland, which is comparatively close.

Powell, in a recent paper, "The Paryphantidae of New Zealand, their Hypothetical Ancestry" (*Rec. Auck. Inst. Mus.*, vol. 1, No. 1, pp. 17-56), has stressed the hypothesis with a somewhat elaborate map, based mainly on the geological studies of Dr Cotton, and the occurrence of *Wainuia urnula* Pfeiffer (a genus and species of the Mollusca) in the South Island, of the existence in comparatively recent times of a land-bridge connecting the North and South Islands.

In studying the members of the genus *Phaeophanus* from the several islands in Cook Strait, which are isolated flightless species, the writer is forced to quite opposite conclusions, and considers that the Cook Strait islands previously mentioned have been isolated from each other and the mainland for a very considerable period of time. If such is not the case it is extremely difficult to account for four distinct forms endemic on three small islands in such close proximity to each other and the mainland, none of the four species being found on any two of them.

Another member of the genus occurs only on the Mokohinau Islands, situated considerably more to the north, off the Auckland coast. *Phaeophanus lituratus* Broun has been described from Mount Egmont, Taranaki. I have not seen this species, but a close study of it would no doubt prove it to belong to a different genus. We have a still more remarkable instance of distribution in *Psorochroa granulata* Broun, another flightless beetle belonging to the Elateridae, evidently of archaic origin and quite common on Stephen Island (Broun gives the habitat of his type, "The Brothers, Cook Strait." This is apparently an error, as I am informed on good authority that it does not exist there.) but is to be met with again at the Chatham Islands, approximately 400 miles away. It is not known which is the true habitat of this peculiar species, which lives in rock crevices, but it

is most probably Stephen Island. The writer has been informed by Mr E. S. Gourlay, of the Cawthron Institute, Nelson, who paid a recent visit to Stephen Island on research work, that this island has a peculiar formation and vegetation of its own, which stands out quite distinctly from that of the mainland. The writer is not prepared to offer any hypothesis in reference to the occurrence of the last-mentioned species at the Chathams, as the ways of Nature in her methods of distribution are multifold and ingenious.

SYSTEMATIC LIST OF THE NEW SPECIES.

Suborder ADEPHAGA.

Superfamily CARABOIDEA.

Family CARABIDAE.

Subfamily HARPALINAE.

Genus *Maoritrechus* n. gen.

4335. *Maoritrechus rangitotoensis*.

Suborder POLYPHAGA.

Group CLAVICORNIA.

Superfamily CUCUJOIDEA.

Family OSTOMIDAE.

Genus *Leperina*.

4336. *Leperina interrupta*.

Group RHYNCHOPHORA.

Superfamily CURCULIONOIDEA.

Family CURCULIONIDAE.

Subfamily OTIORHYNCHINAE.

Genus *Inophloeus*.

4337. *Inophloeus quadrinodosus*.

Subfamily CYLINDRORHINAE.

Genera *Phaeophanus*, *Pparchus*.

4338. *Phaeophanus fairburni*.

4339. *Pparchus gourlayi*.

Subfamily CRYPTORHYNCHINAE.

Genus *Aldonus*.

4340. *Aldonus insularis*.

CARABIDAE.

MAORITRECHUS n. gen.

Apterous. Labrum transverse, broadly emarginate, setose. Antennae filiform, joints elongate-oval, subcylindrical, setose, 2nd and 3rd joints narrower than basal, 4th shortest, 5th to 10th about equal, terminal slightly longer. Eyes very small, coarsely faceted. Mandibles moderately long, left conically broadened in the centre, right with a subquadrate process acutely produced inwardly at its anterior angle. Femora stout, tibia slender, anterior slightly flexuous, deeply and broadly emarginate inwardly near the extremity, intermediate and posterior straight, gradually thickened to base of tarsi, tarsi setose, basal joint subquadrate, 2nd transverse, about half the length of basal, 3rd small, 4th bilobed, about same length as preceding, 5th long, claws simple. The 1st and 2nd joints of the anterior tarsi of the male are produced inwardly and to the front. Mentum bisetose, bisinuate, and slightly roundly produced medially. Maxillary palpi with basal joint small, 2nd broad, 3rd increasing in width apically, rather longer than preceding one, terminal about same length as penultimate, gradually tapering, rounded apically. The submentum bordered by a curved ridge. Anterior coxae separated by a small, flat, low, impressed prosternal process, intermediate not distantly, and posterior well separated. Mesosternum curvidly triangular, grooved along sides and centre, the latter ending in a depression between the posterior coxal cavities, its process rounded in front and reaching a little beyond intermediate coxae. Metasternum convex, smooth. Genotype *Maoritrechus rangitotoensis* n. sp.

