

rather soft. *Surface* even but minutely hispid; with a porous appearance due to the close reticulation of the dermal skeleton. *Dermal membrane* (?) (nearly all rubbed off). *Pores* (?). *Oscula*; one specimen shows two small, conical, tubular projections, each with an osculum at the summit (Pl. XVI. fig. 5, o).

Skeleton.—(a) *Dermal*; a very close and compact reticulation of dense spiculo-fibre, the meshes of the network being about 0·3 mm. and the fibres themselves about 0·08 mm. in diameter. Numerous spicules project more or less vertically from the fibres, thus causing the hispid appearance of the surface. (b) *Main*; a loose reticulation of dense, stout spiculo-fibre, which branches and anastomoses. As they approach the surface the fibres expand into brushes of spicules upon which the dermal layer rests. The spicules composing the fibres are united together by a fair proportion of spongin.

Spicules.—(a) *Megasclera*; of one kind only, viz., tylostyli (Pl. XV. fig. 6), stoutest in the middle, with a small head at one end, separated by a slight constriction from the shaft; tapering rather suddenly to a sharp point at the apex. Size about 0·38 by 0·016 mm. (b) *Microsclera*; of two kinds; (1) palmate anisochelæ (Pl. XV. fig. 17), rather small for an *Esperella*, about 0·05 mm. long; with a long, narrow palm at the large end; (2) large, smooth, simple and contort sigmata (Pl. XV. fig. 9), measuring about 0·16 by 0·0085 mm.

This species may be most readily recognised by the character of the dermal skeleton reticulation. It is represented in the collection by only two fragments, one of which has an interesting and peculiar habit. It has grown around the stem of an Alcyonarian, which it has covered with a very thin horny layer containing the proper spicules of the sponge, the tylostyli being mostly placed longitudinally. This horny coating is easily separable from the Alcyonarian stem, and forms by itself a hollow cylinder from which the skeleton fibres arise.

This species appears to resemble *Esperella velutata*, Lbkn. sp., as far as spiculation is concerned, but the descriptions given of the latter are too imperfect for identification and the great difference in locality, the one being found at Port Jackson and the other at Venice, renders it improbable that they are the same species.¹

Locality.—Off Port Jackson, 30 to 35 fathoms. Two small specimens.

Esperella nuda, Ridley and Dendy (Pl. XV. figs. 5, 11, 14; Pl. XVI. fig. 1).

1886. *Esperella nuda*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 339.

Sponge (Pl. XVI. fig. 1) encrusting an irregular mass of dead spiculo-horny fibre belonging to an *Esperella*, probably of the same species. Sometimes the naked amber-coloured fibre projects far beyond the surface of the sponge. *Colour* in spirit pale yellow.

¹ For *Esperella velutata*, vide O. Schmidt, Spongien des Adriatischen Meeres, p. 57; also Vosmaer, Notes from the Leyden Museum, vol. ii. p. 141.