

as 0.2 mm. Beneath the outer epithelium is a layer of spherasters, chiefly of the smaller size already described, though the larger forms are freely mingled with them.

The choanosomal mesoderm is a darkly staining sarcenchyma; numerous granule-cells are scattered through it.

The canals are traversed by numerous velar diaphragms, the central aperture of which is surrounded by concentrically arranged myocytes; while fusiform collencytes radiate inwards from the margin. The flagellated chambers measure about 0.02 mm. in breadth and 0.016 mm. in length. The apophyle is usually wide, 0.0118 mm. in diameter.

The sponge is very nearly related to *Calthropella* (*Pachastrella*) *geodiides*, Carter, which differs from it in the character of the calthrops; in the latter species these are provided with dichocladoses actines.

SUPPLEMENTAL ACCOUNT OF ALL OTHER KNOWN SPECIES OF PACHASTRELLIDÆ
NOT IN THE CHALLENGER COLLECTION.

Genus *Dercitus*, Gray.

Dercitus, Gray, Proc. Zool. Soc. Lond., p. 542, 1867.

Pachastrella, O. Schmidt, Spong. Atlant. Gebiet., p. 76, 1870.

Battersbyia, Bowerbank, Mon. Brit. Spong., vol. iii. p. 347, 1874.

Pachastrellidæ in which the microscleres are spined microrabds and toxas.

Dercitus bucklandi (Bowerbank).

Halina bucklandi, Bowerbank, List Brit. Marine Invert. (Brit. Assoc.), p. 70, 1861.

Hymeniacidon bucklandi, Bowerbank, Mon. Brit. Spong., vol. ii. p. 226, 1866; vol. iii., pl. xxxviii. figs. 9-12, 1874.

Dercitus bucklandi, Gray, Proc. Zool. Soc. Lond., p. 542, 1867.

Pachastrella bucklandi, O. Schmidt, Spong. Atlant. Gebiet., p. 76, 1870.

Dercitus niger, Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. vii. p. 13, pl. iv. figs. 1-6, 1871.

Battersbyia bucklandi, Bowerbank, Mon. Brit. Spong., vol. iii. p. 346, pl. xcii. fig. 8, 1874.

Dercitus bucklandi, Norman, Mon. Brit. Spong., vol. iv. p. 93, 1882.

Sponge.—Massive, sessile. Surface minutely hispid, even. Oscules simple, dispersed. Pores inconspicuous.

Spicules.—I. Megasclere. 1. *Calthrops*, actines simple, conical, smooth, oxate, 0.32 by 0.045 mm.

II. Microscleres. 2. *Toxa*, 0.09 by 0.003 mm. 3. *Spinose microrabd*, 0.0276 by 0.008 mm., including the spines.

Colour.—When alive dark purple externally, light brown within. Size various, up to 50 mm. long by 25 mm. broad, and 25 mm. thick.