

first described it in 1831. Two years later (1860) Claparède¹ likewise observed this remarkable condition of the test in specimens obtained on the west coast of Scotland.²

In 1871 two short papers appeared, Notes on Appendicularia, by Saville Kent,³ and On the anatomy of the genus Appendicularia, by E. Moss,⁴ the latter containing the description of a new species with a remarkable branchial sac resembling that of the genus *Doliolum*.

We now come to the most important paper which has been written on the Larvacea—the only one which shows any approach to being a monograph of the group. It is Fol's *Études sur les Appendiculaires du détroit de Messine*,⁵ published at Geneva in 1872. This work contains a detailed account of the anatomy and histology of the family, followed by a full description of the genera and species, illustrated by eleven admirable plates and some woodcuts. Fol divides the family Appendiculariidae as follows:—

APPENDICULARIIDÆ.	{	Having a heart, an endostyle with ciliated bands, and a shorter or longer intestine between the stomach and the rectum.	{	Body compact, endostyle straight, tail three to four and a half times the length of the body. No hood. <i>Oikopleura</i> .
				Body elongated, endostyle curved, tail one and a half times the length of the body. A fold of the integument forms a hood. <i>Fritillaria</i> .
		Having no heart nor endostyle. The pharynx is provided with four rows of ciliated processes. No intestine except the rectum.		<i>Kowalevskia</i> .

He describes altogether eleven species; five belonging to *Oikopleura*, five to *Fritillaria*, and one to *Kowalevskia*. In a further paper in 1874,⁶ Fol adds a new genus to the group under the old name *Appendicularia*.

In the same year Ray Lankester⁷ gave an account of the interesting structure of the heart in a species which he investigated at Naples. The walls of this organ are formed of two cells only which occupy its ends, and are connected by very delicate contractile fibrils of protoplasm.

A couple of short papers by A. Sanders⁸ appeared also in 1874, dealing with some points in the structure of some Appendiculariidae which appeared in great abundance

¹ *Zeitschr. f. wiss. Zool.*, Bd. x. p. 405.

² It is curious that all the records of the occurrence of Appendicularians with the "Haus" attached come from northern seas. Mertens' original specimens were from Bering Strait, Allman's and Claparède's from the Scottish coasts, and Prof. McIntosh has recently informed me that specimens with the "Haus" occurred in abundance in St. Andrews Bay during 1887 (see also *Ann. and Mag. Nat. Hist.*, ser. 5, vol. xx., p. 102).

³ *Quart. Journ. Micr. Sci.*, N.S., vol. xi. p. 267.

⁴ *Trans. Linn. Soc. Lond.*, vol. xxvii. p. 299.

⁵ *Mém. Soc. de Phys. et d'Hist. Nat. de Genève*, tom. xxi.

⁶ *Archives de Zool. expér.*, tom. iii. p. xlix.

⁷ *Quart. Journ. Micr. Sci.*, N.S., vol. xiv. p. 274.

⁸ *Monthly Micr. Journ.*, vol. xi. p. 141; and vol. xii. p. 209.