

*Ascidia nigra*, Savigny.

*Phallusia nigra*, Savigny, Mém. sur les Anim. sans Vert., part ii., 1<sup>er</sup> fasc. p. 163, pl. ii. fig. 2, pl. ix. fig. 1, 1816.

*Ascidia atra*, Lesueur, Descr. of several new species of *Ascidia*, Jour. Acad. Nat. Sc. Philadel., vol. iii. part 1, p. 2, pl. i. fig. 2, 1823.

*Ascidia nigra*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1880-81, p. 466.

*Phallusia atra*, Traustedt, Vestindiske Ascidiæ Simplicis, Vid. Medd. Nat. For. Kjøbenh., p. 278, 1881.

At the time when the first part of the Preliminary Report was written, I had only examined a single specimen, from Bermuda, of this curious species. Since then I have received from the Challenger Office three large specimens, probably from Station 142 (off the Cape of Good Hope). They are joined into a single mass by the fusion of the tests, chiefly at the posterior end, so that the appearance of a colony is produced. There seems to me no doubt that these Challenger specimens are the same species as Savigny's *Phallusia nigra* and Lesueur's *Ascidia atra*, although Traustedt (*loc. cit.*) appears to think otherwise. I have seen a considerable number of specimens, as in addition to those of the Challenger expedition, Mr. Moore, the curator of the Liverpool Free Public Museum, has kindly allowed me to examine the specimens in the collection made by the Rev. H. H. Higgins during the "Argo" expedition. Some of these, which were collected at Antigua and Tucacas, are very large.

One of the most striking features of this species is the test, which varies considerably in shape, and especially in the length and direction of the siphons, but is always of a very deep blue colour, almost black, and quite opaque. Sections show that this is due to the presence of very large numbers of rounded pigment corpuscles, each well filled with small dark blue pigment granules.

The apertures are distinct and prominent, but sometimes there are one or two supernumerary lobes. The test is thick and strong, but rather brittle; it contains numerous blood-vessels. The mantle is fairly muscular on the right side of the body, and the muscle bands are of a dark colour.

The branchial sac is long, and tapers to a point at the posterior extremity; it is plicated longitudinally, and is in some respects rather like that of *Ascidia translucida*. The transverse vessels are alternately wider and narrower, and occasional still wider transverse vessels are present, alternating with from five to nine of the smaller size. The internal longitudinal bars are strong, and bear each a series of large curved papillæ at the angles of the meshes, and smaller intermediate ones, which are only present in some parts of the sac. The papillæ are somewhat like those in the branchial sac of *Ascidia falcigera*. A number of the blood corpuscles found in the vessels are of a deep indigo blue colour. This gives a bluish tinge to the whole sac, and to most of the other organs of the body.