

species of Cirripedes are also frequently met with on the stems and cirri of Pentacrinidæ (Pl. LII. fig. 1), both in the Caribbean Sea and in the East Indian Archipelago. Thus, for example, *Scalpellum album* is common on the stem and cirri of many individuals of *Metacrinus* dredged off the Ki Islands (Station 192), while *Scalpellum balanoides* and also *Verruca nitida* occur attached both to *Pentacrinus* and *Metacrinus* from off the Meangis Islands (Station 214). At this last Station too, an obscure larval Cirripede occurred, attached to a cirrus of *Metacrinus varians* by its ventral margin, while a minute *Avicula* was anchored by a few threads to a cirrus of *Metacrinus interruptus* at Station 209. Von Graff has described a small *Stylina*<sup>1</sup> as parasitic on the anal tube or pinnules of *Antedon rosacea*, and found that holes remained after its removal. *Rhizocrinus lofotensis* in like manner is often infested with two or three small shells of *Stylifer* which bore comparatively large holes in its calyx. Pourtalès has described some examples of this species from the Florida Channel as having the calyx and part of the stem coated with an encrusting Hydroid polype; and some small Rhizopods are shown in Pl. X. fig. 16 on the stem of a *Rhizocrinus rawsoni* from the Azores. I have found *Truncatulina lobatula* to be abundant on the cirri of the Comatulæ which were obtained by the Dutch Arctic Expedition in the Barents and Kara Seas; while *Polytrema miniaceum* is common on the stem and cirri of the Pentacrinidæ dredged at Stations 192 and 214.

The especial parasite of the Crinoids, however, is the well-known *Myzostoma*,<sup>2</sup> which is sometimes found infesting them in great numbers. I have myself removed five moderately large specimens from a single individual of a *Bathycrinus aldrichianus*, and as this had been some years' in spirit before reaching me, it may very likely have served as host to a still larger number; while in the Mediterranean twenty-seven have been found infesting a single *Comatula*. They attach themselves to the stem, disk, and arms, either on the ventral or on the dorsal surface. I am not aware that they have ever been met with on *Rhizocrinus*, which often supports boring Stylifers; but v. Willemoes Suhm found them on *Hyocrinus*, *Bathycrinus*, and on many Comatulæ, though he did not meet with free Myzostomida on any of the Challenger Pentacrinidæ. A closer examination, however, has revealed their presence in a few cases. The abnormal specimen of *Metacrinus angulatus* from the Ki Islands (Station 192), which is figured on Pl. XXXIX. fig. 2, had a *Myzostoma wyville-thomsoni* resting between the ordinary anal tube and the second smaller one at its side. In many cases the *Myzostoma*, instead of living in the free state, causes an abnormal growth of the calcareous tissue of the arm so as to form a cyst in which two or three individuals live. At two Stations in the South, and at another in the North Pacific, these cysts proved to be tolerably common. At the first named (Nos. 170 and 174) the cysts were limited to the arms of four Comatulæ; while at

<sup>1</sup> *Stylina comatulicola*, ein neuer Schmarotzer der *Comatula mediterranea*, *Zeitschr. f. wiss. Zool.*, 1875, Bd. xxv., Suppl., pp. 124-126.

<sup>2</sup> For a full account of the Myzostomida, see Prof. L. v. Graff, *Das Genus Myzostomum*, and *Zool. Chall. Exp.*, part xxvii., 1884.