

claim originality for some of the ideas advanced, and while it may even be said that his book is in several respects incomplete, he has at least given unity and connection to the scattered materials at his command. Moreover an interval of seventeen years, which has elapsed between the first edition and this second appearance of the work, has enabled him to enrich it with many new thoughts and suggestions and to add a number of beautiful and interesting illustrations.

Mr. von Salisch's book is unique in that it presents the first comprehensive discussion of forest æsthetics. It will commend itself to landscape artists, in spite of the fact that certain portions are technical and can be thoroughly understood only by persons who are familiar with the subject of forestry. It should have distinct value for the student of æsthetics, especially Part I., which contains many interesting suggestions regarding the philosophy of beauty. But to the professional forester 'Forstästhetik' should prove especially valuable and interesting because it throws a flood of light upon the broad possibilities of his profession. As our country is devoting more and more attention to conservative forestry, he naturally asks how his work will affect the natural beauty of our landscapes. 'Forstästhetik' shows him how the beauty of a forest may be brought out to special advantage by a forester of taste without affecting its usefulness, and is thus calculated to give him a clearer insight into the scope and dignity of his profession.

G. FREDERICK SCHWARZ.

BUREAU OF FORESTRY.

Elementary Zoology. By VERNON L. KELLOGG.
New York, Henry Holt and Company.
1901. Pp. xv + 492.

Kellogg's 'Elementary Zoology' is planned to meet the requirements of a laboratory guide and of a reading text in introductory zoology. The book is divided into three parts: the first dealing with the structure, functions, and development of animals, the second with systematic zoology, and the third with animal ecology. The text proper is followed by appendices on the needs of the

pupil, the equipment of the laboratory, and the rearing of animals and the making of collections. The volume is concluded by a good index to subjects and illustrations.

Judged from the standpoint of a laboratory guide the book gives a wide selection of types, and these are dealt with in an unusually satisfactory way for an elementary treatise, the descriptions being neither too exhaustive nor too superficial. Everywhere, however, too much information is given the student. Why ask if the alimentary canal of the toad (p. 8) is uniform in character, and in the same paragraph describe the stomach as an *enlargement*, the small intestine as *slender*, and the large intestine as *larger* than the small intestine? With figures and with descriptions of this kind the book is bound to sap most of the life from the laboratory work. A good laboratory guide should be built upon leading questions, which incidentally include a good terminology, and it should be in the main without illustrations. It follows from this that a book designed to be of an informational character and also a laboratory guide is bound to be somewhat of a failure in one direction or the other.

From the standpoint of an elementary reading text much can be said in favor of the volume. It is written with unusual accuracy and the small errors so commonly met with in elementary works of this kind are here noticeably absent. The defects are chiefly omissions. It seems hardly fair to use the title zoology for a book that nowhere contains even a brief exposition of the animal body as a working machine, and that from cover to cover makes no mention of the host of animal forms known only as fossils. Of course, the chief task of the author was to omit, but it seems scarcely wise to carry this to the point of excluding the fundamental results of animal physiology and of paleozoology.

As a piece of book-making the volume is serviceable. The search for novel illustrations has often led to the use of poor photographs where good drawings would have been much better. It is questionable whether the pupil will gain much from such a figure as that of

the cross-section of the pupa of a bee (p. 199) and the expert will certainly not regard an illustration of this kind as a triumph of the art of photomicrography. Nevertheless many of the figures, particularly those in the chapter on birds, are of an unusually high order. Although the book cannot be described as a well-balanced zoology, and is open to serious objections as a laboratory guide, its clear and truthful presentation of many elementary facts will certainly gain for it a wide circulation.

G. H. PARKER.

HARVARD UNIVERSITY.

SCIENTIFIC JOURNALS AND ARTICLES.

WE note a little tardily *The Plant World* for March which contains articles on 'American Botanical Gardens,' by John W. Harshberger, a sketch of Lewis David von Schweinitz, by C. L. Shear and John Stuart Mill and 'Botanical Study,' by E. J. Hill. In the supplement Charles L. Pollard continues the description of the families of the Order Ericales.

The Osprey for April has a paper on 'The Feeding Habits of the Coot and Other Water Birds,' by Barton W. Evermann, and one on the 'Birds of the Marianne Islands and their Vernacular Names,' by W. E. Safford. The supplement, devoted to the General History of Birds, discusses the question of molt.

The Museums Journal of Great Britain for April has a flattering article on 'The Museums of Chicago,' by F. A. Bather, being a review of Dr. Meyer's memoir. But it is to be feared that we are not so well up in the matter of museum methods and general appreciation of museums as Mr. Bather thinks: it is one of the numerous cases of distance, etc. William E. Hoyle notes 'Some Useful Applications of Card Catalogues' and we have the usual number of interesting notes which do credit to Mr. Howarth's industry as an editor.

THE publication of the *Biological Bulletin* will be resumed in June, when the first and second parts of Volume III. will be issued. It will be published as heretofore, under the auspices of the Marine Biological Laboratory, and its scope will include zoology, general biology, and physiology. The editorial staff con-

sists of Professors E. G. Conklin, Jacques Loeb, T. H. Morgan, W. M. Wheeler C. O. Whitman, E. B. Wilson and Frank R. Lillie, managing editor. In regard to the *Bulletin* Professor Lillie says: "There is in America no journal that takes the place of the *Biologisches Centralblatt* or the *Anatomischer Anzeiger* in Germany, although there is abundance of material to support such a publication. It is hoped that the *Bulletin* may occupy this field, and meet the need for rapid publication of results; the editors, therefore, undertake to issue one number each month, making two volumes a year, if the material offered is sufficient. The subscription price of the *Bulletin* has been fixed at three dollars for a volume of 300 pages; the low price makes it necessary to limit the length of the articles, and to exclude all lithographic plates. In no case will articles of more than twenty-five pages be included in any single number; but, in some cases, longer articles may be accepted, and published in installments. The cost of illustrations above \$10 for any single article will be charged to the author, as will also be the cost of unusual alterations in the proof. The *Bulletin* will undoubtedly meet a real need; but the responsibility for its success rests with American biologists, and the editors therefore confidently appeal to them for their support. This can be most practically given in the two forms of subscriptions and contributions to its pages." All communications, subscriptions, and manuscripts should be sent to the managing editor, the University of Chicago, September 15 to June 15, or Wood's Holl, Mass., June 15 to September 15.

The Journal of Mycology, of which seven volumes were published from 1885 to 1894, is now resumed by Dr. W. A. Kellerman, Ohio State University, Columbus, Ohio, at the former price, namely, one dollar per year. It will be issued quarterly, the May number being the first for 1902 (Vol. 8); but the second number will appear early in June.

SOCIETIES AND ACADEMIES.

AMERICAN PHYSICAL SOCIETY.

THE April meeting of the Physical Society was held at Columbia University on April 21,