

rare on the summit, chiefly distributed in an irregular zone round the sides of the body. Surface hirsute, with obliquely projecting spicules; projecting ends longer over the sides than the summit of the sponge.

*Spicules*.—I. Megascleres. 1. *Somal oxea*, large (Pl. III. fig. 4), fusiform, sharply pointed, straight, or curved in correspondence with the curvature of the spicular fibres, 8·03 by 0·071 mm.

2. *Cortical oxea* (Pl. III. fig. 7) smaller than the preceding, cylindrical or fusiform, usually curved, obtusely pointed, 0·892 by 0·0355 mm.

3. *Protriæne* (Pl. III. fig. 6). A somewhat fusiform rhabdome, 0·0197 mm. wide just below the cladome, increasing to 0·0296 where widest, and then tapering to a filiform extremity; its length is 13·21 mm. The cladi, usually three in number, but sometimes reduced to two or even one, are conical, 0·1776 mm. long, and 0·016 mm. broad at the base.

4. *Trichodal protriæne*. A slender filiform rhabdome, and three cladi usually unequal in length. Dimensions:—Rhabdome 0·13 by 0·0039 mm.; cladi very variable, two shorter and unequal 0·016 mm. long, one longer from 0·0237 to 0·031 mm. long.

5. *Anatriæne* (Pl. III. fig. 5). Confined to the lower part of the sponge-body; the rhabdome long, somewhat fusiform but nearly cylindrical, terminating at the proximal end in a filiform extremity; cladome variable in shape, axial fibre of shaft prolonged into it; cladi usually much recurved, sometimes so much so as to become parallel with the rhabdome. Dimensions:—An anatriæne with its cladome embedded in the cortex gave the following measurements:—Rhabdome 19·6 by 0·0316 mm.; cladi 0·215 by 0·0276 mm., chord 0·2 mm.; length of cladal end of the rhabdome 0·059, extension of axial fibre into it 0·0119 mm. An example from the anchoring filaments of the base gave:—Rhabdome 40 mm. by 0·0237 just below the cladome, lower down 0·0158 mm. in diameter, from this increasing to 0·0235, and finally attenuating to a filiform extremity; cladi 0·087 by 0·0197 mm., chord 0·09 mm., length of the cladal end of the rhabdome 0·0474 mm. The cladome of this specimen is smaller than the average, a more usual size for the cladi is 0·1026 by 0·0158 mm., chord 0·118 mm.

II. Microscleres. 6. *Sigmaspire* (Pl. III. fig. 8) of the usual form, 0·0118 to 0·0156 mm. long.

7. *Globules*; accessory or accidental forms, 0·0535 mm. in diameter.

*Colour*.—Ashen-grey.

*Habitat*.—Station 149B, off Royal Sound, Kerguelen, January 17, 1874; lat. 49° 28' S., long. 70° 30' E.; depth, 25 fathoms; bottom, volcanic mud.

Station 149C, Balfour Bay, Kerguelen, January 19, 1874; lat. 49° 32' S., long. 70° 0' E.; depth, 60 fathoms; bottom, volcanic mud.

*Remarks*.—Over sixty specimens of this remarkable sponge, the only species of the genus, were dredged off the shores of Kerguelen. They vary considerably