

restore the latter designation.¹ The crustacea that constantly occur in the large lumen of the tube, Semper identified as a Palæmonid, along with which there frequently occurs an isolated *Aega*, named by him *Aega spongiophila*.

In the same year (1867), in his attempt to form a general system of the sponges,² Gray erected an order of "Acanthospongiæ" in which "spicules of more than one form or kind" appear "in the same sponge," and to this he referred, among others, a special family of the Euplectellidæ with the following characteristics:—"Sponge tubular, skeleton composed of longitudinal, transverse, and oblique bundles of spicules, intersecting each other and forming a network. Sarcode mucilaginous, studded with many rayed stellate spicules." To this family Gray also referred, in addition to the genus *Euplectella*, two other new genera, *Corbitella* and *Heterotella*, which differ from *Euplectella* chiefly in the absence of the regular longitudinal and circular disposition of the fibrous skeletal strands. The diagnosis of the genus *Euplectella* is given by Gray³ as follows:—"The tubes regular, gradually wider above, formed of regular longitudinal and transverse bundles of filiform spicules, which are crossed in an oblique direction with more slender fascicles or separate filiform spicules, and strengthened externally with transverse or obliquely raised ridges; the upper ridge forming a fringe at the top of the tubes, between the edge of the tubes and the irregularly netted lid. Sarcode thin, studded with many rayed stellate spicules, with long simple or trifid rays, or with short rays divided at the end into several converging rays, forming a bell-shaped series."

As specific examples *Euplectella aspergillum*, Owen, and *Euplectella cucumer*, Owen, are cited.

In 1868, Claus published a detailed research on the architecture, formation and structure of the skeleton of *Euplectella aspergillum*, Owen.⁴ The different forms of spicules are intimately described, and the fusion of certain groups by the deposition of siliceous lamellæ is demonstrated.

In Bowerbank's critique on Gray's arrangement of the Sponges,⁵ the separation of the family of the Euplectellidæ from the "siliceo-fibrous sponges" is censured, since their skeleton is "truly siliceo-fibrous."

A new Japanese species belonging to the genus *Euplectella* has been described by Herklots and Marshall,⁶ under the name of *Euplectella oweni*. It is characterised both by its saccular form, which gradually diminishes upwards, and by a peculiar arrangement of the round parietal pores, with which variations in the skeletal structure are associated. In this species there is no cementing of the long siliceous spicules into longitudinal fibrous strands, and in place of the outwardly directed oblique ridges there are downy siliceous hairs covering the surface.

¹ *Archiv f. Naturgesch.*, vol. i. pp. 84-89, 1867.

² *Loc. cit.*, p. 528.

³ *Proc. Zool. Soc. Lond.*, p. 118, 1868.

⁴ *Proc. Zool. Soc. Lond.*, pp. 492-558.

⁵ *Ueber Euplectella aspergillum*, p. 4, 1868.

⁶ *Archives néerland. Sc. exact. et natur.*, vol. iii. p. 458.