

shows areas of seasonal occupancy and by a scale of the months that shows the seasonal presence of the species in the state.

The plates form a notable series of bird pictures, and they should give Wisconsin bird watchers many opportunities to recall personal observations and whet their desire to see species that they have not yet met with in the field. So many colored illustrations of North American birds have been published that another set no longer fills an acute need. In some instances the color used in this volume leaves something to be desired—for example the bobolink (plate 74), the scarlet tanager (plate 79), and the hermit thrush (plate 62)—but it is not possible to say whether this is the fault of the printer or of the artist-author. On the other hand, many of the figures are very satisfactory.

HERBERT FRIEDMANN

Los Angeles County Museum,
Los Angeles, California

Organic Chemistry

Newer Methods of Preparative Organic Chemistry. vol. 2. Wilhelm Foerst. Translated from the German by F. K. Kirchner. Academic Press, New York, 1963. xvi + 417 pp. Illus. \$14.50.

This is the second volume in a series of books which contain a collection of review articles, treating selected topics of organic synthetic procedures; the first volume appeared in German in 1944 (the English edition in 1949) and was very well received. This volume, like the first one, is written in the vein of *Organic Reactions* but is less exhaustive than the latter.

The translation is generally well executed, with the exception of the first part of the chapter on reduction with complex hydrides, which reads awkwardly. The implication that the book presents an up-to-date review of the latest developments in the field is somewhat misleading, for the original articles on which the volume is based were published in *Angewandte Chemie* more than 5 years ago and the German edition, published in 1960, was brought up-to-date as of 1959. The lack of very recent literature coverage is not as important in some chapters as in others, and in general it is outweighed by the authoritative treatment of the subjects.

The following subjects are discussed: (i) syntheses: with acetoacetaldehyde, with ethyl 2-cyclopentanonecarboxylate, and with ketene; (ii) preparations: of peptides and ureas from reactive amides, of long chain carboxylic acids from 1,3-cyclohexanediones, of phosphines and their analytical importance, of intermediates of carbohydrate metabolism, and of phenylsodium. Furthermore, there are chapters on the reduction of carbonyl compounds with complex hydrides, alkylation of aromatic amines, amidomethylation, oxidations with noble metal catalysts, alkylation of phenols with alkenes, and oxidations with lead tetraacetate. All chapters, except the one on hydride reductions, contain useful examples of experimental procedures.

A notable feature is the inclusion of an author index in the English edition. On the other hand, the grouping of references at the end of each chapter (and the repetition of some references) is regrettable, for research chemists usually prefer to have the citation of references placed at the bottom of each page.

The book will be useful as a reference source to the English-speaking chemist who is searching for basic preparative information on the subjects treated.

ALFRED HASSNER

Department of Chemistry,
University of Colorado

Notes

Radioecology (Reinhold, New York, 1963. 766 pp. Illus. \$16.50), edited by Vincent Shultz and Alfred W. Klement, Jr., and published for the American Institute of Biological Sciences, contains 86 papers, many of them by several authors, and two useful bibliographies, one on terrestrial and freshwater radioecology, the other on marine and aquatic radioecology. The material, which is the proceedings of a symposium held in September 1961, has been reproduced in a quick and functional way (without indexing, however), to make the information available as soon as possible. The problems presented in this work may best be summarized in the words of E. P. Odum (page 645):

"Since radiation ecology is an interdisciplinary area, halfway between important groups of physical sciences on the one hand and biological sciences

on the other, it is clear that the future student who approaches the area from either side must be better oriented to the principles of the other side than is the case at present. The future of mankind may well depend on how well education can fill the gap between life and the atom."

JOEL W. HEDGPETH

Pacific Marine Station

New Books

Biological and Medical Sciences

Advances in Small Animal Practice. vol. 4. Proceedings of a congress (London), March 1962. Bruce V. Jones, Ed. Pergamon, London; Macmillan, New York, 1963. 138 pp. Illus. \$8.50.

Analytical Methods for Pesticides, Plant Growth Regulators, and Food Additives. vol. 1, *Principles, Methods, and General Applications*. Gunter Zweig, Ed. Academic Press, New York, 1963. 651 pp. Illus. \$24.

Animal Ecology. Aims and methods. A. Macfadyen. Pitman, New York, ed. 2, 1963. 368 pp. Illus. \$10.

Antibiotics, Second International Symposium. Naples, 1961. pts. 1 and 5. pt. 1, *New Antibiotics: Side Effects of Modern Chemotherapy* (376 pp., \$20.50); pt. 5, *Antibiotics: Chemoprophylaxis and Chemotherapy of Lesions Caused by Ionising Radiations* (308 pp., \$17). H. P. Kuemmerle, P. Preziosi, and P. Rentchnick, Eds. Karger, Basel, Switzerland, 1963. Illus.

British Pharmaceutical Codex, 1963. Published by direction of the Council of the Pharmaceutical Society of Great Britain. Pharmaceutical Press, London, 1963. 1469 pp. Illus. £5 5s.

Canadian Cancer Conference. vol. 5. Proceedings of the fifth Canadian Cancer Research Conference, June 1962. R. W. Begg, C. P. Leblond, R. L. Noble, R. J. Rossiter, R. M. Taylor, and A. C. Wallace, Eds. Academic Press, New York, 1963. 493 pp. Illus. \$14.

Les Chemins de la Vie. Etienne Wolff. Hermann, Paris, 1963. 255 pp. Illus. Paper.

Comparative Physiology of Vertebrate Respiration. G. M. Hughes. Harvard Univ. Press, Cambridge, Mass., 1963. 159 pp. Illus. \$2.75.

The Control of Chromatophores. M. Fingerman. Pergamon, London; Macmillan, New York, 1963. 194 pp. Illus. \$7.50.

Cytodifferentiation and Macromolecular Synthesis. A symposium (Asilomar, Calif.), June 1962. Michael Locke, Ed. Academic Press, New York, 1963. 286 pp. Illus. \$10.

Epidemiology and Communicable Disease Control. Fred B. Rogers. Grune and Stratton, New York, 1963. 112 pp. Illus. \$5.50.

Essays on Nucleic Acids. Erwin Chargaff. Elsevier, New York, 1963. 223 pp. Illus. \$8.

Essays on Protozoology. H. Sandon. Hutchinson, London, 1963. 143 pp. Illus. Paper, 15s.