

tion on hydrolytic products of the cardiac glycosides are tabulated in the second table. Included are the type of sugar and the type of genin or additional glycoside hydrolyzed. The third table contains data on animal assay doses for over 300 cardioactive drugs. Lethal dose, mean lethal dose, and LD₅₀ dose, as well as species of animal, route of injection, and references, are listed. Short sections on structural features and structure-activity relationships of cardiac glycosides and genins are also included.

It is unfortunate that the author decided not to include assay doses for heart-lung preparations, isolated heart preparations, and the like; this information would have increased further the utility of this monograph. Chemists and biologists working with cardiac glycosides will welcome this as an excellent reference source which provides ready access to botanical, chemical, and pharmacological data that is widely scattered through the literature.

GEORGE T. OKITA

Department of Pharmacology,
University of Chicago

Field Manual

A Flora of the Alaskan Arctic Slope.

Arctic Institute of North America, *Special Publication*, No. 4. Ira L. Wiggins and John Hunter Thomas. University of Toronto Press, Toronto, Canada, 1962. xii + 425 pp. Illus. \$9.50.

During the past 20 years the Arctic Slope of Alaska, between the Brooks Range and the Arctic Ocean, has received more extensive study by biologists and earth scientists than any comparable area in Arctic North America; in large part this was the result of support from the Office of Naval Research and its Arctic Research Laboratory and the cooperating universities. This detailed taxonomic and geographical treatment of the vascular plants of the region is one of the major contributions resulting from this research.

This book is a highly useful field manual, with concise but entirely adequate keys to families, genera, species, and (where appropriate) infraspecific taxa and with commendably detailed descriptions of morphologic characters, accompanied by remarks on common

habitats and total ranges. It resembles, in some respects, a monographic flora, for all specimens examined are cited along with their collection localities and the localities are carefully plotted on maps in an appendix. On the other hand, citations from the literature on the systematics and distributions of the species are scarce and only a part of the "problem groups" are marked by explanatory statements. The authors are justified in omitting these items, as well as locality records from the older literature, because all were treated in Hulten's *Flora of Alaska and Yukon* (1941–1950).

As a result of this economy of space, however, the distribution maps in this volume must be used in conjunction with those of Hulten's *Flora* in order to obtain a full picture of the records for most species on the Arctic Slope. In some instances parenthetical reference to synonyms in recent use would be helpful. The authors included brief but useful notes about certain complex hybrid and apomictic groups that are prominent in Arctic floras. Appendices, in addition to the 150 maps of collection localities, include a gazetteer of those localities, a glossary of specialized botanical terms, and two pages of references. The index lists the taxa treated and those synonyms that are mentioned. The book has been edited and printed in conformity with high standards.

Especially deserving of comment is an introductory section (29 pages) that describes the physical geography, biotic factors affecting the vascular flora, and the principal classes of habitats, with summary accounts of characteristic species. A highly informative guide to the ecological plant geography of the Arctic Slope, this section reflects the authors' extensive experience in the area, particularly that of the senior author, who was for three and one-half years scientific director of the Arctic Research Laboratory at Point Barrow.

The Arctic Slope is an invaluable source for information concerning the biota and environments of high latitudes. Now that this eminently usable flora is available, field studies of all aspects of the region's vascular flora and vegetation can be more readily accomplished, with improved accuracy of plant identifications.

WILLIAM S. BENNINGHOFF

Department of Botany,
University of Michigan

New Books

Biological and Medical Sciences

Advances in Horticultural Science and Their Applications. vol. 1. Proceedings of the 15th International Horticultural Congress. Nice, 1958. Jean-Claude Garnaude, Ed. Pergamon, New York, 1961. 627 pp. Illus. (vols. 2 and 3 announced for publication in early 1962). vols. 1–3, \$60. The papers are in French, English, or German.

Advances in Protein Chemistry. vol. 16. C. B. Anfinsen, Jr., M. L. Anson, Kenneth Bailey, John T. Edsall, Eds. Academic Press, New York, 1961. 579 pp. Illus. \$16.

Animal Parasitology. Laboratory manual. Elmer R. Noble and Glenn A. Noble. Lea and Febiger, Philadelphia, Pa., 1962. 120 pp. Illus. Paper, \$3.50. Designed for use in beginning undergraduates courses in parasitology.

Basic Anatomy and Physiology. C. F. V. Smout. Arnold, London, 1962 (order from Williams and Wilkins, Baltimore, Md.). 124 pp. Illus. \$3.50.

Biological Transmission of Disease Agents. Symposium held under the auspices of the Entomological Society of America, Atlantic City, 1960. Karl Maramorosch, Ed. Academic Press, New York, 1962. 204 pp. Illus. \$7.

Clinical Immunology and Allergy. Leo H. Criepp. Grune and Stratton, New York, 1962. 592 pp. Illus. \$18.75.

Comparative Biochemistry. A comprehensive treatise. vol. 3, *Constituents of Life*, pt. A. Marcel Florkin and Howard S. Mason, Eds. Academic Press, New York, 1962. 987 pp. Illus. \$30.

Handbook of Medical Laboratory Formulae. R. E. Silvertown and M. J. Anderson. Butterworth, Washington, D.C., 1961. 688 pp. \$18.

Introduction to Immunochemical Specificity. William C. Boyd. Interscience, New York, 1962. 166 pp. Illus. \$8.

Lectures on the Methodology of Clinical Research. Max Hamilton. Livingstone, London, 1961 (order from Williams and Wilkins, Baltimore, Md.). 147 pp. \$5.

Methods in Carbohydrate Chemistry. vol. 1, *Analysis and Preparation of Sugars*. Roy L. Whistler and M. L. Wolfrom, Eds. Academic Press, New York, 1962. 611 pp. Illus. \$20.

Economics and the Social Sciences

Biennial Review of Anthropology. 1961. Bernard J. Siegel, Ed. Stanford Univ. Press, Stanford, Calif., 1962. 338 pp. \$7.50.

Capital Formation in Japan, 1868–1940. Henry Rosovsky. Free Press (Macmillan), New York, 1961. 371 pp. \$7.50.

Computer Applications in the Behavioral Sciences. Harold Borko, Ed. Prentice-Hall, Englewood Cliffs, N.J., 1962. 653 pp. Illus. Trade ed., \$11.65; text ed., \$8.75.

The Industrial Revolution in Europe, 1815–1914. W. O. Henderson. Quadrangle Books, Chicago, Ill., 1961. 297 pp. Illus. \$6.