

sac, and runs ventrally in an undulating course (Pl. XI. fig. 2) to open into the anterior end of the stomach. The intestine, on emerging from the posterior end of the stomach, runs dorsally and posteriorly, also in an undulating course, to terminate near the posterior end of the body. The duct from the reproductive organs runs near the œsophagus to open into the peribranchial cavity close to the base of the atrial siphon. The arrangement of the viscera agrees with that of *Abyssoascidia wyvillii* except that in that species they were placed upon the right side of the branchial sac. The arrangement of the alimentary canal, the relative positions of œsophagus and intestine, and the relations to the reproductive mass, are the same in the two cases.

The chief points in which the present species does not agree with the genus *Abyssoascidia* as defined in the first part of this Report, are the number of lobes around the branchial and atrial apertures, and the relations of the branchial sac and viscera. This is a right-handed species, while *Abyssoascidia wyvillii* is a left-handed species; but as both are represented by single specimens only, too much stress must not be put upon this difference, as one of them may possibly be a reversed individual. Left-handed specimens of *Ascidia* are sometimes found. Consequently I shall not modify the characters of *Abyssoascidia* yet. Some other specimens may be found which will enable us to decide which condition is the normal one in the genus, and whether or not the present species belongs to *Abyssoascidia*, or requires to be separated as the type of a new genus.

*Styela sericata*, n. sp. (Pl. XI, figs. 14-16).

*External Appearance.*—The body is of an elongated ellipsoidal form, with the anterior end slightly narrower than the posterior, and with the sides nearly equally convex. The body is apparently not attached. The apertures are sessile, four-lobed, and placed far apart. The branchial is anterior and terminal, while the atrial is placed on the dorsal surface fully three-fourths of the way to the posterior end of the body. The surface of the test is even, but is covered with long delicate silky processes which form a hairy investment, to which a few sand grains adhere. The colour is yellowish grey.

Length nearly 3 cm.; breadth, at middle of body, 1.3 cm.

*The Test* is thin but tough and leathery. Its inner surface is smooth and of a whitish colour. The outer surface is minutely roughened, and is covered with delicate hair-like processes of various lengths.

*The Mantle* is thin and adheres closely to the test. The musculature is delicate but close. The muscle bundles run in all directions.

*The Branchial Sac* is large and well developed. The folds are slight, being merely produced by the approximation of a number of internal longitudinal bars. There are eight or ten bars in such places. The meshes in the opener parts of the