

vations appear to give additional support to the hypothesis which connects this group more closely with the Tardigrada. Another interesting form is *Myzostoma horologium* (fig. 126A, B), which was taken in great numbers from specimens of *Actinometra jukesi* and *Actinometra strota*, P. H. Carpenter, dredged at Stations 186 and 187; the disk has a curious resemblance to the face of a watch, owing to the arrangement of the pigment on the dorsal surface; the parapodia and suckers are very stout and cirri are entirely absent.

"Fig. 126c, represents another remarkable species, *Myzostoma quadrifilum* (host: *Antedon bidentata*, P. H. C., Station 186), distinguished by the possession of four long caudal appendages; there are many allied species which possess respectively two, four, or six of these appendages.

"Certain endoparasitic forms, obtained for the first time at Station 170, and subsequently at Stations 176 and 192, are of the highest interest, and differ greatly from all other endoparasitic species by the peculiarities of their sexual organization, and by the remarkable malformations which they produce upon the body of their hosts; they may be divided into two groups. The first group is hermaphrodite like the ectoparasitic Myzostomida, but the male sexual apparatus, instead of being disposed symmetrically on either side of the body, is only developed upon one side; one to three individuals of similar size and form are met with in the same cyst (fig. 127A, B, *Myzostoma pentacrini* and *Myzostoma deformator*). In the second group the sexes are completely separated, and the males and females differ from each other in external appearance, the former being very small and delicate, while the latter are large and stout; a single pair are found associated together in each cyst (fig. 127C, D, E, *Myzostoma tenuispinum*, *Myzostoma willemoesii*, and *Myzostoma murrayi*).<sup>1</sup>

"The malformations produced by these species are of various kinds. In some cases there are independent cyst-like swellings of the skin, as for instance the cyst of *Myzostoma murrayi* (fig. 127E), which hangs down from the disk of *Antedon radiosпина*, P. H. C.; in other cases the parasite causes more or less conspicuous swellings of the arms of the Crinoid in the interior of which it lives; *Myzostoma pentacrini* (fig. 127A) and *Myzostoma tenuispinum* (fig. 127c) form cysts of this description, the former upon the arms of *Pentacrinus alternicirrus*, P. H. C., the latter upon *Antedon angusticalyx*, *Antedon basicurva*, *Antedon incisa*, and *Antedon inaequalis*, P. H. C. Other species attach themselves to the pinnules, which become variously swollen and contorted. *Myzostoma asymmetricum* produces only a simple swelling and enlargement of the pinnules of

<sup>1</sup> The following is from the journal of the late Dr. R. v. Willemoes-Suhm, under date 14th July 1874:—"On the pinnulae of the Comatulæ we found *Myzostoma* under rather peculiar conditions. Some of the pinnulae had enlarged excrescences and were rolled up so as to form a cavity, in which, in two cases, a larger and a smaller *Myzostomum* were found. This reminds me very much of Trematodes, which, as in the case of *Monostomum faba* in the skin of birds, live always in cases or sacs in pairs, one individual being much larger than the other, the one acting probably as male and the other as female, which in some cases, as in *Distoma okeni* on the branchiae of *Brama rayi*, leads to a perfect diversity of sexes. Perhaps something very similar takes place in *Myzostomum*, which is hermaphrodite, and has many affinities with the Trematodes."