4335. *Maoritrechus rangitotoensis* n. sp.

Fulvo-castaneous, nitid, legs and antennae fulvus, elytra costate, labrum with six setigerous punctures.

Head deeply furrowed on each side of the middle, furrows curved outwardly and descending underneath to gular, where they end in two punctiform depressions. Ocular areas inflated, connected dorsally by a fine groove, near the base of mandibles there is a small subcircular depression and a small tubercle on the lower lateral edge. Ocular carina short and curved, extending from antennal insertion to front of eyes, there are three not very distinct impressions in a line with back of eyes. Thorax as broad as long, widest before the middle, gradually curved posteriorly, sides margined, a little explanate, apex almost truncate, front angles produced, base truncate, hind angles slightly oblique, almost rectangular, frontal and basal impressions transverse, connected by a well defined median groove. Elytra flatly convex, with four well defined costae interrupted with punctiform impressions, striae impunctate, sutural interstices with microscopic oblique and transverse sculpture, sides gradually curved and narrowed to width of thorax, margined, lateral channels with punctures and irregular impressions, apices broadly rounded. Underside shining, basal ventral segment triangular, twice as long as 2nd and 3rd, 4th a little longer than preceding, each with a setigerous puncture on each side of the middle.

Holotype: ♂. Length, 2.75 mm.; breadth, 1 mm. In author's collection.

Allotype: ♀. Length, 2.75 mm.; breadth, 1 mm. In author's collection. Similar to male, anterior tarsi not dilated, last ventral segment bipunctate.

Material: Four specimens of this interesting, wingless beetle were taken by the author on July 4, 1920, and held back from previous papers for want of allied material for comparison.

Locality.—Rangitoto Island, Hauraki Gulf, taken under decaying *Zostera*, well below high-water mark, as the tide fell.

Remarks.—This species is a member of the old Subfamily Pogoninae, now reduced to a tribe; it has no near allies among the New Zealand Coleoptera. Superficially it has a striking resemblance to some species of *Anophtalmus*, a genus of blind cave beetles confined chiefly to Europe, with a few species inhabiting North America.

OSTOMIDAE.

Leperina Erichson, 1844. *German Zeitschr. Entom.*, 5, p. 453.

4336. *Leperina interrupta* n. sp.

Head and discal portion of thorax dark brown, elytra, sides of thorax, antennae, and palpi reddish-brown.

Head transversely depressed and emarginate in front, obliquely narrowed from the eyes forward, labrum emarginate, whole surface covered with moderately large punctures. Eyes oblique. Thorax one-third broader than its greatest length, almost truncate in front with the angles narrowly roundly produced, hind angles rectangular, widest about middle, sides obliquely narrowed towards front and base, explanate, its whole surface more or less shining, punctated, a narrow space on the centre with punctures more distant. Elytra two and one-third times as long and as wide as middle of thorax is, at base, which is wider than that of thorax, shoulders almost square, very little rounded, sides finely margined, parallel to well behind hind thighs, then gradually rounded to apices, lateral areas broadly perpendicularly channelled, each elytron has seven narrow ridges on top interrupted with punctures, also three in the lateral channels more broken up owing to closer punctation, all the ridges have a greenish tinge, interstices with light and dark brown scales, markings dark and interrupted, there is a narrow transverse band on top of the posterior slope extending to top of lateral channels, outer ends rounded for a short distance forward, then inwards and again a very little forward, also an inverted similar mark immediately above, on the right elytron this mark forms an interrupted S, on the left it is reversed, there are also several dark marks on the sides and two on the posterior slope close to the suture, also an obsolete oblique one near the shoulders. Underside dark, outer edges reddish-brown, the whole surface punc-

tate, coarse in front, gradually becoming finer towards last ventral segment, abdomen deeply covered by elytra.

