Book Reviews

Organic Insecticides. Their chemistry and mode of action. Robert L. Metcalf. Interscience, New York–London, 1955. x + 392 pp. Illus. $8.50.

The author, who is an entomologist at the University of California Citrus Experiment Station, Riverside, explains in the preface that the present work is an outgrowth of his monograph, *The Mode of Action of Organic Insecticides,* published in 1948 by the National Research Council. Although he is listed as an entomologist, R. L. Metcalf has made many important contributions in the fields of insecticide chemistry and toxicology.

The book is divided into 14 chapters, titled as follows: "Nicotine, nornicotine, and anabasine"; "Rotenoids"; "Pyrethroids"; "Joint action of insecticides"; "Organic thiocyanates"; "Dinitrophenols"; "Dichlorodiphenyltrichloroethane (DDT)"; "Acaricides"; "Benzene hexachloride"; "Cyclodiene insecticides"; "Organic phosphorus insecticides"; "Carbamates"; "Miscellaneous insecticides"; and "Insecticide resistance."

Each of the chapters on insecticides discusses the chemistry, mode of action on insects, relation of chemical structure to physiological activity, and the mammalian toxicity of a group of related organic materials. The chapter on "Joint action of insecticides" is restricted to pyrethrins and allethrin and materials that increase their activity. Synergists with DDT are covered in the chapter on resistance. The chapter on acaricides is limited to those materials effective against mites. "Ticks" are mentioned only casually in a few places in the text, and none of the common species are listed in the rather complete index.

Each chapter is documented with carefully selected references, a total of more than 1200 citations to the literature being given. Many references are to 1954 articles, and the patent literature is also adequately represented. The book is well organized and the selected subjects are thoroughly covered.

The most glaring omission seems to be the absence of information on the organic chemicals used as insecticidal fumigants (methyl bromide, ethylene dibromide, chloropicrin, and so forth) and insect repellents and attractants. A nonentomologist would have probably preferred the use of common names of insects instead of the scientific names that are given. Otherwise the book is written in a clear, concise, and easily readable style. As a result of his diversified experience, Metcalf was able to select for compilation into tables data that present in a small space much information from many sources.

In general, this is an excellent book that will be welcomed by all persons interested in insect physiology, toxicology, and insecticidal chemistry.

F. H. Babers
U.S. Department of Agriculture

Midwest and Its Children. The psychological ecology of an American town. Roger G. Barker and Herbert F. Wright. Row, Peterson, Evanston, Ill., 1954. vii + 532 pp. $7.50.

Midwest and Its Children is a report of a 7-year research project about the naturally occurring behavior of all the children in the American community labeled Midwest. Roger Barker and Herbert Wright raised a simple question: What kinds of behavior transactions take place between children and the places and people in their lives? Their answer is a monumental achievement consisting of a wealth of data, painstakingly gathered by rigorous and creative methods and organized and clarified by significant and meaningful concepts. Interspersed with the major report is a comparative study of disabled children from neighboring towns and from a school for crippled children. The latter added feature serves two purposes: to add to our understanding of the psychological problems of the physically disabled, and to test the value of the methods and concepts of psychological ecology that the authors have evolved.

A primary problem confronting the researcher in psychological ecology is the discovery and analysis of the relevant loci of behavior: the structure and dynamics of the community in which behavior occurs. The pertinent unit selected by Barker and Wright is the "behavior setting." Here again, a simple question led to complex, yet clarifying, answers. The section of the book devoted to this problem not only identifies the behavior settings of Midwest, along with explicit criteria for what constitutes a setting, but provides data about eight characteristics of settings. Thus, the reader not only is enlightened about their number, content, kinds, and varieties (community "size") but is also informed about the populations that enter the settings, the relative prominence of the settings in the lives of children, the kinds of action patterns and behavior mechanisms prevalent, the role that children play, and the degree to which they penetrate these settings. Not only are the living conditions of children thus mapped, categorized, and analyzed, but they are also plotted for the kind of *social weather* (approval, affection, acceptance, communication, and so forth) experienced therein. Further than this, the authors point up some of the implications of the behavior settings survey for the behavior, mental health, and development of Midwest's children.

A second section of the book has to do with the psychological habitats and behavior of children. The unit for this problem is the "behavior episode." To my mind, this is the most sophisticated and clearest discussion in the psychological literature of what constitutes the most appropriate and fruitful behavior unit for psychology. Conceptual definitions of behavior units, methods for observing, recording, and episoding behavior are clearly stated, together with ample concrete illustrations. Beyond the authors' contribution to the determination of behavior content and the definition of behavior units is their analysis of the "behavior stream" and their ability to delineate and define structural properties of this stream. Data are presented dealing with developmental changes in structural characteristics of behavior, the initiation and termination (spontaneous or pressured, and so forth) and the outcome (success or failure, and so forth) of episodes, and the comparison between Midwest children and the physically disabled children.

The third section of the book deals with social action and interaction. As with the other sections, concepts and categories are explicitly defined and adequately illustrated. Data are presented dealing with the frequency and complexity of interaction of the children with other categories of persons (other children, adults, fathers, mothers, and so forth), with the modes of interaction (dominance, nurturance, and so forth), with interplay variables (conflict, disjunction, and so forth), and so on. Comparative findings are also presented for the physically disabled as well as for

social interactions with the observers. The latter provide measurable evidence for the kind of role the observers actually succeeded in playing in the Midwest Field Station.

