about 0·16 to 0·24 mm. in diameter, situated at the summit of conical monticules, about 1·0 mm. wide at the base. The ectosomal dichotriænes extend over the sides of the monticules, but stop short at the summit; the interior of the crater is lined by the strongylospires and associated spirasters, which lie beneath a thin outer skin. This spicular layer is continued down the sides of the tube, which descends into the sponge from the oscule.

The poral tubes are each surrounded by a skeletal wall formed of desmas, and end at the surface each in a little crateriform depression, lined by a spicular layer like that of the oscules. The pore is simply the open end of the poral tube; it is usually about 0·032 mm. in diameter, and the depression in which it lies about 0·16 mm. across.

The dichotriæne recalls to mind that of *Corallistes noli-tangere*, as figured by Schmidt. Zittel's illustration of this spicule differs from Schmidt's, and is altogether unlike that of *Corallistes thomasi*. The strongylospire is the homologue of the microrabd which occurs in other species of *Corallistes*, it is possibly not truly spiral, but merely undulating, and if so, should be termed a sinuous strongyle.

*Corallistes bowerbanki*, Johnson.

*Dactylocalyx bowerbanki*, Johnson, Proc. Zool. Soc. Lond., p. 257, 1862.
" " Bowerbank, Proc. Zool. Soc. Lond., p. 94, pl. vi. figs. 5–8, 1869.
" " Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xii. pp. 437, 441.
*Corallistes bowerbanki*, Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xviii. p. 460, 1876.
*Corallistes typus*, Zittel, Abhandl. d. k. baier. Akad. d. Wiss., vol. i. pp. 103, 120, 1878.

The specimen, which I believe I am right in assigning to this species, is but a part of the wall of a sponge which in the complete state must have been of very considerable size. It had evidently been lying in a dead state on the sea-floor for a long time before it was dredged up, consequently microscleres are not present, and the ectosomal triænes have suffered considerably from solution. The fragment is a plate-like slab, bounded by broken edges on two sides, and on the third by the natural margin, which is not rounded but irregularly ridged. It measures 96 by 112 mm. and is 16 mm. thick. On the poral surface exposed superficial canals are seen with a general longitudinal drift towards the margin. Both excurrent and incurrent canals, which are about 0·5 mm. wide, wander crookedly but transversely through the wall.

The desmas differ markedly from those of *Corallistes masoni*, Bowerbank, they are usually smooth, tubercles only appearing here and there on the sides of the epirabds and cladi, which end by breaking up into numerous twig-like processes with expanded ends. The interlocking of the desmas takes place by means of these processes, and in general character much resembles that of the Tetracladidæ; the quadriradiate form of some of the desmas is also very striking, but all are founded on a monaxial spicule.

The ectosomal spicules are dichotriænes, the conical rhabdome measures 0·72 by