Holotype: ♂. Length, 10 mm.; breadth, 4 mm. In author's collection.

Alotype: ♀. Length, 12.5 mm.; breadth, 4.75 mm. In author's collection.

Material: Taken also by Mr E. Fairburn, who sent a good series.

Locality.—Stephen Island, Cook Strait.

Remarks.—This species is closely allied to *Leperina sobrina* White (No. 317). In that species the sides of thorax are broadly rounded, and base of elytra sinuated with more broadly rounded shoulders. The almost angulate sides of thorax, and straight, slightly oblique basal margins of elytra of the new species will easily lead to its identification.

CURCULIONIDAE.

OTIORHYNCHINAE.

Inophloeus Pascoe, 1875. *Man. N.Z. Coleopt.*, p. 439.

4337. **Inophloeus quadrinodosus** n. sp.

Oblong, opaque, nigrescent, antennae rufo-piceous, club fuscus, sparsely clothed, with small rounded pinkish scales and straw-coloured decumbent squamae.

Rostrum a little longer than thorax, tricarinate, central ridge extending the full length, lateral hardly reaching point of antennal insertion. Scrobes open above, oblique, not quite reaching eyes. Scape reaching front of eyes, slender, slightly swollen at its junction with funiculus, first joint of funiculus very little longer than second, third to seventh about equal, club elongate, pilose. Eyes oblique, well clear of thorax. Thorax longer than broad, obliquely narrowed towards front and base, front bisinuate with moderately developed ocular lobes, base truncate, there is a rather deep dorsal groove extending from the transverse frontal depression to base, surface rugosely sculptured. Elytra two and a-half times length of thorax, widest on top of declivity where the angles are produced into conical overhanging nodosities from which the elevated fifth interstice forms an incurved ridge which becomes normal before reaching base, there are also two rather large depressions in line with hind thighs and two small ones immediately in front, posterior declivity with a pair of acute conical elevations nearer the top, dorsal area slightly convex, central basal margin a little elevated, shoulders depressed, rounded, sides subparallel, apical portion considerably narrowed, the whole surface with regular rows of elongate, moderately deep punctures. Legs piceous, femora robust, anterior tibia rather long, flexuous, intermediate and posterior nearly straight.

Holotype: ♂. Length (rostrum included) 9 mm.; breadth, 3 mm. In author's collection.

Material: A damaged specimen captured by Mr Sutherland, lighthouse keeper, and put aside in the hope that other specimens would be forthcoming.

Locality.—Puysegur Point, Southland, taken on February 10, 1922.

Remarks.—This species does not appear to have any near allies. *Inophloeus laetificus* Broun (No. 2888) is perhaps the nearest approach to it, but is considerably smaller, with distinct thoracic sculpture.

CYLINDRORHINAE.

Phaeophanus Broun, 1886. *Man. N.Z. Coleopt.* pt. 3, p. 792.

4338. *Phaeophanus fairburni* n. sp.

