

important papers corroborating Kowalevsky's results in all essential points, though differing from him in some minor details. Kowalevsky has since published several other embryological papers, chiefly extending his discoveries to other groups of the Tunicata.

Hancock took up the Ascidiæ of the British Seas, at first in conjunction with Alder, who had already (1863) worked at the group. They described a number of new species, and Hancock in 1868 published some of his anatomical observations in the Journal of the Linnean Society. At the time of his death he was collecting material for a Monograph upon the British Tunicata.

In 1871-72 Verrill described a number of new species and genera of Ascidiæ from the coasts of North America.

In the following year Giard published a large work upon the Synascidiæ containing the descriptions of a considerable number of new species, and also many important anatomical observations. About this time O. Hertwig's paper on the structure of the test made its appearance. This was by far the best paper that had yet appeared on this subject, and it satisfactorily determined the structure of the different parts and their relations to one another. The most important points have since been confirmed by Semper in his paper on the presence of cellulose in the Ascidian test, published in 1875. A paper by R. Hertwig, the brother of the above-named author, which also appeared in 1872, contains a number of valuable anatomical observations, especially upon the structure of the endostyle; while, during the few years that had elapsed since Kowalevsky's and Kupffer's first researches, many further details as to the embryology of Simple Ascidiæ, and the process of gemmation in the Compound forms, had been obtained by the investigations of Krohn, Metschnikoff, Kowalevsky, Stepanhoff, Kupffer, and others.

At this time also (1872) an important memoir by H. Fol, upon the Appendiculariæ of the Straits of Messina made its appearance.

In 1874 Ussow's memoir upon the histology of the nerve ganglion and the neighbouring organs was published in Russia. In this it is shown that the gland lying below the ganglion has a duct which runs forwards to terminate in the so-called "olfactory tubercle."

In this same year Lacaze-Duthiers commenced the publication of his important work upon the Ascidiæ Simplices of the coast of France. His first part was anatomical. A species of *Molgula* was chosen as a type, and all its organs were described with great thoroughness and minuteness. Lacaze-Duthiers, however, throughout regards the Ascidian as a modified Lamellibranch mollusc. His second part, published a few years later (1877), contains a systematic description of the family Molgulidæ. He introduces two new genera, *Anurella* and *Ctenicella*, of which the former differs from *Molgula* chiefly in the fact that its embryos never develop into tailed larvæ, but undergo a modified process of development. The species are all described with great minuteness, and are