

margin run out 16 to 32 broad tentacular coronal pouches, and the same number of alternating rudimentary ocular canals; 8 separate adradial genitalia, grouped in pairs, not distributed at equal distances.

The genus *Atolla*, like the preceding *Nauphanta*, is one of the most remarkable and morphologically interesting deep-sea Medusa brought to light by the Challenger expedition. Both are very ancient remains of an extinct ancestral group of Discomedusæ, which clearly indicate the close connection of this order with the Cubomedusæ and Peromedusæ. *Atolla* has a near relation in *Collapsis*, which is also an Antarctic deep-sea Medusa, and which I have described in my *System der Medusen* (1879, p. 489, taf. xxviii.). These two compose a special small group of deep-sea Cannostomæ, which I include provisionally as a sub-family of the Ephyridæ, but which it would be as well to separate in future as an independent family of the Collaspidæ. These two genera must be essentially looked upon as Ephyridæ, which are distinguished by their colossal size and peculiar complications in the formation of the umbrella corona, and the coronal intestine. The central umbrella disc, which is separated by a deep coronal furrow from the surrounding umbrella corona, has, on the whole, the same formation as in the Nausithoidæ, especially *Nauphanta*. The wide, but short, quadrangular œsophagus, cruciform in transverse section, is surrounded by eight genitalia, which in *Atolla* (as in *Nausicaa*) are grouped in pairs, whilst in *Collapsis* (as in *Nausithoë* or *Nauphanta*) they are adradially distributed at equal distances. The formation of the peripheric umbrella corona differs entirely, as it is distinguished both by the increased number of the marginal organs, and by special modifications of the structure. Whilst in all other Ephyridæ, Nausithoidæ, as well as Palephyridæ, the number of the sense clubs, tentacles, and pairs of lobes invariably amounts to eight, in the Collaspidæ it rises from sixteen to thirty-two, and seems to vary in the same way as it does in most polynemal Narcomedusæ. These remarkable Discomedusæ are altogether so like the polynemal Narcomedusæ that at first I took them for gigantic forms of the latter. Another peculiarity of the Collaspidæ consists in the extraordinary development of their coronal muscle. This is divided into two different, sharply defined wings, an inner or abaxial, which is delicate and thin like a velum, and an outer or abaxial, which is disproportionately thick and divided into from sixteen to thirty-two areæ. Immediately below it, at the basis of each short tentacle, there are two thick spindle-shaped radical muscles, like those in the Peromedusæ. The Collaspidæ also resemble the Peromedusæ strikingly in the sculpture of the exumbrella, as its coronal part is divided by deep furrows into thick polyhedral gelatinous pieces or pedalia. One half of these pedalia sustain the sense clubs, the other half support the tentacles. The sense clubs and the pouches belonging to them are small and scantily developed in *Collapsis*, and quite rudimentary in *Atolla*. This retrograde formation of the higher organs of sense is probably a consequence of adaptation to life in great depths of the sea. The formation of the coronal intestine is