Robust, large, elongate, convex, dorsal areas with elevations, derm nigrescent, clothed with light coppery and straw-coloured iridescent scales, interspersed with elongate suberect squamae, tibia setose, tarsi with fine, long, hair-like vestiture. Rostrum about as long as thorax, considerably expanded at apex, tricarinate on top and a short one on sides above scrobes, the top outer ones more elevated near front and converging towards base, but becoming obsolete before reaching the eyes, where the centre one also ends in a narrow, elongate depression. Scrobes short, obliquely descending, reaching only a little more than half-way to eyes. Eyes transverse, distant from thorax, the intervening space with oblique, wrinkled sculpture. Scape slender, a little sinuate, just reaching the eyes, funiculus with the first two joints equal, third about two-thirds the length of second, four to seven subequal with elongate setae, club 4-articulate, pilose with a few short, fine setae. Thorax a little longer than broad, about same width at middle and base, narrower in front, sides near base a little compressed, disc uneven with an apical elevation and two small ones behind on each side of the middle, they are connected by an ill-defined obtuse ridge, which also extends behind the elevations, forming an irregular, oval-shaped depression which extends almost to base; there is also a lateral ridge on each side, apex truncate in centre with front angles roundly produced forming ocular lobes, posterior angles broadly rounded, sides subvertical. Elytra oblong, two and a-half times the length of thorax, and about the same width at base, costate, third interstice with three elevations, the basal elongate, also intermediate but lower and interrupted, the other situated on top of the declivity. The whole surface studded with small black granules and large, irregular punctures, those near sides interrupting the costae so as to make them appear serrate, sides gradually rounded from middle to truncate base, and obtuse narrowly rounded apices. Scutellum circular, very small, clothed with light, straw-coloured scales. Underside of head transversely wrinkled. Mesosternal process broad in front, curved backwards in the form of a narrow hook. Metasternum obliquely emarginate between coxae, basal ventral segment longer than second, which is more convex and slightly curved towards

front, third very narrow, truncate, fourth about same width as third, posterior margin curved the opposite way to second, fifth wider than third and fourth combined, a little hollowed near the extremity, sixth very small.

Holotype: ♂. Length (rostrum included) 20 mm.; breadth, 7 mm. In author's collection.

Allotype: ♀. Length (rostrum included), 24.5 mm.; breadth, 8.75 mm. Very similar to male, larger and more robust, apical ventral segment not hollowed. In author's collection.

Material: A good series of this fine weevil was also forwarded by Mr E. Fairburn, who spent two nights in seeking its food-plant, which was found to be a species of flax (*Phormium*), to which it appears to be very destructive. I have much pleasure in naming it in honour of this gentleman.

Locality.—D'Urville Island, Cook Strait, taken at night on the 14th of January, 1931.

Remarks.—This species is a little smaller than the larger specimens of *P. o'connori* Broun (No. 4206), and lacks the pale thoracic stripe. The form and sculpture is also quite different.

NOTE.—Since the above was written, Mr E. Gourlay, of the Cawthron Institute, Nelson, has forwarded to me for inspection a large number of specimens of this weevil, among which is a very rare colour variety. This specimen, which I understand was the first found, and gave a clue to its existence on the island, was picked up dead in the open by Miss Huffam, of Nelson, who was a member of the party which visited the island early in the year. This interesting variety is almost entirely clothed with silvery-grey iridescent scales, with vestiture of the same colour, that of the elevations being lighter with a yellowish tinge. The specimen remains in the collection of Mr Gourlay, who also was a member of the party.

Pparchus Broun, 1904. *Ann. Mag. Nat. Hist.*, ser. 7, vol. 14, p. 114.

4339. *Pparchus gourlayi* n. sp.

Elongate, coppery-brown, costate, clothed with depressed small elongate scales, interspersed with larger recumbent ones. Rostrum tricarinate, the outer converging towards base, and all three ending before reaching front line of eyes, between which there is a punctiform depression, about one-third shorter than thorax, apex broken up with depressions, divided from the swollen sides by a broad, V-shaped channel in which are several setigerous punctures; there is also an elongate foveae on each side above the scrobes, scrobes oblique, reaching front of eyes. Antennae red, scape incrassate, funiculus with first and second joints about equal length, three to seven shorter, all with several fine long setae, club three-articulate, pilose. Eyes transverse, well clear of thorax. Thorax longer than broad, front sinuate, without ocular lobes, base truncate, apex with a longitudinal ridge ending before reaching middle in an elongated depression

reaching almost to the basal margin, bordered by interrupted elevations, on each side of the middle in front there is a large, oblique depression with the lower portion ending in an elevated lateral ridge, sides a little compressed behind middle, base rugosely sculptured with black granular elevations, also the raised dorsal area, dorsal and lateral stripes formed by bright straw and cupreous coloured scales. Elytra two and a-half times length of thorax, sides flatly rounded to base and apices, base very little wider than thorax, the third, fifth, and seventh interstices elevated, fifth and seventh terminating at the junction of the fourth, sixth, and eighth, third interrupted on the declivity by second and prolongation of eighth, ninth and tenth a little raised near apices, sutural from the top of declivity, interstitial punctures large, each with a bright scale in centre; the costae are similarly clothed to the thoracic stripes, being lighter on the sides and underneath. Scutellum very small, raised, covered with bright yellow scales. Legs with fine and coarse setae, femora with a narrow band of light-coloured scales. Underside dark, sparingly clothed with coppery scales and recumbent bristles interspersed with numerous black granules. Abdomen elongate, basal segment broadly medially concave, longer than second, third, and fourth combined, about as long as fifth, sixth half the length of third.

