

conules, which are united by ridges, circumscribing shallow depressions, in each of which is situated a large pore. Size 24 by 12 mm.

*Skeleton*.—I. Megascleres. 1. *Oxea*, 4 mm. and over by 0·008 mm. 2. *Protriænes* of two kinds; one with three equal cladi, rhabdome 0·001 mm. in diameter, cladi 0·004 mm. long; the other with two shorter cladi and one longer, rhabdome 0·003 mm. in diameter, longer cladus 0·04 mm., shorter cladi 0·02 mm. long. 3. *Anatræne*, rhabdome 0·005 mm. in diameter; cladi 0·025 by 0·005 mm.

II. Microscleres. 4. *Sigmaspire*, spined on the outer side of the spire, 0·017 mm. long. 5. *Spheraster*, consisting of rosette-like groups of fifteen to twenty radiately arranged fusiform actinees.

*Canal System*.—Flagellated chambers, 0·03 by 0·02 mm.; main excurrent canals six in number, radiately arranged.

*Habitat*.—Japan; depth?

*Remarks*.—This sponge is fully described and illustrated by the author; it is distinguished by its small spined sigmaspires, and the regular arrangement of the six main excurrent canals. The spherasters are unique, and one feels a certain suspicion that they may not belong to the sponge. Lampe's description would lead one to infer that the canal system is aphodal; this is not the case in any *Tetilla* I have examined, nor in any sponge with a collenchymatous mesoderm, such as this is stated to possess; so that there may be some error in this observation. Both ova and spermatozoa were observed.

*Tetilla polyura*, O. Schmidt.

*Tetilla polyura*, O. Schmidt, Spong. Atlant. Gebiet., p. 66, pl. vi. fig. 8, 1870.

" " (?) Vosmaer, Spong. "Willem Barents" Exped., p. 9, pl. i. figs. 1-3; pl. v. figs. 3-7, 1885.

*Habitat*.—Iceland, 85 fathoms (O. Schmidt). Arctic Ocean; lat. 77° 7' N., long. 49° 37' E.; lat. 75° 20' N., long. 46° 40' E.; lat. 72° 36' N., long. 24° 57' E.; from 140 to 170 fathoms (Vosmaer).

*Remarks*.—The possibility of *Tetilla sandalina*, n. sp., being identical with this species has been already alluded to (p. 3). Schmidt's description is inadequate, and the mounted spicules of Schmidt's sponge in the British Museum are too fragmentary for satisfactory comparison. The protriæne presents two shorter cladi about 0·07 mm., and a third longer cladus about 0·18 mm. long. The sigmaspires measure about 0·02 mm. in length. Vosmaer's illustrations of the sponge, which he thinks may belong to Schmidt's species, are excellent; unfortunately he gives no measurements of spicules.