The calymma or the extracapsular jelly-veil in all Plectoidea is voluminous, and encloses not only the central capsule completely, but also the skeleton wholly or partially. Its form is of the greatest value for the development and configuration of the skeleton. Sometimes the calymma is alveolate and foamy, as in *Nassella* and the common *Thalassicolla*. In several other Plectoidea the calymma seems to include numerous small vacuoles, sometimes also pigment-granules. Xanthellæ are commonly scattered in it in great numbers. The pseudopodia, arising in a large bunch from the porochora of the capsule, and running along the branches of the radial spines, seem to be always numerous, richly branched, and with a strong tendency to form anastomoses. The peculiar form of their network is often exactly preserved in the conformation of the skeleton, produced by them. The peculiarities of this network require further accurate observations, as does the whole organisation of the Plectoidea.

Synopsis of the Families of Plectoidea.

I. Skeleton (originally tripodal) composed of radial spines united in a common centre and supporting the central capsule, without wicker-work, . . 1. Plagonida.

II. Skeleton (originally tripodal) wattled, with irregular wicker-work, composed of the united branches of radial spines and enveloping the central capsule, . . 2. Plectanida.

Family XLVI. Plagonida, Haeckel.

Plagonida, Haeckel, 1881, Prodromus, p. 423.
Plagiacanthida (*sensu strictiori*), Richard Hertwig, 1879, Organismus d. Radiol., p. 72.

Definition.—Plectoidea with a spiny skeleton, composed of radial spines, which arise from a common central point or central rod, and support the free central capsule.

The family Plagonida comprises those Nassellaria in which the skeleton is only composed of united radial spines, arising from a common centre, without any connection of meeting branches of the spines; the rudimentary skeleton exhibits therefore neither a loose wickerwork (as in the closely allied Plectanida), nor a ring (as in the Stephoidea), nor a complete lattice-shell (as in the Cyrtellaria, the Spyroidea, Botryodea, and Cyrtoidea). The central capsule, which possesses all the characters of the Monopylea, is therefore free, not enclosed, and only on one side supported or partly protected by the radial spines or their branches.

Two species only of Plagonida have been hitherto known. The first form described is the *Plagiacantha arachnoides*, discovered thirty years ago (1855) by Claparède on the western shore of Norway. Another species of the same genus, from the Mediterranean, was very accurately described by Richard Hertwig in 1879 in his Organismus der