

Isops contorta (Bowerbank).

Pachymatisma contorta, Bowerbank, Proc. Zool. Soc. Lond., p. 327, pl. xxxi. figs. 7-11, 1873.

Sponge.—Branching; branches irregular, short, stout, anastomosing; surface undulating; oscules small, scattered; cortex 1·2 mm. thick.

Spicules.—I. Megascleres. 1. *Oxea*, 1·838 by 0·035 mm., sometimes passing into a strongyloxea. 2. *Orthotriæne*, rare and variable in dimensions.

II. Microscleres. 3. *Sterraster*, obtusely oval, depressed, 0·16 mm. in diameter. 4. *Somal spheraster*, 0·01 mm. in diameter. 5. *Choanosomal oxyaster*, 0·032 mm. in diameter.

Colour.—Light brown in the dried state.

Habitat.—Fiji Islands.

Remarks.—Measurements were taken from a type-slide in the British Museum. The characteristic microstrongyles of *Pachymatisma* are absent in this species.

Family II. PLACOSPONGIDÆ (Gray).

Sterrastrosa not possessing triæne spicules; the only megascleres are tylostyles. The sterrastral layer of the cortex is subdivided into irregular or polygonal plates, which are connected together by fibrous tissue.

Genus 1. *Placospongia*, Gray.*Placospongia melobesioides*, Gray.

- Placospongia melobesioides*, Gray, Proc. Zool. Soc. Lond., pp. 127-129, woodcut, figs. 1-4, 1867.
 ? " " Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. vi. pp. 53-55, 1880;
 vol. ix. p. 357, pl. xii. fig. 33, 1882.
 ? " " O. Sch., Spong. Atlant. Gebiet., p. 72, pl. vi. figs. 15-17, 1870.

Sponge.—Branching; branches angular, axis occupied by a dense accumulation of sterrasters. Surface even, smooth. Oscules (?).

Spicules.—I. Megasclere. 1. *Tylostyle*, actine cylindro-conic, strongylate, 1·03 by 0·014 mm., tylus 0·0178 mm. in diameter.

II. Microscleres. 2. *Sterraster*, ellipsoidal, 0·071 by 0·058 mm. to 0·067 by 0·063 mm. 3. *Spheraster*, centrum large, forming the greater part of the spicule, ends of the actines forming short tent-like spines upon it, 0·0129 mm. in diameter. 4. *Microstrongyle*, cylindrical, entirely spined; spines short, of unequal lengths, cylindrical, rounded at the ends, 0·24 by 0·008 mm. 5. *Spherules*, minute, 0·0012 mm. in diameter.