

ridiate, peristome thin. In the older zoecia a small tubercular pre-oral process, having on one side a minute avicularium, with a subtriangular mandible. In the older portions the individual zoecia are for the most part obliterated, and in these parts of the zoarium the surface presents small pustular, subhexagonal eminences, each of which has a minute avicularium in the centre. Besides these there are a few interspersed retentive avicularia with a spatulate mandible, with a very contracted base.

*Habitat.*—Station 167, lat.  $39^{\circ} 32'$  S., long.  $171^{\circ} 48'$  E., 150 fathoms, blue mud. Off Marion Island, 50 to 75 fathoms.

(20) *Cellepora cylindriformis*, n. sp. (Pl. XXX. fig. 9, and Pl. XXXVI. fig. 9).

*Character.*—Zoarium conical or tapering. Zoecia large, distinct. Orifice (fig. 9a) orbicular, widely emarginate. A strong, incurved, cylindrical pre-oral process, supporting a large avicularium (fig. 9a), with a broad, equilateral triangular mandible. Interspersed avicularia (fig. 9b) not numerous, having a broad, short, membranous mandible, either of a duck-bill form or squarely truncate. Ooecia (fig. 9a) small, erect, globose, punctured.

*Habitat.*—Station 142, lat.  $35^{\circ} 4'$  S., long.  $18^{\circ} 37'$  E., 150 fathoms, sand.

The only specimen is of a cylindrical form about 0.75 inch long, by 0.1 in diameter, appearing, but not certainly, to be moulded on a worm tube.

(21) *Cellepora eatonensis*, n. sp. (Pl. XXIX. figs. 4, 6, 8, and Pl. XXXVI. figs. 3, 4, 5).

*Character.*—Zoarium multiform, massive, or branched; the branches short, thick, and obtuse, or more or less lamellar, and free; or incrusting, or parasitic, and more or less globose. Zoecia (young) barrel-shaped, (fig. 4), afterwards ventricose; surface entire, smooth. Orifice subarcuate, with a wide notch. Pre-oral rostrum very variable in size and conformation; small and conical, or very large and cylindrical towards the end, and deeply channelled on the posterior aspect, but always hollow (fig. 8b), supporting near the extremity a small avicularium, with a semicircular mandible. Numerous very large interspersed avicularia, with a duck-bill shaped mandible, shutting down into a deep cupped beak, the end of which is gouge shaped, and the border entire and sharp.

*Habitat.*—Station 149D, Royal Sound, Kerguelen, 28 fathoms. Stations 149 H, J, K, off Christmas Harbour, Kerguelen, 45 to 127 fathoms. Station 303, lat.  $45^{\circ} 31'$  S., long.  $78^{\circ} 9'$  W., 1325 fathoms, Globigerina ooze. Station 315, lat.  $51^{\circ} 40'$  S., long.  $57^{\circ} 50'$  W., 5 to 12 fathoms, sand.

Though exhibiting considerable diversity, especially in the greater or less development of the rostrum, the specimens from the above localities agree in all essential particulars,