

- Endodonta* (*Charopa*) *coma*, Gray.
 " " *anguiculus*, Rve., var. *montivaga*, Sut.
 " " *sterkiana*, Suter.
 " (*Æschrodomus*) *barbatula*, Reeve.

VIII.—*Toitoti, Fortrose, Southland.*

To Miss J. G. Rich I am indebted for the following Mollusca:—

- Flammulina* (*Phacussa*) *hypopolia*, Pfr.
 " (*Phenacohelix*) *chordata*, Pfr.
 " (*Allodiscus*) *planulata*, Hutton.
Endodonta (*Charopa*) *tapirina*, Hutton.
 " " *anguiculus*, Rve., var. *montivaga*, Sut.
 " " *sterkiana*, Suter, f. *major*.
 " " *moussoni*, Suter.
 " (*Æschrodomus*) *stipulata*, Reeve.
Laoma (*Phrixgnathus*) *celia*, Hutton.

ADDITIONS TO THE LIST OF INTRODUCED MOLLUSCA.

- Limnæa auricularia*, L. Wanganui (R. Murdoch).
Aneitea graeffei, Humbert. Port Chalmers (Dr. Chilton);
 Collingwood (J. Dall).
Cionella lubrica, Müller. Auckland (Wright; H. S.).
Vallonia excentrica, Sterki. Auckland.

This shell was mentioned in my former list as *V. pulchella*, Müller. Since then Dr. Sterki has published a study on the genus *Vallonia*, and described the n. sp. *excentrica*, with which our shell perfectly agrees. It has very likely been introduced from England.

- Hyalinia alliaria*, Miller, I found in a paddock at Henderson, near Auckland.

ART. XXX.—On a New Species of Deinacrida or Forest-cricket from Nelson.

By Sir WALTER L. BULLER, K.C.M.G., D.Sc., F.R.S.

[Read before the Wellington Philosophical Society, 16th October, 1895.]

I HAVE the pleasure of exhibiting this evening a perfectly new species of that interesting group of orthopterous insects known as Wetas or Tree-crickets. For this very distinct form I am indebted to Mr. J. Brough, of Nelson, who met with it on the high wooded lands of the interior. As will be seen at a

glance, it is intermediate in size between the giant form, *Deinacrida heteracantha*, and *D. megacephala*, described and figured by me in vol. iii. of our Transactions. I exhibit specimens of both these forms for comparison with the new one, which I propose to name—

***Deinacrida broughi*, sp. nov.**

Female.—Body long and rounded, the entire surface, both upper and lower, being polished or shining. General colour pale reddish-brown, darker on the vertex, paler on the antennæ and on the joints of the limbs, and changing to blackish-brown on the face, edges of the thoracic shield, sides of abdomen, hind tibiæ, and ovipositor. Head large, with a prominent or rounded vertex, altogether free from punctures; eyes large, round, and perfectly black; thoracic shield patchy-looking, but also free from punctures. Of the ten dorsal segments behind it, the two first are broad and squarish, the rest much narrower, even, and with clean-cut edges. Limbs more slender in proportion to the size of the body than in *Deinacrida heteracantha*. Labrum prominent; labial and maxillary palpi clavate at the tips. The cerci, which are yellowish in colour, slightly curved outwards. The four anterior femora free from spines; tibiæ quadrangular, and having both of their inner edges armed with sharp spurs at short intervals, the second pair of femora having a single hind spur, about half-way down, as well as a terminal one; hind femora similarly armed with very minute barbs on their inner edges; hind tibiæ not broader behind than on the sides, with the posterior spines arranged in alternate series, sharp, slightly bent, and, proportionately to size, longer than in *Deinacrida heteracantha*. Length of the body, without appendages, 2.25in.; ovipositor, 0.75; hind femora, 1.5; hind tibiæ, 1.5; antennæ, 5.

