

and that *Pilochrota anancora* is simply a young form of *Pilochrota crassispicula*. The choanosome is similar to that of *Pilochrota crassispicula*, but the mesoderm is less abundantly developed. The canals are provided with thick fibrous walls, and numerous fusiform cells help to form the spicular tracts. Clusters of granule-cells, though present in the cortex (Pl. XIV. figs. 21, 22), are far less numerous in the choanosome. The canals are provided with numerous vela, and I observed here, as I have in other instances, that a velum is sometimes perforated by two circular apertures, each surrounded by concentric myocytes.

The flagellated chambers are aphodal, though sometimes a few appear to be eurypylous; they measure 0·0276 by 0·031 mm. in length and breadth, and the prosopyle, which in many cases is exceptionally clearly shown, is single and usually measures about 0·012 mm. in diameter.

The sponge is of much softer texture than *Pilochrota haeckeli* and *Pilochrota longancora*, which are hard and harsh to the touch.

*Pilochrota moseleyi*, n. sp.

*Sponge* compressed, ellipsoidal or thumb-shaped, attached below, bearing a single oscule near the summit; oscular margin fringed with minute oxeas. Pores in sieves, evenly dispersed.

*Spicules*.—I. Megascleres. 1. *Somal oxea*, fusiform, straight or curved, more or less sharply pointed; 1·2 by 0·016 mm., and 1·4 by 0·013 mm.

2. *Oscular oxea*, small, fusiform, sharply pointed.

3. *Orthotriæne*; rhabdome conical, pointed or rounded off near the apex; cladi conical, pointed, extending horizontally almost immediately after diverging from the rhabdome. Rhabdome 1·6 by 0·05 mm., cladi 0·2 mm. long.

4. *Anatriæne*; rhabdome conical, pointed or rounded off near the apex; cladi curving evenly backward almost immediately past their origin, the cladome in consequence well rounded in front. Rhabdome 1·6 by 0·02 mm., cladi 0·083 mm. long, chord 0·103 mm. sagitta 0·082 mm.

II. Microscleres. 5. *Ectosomal chiaster*, a small but evident centrum, and numerous fine, hair-like, truncated actines; total diameter 0·008 mm.

6. *Choanosomal chiaster*, no evident centrum, actines few in number, usually from five to seven, slender, rod-like or somewhat conical, roughened, abruptly truncate, seldom tylote; total diameter 0·024 mm.

*Colour*.—Greyish-white.

*Habitat*.—Torres Strait, August 7, 1874; depth, 3 to 11 fathoms.

*Remarks*.—There is but a single specimen of this sponge, it measures 14 mm. in height, and 9 by 12 mm. in width and breadth. The single circular oscule is 2 mm. in