

E. W. MacBride in the "Cambridge Natural History"), the bionomics and directions for practical work.

Thus it will be seen that the book provides a complete manual for the use of the student of zoology. Its exact utility must be tested by experience, but it certainly appears to be full of promise. It is now twelve years since the appearance of the first of the Indian Zoological Memoirs, and this is the seventh to appear. All of them have exhibited a high degree of technical excellence. The present memoir does not fall below this high level, and the only criticism from this aspect is that, in the example submitted for review, the photograph of breeding *Salmacis* is not well reproduced; it is not up to the standard of the remainder of the illustrations. Zoologists in India owe a debt of gratitude to Prof. Bahl, to whose enthusiasm this series of memoirs is due.

Further thanks and congratulations are due to Prof. R. Gopala Aiyar for the excellent and workman-like account of this Indian sea-urchin.

The Birds of Tropical West Africa

With Special Reference to those of the Gambia, Sierra Leone, the Gold Coast and Nigeria. By Dr. David Armitage Bannerman. (Published under the authority of the Secretary of State for the Colonies.) Vol. 5. Pp. xliii+485+10 plates. (London: Crown Agents for the Colonies, 1939.) 22s. 6d.

FACTS mentioned in the preface to Dr. Bannerman's fifth volume bear witness to the success which the work has already attained. It is indeed remarkable evidence of widespread interest in ornithology that so ambitious a publication, dealing with the avifauna of a tropical area, should have sold beyond anticipation to such an extent that the first volume is almost out of print. The stimulus given to the study of birds in West Africa, and in the African continent generally, must have been great; this is confirmed by the increasing amount of new material which has been reaching the author and has made it necessary to provide for a seventh volume not originally planned.

The present volume covers seven passerine families, of which the warblers account for 121 forms. The admirable coloured plates portray sixty-seven species, in addition to the many illustrations which accompany the text.

Elementi di genetica

Par Giuseppe Montalenti. Pp. vii+452. (Bologna: L. Cappelli, 1939.) 50 lire.

HERE is an excellent text-book recording the facts relating to every side of genetics; its text is remarkably clear, scientific terms always explained, and its matter is adequately illustrated. A historical consideration of the position in the nineteenth century leads to the full account of Mendel's researches. Then follows the amplification of these, with many new branches, associated with the early

years of the present century. The later-discovered chromosome phenomena lead to a clear account of the localization of the genes and the experimental production of mutations. Embryological and physiological sides are sufficiently treated, as are sex, secondary sexual characters and other associated sides. A good bibliography, helpfully divided into sections, and adequate indexes of authors and of subjects complete a well-compiled work. Finally, the price of about 11 shillings as compared with about 25 shillings for a similar text-book in English suggests a wide and desirable circulation among those able to read Italian.

The British Caddis Flies (Trichoptera)

A Collector's Handbook. By Martin E. Mosely. Pp. xiii+320+4 plates. (London: George Routledge and Sons, Ltd., 1939.) 21s. net.

THE need for a handbook on the indigenous Trichoptera or Caddis flies has been long experienced by English entomologists. The present work, to a large extent, supplies this desideratum. Its author is well qualified for the task, having been in charge of the collections of these insects in the British Museum for a period of ten years. All the 184 species known from Britain are described, and the letterpress is accompanied by some 633 very clear figures of the venation and genitalia. The descriptions are short and terse and are based on structural features, but little emphasis is laid upon wing-markings.

It is unfortunate that so little is said about the general structure and biology of these insects or about their remarkable larvæ and pupæ, the book being adapted essentially for the identification of the adult insects. Notwithstanding this criticism, a reliable and well-produced volume of this kind can scarcely fail to impart stimulus to the further study of the interesting creatures with which it deals, and English entomologists are under a debt to Mr. Mosely for having written it. The increasing number of workers in the field of fresh-water biology will also find that this book supplies a long-felt need.

Earth's Green Mantle

Plant Science for the General Reader. By Prof. Sydney Mangham. Pp. 322+41 plates. (London: English Universities Press, Ltd., 1939.) 10s. 6d. net.

IT is no doubt a useful and laudable object to explain to the general reader the place in Nature and the importance to man of the plant world. Sir Arthur Hill states in his foreword, "Prof. Mangham has shed such a diffused and widespread light over the Green Mantle of the Earth that the minds of his readers, by a process of mental photosynthesis, should be able to acquire and assimilate vast stores of curious and unexpected information hitherto not fully appreciated." The variety of topics dealt with by the author is, however, so great that one wonders whether the reader will be able to digest this very ample meal.