

ART. XLIII.—*Description of a new Crustacean, Phronima novæ-zealandiæ.*

By LI. POWELL, M.D.

## Plate XXI.

[Read before the Philosophical Institute of Canterbury, 15th September, 1874.]

THE little Crustacean I am about to describe belongs to a small family of amphipodous Crustacea which are particularly interesting on account of their habit of what I venture to call eremitism. They are found almost invariably inhabiting the cavities of the tests of certain tunicate mollusks, and what have been described as Beroidæ. One described specimen, however, was found in the stomach of a shark, but whether inhabiting this curious residence from choice or necessity I do not know. Dr. Haast entrusted this specimen to me, Mr. A. E. Ross having found it on the Sumner beach, and presented it to the Museum, and I much regret that I have not the opportunity of showing the *Phronima* alive in its little crystal palace, but the small quantity of sea-water was unfortunately poured away, and we were obliged to transfer it to spirits.

The *Phronima* is about seven-eighths of an inch long when extended; it is as transparent as glass, the eyes alone being coloured red, and was contained in a little cask-shaped body, open at both ends, the openings being slightly contracted, one somewhat smaller than the other, composed of a perfectly transparent semi-cartilaginous substance. It is about three quarters of an inch in length, and half an inch in diameter, irregularly quadrangular, one of the angles slightly winged, the whole being wrinkled transversely. It is the test of a tunicate mollusk, probably one of the Salpidæ. A very similar structure associated with another *Phronima*, found in the Mediterranean, *P. sedentaria*, is figured in the British Museum Catalogue of Amphipoda under the name of *Doliolum papillosum*, Della Chiaje. Our specimen, however, is not papillose and differs in form.

The *Phronima* was doubled up in its cell facing one of the openings, and could not be dislodged without a good deal of pushing; when left at rest he immediately clambered back again.

Dr. Haast tells me that he has frequently found specimens of this little Crustacean on the West Coast, always inhabiting a similar cell.

## PHRONIMA NOVÆ-ZEALANDIÆ, sp. nov.

Cephalon very large, tumid above, tapering to the oral apparatus, finely striated, the striæ being resolvable with a low magnifying power into rows of pellucid dots. Antennæ as long as the breadth of the cephalon at their insertion, the first joint being very short.

First pair of gnathopoda having the meros slightly produced postero-

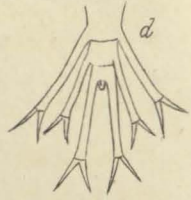
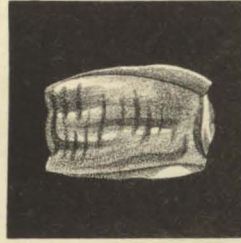
Fig. 1.



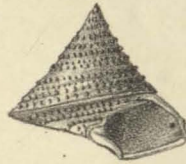
*Phronima novae-zealandiae*, X 3½.

Lt. Powell, del.

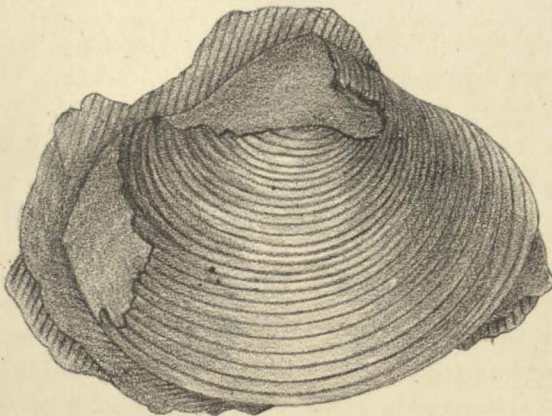
Fig. 2.



*Cominella striata*, Hutton.



*Zizyphinus hodgei*, Hutton.



*Venus sulcata*, Hutton.

