

description ran :—" Sponge siliceous, funnel-shaped, fixed by the base ; the upper surface smooth, marked with numerous minute perforations placed in nearly parallel grooves, radiating from the centre to the circumference, and with numerous large, oblong, rather unequal-sized perforations, which are fringed on the lower side with a high wall of a similar structure to the rest of the sponge ; these edges of the cavities causing the under surface to be covered with unequal irregular-shaped tubes of nearly the same length, and more or less confluent together : some of these tubes are simple and sub-cylindrical, others are expanded and more or less crumpled on the edge around the cavity, so as to end in two, three, or even four more or less circular mouths." A magnificent delineation of the elegant sponge completed this accurate diagnosis.

In the systematic review of the sponges, which Gray gave in the Proceedings of the Zoological Society London, in 1867, he placed *Myliusia* in the family of the *Dactylocalycidæ* (" sponge massive, expanded or flabellate, the network with angular meshes,") close to *Dactylocalyx*, and briefly characterised it on page 506 in the following words :—" The sponge conical, cup-shaped, pierced with numerous short truncated tubes, forming raised folded anastomosing laminæ on the lower surface."

A diagnosis of the genus *Myliusia*, Gray, founded for the most part on the microscopic structure of the skeletal framework, was published by Bowerbank in 1869 in the Proceedings of the Zoological Society of London, part i. p. 66, and ran as follows :—" Skeleton siliceo-fibrous. Fibres solid, cylindrical. Rete symmetrical, disposed in a series of crypt-like layers parallel with the external surface, with intervening planes of perforated siliceous tissue."

Wyville Thomson,¹ in his scheme of Porifera vitrea, rejected Gray's genus *Myliusia*, and referred the form in question simply as *Dactylocalyx callocyathus* to the genus *Dactylocalyx*. Moreover, Bowerbank² subsequently found, " on microscopic examination of the structure of the type specimen of *Myliusia*, Gray," that it was identical with that of his genus *Iphiteon*. He therefore referred Gray's *Myliusia callocyathus*, as *Iphiteon callocyathus* to the genus *Iphiteon*. Thus, then, the generic name *Myliusia* became as it were free, and Bowerbank availing himself of the fact, designated another recently studied remarkable Hexactinellid from St. Vincent, West Indies, with the generic title *Myliusia*, and added to it the specific name *grayi*. The accurate description of the new species *Myliusia grayi*, Bowerbank, which was illustrated with two good figures of the microscopic structure of the skeleton, undoubtedly showed the essential difference between this species and Gray's *Myliusia callocyathus*, and certainly established the generic distinctness of the two. It is, however, very much to be regretted that Bowerbank did not invent a new name for his new genus, as many errors and ambiguities would thus have been avoided.

Later authors have, however, by no means always attended to the essential difference

¹ *Phil. Trans.*, p. 713, 1869.

² *Proc. Zool. Soc. Lond.*, p. 335, 1869.