

Skeleton regularly netted. Spicules of two kinds:—(1) Fusiform. (2) Bihamate, simple, and contorted." The increase of our knowledge, due to recent discoveries, has necessitated several not very serious alterations in the original diagnosis. Thus, it has been found advisable to omit the words "sponge massive," for we now know at least one species, *Gellius calyx*, nobis, which has a beautifully symmetrical and elegant form. Again, the genus has had to be enlarged to admit certain forms with toxa, or with long, straight, hair-like microsclera, although at present only a few such are known, viz., *Gellius angulatus*, Bowerbank, sp., *Gellius arcoferus*, Vosmaer, *Gellius flabelliformis*, nobis, *Gellius pyriformis*, nobis; and it is possible that these and kindred forms may subsequently require a separate genus or subgenus to include them.

The smooth oxeote character of the megasclera appears to be a very good and constant point, but it is important to notice that the ends of the oxea may become completely rounded off, as in *Gellius pyriformis* and *Gellius carduus*, the spicules then becoming almost cylindrical (strongylote), but showing their real nature by the marked manner in which they still taper to each rounded extremity, and also by their close correspondence in shape and curvature with those of allied forms. Intermediate stages in this process of rounding off are also sometimes met with.

Vosmaer, in the Notes from the Leyden Museum (*loc. cit.*), does not accept the genus *Gellius* at all, but has in its place *Desmacodes*, Schmidt. In his later work on the Porifera in Bronn's *Klassen und Ordnungen des Thierreichs*, he, however, substitutes *Gellius* for *Desmacodes*, but gives the genus a much wider scope than we are inclined to admit; his diagnosis runs as follows:—"Stabnadeln glatt oder gedorn; Sponginn wenig entwickelt. Keine Anker. Statt dessen Haken und Bogen. Atlantischer und Arctischer Ocean (Mittelmeer?). Untief bis 180 Fad."¹ The Challenger dredgings extend the range of depth at which *Gellius* occurs to 600 fathoms, and show it to be as well established in the deep-sea as in shallow water.

Gellius varius, Bowerbank, sp. (Pl. VIII. fig. 4).

1875. *Halichondria varia*, Bowerbank, Proc. Zool. Soc. Lond., p. 292.

1875. *Isodictya virgata*, Bowerbank, Proc. Zool. Soc. Lond., p. 294.

1880. ? *Desmacodes fibulatus*, Vosmaer, *pars*, Notes Leyden Mus., vol. ii. p. 105.

1884. *Gellius varius*, Ridley, Zool. Coll. H.M.S. "Alert," Brit. Mus., p. 424.

With this species we identify several good-sized fragments from Station 208. They are all more or less cylindrical, and the longest is a branch about 80 mm. long by about 6 mm. in diameter, slightly forked at the extremity. Other pieces are thicker, much more distinctly branched, and the branches show a strong tendency to anastomose. The measurements of the spicules are as follows:—Oxea about 0.22 by 0.013 to 0.0145 mm.

¹ *Vide* Klass. u. Ordnung. des Thierreichs, Porifera, p. 349.