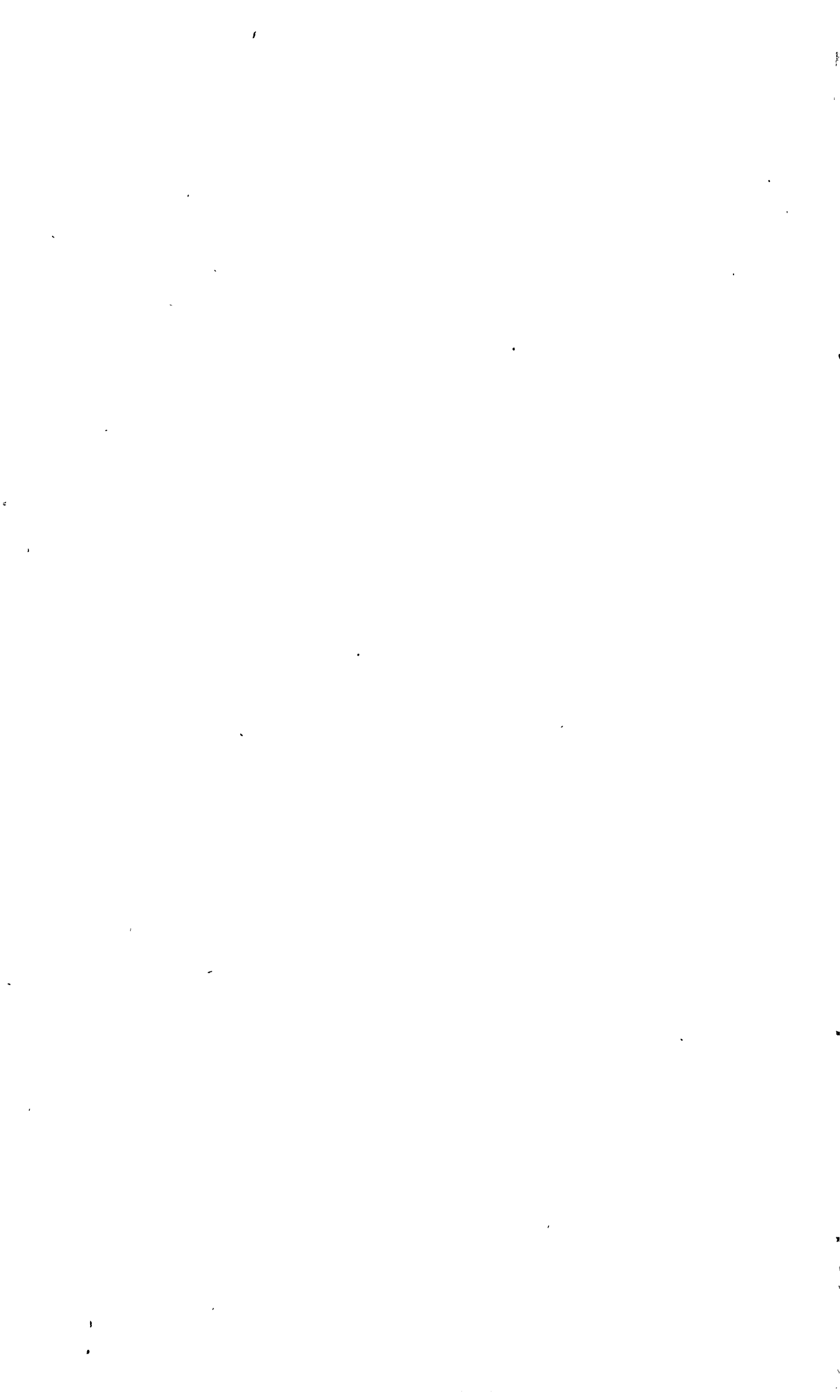
F. W. Hutton, del.



*Aplysia brunnea*, sp. nov.



*Aplysia venosa*, sp. nov.



distally, the carpus produced to nearly half the length of the propodos postero-distally, the anterior edge serrated, terminating in a sharp point.

Second pair of gnathopoda have the meros produced postero-distally into a long narrow process, nearly half the length of the carpus; the carpus has a similarly situated long narrow process, more than half the length of the propodos.

Third pair of pereiopoda have the base produced postero-distally into a sharp point not quite at the termination of the basos and springing off at a rather obtuse angle, the ischia produced antero-distally into a small sharp tooth; the carpus antero-distally produced to two-thirds the length of the propodos, provided with a prominent tooth at the centre of its inner margin; propodos long and slender, falcate, and furnished with an obtuse tubercle, corresponding to the proximal aspect of the carpal tooth.

The whole animal perfectly pellucid with the exception of the eyes which have a red colour.

Diagnostic points.—The long sharp process on the mera of the second pair of gnathopoda, the processes on the basa and ischia of the third pair of pereiopoda. Whether these characters are of sufficient importance to raise *P. novæ-zealandiæ* to the dignity of a species I am not sure, but they at all events constitute it a well marked variety, quite as deserving of ranking as a species as *P. custos*, *P. bornerasis*, and *P. atlantica*.

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REFERENCES TO PLATE XXI.

Fig. 1. *Phronima novæ-zealandiæ*, magnified three and a half times.

2. Test of Salpian.

- a. 1st gnathopod of *Phronima novæ-zealandiæ*.
  - b. 2nd gnathopod.
  - c. Chela of third pereiopod.
  - d. Extremity of pleon, showing three last pairs of pleopoda and telson.
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ART. XLIV.—*On the Disappearance of the larger Kinds of Lizard from North Canterbury.* By the Rev. J. W. STACK.

[Read before the Philosophical Institute of Canterbury, 7th May, 1874.]

THE absence of living specimens, coupled with the absence of all traces of recent remains, would render the task of proving that the large lizards existed till quite lately in this part of the country very difficult but for the fact that there are many Maoris still living who have not only seen but handled and