Suborder III. STEPHOIDEA, Haeckel.

Stephoidea vel *Stephida*, Haeckel, 1881, Prodromus, p. 444.
Acanthodesmida (*sensu ampliori*), Bütschli, 1882, Zeitschr. f. wiss. Zool., vol. xxxvi. p. 495.

Definition.—NASSELLARIA without complete lattice-shell, with a skeleton composed of one or more simple rings, which may be united by a loose framework and are separated by large openings or gates. One primary or sagittal ring, determining the sagittal or median plane of the bilateral body, encloses the monaxonian central capsule.

The suborder Stephoidea, hitherto known by a few species only of "Acanthodesmida," comprises a large number of interesting NASSELLARIA (now more than two hundred species), which possess peculiar interest for the morphology and phylogeny of this legion. The monaxonian central capsule of the Stephoidea is surrounded either by one simple ring or by a complex system of several loosely connected rings; these may be united by a loose framework of connected branches, but never produce a complete lattice-shell, as is constantly the case in the Spyroidea, Botryodea, and Cyrtoidea. Therefore there remain between the parts of the connected rings a few large openings which we call "gates," separating them from the numerous small "pores" of the complete lattice-shells. In the most simple case, if only one ring be formed, there is also present only one "gate," the aperture of this simple ring.

The first known species of Stephoidea were observed in the Mediterranean by Johannes Müller in 1856, and described and figured in his last treatise (1858) under the names *Lithocircus annularis* (*loc. cit.*, Taf. i. fig. 1) and *Acanthodesmia vinculata* (*loc. cit.*, Taf. i. figs. 4–7). In the following year I myself observed two other living species in the Mediterranean, and described them in my Monograph (1862, pp. 268, 270) as *Zygostephanus mülleri* (Taf. xii. fig. 2) and *Prismatium tripleurum* (Taf. iv. fig. 6). For these four longest known Stephoidea I founded the new family of Acanthodesmida (*loc. cit.*, p. 265), but united with them two other similar genera which I afterwards separated:—*Plagiacantha* (belonging to the Plectoidea) and *Dictyocha* (belonging to the PHÆODARIA).

When, in 1876, I received the rich material of the Challenger collection, I was astonished to find in it an enormous number of new, similar, and partly very interesting "Acanthodesmida," which were afterwards arranged in my Prodromus (1881, p. 444) in thirty-eight different genera and four "subfamilies," all united in one single large family, "Stephida or Monopylaria cricoidea." I retain here this natural group in the same sense, but give to it the rank of a "suborder," separating at the same time its four subfamilies as substantial "families." Since the names of the