BOOK REVIEWS

An Ecological Survey of the Vegetation of Fort Hill State Memorial, Highland County, Ohio, and Annotated List of Vascular Plants. *E. Lucy Braun.* Bull. Ohio Biol. Surv. N. Ser. 3(3): ix+134 p. plus map inserted in pocket. 1969. Published by The Ohio State University, Columbus (order from The Ohio State University, University Publications Sales, 2500 Kenny Road, Columbus, Ohio 43221). $5.00+postage.

This publication is a welcome addition to the botanical literature of Ohio, as well as to wider circles. Researched and written by one of Ohio's most able botanists, the late Dr. Braun has brought together information from history, geology, soils, ecology, and floristics to describe the present vegetation at this 1200-acre archaeological and nature preserve in southwestern Ohio.

The plant communities are discussed by location, geology, and topography under the following headings: flats along Baker Fork, dolomite slopes, cliffs and promontories, lower slopes, Ohio shale slopes, summits, ravines, and old fields. The plant communities in each local situation are described in detail with respect to distinctive species present, pH, slope exposure, soil, and bedrock conditions. Further documentation is provided in the form of six profiles and three transects drawn to scale of the vegetation spanning the valley bottom and extending up the slopes and cliffs, and 21 tables giving information on numbers of trees, size classes of trees, lists of small woody and herbaceous species, and percentage composition of canopy trees from 17 sample plots (about 20 x 20 meters). Sixty-five black and white halftones are provided, mostly of wooded scenes, of which the captions for Figures 2 and 5 and for Figures 28 and 29 are reversed. Although none of the pictures of the vegetation are dated, all represent scenes photographed during the present study, there being no photographs from former days for comparative purposes.

The information in the section entitled, "What is Where and Why," is disappointing, for here several questions are posed without any attempt at answers. More is learned about the "why," or relationships of certain species, in the two-page introduction to the annotated list of plants under the heading, "The Flora of Fort Hill." The "annotated list" of 660 species of vascular plants, of which about 223 have no annotations, should be of use to those wanting to know what has been found at Fort Hill. However, this "annotated list" is not one to be taken as a model for floristic work. The type of information presented for those species that are annotated is quite varied, with little degree of uniformity and consistency of information from species to species. Frequency values, abundance data, and habitat notes are either inconsistent or nonexistent, and hence this source will probably prove to be of little use to future students desiring to study the changes in the flora. Furthermore, no information is given concerning the preservation of voucher specimens, or where such specimens supporting the list might be located. As species concepts change or taxonomic revisions occur in the future, it may become difficult to ascertain what species were really present.

Aside from these shortcomings in the annotated list, the other materials—the discussions, charts, tables, and pictures—ably describe the plant ecology of Fort Hill—the last scientific contribution of Dr. Braun.

RONALD L. STUCKEY

Handbook of Atomic Elements. *R. A. Williams.* Philosophical Library, Inc., New York (Hardbound) 1970. 125 p. $6.00.

This handbook contains a list of 103 elements and certain of their properties, arranged one element to a page in alphabetical order. The thirty-one pieces of information on each element are those of interest to chemists; they include full information about the electron configuration and the size of the atom of the element, as well as its room-temperature bulk properties, crystal structure, thermal and transport properties, and a list of its radioactive isotopes. Ten additional pages, containing eight ancillary tables, complete the contents.

None of the information in the handbook is new. The greater portion of the information in the handbook could also be obtained from an up-to-date periodic chart and the rest could be found in a *Handbook of Chemistry and Physics.* In addition, if these materials had been arranged in tabular form, the handbook could have been compressed into one-fifth as many pages. Nonetheless, this expanded presentation of the material is easily read and convenient for rapid reference, and there is merit in the listing of the important properties of each element together on a single page.

The handbook is a recommended addition to the reference shelf in a high school or college instructional science laboratory. It could also be a useful, low-cost reference for a personal library.

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