

*Axinella erecta*, Carter, sp. (Pl. XXXV. figs. 1, 2, 2a, 2b, 2c; Pl. XXXVI. fig. 2; Pl. XL. figs. 1, 1a).

1866. (?) *Hymenaphia vermiculata*, Bk. (? pars), Mon. Brit. Spong., vol. i. pl. i. fig. 5; vol. ii. p. 141; vol. iii. pl. xxvi. figs. 1-3.

1867. (?) *Bubaris vermiculata*, Gray, Proc. Zool. Soc. Lond., p. 522.

1876. *Hymenaphia vermiculata*, var. *erecta*, Carter (pars), Ann. and Mag. Nat. Hist., ser. 4. vol. xviii. p. 307, pl. xii. fig. 4; pl. xv. fig. 26, a, b.

This very variable species is represented in the collection by a large number of specimens from divers localities.

The specimens from Inaccessible Island (Pl. XXXVI. fig. 2) are by far the finest; erect and massively ramose or subramose, the largest being 100 mm. in height and up to 41 mm. in breadth; their spicules are a good deal smaller than those of the smaller specimens from other localities (Pl. XXXV. figs. 2, 2a, 2b, 2c), but the size of the spicules is extremely variable in the same sponge and seems also to vary a good deal in different individuals of this species. All the specimens belong to Mr. Carter's var. *erecta* (*loc. cit.*, *supra*), which we here consider as the type of the species. The long stylote spicule (Pl. XL. fig. 1) measures up to nearly 3 mm. in length, with a breadth of about 0.037 mm.; while the "vermicular" (strongylote) spicule (Pl. XL. fig. 1a) measures about 0.21 by 0.037 mm. (these measurements are taken from one of the small specimens from Station 148A); the "vermicular" spicule is here considerably larger than in Mr. Carter's types, which approach more nearly in spiculation to our specimens from Inaccessible Island.

The specimens described by Bowerbank under the name *Hymenaphia vermiculata* are mere patches of sponge, which might perhaps be young forms of other species as well as of *Axinella erecta*.

Schmidt's *Axinella mastophora*<sup>1</sup> approaches very near to this species; it is, however, distinguished by its external form (which may not, perhaps, count for much), consisting of a number of erect, smooth lobes, and by the fact that the large stylote spicule is very constantly constricted towards the base. *Axinella rugosa*, Schmidt,<sup>2</sup> also comes very near to this species in its spiculation and in the possession of a surface covered with rounded rugosities, but is distinguished by the presence of very numerous, minute, angulated oxea.

*Localities*.—Station 145A, December 27, 1873; lat. 46° 41' S., long. 38° 10' E.; off Marion Island; depth, 310 fathoms; bottom, volcanic sand. One specimen, of *Clathria*-like external appearance, subfrondose and of a deep brown colour.

Station 147, December 30, 1873; lat. 46° 16' S., long. 48° 27' E.; west of Crozet Island; depth, 1600 fathoms; bottom, Diatom ooze; bottom temperature, 34°.2. Two specimens.

Station 148A, January 3, 1874; lat. 46° 53' S., long. 51° 52' E.; off Crozet Island; depth, 550 fathoms; bottom, hard ground, gravel, shells. Twenty-six specimens.

Inaccessible Island, October 1873; depth, 90 fathoms. Four specimens.

<sup>1</sup> Spong. Atlant. Gebiet., p. 61, pl. iv. fig. 14.

<sup>2</sup> *Loc. cit.*