On the Occurrence of a Northern Hydroid *Halatractus* (*Corymorpha*) *nanus* (Alder) at Plymouth.

By

Dr. E. Stechow, München.

With Plate VII and Figure 1 in the Text.

On looking over some hydroid material, for which I have to thank the Biological Station at Plymouth, I found upon an alga that was thickly covered with *Eudendrium album*, Nutting,* between the stalks of the Eudendrium a single specimen of the rare *Halatractus* (*Corymorpha*) *nanus* (Alder), which has until now been considered an Arctic species. The specimen is of special interest owing to the fact that this form has only been exceptionally met with in subarctic waters, and has only been recorded in England as a special rarity from the colder coast of Northumberland [Hincks, 1868; Allman, 1872; Pennington, 1885]. As far as can be gathered, it has only been found once even there. Its discovery now at Plymouth, on the warm southern coast washed by the Gulf Stream, is therefore the more surprising. In the comprehensive list of the Marine Fauna of Plymouth in this Journal (N.S., Vol. VII, pp. 155–298, 1904) the species is not included.

Corymorpha nana. Alder, Catalogue of Zoophytes of Northumberland and Durham. Trans. Tyneside Nat. Field Club, Vol. III, p. 108, Pl. 9, Figs. 7–8. 1858.

Corymorpha nana. Hincks, A History of the British Hydroid Zoophytes, p. 130, Pl. 22, Fig. 3. 1868.

Halatractus nanus. Allman, Monograph Tubularian Hydroids, p. 391. 1872.

Corymorpha nana. Pennington, British Zoophytes, p. 78. 1885.

Corymorpha nana. Bonnevie, Hydroida, Norske Nordhavs Expedition, p. 22, Pl. 1, Fig. 7. 1899.

Corymorpha nana. Bedot, Matériaux, 2^{me} période. Revue Suisse de Zoologie. Tome 13, Fasc. 1, p. 63, 1905.

Corymorpha nana. Broch, Hydroiden der arktischen Meere. Fauna Arctica, Bd. 5, Lfg. 1, p. 194. 1909.

Halatractus nanus. Bedot, Matériaux, 3^{me} période. Revue Suisse de Zoologie. Tome 18, Fasc. 2, p. 304. 1910.

* *Jour. Mar. Biol. Assoc.*, N.S., IV, p. 146, 1896, and *Ann. Mag. Nat. Hist.*, 7 ser. Vol. I, p. 362, Pl. 14, Fig. 1, 1898.

The specimen agrees fairly well with the descriptions of Alder, Hincks, and Allman as completed by Bonnevie (1899). Nevertheless, I give here an accurate drawing (Plate VII), since it differs from the *figure* given by Hincks in many details, and the species has, indeed, never been adequately figured. The base is unfortunately broken off. The whole individual has a length of 3·5 mm.; the lower diameter of the hydranth, measured between the bases of the tentacles, is 0·8 mm.; the aboral tentacles are about 1·5 mm. long. The specimen is a young one, as can be seen by the immature condition of the gonophores. These show the beginning of the invagination of the Entocodon ("Glockenkern"), with as yet no trace of a differentiation into the characteristic medusoid organs (Fig. 1). The gonophores are simple and *unbranched;*

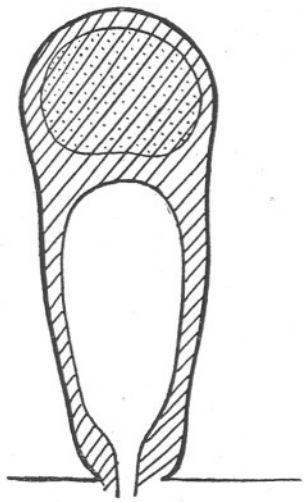


FIG. 1.—*Halatractus nanus* (Alder). Blastostyle (Diagrammatic, with outline drawn from actual preparation. The "Glockenkern" is dotted).

