

The head (Pl. XXIX. fig. 5) is smoothly rounded, but with a slight indentation in the middle line anteriorly. Two somewhat ovoid eyes occur, immediately in front of the first bristle-bearing segment, and behind the first (or buccal) lateral cirri. Such specks may represent the conjoined eyes of each side. In front of each eye (indeed separated by a considerable interval) is a short process, probably the homologue of the antenna. It hardly projects beyond the margin of the head. The pharyngeal and proventricular regions of the alimentary canal are well developed.

Each foot (Pl. XXXIII. fig. 10) carries superiorly a dorsal cirrus, the lower division of which forms an ovoid swelling, while the distal part is somewhat filiform. The whole process is very short, and its surface is sparsely covered with wart-like papillæ. The setigerous region has about five minute and somewhat slender bristles (Pl. XVA. fig. 22) which emerge beneath the two spines (at the tip of the foot superiorly). The terminal appendage has a simple hook. The ventral cirrus is a short, slightly tapered process, which is considerably shorter than the setigerous region. Its surface likewise has a few warty papillæ.

Posteriorly the tail has two short cirri on each side of the anus.

The genus *Sphærosyllis* was established by Claparède¹ in 1863 for two forms which he procured on the coast of Normandy, and the characters were amended in 1868.² The Syllidians included in the genus are characterised by two large coalesced palpi, separated by a median sulcus. Pharynx straight and with a single tooth. Proventriculus follicular, and the stomach short. Three antennæ; one pair of cirri on the buccal segment; other segments with dorsal and ventral cirri. Antennæ and cirri with tumid bases but not moniliform. No alternation of generations.

The present example shows certain differences from the foregoing generic description, but it does not seem to approach any other form more closely. It appears to be a young specimen.

Autolytus, Grube.

Autolytus maclearanus, n. sp. (Pl. XXIX. fig. 6; Pl. XXXIII. fig. 5; Pl. XVA. fig. 15).

Habitat.—Dredged at Station 149E (off Greenland Harbour, Kerguelen), January 21, 1874; lat. 49° 37' S., long. 70° 16' E.; depth, 30 fathoms; sea-bottom, volcanic mud.

A small form, about 13 mm. in length and 1.5 mm. in diameter.

The dorsum is slightly rounded, the ventral surface grooved in the middle, and marked laterally with the prominent cushions opposite each foot. The body tapers a little towards the tail.

¹ Beobachtungen über Anat. u. Entwicklung, &c., p. 45.

² Annél. Chétop., p. 204.