

The structure of the cylindrical tentacles is the same as in all Porpitidæ. They bear three rows of pediculate cnidospheres in their club-shaped distal half, one inferior and two opposite lateral rows (figs. 4-6).

Family II. PORPITIDÆ, Brandt, 1835.

Porpitidæ, Brandt, Prodrömus, 25, p. 40.

Definition.—Disconnectæ with a circular permanent umbrella, including a campanulate or discoidal pneumatocyst, which is composed of an octoradial centre and numerous concentric rings, without vertical crest. No vertical sail upon the umbrella. Submarginal tentacles with three rows of pediculate cnidospheres. Central siphon surrounded by numerous peripheral fertile siphons, which bear the gonophores.

The family Porpitidæ, founded in 1835 by Brandt for the genus *Porpita*, comprises all those Disconnectæ polygastricæ which have a circular umbrella and a regular originally octoradial ground-form. They agree in their regular octoradial form with the monogastric Discalidæ, their ancestral group, but differ from them essentially in the polygastric structure which they share with the Velellidæ. Not only does the primary sterile central siphon possess a mouth opening at its distal end, but likewise also each of the surrounding gonostyles. These peripheral polypites, which bear the gonophores budding from their proximal part, are therefore not mouthless palpons (as in the Discalidæ), but mouth-bearing, feeding, and digesting secondary siphons. The Velellidæ, with the same polygastric organisation, differ from the Porpitidæ in the amphitect or bilaterally-radial type, and in the development of a vertical sail upon the exumbrella.

Eschscholtz, in his fundamental work,¹ described five different species of Porpitidæ, which he united in the single genus *Porpita*. Lesson² added to this two other genera (each with a single species), *Ratis* and *Acies*. His description, however, is very incomplete, and not illustrated by any figure, so that it is impossible to decide whether they are merely young forms of *Porpita* (as most authors suggest) or perhaps Discalidæ.

Some interesting new Porpitidæ, found in the Challenger collection, and some other new forms observed by myself on different occasions, have led me to divide this family into four genera (characterised in my System).³ These may again be disposed in two subfamilies, the Porpalidæ and the Porpitellidæ, each with two genera. The first subfamily, Porpalidæ, has a lenticular or subglobular umbrella and a campanulate pneumatophore with lobate margin (*Porpalia* and *Porpema*); whilst the second subfamily, Porpitellidæ, possesses a flat discoidal umbrella and a medal-shaped pneumatophore with a circular, not lobate margin (*Porpitella* and *Porpita*).

Umbrella.—The complete body of all Porpitidæ is circular, sometimes more lenticular

¹ 1, 1829, p. 176.

² 3, 1843, p. 592.

³ 95, 1888, p. 30.