

admirable piece of work,—especially when we remember that the only available material was a single colony preserved in spirit, from which sections were cut and mounted in glycerine.

In 1861 Keferstein and Ehlers¹ gave an account of the anatomy of specimens of *Pyrosoma giganteum* and *Pyrosoma elegans* obtained at Naples and Messina. Their work was carried on about the same time as that of Huxley, and forms an independent corroboration of his results. The work of the German authors deals mainly, however, with the anatomy and histology; they only touch briefly upon the embryology and the gemmation.

The only remaining work that need be noticed is Kowalevsky's² memoir on the development of *Pyrosoma*, which appeared in 1875. This celebrated embryologist gave an elaborate account of the life-history of *Pyrosoma*, confirming Huxley's discoveries, but tracing the stages more minutely, and going into further histological detail. No papers of importance have been published since then, and no new species of *Pyrosoma* have been described.

The genus, then, contains so far only the three species known to Lesueur in 1815, viz. :—

Pyrosoma atlanticum, Péron.

Pyrosoma elegans, Lesueur.

Pyrosoma giganteum, Lesueur.

To these the Challenger investigations have added a new species of gigantic size obtained twice in the Atlantic. It will be found described below under the name of *Pyrosoma spinosum*, n. sp.

The characters of this group of Ascidiæ, the Ascidiæ Salpiformes, are very well marked. The shape of the colony and its free-swimming condition distinguish it clearly from all other Tunicata. The only form which approaches it in shape of colony is *Cælocormus huxleyi*,³ and it is doubtful whether that species is free-swimming, or merely lies unattached at the sea-bottom.

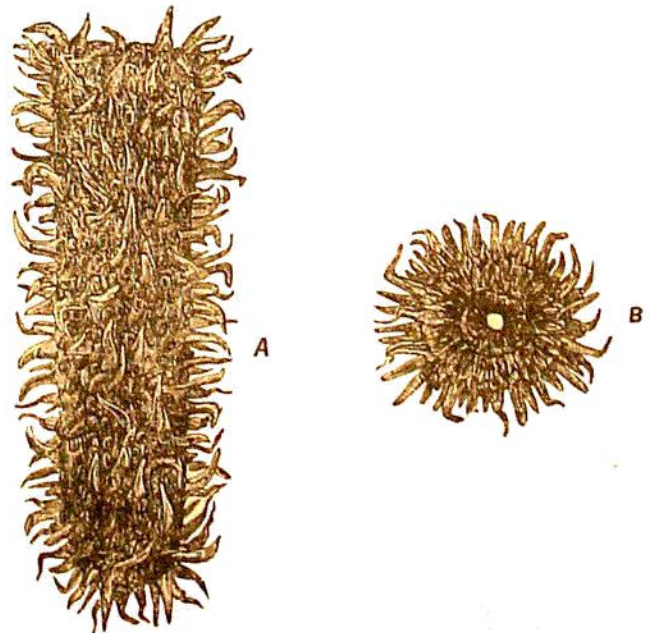


FIG. 1.—Colony of *Pyrosoma*, natural size (from the *Encyclopædia Britannica*, 9th ed.).

A. Side view.

B. End view.

¹ Zoologische Beiträge, iv., Bemerkungen über die Anatomie von *Pyrosoma*, p. 72, Leipzig, 1861.

² Ueber die Entwicklungsgeschichte der *Pyrosoma*, *Archiv f. Mikr. Anat.*, Bd. xi. p. 597.

³ See this Report, Part II. 1886, p. 318.