

the same individuals for more than two months, and to see the organs form and the young *Molgula* become completed.

In this abstract it would be difficult to give any details with regard to the transformations of the tissues and the formation of the organs. I desire particularly to call the attention of naturalists to an exception which is equally remarkable and little known, but which relates to the existence of one of the characters of the class; regarded by all zoologists as one of the most certainly established. A fact so unexpected must show what reserve and prudence should always guide us in zoological generalizations. No doubt there was no induction more legitimate than that which ascribed to all the Ascidians a tadpole-like embryo; and yet the *Molgulae* do not fall under this general rule.

In this remarkable exception we also certainly find a fresh example in support of the principle that, in order to arrive with certainty at the knowledge of characters, we require the concurrence of all morphological as well as of all embryogenic data; for although embryogeny may and must furnish valuable information, by itself it may also, in some cases, lead us into the gravest errors. Of this, *Molgula*, by the exceptional form of its larva, furnishes a proof.—*Comptes Rendus*, May 30, 1870, tome lxx. p. 1154.

*On the Embryonal Development of Bothriocephalus proboscideus.*

By E. MECZNIKOW.

Kölliker has already remarked that in *Bothriocephalus proboscideus* only part of the contents of the ovum is employed in the formation of the embryo, and that the remainder forms a layer of peripheral cells, the fate of which was unknown to him. M. Knoch has recently questioned the accuracy of this observation, but, it appears, erroneously. Mecznikow describes the ova of this cestoid worm as occupied by an ovarian cell surrounded by a mass of granular vitellus. The cell undergoes complete segmentation, whilst the vitelline mass takes no part in the formation of the embryo. From the cellular mass produced by segmentation, two cells, furnished with larger nuclei than the rest, soon separate; they fix themselves at the two poles of the ovum, and do not disappear until the close of embryonic life. The author has seen a perfectly similar arrangement in the ova of *Tænia cucumerina*.

After segmentation the mass of embryonal cells acquires a rounded form; and the embryo divides into a central nucleus and a peripheral mass formed of very evident cells. Whilst the nucleus forms the true larva of the cestoid worm with its hooklets, the layer of peripheral cells becomes connected into a delicate membrane, which finally loses its cellular structure, and acquires the appearance of a homogeneous cuticular envelope.

Although this envelope of the embryo never becomes covered with vibratile cilia, Mecznikow does not hesitate to compare it to the ciliated envelope of the larva of *Bothriocephalus latus*. This com-



parison is interesting. In fact the development of *Bothriocephalus proboscideus* shows that the embryonal envelope is the homologue of the amnios of the embryos of insects and other Arthropoda. In this case the ciliated envelope of the larva of *Bothriocephalus latus* would be a sort of amnios persisting for a long time after exclusion. But then we must extend this homology to the ciliated envelope of the embryos of the Monostomata and of M. Desor's Nemertean. To be consistent, indeed, we must regard the pilidium as a sort of provisional envelope of its *Nemertes*—as an amnios which acquires a remarkable degree of independence.—*Mélanges Biologiques tirés du Bull. Acad. Imp. des Sciences de St. Pétersb.* tome vi. p. 717; *Bibl. Univ.* tome xxxvii. Jan. 15, 1870, *Bull. Sci.* p. 87.

*On the Buenos-Ayres Finner.* By Dr. BURMEISTER.

(In a letter to Dr. J. E. GRAY.)

I have received another Whale, well preserved and entire, of which I have made a careful drawing, which I intend to publish as soon as the skeleton is cleaned and transported to the Museum. At present I am not quite certain of the identity of the animal; but I believe it is *Physalus patachonicus*. The body is sixty feet long, six feet high, and sixteen feet in circumference; it is a male. The complete specimen which I described three years ago was a female, so that now I shall have both sexes of the species. Unfortunately putrefaction had begun and I was unable to preserve or examine anything of the intestines. As the body is deposited on the shores of the river nearly two miles from Buenos Ayres, it is somewhat difficult for me to study it in detail; so that I shall only be able to present to the scientific public a drawing of the entire animal and its skeleton, which I shall send to you, to have published in London.

*New Localities for Zonites glaber.*

*To the Editors of the Annals and Magazine of Natural History.*

GENTLEMEN,

In your May number of the 'Annals,' Mr. Jeffreys describes a new British land-shell, *Zonites glaber*. It may be interesting to many of your readers to know a few other localities whence I have obtained it:—In 1862 from near Leeds; in 1864 my son took it in Guernsey; in 1868 I took it at Bristol; same year near London; in 1869 from Jersey.

I remain, Gentlemen,

Yours, &c.

W. RICH.

14 Great Russell Street, Bloomsbury.





Mecznikow, E. 1870. "On the embryonal development of *Bothriocephalus proboscideus*." *The Annals and magazine of natural history; zoology, botany, and geology* 6, 111–112. <https://doi.org/10.1080/00222937008696211>.

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