

embryonic development, larval development, general considerations, Amphioxus and Ammocœtes.

IV. The Ascidians, including structure of a simple Ascidian, development of Ascidians, metamorphosis of *Ciona intestinalis*.

V. The protochordata in their relation to the problem of vertebrate descent.

This outline of the ground covered will show how complete the work has been made.

The book is well printed and admirably illustrated by a large number of cuts. The outcome of the entire series of studies on this subject, of absorbing interest to the biologist who believes in evolution, is stated in the final paragraph of the book, which we quote entire: "For the present we may conclude that the proximate ancestor of the vertebrates was a free-swimming animal intermediate in organization between an Ascidian tadpole and Amphioxus, possessing the dorsal mouth, hypophysis and restricted notochord of the former, and the myotomes, cœlomic epithelium, and straight alimentary canal of the latter. The ultimate or primordial ancestor of the vertebrates would, on the contrary, be a worm-like animal whose organization was approximately on a level with that of the bilateral ancestors of the Echinoderms."

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