

greatest importance, do not induce any perceivable changes in the conformation or appearance of the body, as is easily seen by comparing with one another *Elpidia glacialis* and *Scotoplanes globosa*. Even if I had been able to study the madreporic canal in all the forms of this family, I should certainly have hesitated to choose as generic characters anatomical peculiarities which in most cases can be distinguished only with the greatest difficulty and by means of particular microscopical research, excepting, of course, where these peculiarities are accompanied by others.

The variability in the position of the pedicels, which are sometimes arranged all along each side of the body, sometimes wanting in the anterior half or third of the ventral surface, and sometimes present only round the posterior extremity of the body, does not give suitable generic characters. I have only once made use of this peculiarity of the pedicels, when establishing the genus *Scotoanassa*, which is most peculiar on account of its pedicels running out from the margin of the considerable brim which surrounds the posterior extremity of the body.

Thus, as stated above, there are great difficulties at present in producing a natural classification of the family Elpidiidae.

Tabular View of the Genera of the Family ELPIDIIDÆ.

I. Tentacles ten.

A. Dorsal surface with processes most frequently of considerable size.

- a.* Body very long, cylindrical, Synapta-shaped. Processes of the dorsal surface almost inconspicuous. Calcareous deposits four-armed, with a single long central process, directed outwards, Gen. I. *Parelpidia*, n. gen.
- b.* Body more or less elongated ovate, cylindrical, or depressed posteriorly. Processes of the dorsal surface generally large.
1. Calcareous deposits : four-armed bodies with large processes, and, besides, sometimes small wheels, Gen. II. *Elpidia*, Théel.
 2. Calcareous deposits : unbranched spicula or three-armed bodies ; and, besides, always small C-shaped spicula, Gen. III. *Scotoplanes*, n. gen.
 3. Calcareous deposits : simple, irregularly curved, horse-shoe-shaped bodies, scattered straighter spicula, and sometimes a few perforated, net-like plates—

- × . Madreporic canal opening externally, Gen. IV. *Kolga*, Dan. & Kor.
- × × . Madreporic canal not opening externally, Gen. V. *Irpa*, Dan. & Kor.

B. Dorsal surface with a large lobe-like appendage anteriorly, and commonly with some minute processes, Gen. VI. *Peniagone*, n. gen.

C. Body very depressed, almost flat, with a large brim round its anterior and posterior ends, Gen. VII. *Scotoanassa*, n. gen.

- II. Tentacles eleven to twelve, Gen. VIII. *Achlyonice*, n. gen.
- III. Tentacles twenty, Gen. IX. *Enypniastes*, n. gen.