

"those who propose to devote themselves afterwards to more detailed study of zoology."

There has been for a considerable period a great need of a suitable text-book of biology for the First Conjoint Examination, as the authors of elementary text-books seem invariably to base the contents of their volumes on the syllabus of the examinations of the University of London. It is thus with considerable pleasure that we welcome a text-book that we can put into the hands of students, feeling confident that it will neither burden their minds with unnecessary matter, nor fail to deal with subjects coming within the range of their examination.

Almost the whole of the book deals with the types required by the Conjoint Board; the remaining chapters contain either accounts of a few other organisms, which the authors consider necessary for the proper comparison of the types, or else they set forth in an elementary manner some of the general principles of biology. In one or two matters the reviewer does not see eye to eye with the authors. In some minor theoretical points they adopt views divergent from his. For instance, they unequivocally describe bacteria as unicellular plants, while the extremely primitive organisation and their peculiar and equally primitive methods of nutrition justify, in our opinion, their classification as a group entirely apart from animals or plants, and certainly lower than the typical unicellular organism. Another point is the complete separation of blood from the other connective tissues in a group of its own. But, after all, these are matters of opinion and not of fact.

A more serious matter is the fact that all the figures, with the exception of the plates, have been ruthlessly diagrammatised. We feel that whatever these figures gain in clearness from this simplification they will lose far more in usefulness when the student attempts to apply them to the actual specimens. We hope, however, to see this remedied in future editions, and with this exception, and in spite of it, the book is one that should prove of value to the students to whom it is addressed.

R. W. H. R.

*The Boy Fancier: being a Complete Manual of all Matters Appertaining to Domestic Pets Suitable for the Youthful Fancier.* By F. T. Barton. Pp. xx+435. (London: George Routledge and Sons, Ltd.; New York: E. P. Dutton and Co., n.d.) Price 5s.

FROM his professional training as a member of the Royal College of Veterinary Surgeons, the author of this well-illustrated volume is thoroughly qualified to give sound and trustworthy information with regard to the general care, feeding, and treatment in illness of animals kept as pets, or, like poultry and goats, reared for profit. And although the work before us is primarily intended for the benefit of young persons, it will be found equally valuable for those of more mature age, who, for purposes of pleasure or profit—or both combined—devote their attention to the keeping and rearing of dogs, cats, goats, guinea-pigs, rabbits, squirrels, poultry, pigeons, cage-birds, &c.

In the case of dogs Mr. Barton refers particularly to such as are best suited for boys, especially those adapted for ratting and rabbiting, and gives valuable advice to his young readers in the matter of proper training. Guinea-pigs he regards as specially suitable for children, since they require much less care and attention than rabbits. The sections on poultry and pigeons, as well as that on goats, will be found valuable to older readers, as most of the more important breeds are more or less fully mentioned. The book may be confidently recommended as one of the best of its kind, the only error that has come under

our notice being that the habitat of the capuchin monkey is given as Guinea, instead of Guiana, which is obviously a mere misprint.

R. L.

*Methodical Nature Study.* By W. J. Claxton. Pp. 195. (London: Blackie and Son, Ltd., 1911.) Price 6s.

THIS book is framed with the object of indicating a series of lessons on plants and animals, appropriate to each month in turn, so that the qualification "seasonable" would be more applicable than "methodical." The author has found it difficult to maintain the study of animals throughout the winter months, and in some instances reverts to lessons based on pictures or to instruction without observation. The botanical syllabus follows very ordinary lines, but there is a notable omission of physiological experiments. The author is not sufficiently careful in his use of technical terms, as will be evident from a reading of p. 16; nor can his reasonings be freely accepted. There are many excellent illustrations from photographs by Charles Reid, Henry Irving, and Douglas English, which, however, are shorn of their value in a book concerned with the study of nature by direct observation.

*Geological and Topographical Maps: their Interpretation and Use. A Handbook for the Geologist and Civil Engineer.* By Dr. A. R. Derryhouse. Pp. viii+133. (London: Edward Arnold, 1911.) Price 4s. 6d. net.

THE practical problems involved in the interpretation of geological and topographical maps are here dealt with in a manner likely to appeal to students of geology and civil engineering. Having worked his way through the book, a student should be able to draw sections of the country shown upon a map, to estimate the thickness of the strata of which the area is built, and to understand the relations of the strata to the surface of the ground and to each other.

The volume is illustrated by ninety clearly drawn figures, and tables are provided showing variation of dip and the natural sines, tangents, and cotangents. Some typical exercises to enable the student to test his knowledge would be a useful addition to the next edition.

*Flora of the Upper Gangetic Plain, and of the Adjacent Siwalik and Sub-Himalayan Tracts.* By J. F. Duthie. Vol. ii., Plumbaginaceæ to Plantaginaceæ. Pp. ii+266. (Calcutta: Superintendent, Government Printing, India, 1911.) Price 2 rupees (3s.).

THIS volume treats the second and third series of Hooker's Gamopetalæ. The order Ericales is wanting from the flora; otherwise twenty-six out of thirty families are represented. There are three large families, the Acanthaceæ, Labialæ, and Scrophulariaceæ; paucity of species is very noticeable, and many genera are unispecific; Ipomœa is the chief exception, as it supplies twelve indigenous and seven important cultivated species. Several changes are made in generic nomenclature from that followed in "The Flora of British India," such as the segregation of Ipomœa into four species; these changes are noted without the comment that one would have expected. Very few indigenous species in these series are of much economic importance. *Diospyros tomentosa* supplies the ebony of northern India; *Tectona grandis* is described as native; *Sesamum indicum* is cultivated, but not to any great extent.