

BOOK REVIEW

A Guide to the Mammals of Ohio. — Jack L. Gottschang. The Ohio State University Press, Columbus. 1981. 176pp+xi. \$37.50

It is remarkable that Ohio, rich in academic institutions and vertebrate biology programs, has never had a technical or semipopular presentation of its mammalian fauna. Professor Gottschang, University of Cincinnati, has met this need with a book that he hopes will be useful to laymen, students, and professional biologists alike. Indeed, this attractive book, printed in double column format on 21×28 cm pages, is both a technical and semipopular treatment of the 54 wild mammal species currently living in Ohio. Following a 10-page Introduction, the book is organized into 7 sections representing the orders of wild animals living in Ohio: Marsupialia, Insectivora, Chiroptera, Lagomorpha, Rodentia, Carnivora, and Artiodactyla, followed by a discussion of extirpated species, a skull key, appendices (data on fur harvests and deer hunting seasons, 1943-1978), a glossary, a list of general references, and an index.

This is an attractive book with considerable esthetic appeal, due in large measure to the exceptional color photographs contributed by Karl Maslowski and Alvin Staffan. Several, such as the red bat with nursing young, are unique and truly engaging. However, the color photographs seem to be used more as objects of art than as illustrative material for the text. They are presented as plates, identified only by name, and are not cited in the text. In one case, an albino short-tailed shrew is presented without explanation of the normal pelage, nor is this plate cited in a discussion of albinism in this species. Black and white photographs by Ronald Austing and the author and line drawings by Elizabeth Dalvé are of high quality and integrated with the text. Line drawings are

limited in number (15 figures) and are used primarily to emphasize diagnostic skull features (11 species).

The Introduction does not do justice to the rest of the book. It is short and incongruent. In just 2 pages the author covers general mammalian characteristics such as hair, molts, reproductive biology, habitat, and home ranges. The "Natural Environment of Ohio" receives a cursory, half-page discussion referenced to an unattractive, nearly illegible, landforms map. Repeated reference is made, here and throughout the book, to the Lake Plains and Till Plains of Ohio, but the reader is never told of the location of these physiographic regions. This section could have been expanded considerably with photographs and maps of the different regions, forming a basis and background for the numerous discussions of distribution that are found in the later sections of the book. The Introduction concludes with a useful review of how to use dichotomous keys, a key to the orders of Ohio mammals, and a checklist.

Dr. Gottschang's checklist of 54 species was carefully assembled, using updated nomenclature according to Jones et al. (*Occas. Papers Mus., Texas Tech Univ.*, 24:1-14, 1975). Like any checklist, it includes rare as well as abundant species, but he has not listed every species known to have visited or lived in Ohio. Instead, a concluding section is presented entitled "Extirpated species and those of incidental or doubtful occurrence." Found are 22 species that might be found in museum records or historical accounts, but do not appear to be currently represented by "breeding populations" in Ohio. This is a valuable section because it summarizes evidence on the status of these rare species and dispels some popular misconceptions.

Each order and family is introduced with a brief but well-written description. Chiroptera and Vespertilionidae receive special attention. Ohio bats are divided into 2 groups, migratory and nonmigratory, a convenient basis for summarizing behavioral and morphological similarities.

Dr. Gottschang makes a clear distinction between microtine and cricetine rodents in a key to and in a description of the Cricetidae. The subfamily descriptions found here will be a valuable aid to anyone attempting to learn rodent diversity.

Species descriptions are the heart of this book. Topics include distribution, physical characteristics (including dental formulae and measurements), habitat and food preferences, reproductive characteristics, and a variety of natural history items. These topics are not always presented in the same order, and the lack of subheadings within species descriptions will make it difficult to use this book as a quick reference. Distribution of each species within the state is indicated on shaded maps with a dot on each county for which a known record exists. Gottschang carefully explains the basis for his dot maps in the Introduction and recognizes the incomplete nature of the records.

Much of the information presented is documented with literature citations, and each species description is followed by a list of selected references, providing the interested reader with an easy entry into the technical literature. Unfortunately, most of the papers cited are more than 20 years old; very few were published after 1970. This does not detract seriously from most accounts, but a great deal of information has been overlooked. For example, a 1948 publication is the most recent paper cited in a discussion of vole population cycles, and a biologist publishing in the 1930s is credited with having "made

the most complete studies of meadow voles in this country,"! In another case, the author seems to be unaware of information published during the last 10 years on selective feeding behavior of bats when he says of *Eptesicus fuscus*, "Probably any insect is acceptable."

Overall, the book is well-written and interesting. Dr. Gottschang has managed to avoid a common pitfall of assembling a series of dry species accounts. Each species description is somehow different in content and pattern so that reading the book from cover to cover is enjoyable. I was impressed with the large number of species that the author has studied in the field or laboratory. Anecdotes and personal insights into the behavior and natural history of these species adds credibility and interest, particularly for the lay reader. Despite certain shortcomings, this book will be a valuable addition to the library of biologists and layman alike, although the price will probably reduce sales to the latter group. Dr. Gottschang has, indeed, written a book that calls attention to "sizable gaps" in our knowledge of many species and that will stimulate further interest in Ohio mammals. He has made a solid contribution to the mammalogy of Ohio, one that will not be superseded in the foreseeable future.

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