Since the book contains such a wealth of material, I can only point out what seems salient to me. Others may select different aspects as salient for them, such as parent-child relationships. This book possesses value for a variety of scientific disciplines. Its value for psychologists and sociologists should be obvious. Natural scientists might be curious to compare the concepts and methods of this sample of psychological ecology with those of their disciplines. Educators should find in it a gold mine of ideas for studying, evaluating, and comparing schools. Psychiatrists might profit from it, not only for what light it sheds on the constituents of a mentally healthful (or unhealthful) life for children, but also for its applications to the study of hospital milieus. Above all, it may be read for its intrinsic value—for its wealth of scientific concepts and methods and for its portrayal of the naturally occurring behavior of children in their real worlds.

JACOB S. KOUNIN
College of Education, Wayne University

Income of the American People. Herman P. Miller. Wiley, New York; Chapman & Hall, London, 1955. xvi + 206 pp. $5.50.

Historically, the U.S. Census Bureau has attempted to interpret its statistics either in separate monographs or as prefaces to the volumes of statistics. Perhaps the most brilliant of these interpretations is that of Walter F. Willcox, following the 1900 census. Following the 1950 census a series of such analyses was planned by the Census Bureau in conjunction with the Social Science Research Council and the Russell Sage Foundation. This study by Herman Miller, who is an employee of the Census Bureau, is one of the first to appear in this series.

"This is a book about people and income. . . . The primary aim . . . is to indicate the relation between the amount of income received by individuals and certain social and economic characteristics like geographic location, occupation, color, education, etc. The study also includes an analysis of the changes in income distribution which have taken place in the U.S. since the depression of the thirties, as well as an evaluation of the data which provide the basis for the findings" (p. ix). Some of the specific topics covered include: Analysis of the over-all income curve; role of geographic location and color; income differences attributable to occupation; age as a factor in income distribution; income and family status.

Most of the data analyzed are from the 1940 and 1950 censuses and from the annual reports on consumer income as obtained via the Census Bureau's monthly sample survey. The author has done an excellent technical job of handling these diverse statistics; for example, his analysis of the distribution of income, showing that the over-all skewed curve is the result of combining a number of component curves, each of which tends to be fairly symmetrical, is of the highest order of professional competency.

This technical proficiency, unfortunately, has not been combined with a very imaginative approach to the subject matter. The census monographs supposedly were to be broad in scope: ". . . broad exploration of new questions suggested by the new information, as well as narrowing the elements of doubt and controversy on old questions" (p. vi). Instead of such a comprehensive approach, the material has been presented in the traditional census manner. Not only have many highly relevant questions not even been asked, but of those that have been asked many have not been adequately answered, because advantage was not taken of the vast quantities of data available in the census files.

As an example of the kind of question not even asked, consider our current problem involving the shortage of certain classes of professional and skilled workers. To what extent, if any, does this shortage reflect the failure of our society to pay these people an amount commensurate with the importance we have ascribed to their occupations? As another example, after producing good evidence that income differentials probably narrowed since the depression of the 1930's, Miller devotes a chapter to "Factors related to recent changes in income distribution." Nowhere in this latter chapter, however, is the question even raised concerning what the influence of labor unions may have been. Even if no answer could have been provided, the question should have been raised as evidence of awareness of one of the important elements in our current life.

As an example of an inadequate answer, we should note the chapter on "Income and family status." Comprehensive cross-tabulations of the data collected by the 1950 census would have provided many answers about the "working wife" that could not be obtained by merely looking at the marginal distributions obtained from the small annual sample surveys of income (which, incidentally, have high sampling variability). The student who is not an employee of the Census Bureau can raise questions, but he does not have easy access to the vast quantities of unused data that are available in the files of the Census Bureau; he is dependent, then, on the Census Bureau for either the basic statistics or the analyses.

A. J. JAFFE
Bureau of Applied Social Research, Columbia University

American Men of Science. A biographical directory. vol. II, *Biological Sciences.* Jaques Cattell, Ed. Science Press, Lancaster, Pa., and Bowker, New York, 1955. 1276 pp. $20.

The appearance of the second volume of the ninth edition of the biographical directory, *American Men of Science—Biological Sciences,* on schedule, will please all who have occasion to verify the names, current addresses, or research specialties of United States and Canadian scientists working or teaching in such areas as "zoology, botany, medical research and affiliated fields." The format is similar to that of volume I, *Physical Sciences,* which was published in the spring of this year, but it is not identical. About 25,000 biographies are included, and there are some 5000 additional references, principally to biochemists and biophysicists who elected to be listed in volume I. There are also a few instances when the reader is referred to the eighth edition of 1949. These sketches, added to the nearly 44,000 in volume I, total 69,000, and it is estimated that when the third volume on the social sciences appears early in 1956, no fewer than 95,000 individuals will be listed in the directory—almost twice the number in the previous one-volume edition. Apparently the same abbreviations and sequence of data on each sketch are consistently employed, and the editor, Jaques Cattell, is the same as for the eighth edition. If the standards for inclusion in this ninth edition are also unchanged, it follows that the number of scientists in North America has virtually doubled within the past 6 or 7 years.

As before, with the exception of four pages devoted to procrastinators, the biographical sketches are in one alphabetical sequence (except that, unlike the telephone directories, the "Macs and Mc's" are commingled and all precede Macy and Mad-), two columns per page, in typescript, reduced and printed by offset. In contrast with the eighth edition, a good grade of white paper is used and the attractive dark blue cloth binding with a scarlet and gold panel on the spine seems to be much stronger. The physical weight is not inconsiderable; most secretaries will need to use both hands in using these volumes. Those looking up a scientist among the 5000 whose biographies appear in volume I may be annoyed, especially if that volume, which also costs