

Dactylocalyx pumiceus, Stutchbury, was found in the neighbourhood of Barbados at a depth of 103 fathoms; *Dactylocalyx subglobosus*, Gray, near St. Lucia, in 116 fathoms, and also to the north-west of Havanna in 190 fathoms.

As a new species Schmidt described a drinking-horn-shaped *Dactylocalyx* (*Dactylocalyx potatorum*) dredged from a depth of 190 fathoms near St. Lucia. Its wall measured 1.5 to 2.5 cm. in thickness, and consisted of a very light and fragile lattice-work of fine tubes. It also exhibited external as well as internal deep pittings, the openings of which alternate on the surfaces of the walls, and appear on the inner side to be arranged in longitudinal rows. Further, the form described by Gray as *Myliusia callocyathes* was referred by Oscar Schmidt to the genus *Dactylocalyx*.

Generic Characters.—The cup-shaped, thick-walled body exhibits both on the outer and on the inner surface irregular, but generally radial ridges, and interjacent furrows. Since internal furrows correspond to external ridges, the whole wall seems to be folded. It consists of a system of anastomosing, but mainly radial tubes, which open internally, and perhaps also externally. The system of spaces lying between these anastomosing tubes is closed on the internal gastral surface. It is probable that in the living form both the external dermal and the internal gastral surface of the entire sponge are covered by a flatly expanded dermal or gastral membrane. In the dermal membrane pentacts occur with unpaired hypodermal ray.

1. *Dactylocalyx pumiceus*, Stutchbury.

From the original description of Stutchbury, afterwards corroborated by Bowerbank and by Sollas in reference to two specimens from the Antilles Island, Barbados, and preserved in the Bristol Museum, *Dactylocalyx pumiceus* has a firm, flat, cup-shaped body, borne on a short, thick, massive stalk. It consists of a flat, plate-shaped roundish mass, 30 cm. in breadth, as thick as a thumb, and bordered by a slightly involute, slightly sinuous, rounded margin.

The radially-disposed furrows, which are frequently interrupted, alternate on the lower dermal and the upper gastral surface, and here and there exhibit dichotomous division. The very fine tubular network which forms the entire body is stone-like and very narrow in its meshes. The wall of the narrow tubes is composed of finely tuberculate beams, without thickening at the nodes of intersection.

Sollas found loose spicules in the parenchyma in the form of small hexacts, in which the slender rays were for the most part terminally thickened, while individual rays were frequently considerably elongated and somewhat curved. According to Bowerbank¹ the parenchyma includes oxyhexasters, with three long, slightly curved terminals on each of the six short principal rays, and also discohexasters with somewhat long terminals. The

¹ *Proc. Zool. Soc. Lond.*, 1869, p. 77, pl. iii.