

Cryptogamic Botany. Volumes I and II. *G. M. Smith*, Editor. McGraw-Hill Book Company, Inc., New York. Second Edition, 1955. Volume I, v + 546 pp. \$8.50, Volume II, v + 399 pp. \$8.00.

The Second Edition, while retaining the valuable features of the original, has been materially improved by more complete group discussions, the use of new examples and the re-drawing of many figures.

Some presumably will consider the treatment to be too detailed for use as a text except by advanced students. There is, however, a wealth of information for students at all levels.

The work, because it presents the subject by means of "Types" allows the instructor a wide latitude in the selection of material. It provides a plan which may be taught as is, or for the more enterprising teacher, it represents an outline to which may be appended varied examples of his choice.

For those who may consider the details beyond their required level of interpretation, the work will be a welcome reference, for both personal and class use.

C. E. TAFT

Climatic Atlas of the United States. *Stephen S. Visher*. Harvard Press, Cambridge. 1954. xii + 403 pp. \$9.00.

This is a book of 999 maps and 32 diagrams dealing with manifold phases of climate in the United States. It is the first generalized account of climatic elements to be published since the 1941 Yearbook of Agriculture: Climate and Man.

The data from measurement of five major weather elements form the basis for the generalizations. The first section on temperature contains 369 maps; wind, 56 maps and 2 diagrams; sunshine, 22 maps and 1 diagram; humidity and evaporation, 36 maps and 2 diagrams. Various calculations concerning precipitation are delimited on 417 maps.

Section VI consists of maps augmented by graphs and tables and deals with certain consequences of climate and weather on agriculture, health, land, water, and soil erosion. A final section attempts to delimit climatic regions.

One is impressed by the infinite number of combinations into which climatic data of a single weather element can be put to form bases for maps. It seems likely that most general questions concerning mappable climatic elements in the United States can be answered by reference to this volume.

JOHN N. WOLFE

Mosquitoes Their Bionomics and Relation to Disease. *William R. Horsfall*. The Ronald Press Co. New York. 1955. viii + 723 pp. \$16.00.

Although the literature dealing with mosquitoes is extensive this volume is excellent proof that knowledge of the biology of most species is still fragmentary. The reader can quickly get an appreciation of the size of Dr. Horsfall's efforts by examining the approximately eighty pages of bibliography with citations in condensed form so that most references require only a single line.

The information on bionomics and disease relationships is arranged in uniform fashion for all life history stages under species names. Much data are given in tables of which there are over two hundred. The index of genera and species makes it easy to locate information about any species but the general index is short and of little help in locating data which are scattered throughout the book. Scanning the pages for particular information is quite easy and we have already covered the book several times seeking data on special topics. Rather than complain about what the author might have done or point out a missing reference or two, or incomplete coverage of included references, and problems of synonymy, it is more proper that we be grateful to him for helping us so much.

This volume will stimulate much research on mosquito biology and I suspect this will be Dr. Horsfall's greatest reward for a lot of very hard labor.

CARL VENARD