

The tentacles are filiform and are few in number ; they are of two sizes, placed larger and smaller alternately, and situated rather far apart.

*Ascidia nigra* seems to be a common and widely distributed species. Lesueur's specimens were from St. Vincent and Guadaloupe, Bay of Calicoua ; and Traustedt's from St. Croix, and St. Thomas ; those obtained during the "Argo" expedition were from Antigua and Tucacas ; and there are some specimens in the British Museum collection from the Red Sea. The Challenger specimen from Bermuda is rather small, measuring about 6 cm. in its greatest length (antero-posterior), and 4 cm. in breadth. Those probably from Station 142 are larger, being about 10 cm. in length.

One specimen of this species is from Bermuda, shallow water, and three probably from Station 142, December 18, 1873 ; lat. 35° 4' S., long. 18° 37' E. ; depth, 150 fathoms ; bottom temperature, 8°·3 C. ; bottom, sand.

*Ascidia falcigera*, Herdman (Pl. XXXII. figs. 1-6).

*Ascidia falcigera*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1879-80, p. 469.

*External Appearance.*—The body is elliptical or nearly round in shape, and is usually depressed. The area of attachment is large, including part of the ventral edge and the entire posterior end, and extending sometimes half-way up the left side. The edge of the base is often expanded into a thin spreading margin. The apertures are on the upper (right) side, near the anterior end, and not far apart ; the branchial is terminal or subterminal, the atrial is about two-fifths of the way down, and at a short distance from the dorsal edge. The branchial is almost sessile, while the atrial is slightly prominent ; the lobes are very distinct, especially those around the atrial aperture.

The surface is smooth and soft, but slightly wrinkled. The colour varies from a light grey to a pale horn tint ; it is darker at the apertures.

The length and breadth are variable ; as an average may be taken—length of the body, 5 cm. ; breadth of the body, 4 cm.

*The Test* is thin all over, except at the base of attachment, where it is greatly thickened, and has small stones, &c., imbedded in it. Large vascular trunks are visible in this thickened base, elsewhere the vessels are few and of small size.

*The Mantle* is moderately muscular, especially on the siphons and down the centre of the right side.

*The Branchial Sac* extends to the base of the mantle, and is not longitudinally plicated. The transverse vessels are all narrow. The internal longitudinal bars are moderately strong, and bear long tapering papillæ, which are curved like tusks, at the angles of the meshes ; there are no intermediate ones ; the horizontal membranes are very broad, and form large flat vesicles occupying the concave sides of the papillæ. The meshes are square, and each contains three to five regularly arranged stigmata.

*The Endostyle* is well marked, and of a yellow colour ; it ends abruptly at the base of the ventral edge of the sac.