

(4) An abyssal layer (1500 to 5000 metres), in which the large Challengeridæ (*Protocystis naresi*, *P. thomsoni*) are found.

The multicellular animals are all represented among the pelagic forms, from the medusæ to the fishes.

Commencing with the Cœlenterates we may mention the Medusæ, the Siphonophores, the Ctenophores, and the larval Actiniæ.

Medusæ.

The Medusæ are generally bell-shaped or globular, with a more or less transparent jelly-like body. On the edge of the bell some forms have a band-shaped fold or moulding ("craspedon"), and accordingly the medusæ are divided into two main groups: Craspedota with a craspedon, and Acraspeda without a craspedon.

The Craspedota comprise four groups: Anthomedusæ, Leptomedusæ,

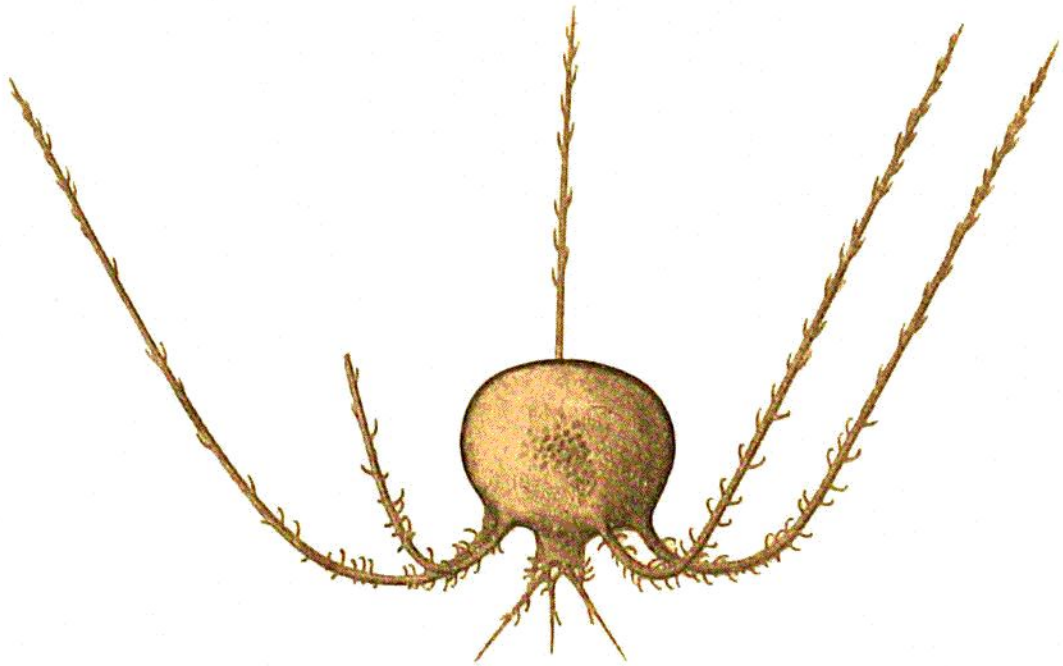


FIG. 395.

Tuscarella globosa (Borgert), subsp. *chuni*, Haecker (about 3¹⁰). (From Haecker.)

Trachymedusæ, and Narcomedusæ, of which the first two are meropelagic and the last two holopelagic. The meropelagic forms pass through an "alternation of generations," *i.e.* the eggs produced by the medusæ develop into larvæ which attach themselves to the bottom and grow into hydroid polyps or zoophytes; by "budding" the zoophytes produce small medusæ, which lead a swimming pelagic life and produce eggs. Fig. 396 shows a colony of hydroids with different stages of medusæ developing, and Fig. 397 shows one of the medusæ just after leaving the colony. The Craspedota are therefore termed hydroid medusæ or hydromedusæ, although they include two groups with no alternation of generation and no bottom stages, which are supposed to be descended from neritic forms. The hydromedusæ having an alternation of generations are represented by a vast number of species in the surface waters off all coasts where the temperature is not too low. They do not occur far from land nor in deep water. Their pelagic life