

ECHINODERMS. By DAVID NICHOLS. Hutchinson and Co., Ltd. 12s. 6d.

Dr. David Nichols's book deals with several facets of the biology of the echinoderms (starfish, sea-urchins and relatives), but is not intended as a guide to their anatomy, which is adequately covered elsewhere. He gives a general account of the five main groups of living echinoderms and then goes on to discuss certain aspects of their biology which are of interest to him, such as the five-rayed symmetry and the tube-feet, both so characteristic of the echinoderms. Perhaps the most interesting parts of the book, and the most unusual, are the chapters which deal with the fossil forms. Most of these died out several hundred million years ago and it is often difficult for the biologist fully to understand their place in the ancestry of the starfishes, brittlestars and sea-urchins of to-day. This is an interesting and well-written book and should be of value to students and naturalists as a supplement to the more comprehensive, but less readable textbooks.

H. G. V.

ROWLAND WARD'S RECORDS OF BIG GAME. ELEVENTH EDITION (AFRICA).

Compiled and Edited by GERALD A. BEST, FRANCOIS EDMOND-BLANC, and R. COURTENAY WITTING. Rowland Ward Ltd. £8 10s.

This latest edition brings up-to-date and amplifies what was recorded in the Tenth Edition, published in 1935, twenty-seven years ago. The Compilers and Editors are to be congratulated on having at long last, despite innumerable difficulties, brought their labours to a successful conclusion; it must have been a stupendous task. Apart from its value to sportsmen as an authoritative record of African game trophies of maximum size, this is also a useful work of reference for many others. Methods of how to take reliable measurements are carefully detailed, besides being well illustrated; but as these methods differ from those followed on the Continent and in America, this is a publication primarily for British sportsmen. For those who think of trophy measurements in centimeters rather than inches, a simple conversion table is provided. The emphasis is on the species, but where a well defined and generally accepted race or races exist, there are separate lists. The text is both informative and descriptive. The photographic section, with its sixty-five pictures of exceptional merit—selected from submissions by wild life photographers throughout the world—greatly enhances the value of this edition. One may have waited long for the "Eleventh" to materialize, but it has been well worth waiting.

C. R. S. P.

ANIMALS OF EAST AFRICA. By C. A. SPINAGE. Collins. 30s.

There could be no better testimony to the worth of this book than Sir Julian Huxley's comment, in a "Foreword", that the illustrations are "the best collection of wild life photographs I have ever seen"; high praise indeed. Not only are the illustrations of special merit, covering as they do an astounding variety of subjects—some original and unusual, but the carefully recorded observations on the behaviour of many creatures, great and small, have added considerably to our knowledge—admittedly still so imperfect—of wild nature. The author, by aptitude, has become an ardent student of African wild life, moreover he is a skilled photographer who has evidently made full use of the manifold opportunities which have come his way. Only those who have tried to do likewise can really appreciate the tedious hours of discomfort involved, and the inexhaustible patience

required, in order to obtain some of the more interesting pictures. It may be his hobby, but he is indeed dedicated to the wild life and its conservation. The book aims to be a natural history of some of the mammals of East Africa, but it is much more for it includes many other vertebrates, and some invertebrates. Divided conveniently into five parts, it deals with "The Plains", "Predators and Scavengers", "The Forest", "The Rivers and Lakes", and "Some Smaller Fry". One could easily invite attention to the special merits of many of the pictures, but when so many are so good, perhaps the nicest of all is that of the ostriches with their brood of striped downy chicks moving along a road. One hopes to see more of Mr. Spinage's writings and attractive illustrations.

C. R. S. P.

SYSTEMATIC DICTIONARY OF MAMMALS OF THE WORLD. By MAURICE BURTON. Museum Press, London. 35s.

This is an invaluable book for anybody dealing with mammals of the world, especially if he is the sort of semi-professional which so many of the people concerned with the preservation of fauna are; but it is also a good general reference book. It deals with every order and family of mammals with details under the headings—general characters, habits, habitat, food, breeding, present status, range, longevity, special comments and other statistics. It is illustrated with beautiful woodcuts by David Pratt. There is a good index, so essential in this sort of book. A useful addition would have been a diagrammatic representation of the Class Mammalia working downwards from orders through families to genera so that one could see relationships at a glance.

C. L. B.

SNAKES OF SOUTHERN AFRICA. By VIVIAN F. M. FITZSIMONS. Illustrated by P. J. SMIT. Macdonald, London. £7 10s.

This magnificent volume—a veritable encyclopedia—is far and away the best snake book yet to be published on any one region of Africa. Covering an impressive wealth of information, it is nevertheless written in commendably concise style. Though seemingly expensive, it is cheap at the price and neither scientific institution nor individual concerned with the study of snakes—particularly in Africa—can afford to be without it. The author—the Director of the Transvaal Museum in Pretoria—has made a life study of his subject and is now able to share with others his vast accumulation of technical and highly skilled knowledge. The greater part of the book is devoted to a detailed description of each of the 137 species discussed, their characteristics, habits and distribution. But a most important section is the "Introduction" (thirty-two pages) which also deals generally with a variety of items such as anatomy, osteology, biology, venoms, anti-venoms, superstition and folk-lore. The diagrams of the skulls, jaws and dentition of certain widely divergent species are especially instructive. It is profusely illustrated with forty-three black-and-white photographs, 243 line drawings (by the author) to show mainly head scalation, and seventy-six colour plates. The last-named are on the whole excellent representations and there should be little difficulty in identifying the living originals; but it is not easy when depicting in free-style the whole snake to maintain true perspective, and the colours too are sometimes at fault and insufficiently vivid. For instance, neither the painting nor posture do justice to the Bird or Vine Snake *Thelotornis kirtlandii*. Simple keys are given for the families and for the species. The numerous distribution maps,