

Family XXVI. PYLONIDA, Haeckel, 1881 (Pl. 9).

Pylonida, Haeckel, 1881, Prodrömus, p. 463.

Definition.—Larcoidea with regular, incompletely latticed cortical shell, distinguished by two to four or more symmetrically disposed gates or large fissures remaining between one to three latticed dimensive girdles (perpendicular one to another). One, two, or three concentric systems of such girdles (each system with three girdles) may be developed.

The family Pylonida is the most important and interesting among all the Larcoidea, not only because it is much richer in different and peculiar forms than the other families of this section, but also because it has direct and very complex relations to all the other families of Larcoidea. It is even possible that the Pylonida represent the original ancestral group of the whole section, and that the apparently simpler group of the Larcarida must be derived from the former by retrogressive metamorphosis.

Till the year 1881 the family Pylonida, which here now exhibits ten genera with eighty-six species, was only represented by one single species, accurately described and extensively illustrated by Johannes Müller in 1858, the well known and widely distributed cosmopolitan *Tetrapyle octacantha* (Abhandl. d. k. Akad. d. Wiss. Berlin, p. 33, Taf. iii.). A slight modification of it was afterwards described by Ehrenberg as *Schizomma quadrilobum* (Abhandl. d. k. Akad. d. Wiss. Berlin, 1872, Taf. ii. fig. 12). A more accurate description of it, with a good explanation of its characteristic growth, was given in 1879 by Richard Hertwig in his Organismus der Radiolarien (pp. 52–54, Taf. iv. figs. 7, 8; Taf. vi. figs. 2, 5). In my Prodrömus (1881, p. 463) I constituted for a large number of allied species, detected in the Challenger collection, the special family Pylonida, and distinguished among it twelve different genera. However, I think it now better to restrict the definition of the family as given in the above definition, and to remove from it a number of genera formerly with it united, as the genera *Triopyle* and *Hexapyle*, appertaining to the Discoidea.

The characteristic type of all true Pylonida is clearly demonstrated by their peculiar mode of growth, the consequence of which is the imperfect lattice-work of the fenestrated larcoid shell. This remarkable growth is effected by the development of elliptical latticed girdles (or rings), which enclose a quite simple, spherical, subspherical, or lentelliptical primordial shell. The girdles lie in three different planes, perpendicular to one another, and are of different sizes; each girdle being somewhat larger than the foregoing and somewhat smaller than the following girdle. Between these latticed girdles remain on the surface of the shell large openings or "gates," which are not closed by network, and it is just the symmetrical disposition and form of these open "gates," separated and enclosed by the fenestrated girdles, which give to the Pylonida their characteristic appearance.