

(1) very minute palmate anisochelæ, length about 0·0126 mm; (2) small, slender sigmata, often contort; length about 0·025 mm.

This species forms a most interesting and important link between the two genera *Esperella* and *Cladorhiza*, especially as regards external form. It is also particularly interesting in that it exhibits a distinctly bilateral symmetry; in this respect it is approached by *Cladorhiza pennatula*, Schmidt;¹ the latter has, however, a much coarser and less delicate form.

The species may be readily recognised by the very minute microsclera, the extraordinary external form, and the two kinds of megasclera, though the latter are both, doubtless, merely modifications of one and the same type.

Localities.—Station 281, October 6, 1875; lat. 22° 21' S., long. 150° 17' W.; South Pacific; depth, 2385 fathoms; bottom, red clay; bottom temperature, 34°·9. One specimen, which still retains the soft parts.

Station 291, October 27, 1875; lat. 39° 13' S., long. 118° 49' W.; South Pacific; depth, 2250 fathoms; bottom temperature, 34°·6; bottom, red clay. One specimen, with the soft parts washed off, but still retaining a few microsclera and exhibiting very beautifully the biserial arrangement of the lateral processes.²

Esperella sp.

We have to record the occurrence of a single specimen of an *Esperella* (species unknown) from Bass Strait, which is growing over the fibre of a Dysidean sponge; both the tylostylote megasclera and the anisochelæ are very much reduced, and we have seen no other kind of spicules. Under these circumstances it has not seemed to us desirable to found a new species for the reception of this sponge. The tylostyli are smooth, straight, slender, sharp-pointed, with slight oval heads, and commonly with much enlarged central canals; size about 0·28 by 0·0042 mm. The palmate anisochelæ are of very delicate appearance and about 0·022 mm. long.

Locality.—Station 162, April 2, 1874; lat. 39° 10' 30" S., long. 146° 37' E.; Bass Strait; depth, 38 fathoms; bottom, sand and shells. One specimen.

Genus *Esperiopsis*, Carter (Pls. XVIII., XIX., XXVI., XXX., XLVI.).

1882. *Esperiopsis*, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. ix. p. 296.

Form various, amorphous or symmetrical. Megasclera all monactinal, styli or tylostyli, smooth; microsclera isochelæ, to which sigmata may be added.

¹ *Jahresb. Comm. wiss. Untersuch. deutsch. Meere*, Jahrg. ii., iii. p. 119, pl. i. figs. 14, 15.

² Lodged right within the spicular axis of one of the specimens were found a number of developing embryos, concerning which further details will be found in the Introduction. For this interesting discovery we are indebted to the careful observation of our artist, Mr. P. Highley.