Zoology Part LXV: Report on the PTEROPODA. Second Part. -Thecosomata. By Paul Pelseneer. Bound in Volume 23,1888.

with the last whorl much expanded and convex, and projecting more in proportion than all the foregoing. Aperture quadrangular, somewhat angled in front; columella straight, reflected to the right; umbilicus broad.

Colour.—Milky.

Dimensions.—2 to 2·5 mm. in height, about 1·5 mm. in maximum diameter.

Operculum approximately oval, with an almost straight columellar margin, and with a spiral portion measuring barely two-fifths of the entire length.

The animal exhibits a small lobe on the dorsal margin of each fin.

Habitat.—Cape Horn (Souleyet).

From its discovery by Souleyet this species was not reobserved until the Challenger Expedition. Jeffreys[1] follows Vérany in noting the coast of Piedmont as a locality of *Spirialis australis*, and this has been repeated without question by various authors.[2] The statement is, however, entirely erroneous, and has in all probability reference to *Limacina trochiformis*.

The specimens collected by the Challenger show that this species has a somewhat wide distribution round the South Pole, where it occupies, along with *Limacina antarctica*, a position analogous to that of *Limacina retroversa* and *Limacina helicina* in the north.

Challenger Specimens.—Living.

Station 146, December 29, 1873; Marion Island to Crozets; lat. 46° 46′ S., long. 45° 31′ E.

Station 149, January 9, 1874; at Kerguelen Island; lat. 49° 8′ S., long. 70° 12′ E.

Station 150, February 2, 1874; Heard Island; lat. 52° 4′ S., long. 71° 22′ E.

Between Stations 154 and 155, February 21, 1874; in vicinity of Antarctic Ice; lat. 63° 30′ S., long. 89° 8′ E.

Observations.—Boas[3] has expressed hesitation in regard to the possible specific identity of *Limacina australis*, *Limacina retroversa*, and *Limacina trochiformis*. They are, however, as we shall see, three very distinct forms.

In the first place, as regards *Limacina trochiformis*, it belongs along with *Limacina bulimoides* to a special group of *Limacinæ* quite different from that to which *Limacina australis* and *Limacina retroversa* are to be referred. It is characterised by the presence of a shell with oval, rounded aperture, with the columellar margin reflected to the left, and with a very narrow umbilicus. In *Limacina bulimoides* and *Limacina trochiformis* also the animal is without any lobe on the fin. In *Limacina australis*, on the other hand, the opening of the shell is quadrangular, with the columellar margin reflected to the right, with a very broad umbilicus, and a tentacle-like lobe on the dorsal margin of the

[1] On the Marine Testacea of the Piedmontese Coast, *Ann. and Mag. Nat. Hist.*, ser. 2, vol. xvii. p. 180.
[2] For instance Weinkauff, Die Conchylien des Mittelmeeres, t. ii. p. 428.
[3] Spolia atlantica, p. 46.

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