

five series of scales between the anterior dorsal and lateral line. *C. variabilis*, Gunth., is closely allied, but the latter has the second dorsal distant from the first; the scales have fine ridges, and each ridge is composed of several spines.

Bibliography.

REV. J. E. TENISON WOODS, F.L.S., &c.:

Fish and Fisheries of New South Wales. Sydney, 1882.
(213 pp.)

ERRATA.

Pp. 86, 105, and 121, for *Blennidæ* read *Blenniidæ*.

NOTE AND DESCRIPTION OF THE FIRST DISCOVERED REPRESENTATIVE OF THE GENUS *PUPA* IN TASMANIA.

By R. M. JOHNSTON, F.L.S., etc.

[Read 17th April, 1882.]

PUPA, Draparnaud.

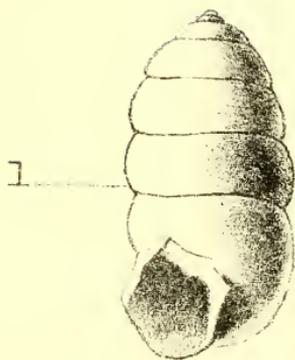
Animal short, stout, acute behind, its upper tentacles developed, its lower ones short, or almost obsolete. Shell oblong-cylindrical, many whorled, often rather thick, mostly ribbed, sometimes deeply umbilicated, generally rather obtuse at the apex; aperture somewhat squarely ovate, generally more or less toothed; lip thickly reflected.

PUPA LINCOLNENSIS, Angas.

Pupa Tasmanica, R. M. Johnston.

Shell minute, sinistral, thin, of a uniform light fawn colour, sub-pellucid, oblong-cylindrical, obliquely finely lirate; suture somewhat impressed; spire scarcely contracted towards apex, which is suddenly obtusely rounded; whorls, 6, slightly convex; aperture somewhat squarely ovate, subvertical, with a moderately prominent tooth; peristome simple, margins distant, united by a callous lamina; anterior and columellar margins slightly reflexed. Length, 3 mil.; diam., 1.75 mil. Habitat, sand dunes, Swansea. Abundant.

This interesting species was obtained by me recently in great numbers in the shallow depressions of the sand dunes, where the bleached dead shells were lodged by the action of the wind. They were associated with *Helix Furneauxensis*, Petterd;



PUPA LINCOLNENSIS, (ANGAS.)

H. pictilis, Tate; *H. Stanleyensis*, Petterd; *Bulimus Dufresni*, Leach; and *B. Tasmanicus*, Pfr. The last mentioned species was found in abundance upon the leaves of *Xerotes longifolia*, where, no doubt, among the roots the living specimens of *Pupa Lincolnensis* may be found. The name *P. Tasmanica*, first given to the shell, has been withdrawn, as on comparison with Angas' *P. Lincolnensis*, kindly given me by Mr. Petterd, I found that the Tasmanian form was not specifically distinct from it.

Hitherto conchologists were of opinion that the genus *Pupa* had no representatives in Tasmania. The discovery of the first representative will, therefore, be of more than usual interest to local naturalists.

Hobart,

December 12, 1881.

ON THE STATE OF THE SURVEYS IN TASMANIA.

By G. McINTYRE, Authorised and Licensed Surveyor,
Christchurch, New Zealand.

[Read 9th May, 1882.]

At recent meetings of the Royal Society the question of the present state of the surveys in Tasmania and the best methods to be adopted for placing them upon a sound basis was under discussion, and various suggestions were made on the subject. Subsequently, on the 27th October, a letter was published in *The Mercury* under the heading "Field Surveyors," which was intended as a reply to the unfavourable comments which had been made upon the existing survey system. This letter was signed by Mr. J. E. Calder, a gentleman who for several years held the office of Surveyor-General for Tasmania, and is therefore entitled to consideration as dealing with a subject with which it is only reasonable to assume he is well acquainted. Statements, however, are made and reasonings adopted which are open to criticism; while the general impression conveyed to the mind of the unprofessional reader amounts to this:— That the surveys of Tasmania are as good as it is possible to make them in a timbered and rugged country, and that a trigonometrical survey is practically useless.

A system of survey for a large extent of country cannot be considered as in any degree accurate or reliable, unless it is based upon a reference to the True Meridian, which is constant and not subject to the fluctuations and uncertainties attaching,