the Ascidiozooid at the same time. The mature ova are large and of a bright yellow colour. The spermatic vesicles are small and ovate or pyriform; they are very numerous. The vas deferens is long and conspicuous, and is coiled spirally throughout its course. No larvæ were found in the Ascidiozooids examined.

Aplidium fallax, Johnston (Pl. XXVIII. figs. 1–4).

Aplidium fallax, Johnston, Mag. Nat. Hist., ser. 1, vol. vii. p. 15, figs. 4–18.
Aplidium fallax, Johnston, Forbes and Hanley, British Mollusca, vol. i. p. 11, Pl. A. fig. 1, 1853.

Two specimens obtained during the cruise of H.M.S. "Porcupine" in the summer of 1869, in Loch Foyle on the north coast of Ireland, from a depth of 10 fathoms, appear to be referable to *Aplidium fallax*, a species described by Johnston in 1834, and figured by Forbes in 1853. Johnston's specimen was from Berwick Bay, deep water, and Forbes' from the Isle of Man.

The two colonies in the "Porcupine" collection are fixed to the same fragment of a Hydroid Zoophyte and are both of much the same size, about 1 cm. in length, 1·5 cm. in breadth, and 1 cm. in thickness (Pl. XXVIII. fig. 1). The general shape is irregularly ovate, the area of attachment being the middle of the lower surface, which is rather small, while the upper surface is larger and gently convex. The whole surface is rather uneven. The colour is a dull grey with pale opaque yellow spots. No common cloacal apertures are visible on either of the colonies.

The Ascidiozooids are fairly large and rather numerous (Pl. XXVIII. fig. 1). They are placed with their long axes perpendicular to the upper surface of the colony, but they are not arranged in regular systems. The body is usually 3 mm. in length and 1 mm. in breadth, and is not distinctly divided into regions externally (Pl. XXVIII. fig. 2). The thorax is longer than the abdomen, and the post-abdomen is usually rather shorter than the abdomen.

The test is moderately firm, but on account of the large number of Ascidiozooids in the colony it never becomes very thick. It is of a dull grey colour and is semi-transparent. It contains abundance of test cells, some of which are of rather large size; their protoplasm is usually granular.

The mantle is not thick, and is transparent. The muscle bands are few in number and rather weak. They mostly run in a longitudinal direction. The branchial siphon is well developed, and its aperture is six-lobed (Pl. XXVIII. fig. 2, *br.*). The atrial aperture is provided with a well-marked atrial languet.

The branchial sac is large and well developed. The transverse vessels are narrow and all of the same size; they are supplied with muscle fibres. The stigmata are rather long (Pl. XXVIII. fig. 3, *sg.*). They are arranged with great regularity, and are of about the same size as the fine longitudinal vessels between them. Near the ventral