

20, 1876; lat. 52° 20' S., long. 68° 0' W.; depth, 55 fathoms; bottom temperature, 8°·8 C.; sandy bottom.

*Molgula gregaria*, Lesson (sp.) (Pl. IV. figs. 5–8).

*Cynthia gregaria*, Lesson, Centurie Zoologique, p. 157, pl. 52, fig. 3. Paris, 1830.

*Cynthia gregaria*, R. O. Cunningham, Notes on the Reptiles, &c., obtained during the voyage of H.M.S. "Nassau," Trans. Linn. Soc., vol. xxvii. p. 488.

*Molgula gregaria*, Herdman, Preliminary Report, Proc. Roy. Soc. Edin., 1880–81, p. 234.

*External Appearance.*—The body is almost spherical or sometimes ovate, and is slightly compressed laterally. The posterior end is large and rounded; the anterior is somewhat narrower and slightly projecting. The dorsal and ventral edges are strongly and equally convex. It is attached by the posterior end of the left side.

The apertures are both at the anterior end, and are not distant; the branchial is low, hemispherical, and six-lobed; the atrial is more prominent, narrower, and four-lobed. The surface is smooth and glistening, slightly undulating and furrowed, and occasionally a little wrinkled. The colour is white, with usually a hyaline blue tinge.

Length of the body, 7 cm.; breadth of the body, 8 cm.

*The Test* is cartilaginous and solid; it is moderately thick and strong, and almost opaque; no vessels are visible.

*The Mantle* is thick, but not very muscular.

*The Branchial Sac* is strong, with seven distinct but narrow folds on each side. The internal longitudinal bars are strong but few. The transverse vessels are very irregular; they divide and anastomose to form a network in the meshes of which the irregular and complicated infundibula are set. The stigmata are rather small, and they are curved and arranged in spirals. Broad horizontal membranes attached to the internal longitudinal bars run along the chief transverse vessels.

*The Dorsal Lamina* is rather thin, but broad; it is crumpled, but neither ribbed nor toothed.

*The Tentacles* are large and much branched; they are fourteen in number, and of two sizes, placed large and small alternately.

*The Dorsal Tubercle* is elliptical or kidney-shaped; both horns are much coiled, and form large spirals; the aperture is at the right side.

This species, like the last, was first described as a *Cynthia*. As no account of it has ever been published except as to the external appearance, I have given here a full description and figures.

The specimens differ somewhat in appearance on account of the condition of the test. This seems to vary considerably, being in some individuals thin, except at the posterior end, while in others it is much thicker, stiffer, and more opaque (as in the specimen figured, Pl. IV. fig. 5). The lobes around the prominent apertures are very distinct, and the branchial has, in addition to the six ordinary lobes, a series of six much