

*Ectosome*.—The cortex, 0·48 to 0·63 mm. in thickness, much resembles that of *Pilochrota haeckeli*; the outer two-thirds, or 0·318 mm., is a collenchyma, containing long fusiform cells running in all directions, clusters of deeply stained granule-cells (Pl. XIV. fig. 37), and separately scattered cells, composed of faintly staining finely granular material lying in cavities of the collenchyma, and in some places so numerous as to constitute the greater part of the tissue. The chones, as usual in the genus, are irregular in form, traversing the cortex as canals of various diameter, and usually converted into a succession of vesicles by well-developed velar diaphragms.

The flagellated chambers measure about 0·0276 by 0·02 mm. in breadth and length.

*Pilochrota anancora*, Sollas (Pl. XIV. figs. 16–22).

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

*Sponge* (Pl. XIV. fig. 16), small, spherical, depressed, free. A single oscule situated on one side of a membranous area or cloacal roof. Surface uneven; pores large, in sieves; situated in winding, channel-like depressions.

*Spicules*.—I. Megascleres. 1. *Oxea* (Pl. XIV. fig. 17), varying from a somewhat stout, fusiform, usually curved, sharply pointed form, 1·68 by 0·023 mm., to a longer, slenderer, anisoactinate form, with its greatest diameter nearer the distal than the proximal end; proximally attenuating, often to a filiform, excessively sharply pointed extremity; distally variously pointed, excessively sharply or pencil-pointed, or rounded off close to the end; 3·18 by 0·021 mm.

2. *Orthotriæne* (Pl. XIV. fig. 18), a conical rhabdome, usually rapidly attenuating proximally to a filiform sharply pointed extremity; cladi simple, straight, conical, sharply pointed. Rhabdome 1·63 by 0·0276 mm., cladi 0·127 mm. long.

II. Microsclere. 3. *Chiaster* (Pl. XIV. figs. 19, 20), a small centrum with numerous fine rod-like actines, terminally tylote; total diameter 0·0118 mm.

*Colour*.—Cream-white.

*Habitat*.—Bahia; depth, 7 to 20 fathoms.

*Remarks*.—The single specimen of this sponge measures 15 by 16 by 11 mm.; the oscule is a little less than 1 mm., and the oscular membrane about 3 mm. in diameter. The latter is not fringed with oxeas as in *Pilochrota purpurea*. The ectosome (Pl. XIV. fig. 21) or cortex is about 0·72 mm. in thickness, the outer layer, for a distance inwards of 0·24 to 0·35 mm., excavated by wide somewhat irregularly shaped ectochones, the inner, 0·4 mm. in thickness, by the inferior cortical canal, into which the ectochones open. The structure of the cortex resembles that of *Pilochrota crassispicula*, from which the present species is chiefly distinguished by the slenderness of the rhabdome of its orthotriæne; it is possible that this character may not be of specific importance,