

in a cucumber-frame where woodlice are unpleasantly numerous, but they are apparently free from the mite in the frame.

Some time ago Captain Hutton remarked to me that it would be interesting to know if *U. vegetans* is indigenous or was introduced with *Porcellio*. It has only been detected in certain districts within the last few years, which indicates its being an introduced species now rapidly dispersing in New Zealand. The so-called "red-spider" (*Tetranychus telarius*), so destructive to fruit-trees, is also an introduced mite, common in America, Europe, and Australia.

The habit of some species of beetles and moths of concealing themselves in damp cool places during the day where the mite inhabits would readily enable the latter to attach itself to its host and become parasitic on many species. The milder climate of New Zealand will unquestionably favour its rapid dispersion and increase, as it has done many other both baneful and beneficial species of insects.

ART. XXI.—Notes on Coleoptera.

By J. H. LEWIS.

[Read before the Wellington Philosophical Society, 5th November, 1901.]

WITH the exception of moths and butterflies, none of the orders of insects occurring in New Zealand can be considered to be catalogued in even a moderately satisfactory manner. The most extensive order, that of *Coleoptera*, is in almost as bad a state as any, for although much has been done and a long list of species published, yet the number of coleopterous insects occurring here is so great and the students so few that it will be many generations before all the forms are described. Description, though a dry and tedious process, is a needful preliminary to the elucidation of the problems connected with distribution and variation, which are the most attractive portions of the study of natural history.

As in other orders, so among beetles, the male insect is often different in form from the female. Not sufficient cognisance has been taken of this fact, except where the describer of a species has himself been able to study the insects in their homes, or where he has attached some weight to the observations of the field naturalist who has collected for him. Some results of this are evident in Captain Broun's list, and a few are noted below with other synonyms. The frequent description of identical species in New Zealand and England

will not cause so much trouble, as in most instances the identity is obvious.

It is not for me to attempt to criticize the work of the able naturalist who has for a quarter of a century studied this order, but the reflection suggests itself that the larger genera might very well be tabulated by the only one who is at present in a position to do so. Among the genera most in need of such a tabulation are *Bembidium*, *Cyphon*, *Acalles*, and the *Pentarthra*. Is it too hazardous to say that when a table cannot be prepared, then the species are not distinct? I have tabulated some families with much advantage to myself, but I am not anxious to publish my work while Captain Broun is able to do the same thing in a more accurate manner.

Descriptions of three new species are submitted, all from the south.

BROSCIDES.

Mecodema bullatum, n. sp.

Elongate, parallel, coppery-black, shining. Head rugosely sculptured, longitudinally on clypeus and above eyes, transversely on vertex, which is sometimes almost smooth. Neck closely punctate. Eyes moderately prominent. Thorax quite similar in shape to that of *sculpturatum*, with strongly crenate margins. The central and basal foveæ are well marked, and the surface has, in addition to moderately distant but conspicuous striæ, a band of punctation along both base and apex. Elytra parallel-sided, rounded behind. Each has eight rows of finely punctured striæ, somewhat obscured by transverse rugosities. The alternate interstices are the widest, and, being interrupted, present each the appearance of being formed of from six to ten oblong flattened tubercles. The lateral sculpture is inconspicuous. The sculpture of the underside is similar to that of *sculpturatum*, but less pronounced. Length, 25 mm.

Puysegur Point; Mr. F. Sandager.

The species belongs to the *sculpturatum* group, and is most nearly allied to *littoreum*, the sculpture of whose wing-cases might easily be developed into that of *bullatum*.

Mecodema infimate, n. sp.

Elongate, parallel, medially narrowed, shining fusconigrous; femora, palpi, and basal joints of the antennæ shining-red. Head with the vertex quite smooth, the occiput punctured, the clypeus and the swollen orbits wrinkled. Thorax elongate, not much narrowed in front but considerably so behind, the sinuation gentle. Its sculpture consists of the usual basal foveæ and central line. The disc bears well-marked transverse striæ, and the apical and basal margins

are strongly striated longitudinally. The basal foveæ are punctured. The elytra have each nine striæ almost without punctures. The alternate interstices are twice the width of the intermediate, and, with the exception of some scattered punctures, are without sculpture. The underside of the head (except the gula), the flanks of the prothorax, and the mesosternum are rugosely sculptured. The abdomen is sparingly punctured. The intermediate tibiæ are strongly punctate, as are the front on the apical half of their inner face. Length, 16 mm.

