

same pair are never of the same size, so that for example half of the septa of the fifth cycle are inserted at a considerable distance on the oral disk, whilst the other half run only to two-thirds of the height of the wall. Closer investigation shows that this difference of size is governed by fixed laws. From the moment when the septa of the first two cycles are developed onwards, we find that after these all the interseptal spaces are bounded by septa of different grades, *i.e.*, by a septum of a higher and a septum of a lower order. The proximity of the former causes a stronger development, *e.g.*, in the newly-formed pairs of the third order, the septum turned towards the older pair is always stronger than the other. In the following pair of the fourth order, the septum which adjoins the septum of the third order is always the smaller. These differences cannot, of course, arise in the second cycle, as the interseptal space lies between septa of the first order which are of equal value.

As *Dysactis crassicornis* is not found at any great depth, and was dredged up by the Challenger at several places, the probability that the animal may have come under the observation of former naturalists deserves special consideration. Let me draw attention to two forms which are perhaps identical with it. In the Annals and Magazine of Natural History, 1872 (series iv., vol. ix. p. 304), Kyle describes an Actinia which he procured by means of the hooks on fishermen's deep-sea lines. Like the form under discussion, this Actinia reminds us of *Tealia crassicornis*, but differs from it in having a smooth body surface which brings it nearer our *Dysactis*. The second Actinia is the *Rhodactinia davisii*, minutely described by Verrill (Mem. Boston Soc., vol. i. p. 18, 1866-69), in which the papillæ on the wall are so indistinct that the surface appears almost smooth. The tentacles also appear to be similar, and, according to Verrill, are numerous, and arranged in several indistinct rows; they are conical or cylindrical, thick, rather short, rounded obtusely at the end or even club-shaped. There is, however, some doubt about this second form, as Verrill himself identifies it with *Tealia crassicornis* or rather *Urticina crassicornis*, as he terms the species (Transactions Connecticut Acad., vol. i. p. 469).

Dysactis rhodora.

Actinia rhodora, Couthouy, in Dana,¹ Explor. Exped., Zooph., p. 148, pl. iv. fig. 37, 1846 (Synopsis, p. 11).

Dysactis rhodora, Milne-Edwards, Hist. des. Corall., tom. i. p. 263, 1857.

Tentacles tolerably long and slender, arranged in three rows; the tentacles of the inner row essentially longer and stronger than those of the middle and outer rows.

Habitat.—Station 313. January 20, 1876. Lat. 52° 20' S., long. 68° 0' W. Depth 55 fathoms. Two strongly-contracted specimens.

¹ The edition of Dana's chief work, Report on the Zoophytes of the U.S. Exploring Expedition, which appeared in 1846, was very limited, and was soon out of print; the author therefore subsequently (1859) published a synopsis. I was only able to refer to the synopsis and the atlas, for the loan of which I am indebted to the kindness of Prof. Hæckel. The quotations referring to the large work are taken from Milne-Edward's Histoire des Coralliaires, whilst I have myself looked over the synopsis and the atlas.

All the quotations have been verified in the Challenger Office by reference to the original work.—J. M.