

from the Forth near Inchkeith. This observer, besides giving a faithful account of the external appearance of the animals, described more or less completely the integumentary, muscular, vascular, and alimentary systems, as will be more particularly alluded to under each of these heads.

Next year Professor Allman¹ figured and described an example received from the former author. His account of the structure corresponds generally with Dr. Wright's. Moreover, while pointing out the affinities of *Phoronis* in certain aspects with the Polyzoa, he was inclined to view it as Annelidan (Gephyrean) in its relationships.

Dr. T. S. Cobbold in 1857² procured in the Forth, near Portobello, a species of *Actinotrocha* (the larva of *Phoronis*, compare p. 22). This he seems at first to have associated with the Polyzoa, from its prominent cephalic lobe (his epistome) and the lophophore, though certain structural objections were pointed out by Professor Allman. The late Dr. Carpenter also, who had found *Actinotrocha* abundantly off the Isle of Arran, drew the author's attention to J. Müller's original description.³ Dr. Cobbold found that his species, which differed from Müller's, adhered by the larval posterior extremity.

In the following year Prof. P. J. Van Beneden described a *Phoronis* allied to *P. hippocrepia* under the name of *Crepina gracilis*.⁴ He gave a general account of its structure—noting that the skin of both body and tentacles is covered with palpcils but has no cilia; that the perivisceral space has fluid but no corpuscles; that the vascular system has contractile vessels and nucleated red corpuscles. In each tentacle he recognised only one blood-vessel; and he observed the reproduction of the whole tentacular crown. He overlooked the flexure of the alimentary canal, and thought it was simple and straight, with a terminal anus. He considered *Crepina* (*Phoronis*) a tubicolar, non-bristled Annelid, allied to the Cephalobranchiates. His specimens occurred in oyster-shells, along with other boring forms.

Dr. A. Krohn⁵ next published an interesting account of the structure and further development of *Actinotrocha*, in which he corrects certain interpretations of Gegenbaur's, and shows that it is the larval form of a worm (probably a Sipunculid), with tentacles like one of the Terebellaceæ, and with a body like *Echiurus* or *Thalassema*, that is, without bristles, and that its blood is red and corpusculated.

In 1859 Dr. F. D. Dyster of Tenby published notes on *Phoronis hippocrepia*, with figures.⁶ His examples occurred in tubes (probably bored by themselves) in hard limestone. He somewhat extended the description of the organs given by Dr. Strethill Wright, and appears to have been one of the earliest to observe the discharge of the ova, which issue from the oviducts into the space arched over by the inner tentacles—where they form a compact and adherent white mass by aid of a glutinous secretion. Moreover, he was enabled to watch the development of the ova, though it is probable

¹ Fresh-water Polyzoa, p. 55.

² Vide p. 22.

³ Müller's Archiv f. Anat. u. Physiol., p. 293, 1858.

⁴ Quart. Journ. Micr. Sci., vol. vi. p. 50, pl. iv. figs. 10–12, 1858.

⁵ Ann. d. Sci. Nat., sér. 4, tom. x. pp. 11–23, pl. v. figs. 1–7, 1858.

⁶ Trans. Linn. Soc. Lond., vol. xxii. p. 251, pl. xlv., 1859.