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TWO AUSTRALIAN SPECIES OF *DITRYPA*.

BY

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(Figures 1-2).

In 1877 Brazier¹ placed before the Linnean Society of New South Wales the continuation of his examination of the Mollusca collected during the "Chevert" Expedition, including among these results his description of a new species of *Dentalium*. This species was named by him *Dentalium laeve*, and his description, unaccompanied by a figure reads:

"Shell light amber colour, sometimes white, smooth, glossy, strongly arched, half-moon shaped, basal margin pinched in about two lines long, forming somewhat like a shoulder, then slightly ventricose, from that to the apex regularly tapering, apex with a minute perforation, entire.

Length, 14 lines; diam. of base at shoulder, 1; below, $\frac{1}{2}$ line."

At the conclusion of his description Brazier remarks that "The lower part of this species resembles the spines of Sea Urchins '*Echinida*.' The greater part of the specimens are encrusted over with a fine coating of coral-like substance."

To the description the following localities are appended: Princess Charlotte Bay, North-East Australia, 13 fms., sandy mud; Cape Grenville, North-East Australia, 20 fms., mud; York Island, Torres Straits, 13 fms., hard mud bottom; Darnley Island, Torres Straits, 5, 15, 20, 30 fms., mud, sand and sandy mud bottom.

These specimens are housed in the Macleay Museum at the University of Sydney, and I am indebted to Mr. John Shewan for his courtesy in placing them at my disposal for examination.

As a *Dentalium* the specific name of *laeve* had been preoccupied by Schlotheim² and Turton,³ and was again used by Hilgard and Hopkins⁴ in 1878. In the Manual of Conchology Pilsbry and Sharp refer this form to *Cadulus* ?? *laevis*, Brazier, and make the following remark:—"Described as *Dentalium*, the specific name being preoccupied. It seems to be a *Cadulus* or a *Ditrypa*. We have not seen specimens, but the last clause of Brazier's observations suggest the latter genus."

An examination of the "Chevert" material in the Macleay Museum, and of the material in the Australian Museum (paratypes) shows that *Dentalium laeve* may be definitely removed from the Mollusca to the Annelida; and in considering the geographical distribution of these forms, my conclusions point to the improbability of this being referable to the European *Ditrypa cornea*, and it is therefore regarded as a new species.

¹ Brazier—Proc. Linn. Soc. N.S. Wales, ii., 1, 1878, p. 59.

² Schlotheim—Die Petrifactenkunde, 1820, p. 93 (as *Dentalites laevis*).

³ Turton—Conch. Dict. Brit. Is., 1819, p. 256.

⁴ Hilgard and Hopkins—Rep. Borings Mississippi River and Lake Borgne (Engr. Dept. U.S. Army), 1878, p. 48, pl. iii., fig. 6.

DITRYPA BRAZIERI, sp. nov.

(Figure 1).

Dentalium leve, Brazier, Proc. Linn. Soc. N.S.Wales, ii., 1, 1878, p. 59.*Cadulus laevis*, Brazier, Hedley, Proc. Linn. Soc. N.S.Wales, xxv., 3, 1900, p. 499, pl. xxvi., figs. 8, 9, 10. *Id.*, Hedley, Rec. Aust. Mus., iv., 3, 1901, p. 129.*Cadulus ? ? laevis*, Brazier, Pilsbry and Sharp, Man. Conchology, xvii., 1897-8, p. 195.

Shell curved and tapering; 1 mm. in diameter at the broadest part of the posterior end, the walls of which, for 2 mm. from the posterior opening, incline sharply to form the frustum of a cone. Orifice at the anterior end minute and entire. Surface smooth, porcellaneous, or encrusted with adherent patches of nullipore. Colour white to yellowish brown. Texture earthy.

Average length of "Chevert" specimens, 14 mm.

Holotype in the Macleay Museum, University of Sydney.

A second form which differs from the other described forms of *Ditrypa* has been added to the collections of the Australian Museum. It is from 20 fathoms between Cairns and Endeavour Reefs, Queensland, collected by Mr. A. R. McCulloch of the Australian Museum, September 9, 1918. While these are the only specimens in the collections, Mr. Hedley informs me that this form has constantly occurred in dredgings that he has examined from the coast of North Queensland. I have to thank Mr. F. Chapman of the National Museum, Melbourne, for his examination and verdict that this form is a true *Ditrypa*.

DITRYPA AUSTRALIS, sp. nov.

(Figure 2).

Shell very slender, curved and tapering. Orifice at the anterior end minute and entire. The walls of the posterior opening are thickened and slightly contracting in perfect specimens. Surface smooth or porcellaneous. Texture earthy. Colour dirty white to grey. Average length, 8 mm.

Holotype in the Australian Museum (F. 17609).

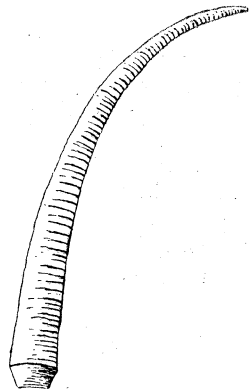


Fig. 1.

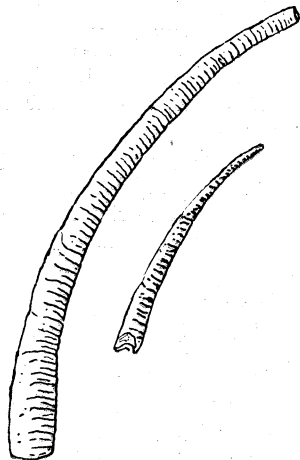


Fig. 2.