

Genus 5. *Poritella*, O. Schmidt.

Founded on a deciduous specimen ; generic characters not assignable.

*Poritella decidua*, O. Schmidt.

*Poritella decidua*, O. Schmidt, Spong. Meerb. Mexico, p. 27, 1879.

*Sponge*.—Irregularly fan-shaped or vasiform, attached ; walls thick, upper margin flat, smooth ; inner surface covered with small circular oscules, less than 0.5 mm. in diameter ; outer surface covered with pores, visible to the unaided eye.

*Spicules*.—I. Megascleres. 1. *Desma*, large, very irregular in form, covered with large cylindrical and conical tubercles ; zygosis is lateral as well as terminal. The axial fibre of the crepis measures 0.044 mm. in length, the entire desma 0.5 mm. from end to end. 2. *Rhabdus*, slender, cylindrical ; termination (?).

II. Microsclere (?). The specimens are deciduous.

Size of fan-shaped specimen sent me by Professor Agassiz, 35 mm. in height and 32 mm. in maximum breadth, walls 10 mm. in thickness.

*Habitat*.—Various localities in the Gulf of Mexico ; 100 to 805 fathoms.

*Remarks*.—This sponge very closely resembles in general appearance *Corallistes typus*, O. Schmidt ; it differs, according to Schmidt's description, in the absence of triænes.

Genus 6. *Amphibleptula*, O. Schmidt.

Azoricidæ with a single oscule at the summit, and poriferous areas borne at the ends of short cylindrical processes, irregularly and generally distributed over the sides.

*Amphibleptula madrepora*, O. Schmidt.

*Amphibleptula madrepora*, O. Schmidt, Spong. Meerb. Mexico, p. 28, pl. i. fig. 6 ; pl. iii. fig. 7, 1879.

*Sponge*.—Conical, with rounded sides, attached by a flattened or concave base, at the summit a flattened area about 6 mm. wide, presenting vertical radiating septa about twelve to thirteen in number, surrounding a central cavity about 1.5 mm. in diameter, into this and the cavities between the septa open numerous more or less vertical tubes. The sides for 5 or 6 mm. from the summit are plain and even, but beyond this covered with numerous, not very regularly arranged, cylindrical processes, 1 to 2 mm. in diameter, traversed by one or more tubes, which open by septate apertures at the end. These represent the incurrent openings, that at the summit the oscule.