

Zoological Articles contributed to the Encyclopædia Britannica.

By E. RAY LANKESTER, W. J. SOLLAS, A. A. W. HUBRECHT, L. VON GRAFF, A. G. BOURNE, and W. A. HERDMAN. New York, Scribner. 4°. \$5.

THE title of this volume is misleading, as there is extremely little zoölogy in the articles contained in it; at least, in the sense in which the term "zoölogy" is now most commonly used. It is really a series of summaries of the views on the morphology of the groups enumerated, which, at the time of publication, were held by the contributors. The articles, which appeared at intervals between 1880 and the end of 1888, following the alphabetic order of the volumes in which they were originally printed, comprise *Hydrozoa*, *Mollusca*, *Nemertines*, *Planarians*, *Polyzoa*, *Protozoa*, *Rotifera*, sponges, *Tunicata*, and *Vertebrata*. The later articles are, of course, those which the subsequent progress of science has least outstripped. Those by Messrs. Herdman, Hubrecht, and Von Graff, since the writers are recognized authorities on the topics assigned them, would, in any event, represent a very high standard of opinion. The older articles, especially that on the *Protozoa*, by no means represent the present state of scientific opinion; while that on the *Mollusca*, as shown in these columns at the time of its original publication, was an extremely imperfect production. Over its hazardous speculations time had thrown a kindly mantle, until this reprint recalled them to the

glimpses of the moon. Even Professor Lankester now admits, in view of the testimony offered by one of his pupils, that naturalists from Cuvier to Fischer were right in separating, and that he was wrong in uniting, the pteropods and cephalopods, something which not over half a dozen persons have ever doubted.

But it would be unfair to the authors, and to those who might be able to profit by this volume, to insist too strongly on the defects or deficiencies of these papers. It being once understood that the papers are almost exclusively morphological, and represent the opinions of Professor Lankester and the school of which he is the recognized exponent, biologists generally will require no further guide to the quality of their merits or shortcomings.

For the lay reader or youthful and inexperienced student, this book is undesirable. Only those thoroughly familiar with the branches to which it refers can get a full measure of profit out of its mingled science and speculation. To others it must prove confusing. But it will be welcome to the library of the morphologist and specialist; useful, through its bibliographies, to those who would refer to previous morphological literature; and, in some instances, may serve as an "awful example" to those whose tendency to speculate outruns their knowledge of the subject.

It is handsomely printed, but the absence of an index is a fault for which, under the circumstances, it seems difficult to account.

Publications received at Editor's Office,
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- AVELING, E. An Introduction to the Study of Botany. London, Swan Sonnenschein & Co. 363 p. 12°. (New York, Macmillan, \$10.)
- BAILEY, L. H. The Nursery-Book: A Complete Guide to the Multiplication and Pollination of Plants. New York, Rural Pub. Co. 304 p. 12°.
- GAY, G. E. Business Book-keeping. Boston, Ginn. 93 p. 4°. 75 cents.
- LOWELL, P. Noto, An Unexplored Corner of Japan. Boston and New York, Houghton, Mifflin & Co. 261 p. 12°. \$1.25.
- MASSACHUSETTS, Examinations by the State Board of Health of the Water Supplies and Inland Waters of, 1887-90. Part I. Report on Water Supply and Sewerage. Boston, State. 857 p. 8°.
- TEALL, F. H. The Compounding of English Words. New York, John Ireland. 223 p. 12°. \$1.25.
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