

surrounding protoplasm of the exterior of the cell, appearing as a pale circular area within a darkly stained granular field, bounded by a polygonal margin. In one instance, instead of a young aster, two minute siliceous globules were observed within the spicule cell. Fibrous strands are frequently seen wandering irregularly through the sarcenchyma.

The flagellated chambers vary from about 0·0197 by 0·0237 mm. to 0·0237 by 0·0276 mm. in length and breadth.

The structure of the fibrous bands by which foreign objects are attached to the sponge is similar to that described under this head in *Pilochrota gigas*.

*Pilochrota purpurea*, var. *longancora*, Sollas (Pl. XIV. fig. 37).

*Pilochrota longancora*, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 190, 1886.

*Sponge*, small, somewhat quadrangular, cushion-shaped, with rounded margins; free. A single circular oscule on the upper surface, in the centre of a circular periproctal membrane or cloacal roof. Margin of the oscule minutely fimbriated by a short fringe of minute oxeas projecting radiately in the plane of the aperture. Surface of the sponge rough, uneven; pores lying in irregular winding channels or pits, separated by irregular spicular ridges and pillars.

*Spicules*.—I. Megascleres. 1. *Oxea*, fusiform, straight, or more usually slightly curved; sharply, but sometimes abruptly pointed; 1·63 by 0·035 mm.

2. *Orthotriæne*; rhabdome conical, sharply pointed, with simple cladi, projecting at first outwards and forwards, but curving into horizontality toward the end. Rhabdome 2·1 by 0·047 mm., cladi 0·35 mm. long.

3. *Anatriæne*; rhabdome long, slender, conical, sharply pointed, but sometimes rounded off at the end; cladi conical, making a large angle with the rhabdome, and only slightly recurved. Rhabdome 3·5 by 0·0237 mm., cladi 0·075 mm. long, sagitta 0·048 to 0·06 mm.; chord from 0·127 to 0·14 mm.

4. *Oxea* of the oscular membrane, minute.

II. Microsclere. 5. *Chiaster*, 0·009 mm. in diameter in the ectosome, increasing to 0·012 mm. in the choanosome.

*Colour*.—Ashen-grey; the choanosome of a brownish-white tint.

*Habitat*.—Torres Strait, August 1874; depth, 3 to 11 fathoms.

*Remarks*.—This sponge is almost identical with *Stelletta purpurea*, Ridley, being chiefly distinguished by the much greater length of the anatriæne. There is but one specimen in the collection; it measures 20 by 15 mm. in length and breadth, and 11 mm. in height. The circular oscule is 1·5 mm., and the surrounding membrane 3 mm. in diameter.