

empty shells, obtained from deep-sea deposits, the surface is perfectly smooth, and the shell is then clear and translucent, with a brownish-grey colour. This makes me think that the reticulation of the surface is confined to the epidermis.

II. The reason for the numerous titles applied to the present species is that the specimens have been studied in very different conditions.

Hitherto only one author has studied the living Pteropod in its adult state, namely Costa, who described it as *Spirialis recurvirostra*.

The two oldest descriptions of this species, that of d'Orbigny (under the title *Atlanta reticulata*) and that of Souleyet (under the title *Spirialis clathrata*), refer to young individuals. This is clearly shown from their smaller size ( $2\frac{1}{2}$  mm.), the fewer turns in the spiral (three), the incompletely developed columellar rostrum, and the well-developed reticulation towards the aperture.

As to this reticulation, I have noticed that in the single specimen obtained on the Challenger Expedition, which was at the same stage as that observed by d'Orbigny and Souleyet, the markings are hexagonal, and not tetragonal as one might suppose with low-power examination.

Finally, the empty shells from deep-sea deposits, which have lost their superficial reticulation and brown colour, have been described by Forbes, Jeffreys (1871), and Fischer (1882)<sup>1</sup> under the specific title *physoides*.

*Habitat*.—Pacific Ocean, 20° S., 87° W. (d'Orbigny); perhaps in the Atlantic, at the Canaries (Krohn);<sup>2</sup> Mediterranean, Naples, during the day, at a depth of 100 metres or more.

The empty shells of this species have been dredged at various points in the Mediterranean; in the deep-sea dredgings of the "Travailleur" (Fischer); on the coast of Algiers ("Porcupine" Expedition, 1870, Station 51, 36° 55' N., 1° 10' E.); off Crete (Jeffreys),<sup>3</sup> in the Ægean Sea (Forbes), and finally in the North Atlantic ("Valorous" Expedition).<sup>4</sup>

*Challenger Specimens*.—I. Living.

Between Stations 264 and 265, August 24, 1875; on the route from the Sandwich Islands to Tahiti; lat. 13° 15' N., long. 152° 2' W.

This single specimen was stained and mounted in balsam. In order to examine the reticulation of the shell and the form of the fins, I had to extract the specimen from the balsam, and in this operation the shell was broken.

II. Deposit shells.

Station 23, March 15, 1873; off Sombrero Island; lat. 18° 24' N., long. 63° 28' W.; depth, 450 fathoms; bottom, Pteropod ooze.

<sup>1</sup> *Comptes rendus*, vol. xciv. p. 1201.

<sup>2</sup> Beiträge zur Entwicklungsgeschichte der Pteropoden und Heteropoden, p. 43.

<sup>3</sup> *Ann. and Mag. Nat. Hist.*, ser. 5, vol. xi. p. 401.

<sup>4</sup> *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xix. p. 337.