

*Colour.*—Purplish-red, or white.

*Habitat.*—Borneo (Gray); Gulf of Manaar (Carter).

*Remarks.*—O. Schmidt describes sponges, which he refers to this species, from Florida, on coral reefs, at 30 to 60 fathoms. Type-slides are in the British Museum; these and the general structure of the sponge, as figured by Schmidt, show that if not identical, it is a very closely allied form; still I could not find the minute spherules so characteristic of the species, and it is possible that Schmidt's sponge should be referred to the new species, *Placospongia intermedia* (*vide* p. 273).

Carter's illustrations of the spicules of *Placospongia melobesioides* do not appear to be taken from new material, but from Gray's sponge; amongst them, however, is one of a small spiraster which I have not been able to find.

*Placospongia carinata* (Bowerbank) (Pl. XL. fig. 7).

*Geodia carinata*, Bowerbank, sp. MS., Phil. Trans. Roy. Soc., pp. 308, 314, pl. xxvi. fig. 10; pl. xxv. fig. 19, 1858.

„ „ Bowerbank, Mon. Brit. Spong., vol. i. p. 254, pl. x. fig. 163, 1864.

„ „ Bowerbank, Proc. Zool. Soc. Lond., p. 298, pl. xlvi. figs. 1-5, 1874.

„ „ Bowerbank, Proc. Zool. Soc. Lond., p. 295, 1875.

*Placospongia carinata*, Ridley, Spong. "Alert," p. 481, 1884.

*Sponge.*—Sessile, coating stems of *Gorgonia* or *Fuci* (Bowerbank), or massive branched. Surface smooth, with numerous longitudinal carinæ. Oscules simple, few, dispersed. Cortex 0.56 mm. in thickness, consisting chiefly of the sterrastral layer; beneath the external epithelium a layer of microstrongyles. The cortex is divided into plate-like pieces, having the edges bevelled on the inside, separated by longitudinal grooves, and united by transverse muscular masses, which are attached to the bevelled edges. The pores are probably situated in the grooves, and lead into canals which run radially through the muscular bands into the choanosome. The walls of the canals are lined by longitudinally disposed microstrongyles.

In the centre of the choanosome is a dense sterrastral axis, and numerous sterrasters are also scattered through the tissues between the axis and the cortex. The tylostyles are arranged side by side, with the strongylate ends diverted outwards in dense spicular bundles, which radiate from the sterrastral axis and towards the bevelled margins of the cortical plates and the sides of the poral grooves. Some of the spicules of these bundles traverse the muscular bands, and project on each side of the poral grooves.

Large spirasters (No. 3) occur within the choanosome, chiefly in the muscular tissue.

*Spicules.*—I. Megasclere. 1. *Tylostyle*, actine cylindroconic, usually strongylate,