

with the establishment in Egypt of the family of Jacob, in the time of the later Shepherd Kings. This mention of the horse nearly coincides, in point of time, with the most ancient notice of that animal on Egyptian monuments. The author thinks it possible that the introduction of the horse into Syria and Egypt was effected by the invaders from whom the Shepherd Kings were derived.—*Comptes Rendus*, tome lxix. December 13, 1869, pp. 1256–1258.

*Embryonic Development of Bothriocephalus proboscideus.*

By E. MECZNIKOW.

M. Kölliker has already remarked that in *Bothriocephalus proboscideus* only a part of the contents of the ovum is employed in the formation of the embryo, and that the rest forms a layer of peripheral cells, the fate of which remained unknown to him. M. Knoch disputed the accuracy of this observation, but wrongly, as it now appears. M. Mecznirow describes the ova of this Cestoid worm as filled by an ovarian cell surrounded by a mass of granular vitellus. The cell undergoes total segmentation, whilst the vitelline mass takes no part in the formation of the embryo. From the cellular aggregation produced by segmentation, two cells, furnished with larger nuclei than the others, are soon seen to separate; they fix themselves at the two poles of the ovum, and only disappear at the close of the embryonic life. M. Mecznirow has seen a perfectly similar arrangement in the ova of *Tenia cucumerina*.

After the segmentation, the mass of embryonal cells acquires a rounded form, and the embryo divides into a central nucleus and a peripheral layer, the latter formed of very distinct cells. Whilst the nucleus forms the true larva of the Cestoid worm, with its hooklets, the layer of peripheral cells becomes converted 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, M. Mecznirow does not hesitate to compare it to the ciliated envelope of *Bothriocephalus latus*. In fact, the embryonic development of *B. 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 *B. latus* would be a sort of amnios persisting for a long time after hatching. But then we must extend this homology to the ciliated embryos of the Monostoma and of M. Desor's Nemertean. To be consistent, we must even regard *Pilidium* as a sort of temporary envelope of its *Nemertes*, as an amnios which has attained a remarkable degree of independence.—*Mélanges Biologiques tirés du Bulletin de l'Acad. Imp. de St. Pétersb.* tome vi. p. 717; *Bibl. Univ.* January 15, 1870, *Bull. Sci.* p. 87.

*Note on a Station of a living Encrinus (Pentacrinus europæus) upon the Coasts of France.* By M. LACAZE-DUTHIERS.

Since the investigations of Messrs. W. Thomson and Carpenter,



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