

it gives off, indeed, a smell like that of a burning animal body, but it does not expand like other lithophites. If it is heated in a crucible over a strong fire it smells like burned gore, assumes a darkish colour, and becomes finally dazzling white, so that it cannot, like the ordinary Madrepores, become transformed into lime. Nor does the residue vitrify by the application of strong heat. A portion of this form gave a yellowish colour to white oil of vitriol, which was due to the action of this acid on the animal part. The stone on which this structure is fixed, and which Mr. Badiez brought from Martinique, is a dense green lava mixed with crystals and dark prismatic schorl."¹

In 1858, Bowerbank noted in the Philosophical Transactions (pl. xxvi. p. 312) some stellate spicules of *Dactylocalyx pumiceus*, Stutchbury, as examples of his "trifurcato-hexradiate stellate" and "spinulo-trifurcated hexradiate stellate spicules," and gave² a good figure of one of these.

The *Macandrewia azorica*, which Gray first described in 1859,³ and which he united in a group along with *Dactylocalyx* and *Myliusia callocyathes*, does not belong, as later accurate descriptions show, to this category, being in fact a Lithistid. The same is true of *Dactylocalyx prattii*, Bowerbank, of which some typical skeletal spicules are figured,⁴ as well as of *Dactylocalyx bowerbankii*, Johnson, which Johnson described,⁵ and of which Bowerbank figured an isolated quadriradiate spicule in 1864 in his *British Spongiadæ*, vol. i. pl. ii. fig. 53.

In his great Sponge System Gray formed in 1867,⁶ a special family—the Dactylocalycidæ—within his order Corallispongia, and this family he characterised as "Sponges with massive, expanded, or flabellate, the network with angular meshes." The members of this family possess a "network irregular, not symmetrical," and consist of *Macandrewia* and *Myliusia* and of the genus *Dactylocalyx*, which was partly identified with *Iphiteon*, Valenciennes.

The diagnosis of *Dactylocalyx* is as follows:—"Sponge expanded, with large sunken grooves and oscules on the upper and lower surface. Spicules of skeleton tuberculated; spicular network, rugose, tubercular. Sarcode with scattered, radiated, or stellate spicules, divided into branches near the base, and with knobs at the tip of the rays. Sarcode studded with many-rayed stellate spicules, the six principal rays diverging on all sides, and divided near the base into several elongated cylindrical linear rays, which diverge from each other and are tipped with a small apical knob like the head of a pin."

Besides the *Dactylocalyx prattii*, Bowerbank, which is a Lithistid, and does not therefore belong to this group, Gray established two other species of *Dactylocalyx*, namely,

¹ Rozier, *Journal de Physique*, October 1780, t. xvi. p. 315.

² *Loc. cit.*, fig. 1.

³ *Proc. Zool. Soc. Lond.*, vol. xxvii. p. 432; *Ann. and Mag. Nat. Hist.*, ser. 3, vol. v. p. 495.

⁴ *Phil. Trans.*, 1862, p. 747, pl. xxvii. fig. 8.

⁵ *Proc. Zool. Soc. Lond.*, 1863, p. 257; *Ann. and Mag. Nat. Hist.*, ser. 3, vol. xiii. p. 257.

⁶ *Proc. Zool. Soc. Lond.*, 1867, p. 505.