

depressed, about 6 mm. in diameter. Area oval, with the sides sloping steeply down, but not forming a lamina. The membranous portion of the front wall projects, with the opercular aperture at the end; and the opercular opening exhibits very different shapes, according to the position, but usually like fig. 2, though I have found some like the aperture of *Cupularia monotrema*, as figured by Mr. Busk.¹ The vibracular opening has on one side a distinct auricular projection. Dorsal surface with concentric sulci with cross divisions, and usually one large pore in the centre of the area thus formed, but in parts of the zoarium there are several pores in one of these areas. The membrane covering the dorsal surface does not show any trace of these pores. This is a somewhat surprising fact, as in the Chilostomata generally the position of the pore tubes is distinctly shown on the covering membrane.

The resemblance to *Cupularia monotrema*, as described by Busk from the same locality, is evident, but *Cupularia canariensis* has no avicularia. The examination of *Cupularia monotrema* does not seem to have been sufficient for us to be quite sure as to its position. I therefore wrote to Mr. Kirkpatrick, after examination of the specimen brought from Edinburgh, telling him what I had noticed; and in reply he says—"Calcination of a fragment of *Cupularia monotrema* reveals its specific identity with *Cupularia canariensis*. The avicularian cells (the only point of difference between the two species) have orifices similarly shaped to those of the vibracula, and the mandibles are vibraculoid. In shape of zoecium, of lamina, dorsal surface, and in character of operculum, the two species resemble each other."

Mr. Busk says that the distinction between *Cupularia canariensis* and *Cupularia guineensis* is sufficiently obvious; but I must confess to not understanding upon what characters they are separated, and still adhere to the opinion elsewhere expressed, that they are synonymous.

Habitat.—Off Bahia, 10 to 80 fathoms; Canaries; Madeira; Florida; New Guinea; Torres Strait; Philippine Islands, North-East Australia; Coast of Liberia 38 metres (specimen sent by Jullien). Fossil—Miocene and Pliocene of Europe; Aldinga, South Australia.

Selenaria maculata, Busk (Pl. III. fig. 3).

Selenaria maculata, Busk, Cat. Mar. Polyzoa, p. 101, pl. cxvii.; Waters, Quart. Journ. Geol. Soc., vol. xxxix. p. 440, pl. xii. figs. 7, 9, 12; *ib.*, vol. xli. p. 309; Ann. and Mag. Nat. Hist., ser. 5, vol. xx. p. 201; Haswell, Polyzoa from the Queensland Coast, p. 42.

I found three unnamed species from off Port Jackson, 30 to 35 fathoms. In the central cells the lower half of the oral aperture is closed by a calcareous cover.

The membrane covering the front of the zoecium has "trabeculæ" surrounding the

¹ Zool. Chall. Exp., part xxx., pl. xiv. fig. 5.