

DESCRIPTION OF SPECIES.

Order MONAXONIDA.

Suborder III. SPINTHAROPHORA.

Monaxonida in which the microsclere when present is some form of aster, never a sigmaspire, sigma, nor chela.

Group 1. HOMOSCLERA.

Spintharophora in which the spicules are of the same order, *i.e.*, all microscleres.

Family 1. ASTROPEPLIDÆ.

Homosclera in which the microscleres are microxeas and asters. The microxeas are arranged tangentially to the epithelial surfaces forming a felt. The chamber-system is eurypylous, the ectosome is not a cortex.

Genus 1. *Astropeplus*, n. gen.

The only genus.

Astropeplus pulcher, n. sp. (Pl. X. figs. 14, 30).

Sponge (Pl. X. fig. 14, c).—A thin, incrusting plate, scarcely 1 mm. in thickness; surface smooth, even. Pores 0.02 to 0.025 mm. in diameter, generally distributed, leading into extensive subdermal chambers. Oscules also small, about 0.4 mm. in diameter, irregularly distributed. Ectosome thin, densely crowded with asters and tangentially arranged microxeas; choanosome with scanty collenchymatous mesoderm and eurypylous flagellated chambers.

Spicules.—I. Microscleres. 1. *Microxea*, fusiform, slightly curved, varying in size, on an average 0.226 by 0.0065 mm., but when directed obliquely from the base towards the surface frequently larger, 0.387 by 0.013 mm.

2. *Aster* (Pl. X. fig. 30), very variable, centrum absent, actines conical, straight, usually strongylate, sometimes oxeate, usually from two to six in number, frequently four, and then producing a microcalthrops, each actine then 0.019 mm. in length. Sometimes, especially in the ectosome, the actines are more numerous and the aster smaller, the total diameter frequently not exceeding 0.0118 mm.

Habitat.—St. Iago, Porto Praya; incrusting *Sphinctrella cribrifera* and *Calthropella simplex*.