their isolated and specialized character. There are some details of this classification, however, such as that given for the Siphonales, which may need rather thoughtful inspection. The book is clearly and abundantly illustrated, with 245 mostly full-page groups of well-chosen figures, generally from original sources, largely not previously met in a text-book, and fairly well reproduced. A few half-tones (as figs. 124E, 127A) are rather vague and there is considerable lack of uniformity in the lettering of the figures (comparing figs. 11, 109, 235 with 113, 158, 166). The type is rather small, and that used for paragraphs dealing with subsidiary topics not very different from that of the body of the text. However, the appearance of the book is on the whole very good.

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ANIMAL LIFE IN THE HOLY LAND

Animal Life in Palestine. By F. S. BODENHEIMER. 506 pp. L. Mayer, Jerusalem, 1935.

IN the initial chapters the zoogeographical position and geological history of the fauna are discussed and the climate and weather are presented in the light of animal response. This section includes many diagrams showing relations to weather, climate and the seasons. The types of vegetation are described; some good grassland and small areas of cedar of Lebanon forest still remain. A series of chapters on the various animal groups begins with the mammals, of which 95 species are enumerated with notes as to habitats. The following have been extirpated from the area or are entirely extinct: the lion, a leopard, the Syrian bear, roe deer, fallow deer, the Arabian oryx, Barbary sheep and two wild asses. Here in 10,000 square miles, after 3,500 years of occupation by civilization, nine species have disappeared, as compared with eleven in an equal area in central Illinois, which has been occupied by civilization one hundred years.

A discussion of the birds, following the general plan for the mammals, also includes data as to migration, with maps. The ostrich has been extirpated and, with the completion of certain contemplated swamp drainage, various water birds will disappear. The chapter on reptiles and amphibia contains diagrams and tables indicating temperature and activity; the species are listed and their habits stated. Chapter four, which deals with the insects, contains 160 pages; it is subdivided into sections, each concerned with an order and accompanied by diagrams and tables illustrating activity and response to conditions. Chapter five is devoted to the lower arthropods and remaining terrestrial invertebrates; parasites are treated in the same manner as the other groups.

Both fresh and salt water communities and fauna are discussed; plankton, fishes and mollusks receive attention.

The book is a good and thoroughly modern treatment, in spite of the fact that it is arranged according to taxonomic groups rather than communities, a necessary result of the impossibility of conducting a complete community study of such an area.

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ELECTROCHEMISTRY

Principles of Experimental and Theoretical Electrochemistry. By MALCOLM DOLE. McGraw-Hill Book Company, New York and London, 1935. 549 pages. $5.00.

WITHIN recent years the science of electrochemistry has passed from a subject whose theories were comparatively easily understood to one which requires an extended knowledge of theoretical physics for its comprehension. This is due principally to the development of the important theory of the effects of Coulomb forces upon the distribution and properties of the ions both in the absence and presence of external electrical fields. Simultaneously with this important advance the experimental part of the subject has been greatly refined in both method and technique. Because of these rapidly developing complications, the writing of a satisfactory treatment of the subject is no easy task.

In spite of the difficulties, Dr. Dole has succeeded in writing an excellent text on the strictly scientific part of electrochemistry which should serve to give students of physical chemistry a comprehensive introduction to the field. The subject-matter is up to date and has been derived from the best of the recent literature. Too great emphasis on the profounder aspects of the theory and the details of the experimental material have been avoided and the result is a well-balanced treatment of the subject.

The material is arranged in the following order: "Conductance," "Transference Number," "Dielectric Constant and Electric Moment," "Concentration Cells with and without Liquid Junction," "Homogeneous Ionic Equilibria," "Membrane Potentials," "Oxidation and Reduction Cells," "Potentiometric Analysis," "Glass Electrode," "Electrokinetic and Electrocapillary Phenomena," "Irreversible Electrode Phenomena" and a final chapter on "Quantum Mechanics and Electrochemistry." In each chapter the author has described in a clear manner the method of measurement and the results and has then pointed out the theoretical interpretation and the limitations of the theory.

The book is well written and may be highly recommended for the concise and exact method of presentation.

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