

meshes are elongated vertically, and contain each three to five stigmata, which are rather wider than the vessels between them. Muscle fibres are present in the transverse vessels.

The Tentacles are few in number but rather long.

Locality.—Station 246, July 2, 1875; lat. 36° 10' N. long., 178° 0' E.; depth, 2050 fathoms; bottom, Globigerina ooze; bottom temperature, 35°·1 F.

This species, although very small, is evidently adult, since the genital gland was found to contain masses of large and mature ova. There is nothing noticeable about the external appearance (Pl. XLIX. fig. 7) of the single specimen. It might almost pass for a rather wrinkled and shabby looking individual of *Styela grossularia* of our own coasts, and yet it was obtained from a depth of over 2000 fathoms in the centre of the North Pacific Ocean.

The branchial sac (Pl. XLIX. fig. 8) is very brittle, but exhibits none of the peculiarities found in the case of some other deep-sea Ascidians. The stigmata are regular, and of the ordinary size. Cilia are present and have the usual arrangement, and no spicules are found in the vessels.

Polycarpa longisiphonica (?), Herdman (Pl. XLIX. figs. 4-6).

Polycarpa longisiphonica, Herdman, Report upon Challenger Tunicata, part i. p. 177, pl. xxiii. figs. 3-6.

This single specimen of *Polycarpa*, from Station 162, resembles *Polycarpa longisiphonica* in most particulars, but is rather different in external appearance. It is especially deficient in the characteristic from which that species derives its name, as the present specimen has the apertures sessile, though large and distinct (see Pl. XLIX. fig. 4), while in *Polycarpa longisiphonica*¹ they are placed upon the summits of singularly long projections. Then, again, the anterior extremity in this specimen is wide, while in *Polycarpa longisiphonica* it is narrow as compared with the rest of the body. The specimens of *Polycarpa longisiphonica* formerly described were either free or only very slightly attached, while the present specimen is attached to the interior of a Lamellibranch shell by a large part of its left side (Pl. XLIX. fig. 4). In the present specimen the lobes of the apertures are very much larger than those in the specimens from Port Jackson.

Notwithstanding all this external difference, the branchial sac of the present specimen (Pl. XLIX. fig. 5) is extremely like that of *Polycarpa longisiphonica*.² Figure 5 on Plate XLIX. shows a fold and a complete interspace formed of six rows of meshes, each more or less square in shape, and containing four to six stigmata very regularly arranged. The fold shown (*br.f.*) has nine internal longitudinal bars, the next one had eight. The transverse vessels are of three sizes (see

¹ See this Report, part i. pl. xxiii. fig. 3.

² See this Report, part i. pl. xxiii. fig. 4.