

species, *Tethya morum* and *Tethya lyncurium*; the latter with two varieties, besides the type, occurring in the Adriatic. Subsequently (1868) he suppressed *Tethya morum*, regarding it as identical with *Tethya lyncurium*. In this I have no doubt he was right, and the varieties may *à fortiori* be suppressed too.

The northern form, *Tethya norvagica*, Bowerbank (*Tethya lyncurium*, var. *obtusum*, Vosmaer ?), is distinguished from the Mediterranean by its smaller size. Bowerbank examined a considerable number of specimens, and states that they vary from 4 to 15 mm. in diameter; and Dr. Norman's specimens, which I have examined, seldom exceed 5 or 6 mm. The cortex is comparatively thin, less than 1 mm. in thickness; and in a fragment of one of Bowerbank's types the spicules measured as follows:—Strongyloxea 1·6 by 0·0193 mm.; cortical spheraster 0·04 mm. in diameter; somal aster 0·012 mm. in diameter. The last named spicule exhibits a curious tendency to pass into a globule, with a somewhat nodose surface; this results from the reduction of the actines, rather than the overgrowth of the centrum, though both are concerned. In Dr. Norman's specimens the cortical spheraster is larger, 0·058 mm. in diameter, and is distinguished by the tendency of the actines to dichotomise. The examples from the British seas, though frequently larger than those from Norway, do not seem to be characterised by larger spicules. Thus a specimen I obtained from Roscoff measured about 25 mm. in diameter, and its cortex 4 mm. in thickness, but the spicules are scarcely larger than those in Dr. Norman's Norwegian specimens. Thus the strongyloxea measures 1·7 by 0·026 mm., and the cortical spheraster 0·058 mm. in diameter.

Bowerbank does not give measurements of the spicules in the British specimens he examined, but measurements taken from his drawings almost exactly correspond with those of my Roscoff specimen. He gives the thickness of the cortex as varying from 2 to 6 mm.

The Mediterranean examples are characterised by much larger spicules than the Norwegian and British. From a portion of one of O. Schmidt's types I obtained the following measurements:—Strongyloxea 2·54 by 0·0387 mm.; cortical spheraster 0·097 mm. in diameter; somal aster 0·02 mm. in diameter. It would appear possible, therefore, that three varieties may eventually be distinguished,—the type-species, characterising the Mediterranean, a South British variety and a North British and Norwegian variety.

*Tethya bistellata*, O. Schmidt.

*Tethya bistellata*, O. Schmidt, Spong. Adriat. Meeres, p. 45, pl. vii. fig. 1, 1862.

*Sponge*.—As in *Tethya lyncurium*.

*Spicules*.—I. Megasclere. 1. *Tylotoxea*.

II. Microsclere. 2. *Spheraster*, partly of the usual form, partly with the actines