The following account is given by Mr. Brough of the discovery:—

“Far up in the gloomy alpine woods which clothe the Karamea Saddle, and in the very heart of a red-birch forest, I came across this fine Weta for the first time. I should state, however, that I met with a still bigger one, which unfortunately I quite destroyed; and I will explain how this came about. While I was camped in the Saddle, at an elevation of 3,308ft., I noticed several holes near to the bottom of several of the old red-birch trees. The mouth of these holes seemed to me to be the entrance to a drive or home of some insect. I chopped into two or three of them with the axe, following up the tunnel, but I could not find any living insect or beetle inside. In one case I followed up the tunnel for some yards, to the

very extremity of the tunnel, which ended in a circular cavity large enough to hold a good-sized saucer; and at several places along the course of the tunnel there were enlargements or, so to speak, chambers. All the drives I examined had an upward course; I never found one commencing at the top of the tree. It was evident to me that the insect had planned its tunnel in such a way as to insure a dry house at all times. I noticed that in some places the insect had eaten its way through hard knots in the wood, nothing being allowed to interfere with the true course of the tunnel; but I looked in vain for the workman whose skill I had been admiring. I had given up the search as hopeless when one day I noticed, at a place some 600ft. below the Saddle, a very large lichen hanging over the entrance to one of these holes, which are generally a good inch in diameter. This, like all the others I had examined, was in a living tree; and, as it looked quite fresh; I determined to explore it. I first of all felled the tree with the axe, and then I followed up the tunnel for about 8ft., when I unfortunately sent the axe clean through a very large Weta—a much larger insect than the one forwarded, but of the same species. He seemed to be engaged in forming one of the chambers I have described. Not far from this place I found, on another tree, the same kind of lichen overhanging a hole, and this time I was more careful in using the axe. Here I found the insect which I send to Wellington. The altitude of this spot is something like 2,703ft. above the sea-level. Speaking generally, I should say that this species of Weta frequents dense forests, and lives by eating the heart of red-birch trees; for I observed that it always attacked growing timber. The red-birch trees are very hard, but their exterior is covered with mosses of various kinds, and the vegetation all round is very dense, much of it being composed of the forest cabbage-tree. From observing the habits of my Weta in captivity I am convinced that it is nocturnal in its habits. I had an excellent opportunity of noting his ways and doings, for I kept him in a glass pickle-jar, and he was the only camp-mate I had for some time. He seldom moved by day, unless I disturbed him; but he became quite lively by night, and at times emitted a chattering kind of sound. I had frequently heard this sound at night in the woods, but was never able to tell what produced it till I got this captive. I tried one day to measure him round the girth, but he resented this liberty, and went through some extraordinary antics, and I had to give it up. I found that he could bite fiercely, and when excited could hiss like an adder. I

may here mention that I saw a young man some time ago that had been bitten by one of the common Wetas inhabiting the lowlands. He was bitten in the wrist, and he had an awful arm; indeed, the pain nearly drove him mad. My captive Weta would eat nuts, and occasionally a little bark; but I could never induce him to eat by day. Although nocturnal in his habits, he could apparently see perfectly well in the daylight. He generally remained in a flat position, quite motionless, and looking gravely out of his glass house at the ways and doings of man."

ART. XXXI.—*Notes on New Zealand Ornithology, with an Exhibition of Specimens.*

By Sir WALTER L. BULLER, K.C.M.G., D.Sc., F.R.S.

[*Read before the Wellington Philosophical Society, 21st August, 1895.*]

ON the last occasion that I had the pleasure of bringing before you a budget of ornithological notes I took the opportunity in the course of my introductory remarks to refer to the wise action of the Government in setting apart two islands—the Little Barrier at the North and Resolution Island in the South—as permanent reserves for the conservation of the indigenous fauna and flora, and I mentioned that this practical step on the part of our rulers in furtherance of natural science had been the subject of comment and praise all over the world. It will, I am sure, be as gratifying to you as it was to myself to learn that the Minister of Lands has decided on acquiring, for a similar purpose, the freehold of the Island of Kapiti, in Cook Strait. This island, containing an area of about 5,000 acres, is in every respect most suitable; so much so that, many years ago, Sir George Grey, before he purchased the Island of Kawau, made inquiries as to the possibility of acquiring Kapiti as an island sanctum for himself, where he could carry on without interruption the work of acclimatisation upon which he had set his heart. Much of the bush on the island is of exquisite beauty, and the surface is sufficiently diversified to insure the successful cultivation of all our native trees and shrubs. Three species of birds—the Wood-robin, the Korimako, and the Whitehead—which are now practically extinct on the mainland, still have their refuge on Kapiti; and Captain Ross, who has hitherto been occupying the greater portion of the open land as a sheep-run, has been