

The general structure of this species is very peculiar, and together with other characters might perhaps justify its erection into a distinct genus. The cells, different from those of nearly all the other Cellulariadae, are entirely open in front, and of equal width throughout below the immediate summit, which is contracted to the width of the crescentic mouth. They are seen to arise, when viewed from behind, by a very broad base, from the side as it were, of the subjacent cell. The consequence of this is that they are all placed obliquely with respect to the axis of the branch, standing out on either side with extreme regularity. The only specimen in the collection is about three inches high, and the curling branches form a thick entangled tuft, very difficult to unravel. The main stem is of considerable thickness, and composed of a closely packed bundle of radical tubes, which at the lower extremity break up into innumerable and very fine jointed filaments, each of which becomes attached to a *Globigerina*-shell, or other small solid particle, the whole forming a thick floccose tuft, composed of the fibres and attached particles.

(4) *Cellularia quadrata*, n. sp. (Pl. V. fig. 5).

*Character*.—Ten to fourteen zoecia in each internode, biserial, the two series facing different ways at a slight angle. Zoecia quadrate, entirely open in front, the aperture slightly contracted by a very narrow lamina. Surface of border and lamina very delicately frosted. Dorsal surface smooth entire. A small lateral avicularium slightly in front of the superior angle.

*Habitat*.—Station 149D, Royal Sound, Kerguelen, 28 fathoms, volcanic mud. Station 151, Heard Island, 75 fathoms, volcanic mud.

Closely allied, apparently, to *Menipea ornata*, but differs from it in the much less developed lamina, and the absence of any anterior avicularia, and the more elongated form of the cells, which in the former species are nearly square.

§ *β. fornicatae*.

(5) *Cellularia biloba*, n. sp. (Pl. III. fig. 2).

*Character*.—Zoarium lax, straggling, branches very slender. Zoecia trumpet-shaped. Orifice oval, with a much raised crateriform border. Four or five slender, oral spines, and a bilobed pedunculate fornix. A small avicularium situated quite behind the angle of every zoecium, with an acute mandible pointing downwards.

*Habitat*.—Station 76, lat. 38° 11' N., long. 27° 9' W., 900 fathoms, Pteropod ooze.

The avicularium is entirely posterior, and is not visible in a front view; and it is quite immersed.