

taxonomy and biology of the free living forms, from which the parasitic groups were undoubtedly derived.

The book is divided into two parts, the first consisting of chapters devoted to the general morphology of Protozoa and, though briefly treated, gives the student a good elementary knowledge of the principles of protozoan structure and physiology. The second and more important section of the book is concerned with the taxonomy and general biology of the different groups of common Protozoa. This is probably the more useful section of the work, for, owing to the numerous comprehensive and widely scattered monographs that have appeared on the different groups, it is often difficult for the average student to obtain all the necessary literature.

The author, by gathering together in a limited space as much of such material as possible from various authorities, has rendered good service, and the book should prove valuable to teachers in universities—but perhaps more particularly to those engaged in applied biological science who are cut off from libraries but desire to identify the organisms found in their several fields of research.

*Die Insektenfauna des Böttinger Marmors: eine systematische und paläobiologische Studie.* Von Dr. Friedrich Zeuner. (Fortschritte der Geologie und Paläontologie, herausgegeben von Prof. Dr. W. Soergel, Band 9, Heft 28.) Pp. viii + 247-406 + 19 Tafeln. (Berlin: Gebrüder Borntraeger, 1931.) 25 gold marks.

THE Böttinger marble fills a fissure 10 metres wide and 400 metres long at the margin of a crater of Upper Miocene age near Münsingen in Swabia. In Upper Miocene times hot carbonated waters flowed up the fissure and deposited calcareous sinter within it. A varied insect life abounded in the bushes and grasses surrounding the well. Individuals of this fauna, venturing too near the fatal waters, were killed, their bodies fell into the well and were quickly encrusted with sinter. A swarm of bees was entombed in this manner. Thus was provided the beautiful material studied by Dr. Zeuner, who gives a lively picture of conditions around this Upper Miocene poison hole.

Dr. Zeuner describes in detail the insect fauna of this well, making four new genera and eleven new species. He discusses the phylogeny of the Upper Miocene insect faunas and the climate of the time. He concludes that the climate of separate periods of the Tertiary cannot be deduced independently from insect faunas, since many groups have changed their habitats since the Tertiary. Harrassowitz came to a similar conclusion in connexion with Tertiary floras.

*Physiography of Western United States.* By Prof. Nevin M. Fenneman. Pp. xiii + 534. (New York: McGraw-Hill Book Co., Inc.; London: McGraw-Hill Publishing Co., Ltd., 1931.) 25s. net.

THE central theme of this book is geological rather than geographical. It treats land forms, which are its main concern, as effects and not as causes. Nevertheless, it will be of value to the geographer

as well as the geologist, for it gives accurate descriptions of the topography, with special stress on the drainage systems. The area covered lies approximately between long. 100° W. and the Pacific coast, and the treatment is by natural physical units called provinces and sections. These, as determined by the Association of American Geographers and United States Geological Survey, are shown on a large folding map which accompanies the volume. This useful map has also been separately published as an official American map.

The volume is clearly written and well arranged, though, of course, the treatment of different areas depends on the knowledge available. In a few parts little more than a description of the surface topography can be given. The many illustrations and block diagrams, and above all the copious bibliographical references, add to the value of the book. A companion volume on the Eastern United States is announced to be in hand.

*Botany for Matriculation.* By Dr. F. Cavers.

Revised by L. C. Fox. Second edition. Pp. viii + 509. (London: University Tutorial Press, Ltd., 1931.) 6s. 6d.

To any candidate for university matriculation who is studying 'privately' with the view of matriculating only, and no ultimate aim of assuming an interest in, or attaining a sound knowledge of the science of botany, "Botany for Matriculation" is to be recommended. Such an opinion is offered to such 'private' students only, for we would prefer to leave the choice between a stimulating book and a 'cram' book to the teachers of other students.

The book begins, as it ends, with bald statements of fact and theory. It is profusely illustrated with diagrams fit to reproduce before an undiscerning examiner, but serving no other purpose. The subject matter has apparently been chosen to conform to the average matriculation syllabus. At the end of each chapter, a set of questions are given; in one case, the set of twenty-four questions contains sixteen which begin with the word 'Describe', and this is more or less the ratio throughout.

L. J. F. B.

*Recent Advances in the Study of the Psychoneuroses.*

By Dr. Millais Culpin. (The Recent Advances Series.) Pp. vii + 348. (London: J. and A. Churchill, 1931.) 12s. 6d.

THE study of the psychoneuroses, or, as Dr. Culpin sometimes prefers to call them, the minor psychoses, is a peculiarly wide and difficult subject. Dr. Culpin in this book gives a very compact and readable account which well maintains the standard set in this series. The book is written from the point of view of psychoanalysis, that is, a strictly Freudian attitude. The views of Jung and Adler are well set out in separate chapters by Dr. Young and Dr. Redfern. Dr. E. Miller deals with the psychopathology of childhood and Dr. Rees with psychotherapeutic clinics. While stressing the Freudian approach, the author is careful to maintain an even balance, so that the physical side of the picture is by no means neglected.