

character with the monogastric Athoridae, but differs from this closely allied family in the possession of numerous siphons.

The first described and the best known type of Anthophysidæ is the Mediterranean *Athorybia rosacea*. It was discovered by Forskål, who figured it under the name *Physophora rosacea* as early as 1775 (11, Tab. xliii. fig. B). Two other closely related species, taken in the Strait of Gibraltar, were described by Quoy and Gaimard as *Rhizophysa heliantha* and *Rhizophysa melo* (20), and afterwards placed by the same authors in the genus *Stephanomia* (2). These three species together were united in the genus *Athorybia* by Eschscholtz (1, p. 153) in 1829. A similar fourth form, taken in the Northern Pacific, was described by Mertens as *Anthophysa rosea* (25, p. 36), and Brandt in 1835 established for all these together the family Anthophysidæ.

The first accurate anatomical description of *Athorybia* was published in 1853 by Kölliker (4, Taf. vii.), and supplemented by Huxley in 1859 (9; pl. ix.). He called the family represented by it Athorybidæ. The genus *Anthophysa* differs from the former in the possession of two kinds of tentacular knobs. An American species of this genus was afterwards accurately described by Fewkes, under the name *Athorybia formosa* (44, p. 271, pls. v., vi.). The development of the fertilised egg was examined in 1866 by myself (84, p. 88, Taf. xiv.).

The Anthophysidæ, or Athorybidæ, are among the most beautiful and most delicate Siphonophoræ. But they are in general rare, and owing to their small size and fragility their anatomical investigation is difficult. Some interesting new forms of this family, which I was able to examine living in the Mediterranean, the Atlantic, and the Indian Ocean, have enabled me to complete their anatomical knowledge (Pls. XI., XII.).

*Truncus*.—The cœnosome or common stem is in all Anthophysidæ a small ovate, pyriform, or flatly conical vesicle. Its apical (proximal or superior) half is the nectostyle, includes the pneumatocyst, and bears the corona of bracts; its basal (distal or inferior) half is the siphostyle, and bears in the periphery a corona of very numerous palpons, in the central part a smaller number of siphons, tentacles, and gonostyles.

Although the general appearance of the corm in all Anthophysidæ is radial, nevertheless the fundamental form of the trunk is always bilateral, as in all the other Siphonanthæ. The series of buds, which is visible as well in the nectosome (Pl. XII. fig. 9, *ib*) as in the siphosome (fig. 9, *is*), marks the ventral median line of the trunk.

*Cormidia*.—The numerous polymorphous persons or medusomes, which compose the corm of the Anthophysidæ, are arranged around the common central trunk in a certain regular manner. This has hitherto escaped all observers, owing to the small size and the great delicacy of the object. The specimen of *Anthophysa darwini*, which I found in the Challenger collection, and which is figured in Pl. XII. figs. 7–9, exhibited this regular arrangement of the cormidia more distinctly than the smaller species of *Athorybia* hitherto described. In general this ordinate structure seems to be