

Grube first described this species in 1877 from specimens collected by the German exploring ship "Gazelle." No information is given in regard to its habitat.

*Trophonia wyvillei*, n. sp. (Pl. XLIV. fig. 6; Pl. XXIII.A. figs. 11-14; Pl. XXXVIA. figs. 5-7; Pl. XXXVIIA. fig. 1).

*Habitat*.—Trawled at Station 157 (midway between the most southern Station and Australia), March 3, 1874; lat.  $53^{\circ} 55' S.$ , long.  $108^{\circ} 35' E.$ ; depth, 1950 fathoms; bottom temperature  $32^{\circ} \cdot 1$ , surface temperature  $37^{\circ} \cdot 2$ ; sea-bottom, Diatom ooze.

The single specimen has a length of 73 mm., and a breadth at its widest part of 28 mm. The frontal bristles extend about 30 mm. from base to tip, so that the extreme length of the animal and its bristles is about 100 mm.

The shape of the body, which is of a dusky grey colour like the ooze, is broadly elliptical or somewhat fusiform, widest about the middle and tapering to each end. The truncated anterior extremity has a slight median projection, from which the purplish frilled tentacles proceed. Posteriorly the gradual narrowing gives the end the form of a blunt cone. The entire surface is covered with a dense coating of pale filiform cilia or papillæ of great length, the tips being smoothly rounded. The surface thus appears like a piece of plush or loose grey felt. The long papillæ have a central granular axis of hypoderm, and a translucent external investment of cuticle. The structures, however, are so densely coated with the organisms of the Diatom ooze which the animal inhabits, that only comparatively short portions are available for inspection. Along the entire process, from base to tip, large and small sponge-spicules, Diatoms, and fragments of Diatoms and Radiolarians, with siliceous granules of various kinds, are closely arranged. The composition of these extraneous organisms is mainly siliceous, and the addition of hydrochloric acid makes little alteration.

When spirit was first poured over the body of the animal, a slightly milky appearance was given to the liquid as it emerged from the "felt" at the sides, from the immense number of the minute organisms just alluded to. Indeed under a lens the tips of the papillæ appear to be matted together, especially on the ventral surface, from the abundance of the Diatom ooze, and individual papillæ are rendered more or less clavate from the same reason.

The oral aperture is ventral in position, the anterior margin of the frilled tentacles only being seen from the dorsum. It is surrounded by an elevated barred rim, rendered more conspicuous by the sulcus which exists at its base, and the raised bosses forming each anterior angle of the body. A brown pigment-band occurs round the oral frill. Projecting from the aperture are the very large foliaceous tentacles, which are furrowed ventrally. Each tentacle is still tinted of a brownish-purple on the dorsum, and when flat-