

Savigny<sup>1</sup> distinguishes three varieties in this species :—

- (a) Body having, both externally and internally, a strong brown tint, which appears to be due to a brown matter which fills the branchial cavity. The terminal papillæ are large, and for the most part obtuse. The diaphragm is very narrow, and leaves a large aperture. Total length, 13 to 14 inches.
- (b) Body bluish or slightly violet, perfectly diaphanous. The papillæ are rather narrow. There is no ring-like diaphragm at the aperture, which is surrounded only by very young Ascidiozooids. Total length, 6 inches.
- (c) Body bluish, perfectly diaphanous. The papillæ are longer and more pointed than in the preceding varieties. The ring-like diaphragm leaves only a very narrow opening, which is surrounded by Ascidiozooids nearly all of which are adult. Total length, 3, 6, 7 inches.

Of these varieties the Challenger specimen from off Cape Verde most nearly resembles the last (var. c).

The test in this specimen is very richly provided with test cells. In the surface layers they are especially numerous, and are nearly all greatly elongated and arranged so as to be nearly parallel to one another. Here and there a stellate or a large round granular cell is to be found (Pl. I. fig. 5). In the deeper parts of the test between the Ascidiozooids, the cells are not so numerous and are nearly all stellate, with very long branched processes (Pl. I. fig. 6). Here also some of the large round granular cells are present. At the branchial aperture, as in other Tunicata, the test is turned in to line the branchial siphon. In this inflected part of the test (Pl. I. fig. 7) the cells are few and small, but in the test outside the branchial aperture, and just above the sphincter muscle, a very large number of small rounded cells are present.

The Challenger Expedition also obtained six specimens (probably from near the surface) in the Antarctic Ocean, to the south of Australia, which I refer to the present species. They are from Station 159, March 10, 1874, lat. 47° 25' 0" S., long. 130° 22' 0" E., surface temperature 51°·5, bottom temperature 34°·5, and were captured in the trawl, which had been down to a depth of 2150 fathoms. They are all of large size, but some are incomplete. The dimensions of the largest are as follows :—<sup>2</sup>

Total length,	. . . . .	36 cm.
Breadth at open end,	. . . . .	3 cm.
Breadth at widest point,	. . . . .	4·5 cm.
„ closed end,	. . . . .	1·5 cm.
Diameter of common cloacal aperture,	. . . . .	1·0 cm.
Thickness of colony (from outside to inside),	. . . . .	0·4 cm.

<sup>1</sup> *Système des Ascidies*, p. 207.

<sup>2</sup> One of the fragments, however, must have belonged to a much larger specimen, as it is 7 cm. in breadth, and has the common cloacal aperture 4·5 cm. in diameter.