Tetilla radiata, Selenka.

Tetilla radiata, E. Selenka, Ueb. einen Kiesel-Schwamm v. achtstrahligem Bau, &c., Zeitschr. f. wiss. Zool., Bd. xxxiii. p. 467, pl. xxvii., 1880.

Habitat.—Rio de Janeiro; depth, 3 fathoms; bottom, blue-black mud.

Remarks.—Selenka distinguishes this sponge from that which he identifies with $Tetilla\ euplocamus$, O. Schmidt, by its smaller size, rose-red colour, and thinner oxeate spicules, which are from 0.008 to 0.01 mm. in diameter. Its chief excurrent canals show a tendency to a radiate arrangement in multiples of four (4×2) ; but though eight thus usually occur, seven and nine have also been observed. The sexes are distinct, but multiplication also takes place as exually by budding.

Tetilla ridleyi, n. n.

Tetilla dactyloidea, Ridley, Voyage of the "Alert," p. 625, 1884.

Sponge (?), an imperfect specimen, 40 mm. in diameter.

Spicules.—I. Megascleres. 1. Oxea, fusiform, 2.5 by 0.026 mm. 2. Protriæne, rhabdome 0.004 mm. in diameter; cladi 0.071 mm. long. 3. Anatriæne, rhabdome 0.004 mm. in diameter; cladi 0.045 mm. long, chord 0.06 mm.

II. Microsclere. 4. Sigmaspire, 0.011 mm. long, rarely becoming toxospiral, then 0.016 mm. long.

Habitat.—Glorioso Islands, low water (Ridley).

Remarks.—This sponge is very different to that from Mergui which Carter has named Tetilla dactyloidea, as I judge from a comparison of specimens. It would appear also, from Carter's description, to differ considerably from the sponge to which Carter first applied the name "dactyloidea."

The ectosome is not furnished with a special skeleton, but attains a considerable thickness, about 0.7 mm.; it consists of soft fibrous tissue, charged with what appear to be pigment-cells. The surface is thickly hispidated by spicules, of which the outer ends are broken off; they appear, however, to be oxeas. Triænes appear to be rare, those from which the measurements were taken were situated wholly within the sponge, the cladome lying just below the outer epithelium.

Tetilla robusta (Carter).

Tethya cranium, var. robusta, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. xi. p. 367, 1883.

Sponge more or less spherical; ectosome perforated by apertures about 10 mm. in diameter, which lead into large irregular roundish cavities, lined by a smooth membrane.