West Plains, Invercargill; Mr. A. Philpott.

This species may be readily distinguished from the others of small size by the almost simple striæ of the elytra.

LUCANIDES.

Lissotes acmenus, n. sp.

♂. Head and thorax black, shining; abdomen shining-brown. Head finely and obscurely punctured, most densely on the vertex; the hind angles prominent. That portion of the side margin that encroaches on the eye is more prominent than in *helmsi*. Prothorax transverse, wider than the elytra, finely and distantly punctured; not so broad in proportion to its length as in *helmsi*; with a fine medial line and three punctiform impressions, one in the middle of the medial line, the other two midway between that point and the side margin. Its shape is similar to that of *helmsi*, but the base is more markedly sinuate. Elytra short and broad, shining, each with four obscure costæ, which are more finely punctate than the intervals between them. The margins of the thorax and elytra and the four hind tibiæ externally are clothed with short golden setæ, indistinct traces of which are sometimes seen on the elytral costæ. The mandibles are exactly similar to those of smaller specimens of *helmsi*. Length, including mandibles, 20–25 mm.

The female will probably be very similar to the same sex of *helmsi*.

This fine beetle is very closely allied to both *helmsi* and *amulus*; indeed, Dr. Sharp considers that it is identical with the former species. It is sufficiently easily distinguished by its bright appearance, narrower form, and the smaller size of fully developed individuals. I am indebted to Mr. G. Howes, Invercargill, for a good series of males.

As a first step towards a revision of the catalogue, I would suggest the following synonyms as extremely probable:—

Cicindela dunedanensis, Castelnau = *C. wakefieldi*, Bates.

Mecodema crenaticolle, Redtenbacher = *M. lineatum*, Broun.

Dryocora howitti, Pascoli = *Adelostella punctatum*, Broun.

- Parabrantes setiger*, Broun = *P. picturatus*; Sharp.
Dasytes stewarti, Broun = *D. nigripes*, Broun.
Echinopeplus dilatatus, Broun = *Heterodiscus horridus*, Sh.
Oreocharis picigularis, Broun, ♂ = *O. bicristata*, Br., ♀.
Acalles maritimus, Broun, ♂ = *A. cryptobius*, Br., ♀.

ART. XXII.—On the Land Mollusca of Little Barrier Island.

By HENRY SUTER.

[Read before the Auckland Institute, 7th October, 1901.]

In the Christchurch *Press* of the 21st November, 1892, some notes on Little Barrier Island were published *re* the visits of Messrs. Henry Wright and Boscawen, of the Lands Department, the notes being probably quoted from the *New Zealand Herald*. There occurs the following passage: "He (Mr. Boscawen) also found the pupurangi, or New Zealand snail (*Helix busbyi*), which is about 4 in. or 5 in. long, and lays an egg like that of a bird." It is curious that Mr. Shakespear, the curator of Little Barrier Island, has never found this large snail, nor has Mr. Cheeseman, on his repeated visits to the island, come across it. Possibly Mr. Boscawen's specimen was "the last of the Mohicans." Be this as it may, the fact remains that up to the end of the last century nothing else was known about the land molluscan fauna of Little Barrier Island.

In January last Mr. J. Adams, of the Thames, was paying a visit to the island, and, knowing him to be a very good collector of land-shells, I asked him to have a good look out for these mostly minute and inconspicuous creatures. On Mr. Adams's return he kindly handed over to me the harvest of his collecting, which enables me now to publish the first list of land-shells from this our native reserve. To Mr. Adams I wish to express my gratitude for the great trouble he has taken to get this nice and interesting collection together. No new species were amongst these shells, which belong to four genera and represent twelve species. There is little doubt but that further collecting will produce many additions to the list.

Fam. RHYTIDIDÆ.

(1.) *Rhenea coresia*, Gray.

Distribution.—North Island only, but more common in the northern part of it. It is not uncommon in the bush near Auckland, and occurs also on Chicken Island.