

ART. VII.—Description of a New Species of the Family Cerithiidae.

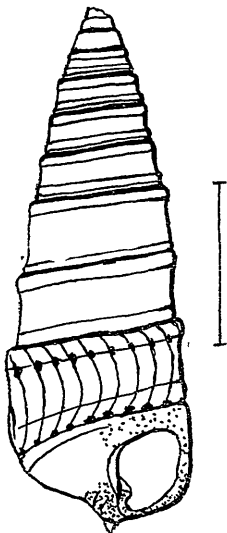
By HENRY SUTER.

Communicated by R. Speight.

[Read before the Philosophical Institute of Canterbury, 18th September, 1918; received by Editor, 25th September, 1918; issued separately, 14th May, 1919.]

Fastigiella australis n. sp.

Shell elongate-conical, gradate, many-whorled, with slightly nodulous cinguli; aperture oval-quadrangular; columella with a distinct fold produced by the entering of the carina of the fasciole. Sculpture: The post-embryonic whorls have a prominent convex and faintly nodulous spiral band below the suture; a similar but narrower band above the lower suture, and below it a fine thread margining the suture. The paratype, which is smaller, shows only the upper band and a distinct thread above the suture below. On the lower whorls the thread margining the suture is lost; strong convex and distant growth-lines turn up which are produced into nodules on the upper and lower cinguli, but the specimens before me, no doubt considerably worn, show only traces of these characters. The body-whorl is distinctly angled and bears two cinguli upon the angle. The base of the paratype shows traces of spiral striation. Spire high, distinctly gradate, angle about 20°. Protoconch lost. Whorls 8 on the imperfect holotype, flat or somewhat concave between the cinguli, the body-whorl angled. Suture deep, canalculate in the paratype. Aperture ovate, but slightly quadrangular, not channelled above; most likely with a very short and notched canal, but the whole of the mouth is too much damaged in both specimens to be quite certain. Outer lip straight, curved

*Fastigiella australis* Suter.

and indistinctly angled towards the base. Columella a little excavated above, bearing on its lower part a fold which evidently extends as a carina upon the fasciole, but the latter is almost completely broken off. Inner lip spreading somewhat over the base, more apparent on the paratype.

Height, 22 mm.; diameter, 8 mm. (imperfect holotype).

Holotype and one paratype in the Canterbury Museum, Christchurch.

Loc.—Holotype from the upper horizon, Whitewater Creek, and the paratype from the upper horizon, *Struthiolaria* bed, Porter River, Trelissick Basin; both collected by Mr. R. Speight, Curator of the Canterbury Museum.

Remarks.—The genotype is *Fastigiella carinata* Reeve, a living species from the Antilles, and our species differs from it chiefly in the aperture not being channelled above. The umbilicus of the type I take to be simply

a deep impression inside the fasciole; Cossmann does not mention an umbilicus in the diagnosis of the genus. Besides the Recent genotype, about half a dozen Tertiary species are known, the genus being evidently of rare occurrence. *F. australis* is, as far as I know, the first species recorded from the Southern Hémisphere.

The Cerithiidae are but scantily represented in the New Zealand Tertiary. At the present time the following six species are on record: *Cerithium hectori* Harris, *Besanconia huttoni* (Cossm.), *Fastigiella australis* Sut., *Cerithidea bicarinata* (Gray), *C. tricarinata* Hutt., and *Batillaria pomahakensis* Harris.

ART. VIII.—*The Structure of Amphibola crenata Martyn.**

By WINIFRED CHEYNE FARNIE, M.A., Assistant in the Biology Department, University of Otago.

Communicated by Professor Benham.

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INTRODUCTION.

THE shell of *Amphibola* was first brought to the notice of European naturalists by being collected during Cook's voyage to New Zealand in 1769, but the earliest account of the anatomy of *Amphibola* we owe to Quoy and Gaimard in 1832. The only other accounts we have are those of Captain Hutton in 1879 and 1882, and of Bouvier in 1892.†

Quoy and Gaimard (1832) described specimens collected in New Zealand during the expedition of the "Astrolabe." They ascertained that it was a true pulmonate, and that it was hermaphrodite. They give excellent figures of the shell and operculum, but only one of the internal anatomy, and that is lacking considerably in detail; while their account of the anatomy is inaccurate in several points, and not sufficiently detailed.

Captain Hutton (1879) noted the two small triangular tentacles, and described the kidney and alimentary canal in greater detail than Quoy and Gaimard, though his description of the intestine is not quite correct. He also figured and described the nervous system and reproductive organs. In 1882 he published some further notes, wherein he corrects his former account of the radula and traces what he took for the "oviduct" from the hermaphrodite duct. Further mention of Hutton's work will be made throughout my account.

For a systematic diagnosis of the species reference should be made to Suter's *Manual of New Zealand Mollusca* (1913) and *Atlas of Plates* (1915).

* This paper formed the basis of a thesis for Honours in Zoology at the University of New Zealand, 1916.

† I have been unable to consult this memoir.