The family Forskalidæ comprises those Physonectæ polygastricæ which have a long tubular stem of the siphosome densely covered with bracts, and a strobiliform nectosome composed of numerous spiral rows of nectophores. The siphons are very large, and distinguished by a very long pedicle. They differ in these characters from most other Physonectæ, the nectosome of which is either biserial or quadriserial. The corona of bracts of the Anthophysidæ, however, may be compared with the spiral nectosome.

Although the Forskalidæ are the largest and the most splendid of all Physonectæ, and some species occur in the Mediterranean and the Atlantic in large numbers, nevertheless they remained perfectly unknown up to the year 1841. In that year Milne-Edwards published the first description of two Mediterranean species, under the names Stephanomia contorta and Stephanomia prolifera (71, p. 217, pls. vii.—ix.). It was completed twelve years afterwards by Kölliker, who established for them the genus Forskalia (4, p. 2, Tafs. i., ii.). Additions were afterwards made by Leuckart (8), Vogt (5), Keferstein and Ehlers (33), and Claus (35). Recently (1881) an Atlantic species of Forskalia has been described by Fewkes, under the name Stephanomia atlantica (44, p. 264, pls. v., vi.). Another Atlantic species, Forskalia tholoides, was observed by me in 1866 off the Canary Islands, and is described in the following pages (Pls. VIII.—X.).

A very remarkable and gigantic deep-sea Physonect, which probably belongs to this family, was described in 1878 by Studer (40) under the name Bathyphysa abyssorum, and in 1884 by Fewkes (45) as Pterophysa grandis. A similar form, of which I was able to examine some fragments, makes it probable that these giants of the deep sea do not belong to the Rhizophysidæ (as the last-named author supposes) but to the Forskalidæ. Another new and interesting genus of this family, described in the following pages as Strobalia, was observed by me in 1881 in the Indian Ocean, and illustrates the affinities of this peculiar family.

Nectosome.—The swimming apparatus in the Forskalidæ is larger, stronger, and more highly developed than in any other Physonectæ. The pneumatophore at the apex of the trunk is small, but the nectophores are very numerous (usually more than one hundred) and arranged in a continuous spiral. The whole nectosome is sometimes cylindrical or conical, at other times more campanulate or hemispherical; its different forms are comparable to those of the different cones of firs. Its rounded surface is elegantly panelled or facetted by the basal ostia of the nectophores, which are regularly disposed in a quincuncial manner. The spiral line which connects the basal insertions of the nectophores has four to eight or more turnings, and is usually læotropic, therefore opposite to the dexiotropic spiral of the siphosome. The genus Forskaliopsis is distinguished by the possession of palpons which are scattered between the nectophores. The physiological activity of the nectosome is more highly developed than in all the other Physonectæ, since the great number of nectophores and their pointing in all directions enables the animal to perform a greater variety of swimming motions.