Holotype: ♂. Length (rostrum included) 19.5 mm.; breadth, 7 mm. In author's collection.

Allotype: ♀. Length (rostrum included) 23 mm.; breadth, 9 mm. In author's collection. Larger than male, similarly clothed, basal ventral segment very little depressed.

Material: A good series of this very fine species forwarded by Mr E. Fairburn. It was first discovered by Mr E. S. Gourlay, first assistant entomologist of the Cawthron Institute, Nelson, after whom I have much pleasure in naming it.

Locality.—Balloon Hut, Mount Arthur, Nelson. Taken at a height of 4300ft., on January 8, 1930.

CRYPTORHYNCHINAE.

Aldonus White, 1846. *Voy. Ereb. and Terr.*, Ins., p. 16.

4340. **Aldonus insularis** n. sp.

Elongate, convex, very dark brown thickly clothed with drab scales and squamae of same colour, interspersed with dark brown, the latter forming irregular markings on elytra.

Antennae and legs piceo-rufus, funiculus setose, scape incrassate, punctate, club pilose. Rostrum piceous, with three fine carina, central one straight, outer somewhat sinuated, moderately stout, a little constricted about middle and considerably more so between eyes, apical portion sculptured with irregular longitudinal lines. Scrobes almost straight, reaching front of eyes. Head small, eyes truncate in front, not prominent, well clear of thorax. Thorax about one-fifth broader than long, as wide as elytra at middle, narrowed

to width of head in front, base bisinuate, not quite so wide as that of elytra, apex truncate, front angles descending to almost beneath, roundly produced, widest behind middle, a little depressed on each side of the middle in front, the whole surface rather coarsely sculptured. Elytra a little more than twice the length of thorax, sides almost parallel to hind thighs, then gradually narrowed to apices, which are individually rounded, striae interrupted with large punctures, interstices with numerous black granular elevations, which together with the punctures gives the whole surface a very rough appearance; there are also a number of irregular, semi-zigzag dark markings distributed over the surface, shoulders a little prominent. Scutellum minute, depressed, punctate. Legs clothed with elongate drab scales and coarse bristles, more densely so on tibia and tarsi, femora deeply notched near extremity with a short, stout spine on its upper edge. Underside shining, with large and small punctures, interspersed with long yellowish scales. Rostral canal moderately deep, not limited by margins of coxal cavities, but extending to mesosternal process, which is more deeply emarginate and has the borders more elevated than any other member of the genus. These characters combined with its dark colour and peculiar markings will enable it to be easily identified.

Holotype: ♂. Length (rostrum included), 11.5 mm.; breadth, 4.5 mm. In author's collection.

Allotype: ♀. Length (rostrum included), 10.5 mm.; breadth, 4 mm. In author's collection. Rather more slender than the male, colour and sculpture similar, shoulders more prominent, antennae inserted a little before middle of rostrum, which is shining, punctate, and more slender than that of male, wider between eyes, and not constricted there.

Material: A good series also from Mr E. Fairburn.

Locality.—Stephen Island, Cook Strait, taken on January 12, 1931.

A variety of this species was taken on D'Urville Island, also by Mr Fairburn. Rather smaller than typical specimens, the male has the rostrum more slender and not so abruptly constricted between the eyes, colouration and sculpture similar.

♂. Length (rostrum included), 10 mm.; breadth, 3.75 mm.

♀. Length (rostrum included), 10.5 mm.; breadth, 3.5 mm.

Several specimens taken on January 14, 1931, are in the writer's collection.