
Bibliography of Physical Limnology 1781-1954. *James L. Verber.* Ohio Department of Natural Resources, Division of Shore Erosion, Division of Geological Survey, Report of Investigations No. 25. (Contribution No. 4 Lake Erie Geological Research Program.)

This booklet should be welcomed by investigators interested in the physical aspects of bodies of inland water. The bibliography lists most of the important references dealing with physical limnology up to December 1954. It also includes some references that are difficult to classify as physical, chemical, or biological. The arrangement and cross indexing makes this bibliography easy to use. It is available (free) from the Division of Geological Survey, Orton Hall, Ohio State University, Columbus 10, Ohio.

N. WILSON BRITT.

BOOK NOTICES

Genetics and Metabolism. *R. P. Wagner and H. K. Mitchell.* John Wiley & Sons, Inc., New York. Chapman & Hall, Ltd., London. 1955. xii+444 pp. \$7.50.

Asserting the thesis that "... inheritance is characterizable in terms of transmission of control of relative rates of biochemical reactions . . .", the authors have achieved an integration of subjects which, for the first time, offers instructors and students a text in biochemical genetics. Drs. Wagner and Mitchell are specialists in Genetics and Biochemistry and have given import to their work by correlating these fields with those of cytology, embryology, and physiology. The book deals little with how genes are inherited and treats almost entirely what really is the subject—the nature of gene action and the effects of such action on inherited chemical differences, nutrition and metabolism, development, and disease. The work is presented objectively, and controversial topics are openly examined rather than briefly mentioned or completely ignored. While the authors concede this book offers no conclusive proof of the above thesis, they have succeeded in bringing together and presenting data, hitherto inaccessible in such form, which impart considerable support to it. Fifty-four tables and 119 figures add to this support. Paramounting this notable work is an extensive bibliography containing 726 references. The book is written for the advanced student of either genetics or biochemistry and some knowledge of the other subject is required, but it is also of value to students of medicine and to biologists in general.

HENRY L. PLAINE

Industrial Manufacturing Chemistry. *G. Martin.*

Part I, Organic. *E. I. Cooke*, Editor. Seventh Edition, 1955. xvi+752 pages.

Part II, Volume I, Inorganic. *W. Francis*, Editor. Sixth Edition, 1955. xxiii+600 pages.

Part II, Volume II, Inorganic. *W. Francis*, Editor. Sixth Edition, 1955. xxi+491 pages.

Philosophical Library, Inc., New York. \$50.00, the set.

The appearance of a sixth edition of Volumes I and II on Inorganic Chemistry and a seventh edition of the Volume on Organic Chemistry of this standard reference on Industrial Chemistry, is mute evidence of the general acceptance and the high regard that industrial chemists and technologists have for this work. The three volumes have been revised and brought up-to-date, with many of the sections being completely rewritten. Various chemical processes and techniques covering both British and American practice, are described in reasonable detail. Numerous references to new books and to the technical and scientific journals make it possible for the specialized reader to obtain more detailed information on any particular subject than is possible to give in a work of this size.

The use of numerous schematic drawings and photographs of equipment add greatly to the clarity of the exposition. These volumes can be highly recommended as a source of reliable up-to-date information on the major chemical industries.

WEBSTER B. KAY.

Indian Corn in Old America. *Paul Weatherwax.* The Macmillan Co., New York. 1954. ix+253 pp. \$7.50.

This is an inexpensive summary of the background of American maize culture. Professor Weatherwax, who might be called the doyen of maize botanists, has spent a number of months in Central and in South America and Mexico in the last several years. His interpretations of some of the maize problems perhaps add nothing new to theory but will serve to calm down some of the more exotic speculations and to develop a greater appreciation for the antiquity of maize culture.

American archeology and ethno-botany have suffered from somewhat dogmatic conclusions that all the American aborigines are more recent than the Old World cultures and that since they lacked draft animals and wheels they were not only mechanically primitive, but perhaps mentally as well. The architecture, mathematics and crafts in basketry and ceramics attest differently. And to these findings which present artifacts that can be measured and compared with the materials of other countries should be added the achievements in plant domestication. For study purposes we have the end results. We also have the great heritage they afford to our daily demand for supplies in this modern world. But we do not have what the botanists requires, the evidence in specimens by which the story of the modification of man of wild plant to cultigen can be told. All is conjecture.

Professor Weatherwax treats all the inferences with a delightful skepticism apparently not wishing to enter into further debate. In some instances this is a disappointment as some of his views are as worthy of presentation as those of opposite opinion.

The Macmillan Publishing Company has cooperated in generously reproducing drawings from early herbals and from museums and other learned sources to illustrate a work that aims to be worthy of its great subject. Both they and Professor Weatherwax are to be congratulated.

ADOLPH WALLER.

Recent Studies in Avian Biology. *Albert Wolfson*, Editor. University of Illinois Press, Urbana, Illinois. 1955. xiii + 479 pp. \$7.50.

In the spring of 1948 a Committee on Research, of the American Ornithologists Union, embarked on the preparation of a book, the objective of which was to review and evaluate the more important areas of study and research in the field of ornithology.

The book, a joint effort of several capable and active research workers under the editorship of Albert Wolfson, has achieved a degree of excellence which should make it an invaluable source for all serious students of ornithology. The subject matter areas discussed include; systematics, evolution and paleontology, anatomy, behavior, bird navigation and migration, breeding biology, role of hormones, population studies, and diseases. Each author has presented, in superb fashion the various concepts, supporting data, and contributors in his particular field along with a critical summary. The sequence of topics and general format combine to give the book unusual uniformity and readability and the cited references form an extensive bibliography of great value to researchers.

L. S. PUTNAM

The World of Bees. *Gilbert Nixon*. Philosophical Library, Inc., New York. First edition, 1955. xxiii + 214 pp. \$4.75.

This is a comprehensive popular treatise on "The World of the Bees"—solitary bees, bumble bees and honey bees. References in the text are confined entirely to British and European bee species. Well covered are the intriguing aspects of bee life and behavior such as: egg to adult; nest building; rearing of young; social life; pollen collecting; language and dances of bees; and their sense of color, smell, taste and orientation. Appropriately the author discusses the enemies and diseases that effect the welfare of bees. The mutual relationship between bees and flowers as well as the indispensable role of bees in the pollination of fruit, certain vegetable and seed crops is well portrayed. Gilbert Nixon is a well recognized British Entomologist and a specialist in the order of Hymenoptera to which bees belong.

This is a most pleasing popular book containing a wealth of information. It will be valuable to anyone wishing to attain a general background of things common to all bee life, but is not organized as a text for teaching entomological students on the college level.

WINSTON E. DUNHAM

PLAN TO ATTEND—

The Sixty-fifth Annual Meeting of the
OHIO ACADEMY OF SCIENCE

WITTENBERG COLLEGE
SPRINGFIELD, OHIO

April 19, 20 and 21, 1956