

are characteristically monocrepid, and hence I refer the sponge to the Corallistidæ, but now and then one meets with a true skeletal desma in zygotis with its fellows, and presenting the additional three short actinal axes described by Schmidt. I was at first, from the rarity of this phenomenon, inclined to imagine that Schmidt might have been mistaken, but after considerable pains I obtained the clearest evidence to the contrary, and I am now convinced that a complete series of transitional forms connect the monocrepid and tetracrepid desmas.

Genus 4. *Dædalopelta*, n. gen.

Corallistidæ in which the desma and discotriæne are similar to those of *Macandrewia*, but the microscleres are spirasters.

*Dædalopelta nodosa* (O. Schmidt).

*Discodermia clavatella*, var. *nodosa*, O. Schmidt, Spong. Meerb. Mexico, p. 25, pl. iii. fig. 1, n. o., 1879.

*Sponge*.—A small cushion-shaped mass, attached by an irregular base; surface somewhat rough, except over the base and sides, which are smooth and shining. Oscules numerous, small, simple openings collected within two shallow depressions on the upper surface, leading into small canals which radiate into the sponge in all directions, the most superficial visible beneath the skin, arranged in a branching stellate system.

*Spicules*.—I. Megascleres. 1. *Desma*, epirabd quadriradiate, triradiate, or more or less straight, smooth; cladi smooth or tuberculate; zygotis chiefly terminal. Maximum total length of a rectilinear form, 0.4 mm. Crepidial axis usually centrotylote, 0.047 mm. long, varying but slightly on each side of this to 0.043 and 0.051 mm., in one exceptional instance 0.095 mm. in length. 2. *Phyllotriæne*, cladome consisting of irregular narrow cladi, margins produced into bifid spines, or bifurcating tubercles which end in bifid spines; upper surface also tuberculated, the tubercles bearing from one to four bifid spines. Maximum diameter of the cladome, 0.35 mm. Rhabdome conical, strongylate, 0.05 to 0.1 mm. in length. The axial fibre of the cladi seldom more than 0.009 mm. in length. 3. *Oxæa*, slender, cylindrical, 0.2 by 0.003 mm.

II. Microscleres. 4. *Spiraster*, variable in form, sometimes passing into an amphister, sometimes into a metastar, 0.0237 mm. in length; a single spine often 0.01 mm. long.

*Colour*.—Dark brown. Size, 33 mm. long by 26 mm. wide and 13 mm. high. The smooth basal surface extends up the sides for a distance of 3 mm.

*Habitat*.—Gulf of Mexico.

*Remarks*.—The smooth basal surface is produced by a layer of closely articulated