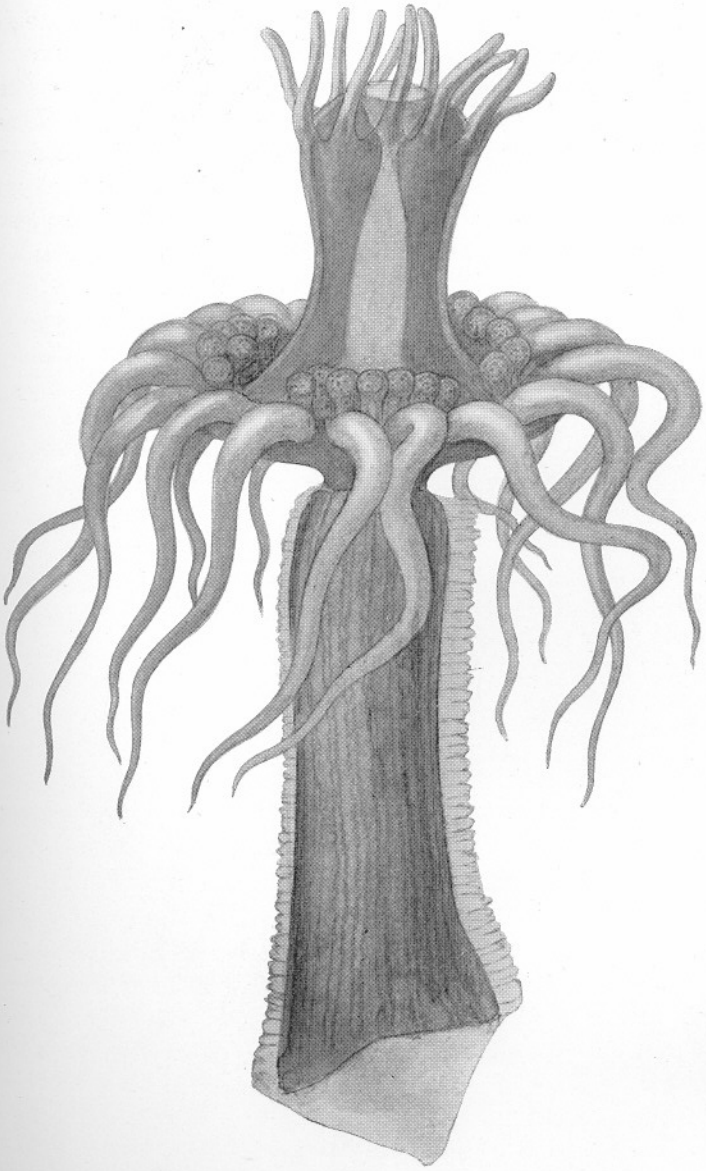
they do *not* hang in bunches, as is characteristic of *Corymorpha nutans*, the only species of *Corymorpha* previously found at Plymouth. There is also no indication that these gonophores could be transformed at a later stage of their development into branched blastostyles. Besides, they stand in their circle not singly and uniformly distributed, but for the most part crowded near together in small groups. The hydranth has eighteen aboral and sixteen oral tentacles; but the number of the aboral tentacles especially is still increasing, as is shown by four very small tentacles, which I found in addition to those enumerated above between the large ones.

The hydranth is very sharply separated from the hydrocaulus. This is not accurately represented in Hincks's figure, which shows incorrectly

a gradual transition at this place. Below the hydranth there is a deep *constriction;* the hydrocaulus which follows this begins with a slight thickening, which causes the constriction above it to appear still more obvious. I find it difficult, therefore, to understand how this characteristic constriction could have escaped the older authors. This is the chief point of difference which I find as compared with Hincks's figure, but it does not seem to me sufficient to found a new species.

The periderm is membranous, and encloses the hydrocaulus to the top; in this upper part however it is not closely attached, but lies loosely around it. In the interior of the hydrocaulus below the surface a longitudinal striation can be clearly recognised, due to the longitudinal canals present in all the *Corymorphas.*

In spite of certain differences when compared with the accounts of previous authors, I think that this form may certainly be identified as *Halatractus nanus* (Alder). Its transportation by a ship, under the circumstances in which it was found, is also improbable. There remains, therefore, only the supposition that its normal distribution really extends as far south as Plymouth, and that it is only on account of its rarity that it has not been previously found.



HALATRACTUS (CORYMORPHA) NANUS (ALDER).