

BOOK REVIEW

The Fishes of Ohio. — Milton B. Trautman. The Ohio State University Press, Columbus. 1981. 782 p + xxvi (8½" × 11"). \$32.50.

In 1957, Milton B. Trautman, now Professor Emeritus at Ohio State University, authored one of the finest regional fish books. His first edition of *The Fishes of Ohio* was unique in its approach by documenting historical changes in fish distribution in the face of man's encroachment and alteration of aquatic ecosystems. Its many attributes outweighed considerably the few shortcomings aptly pointed out by R. M. Bailey (Copeia 1959 (2): 179-181). Now, 24 years later, a revised edition of this classic work has been made available.

The objectives of the revised edition are to demonstrate and explain distributional changes from 1750-1980, and to provide keys to the 166 species of Ohio fishes. These aims are admirably achieved. The natural factors influencing distribution of fishes are discussed in Part I (12 p), which relates the geology, physiography, topography, hydrology, and climatic history of the region. Part I is unchanged from the 1957 edition except for use of metric units.

Part II (22 p) reviews changes that have occurred from 1750 until 1980, and is an excellent chronicle of modern man's alteration and manipulation of essentially every aquatic ecosystem in Ohio.

Part II has been expanded by 6 pages dealing with the conditions affecting the status and distribution of fishes over the period 1955-1980. In most cases, this information is disconcerting to the conservation-minded reader, but there are rays of hope, such as the recovery of the Scioto River below Columbus over those years.

Part III (15 p) is a listing of species, synonymy and nomenclatorial history for Ohio's fishes. Much space could have been conserved had it been configured differently by simply listing synonyms under the current name or including this infor-

mation in the species accounts. This section is updated to agree with the latest nomenclature (American Fisheries Soc. Spec. Publ. 12, 1980). Part IV (3 p) is an informative section on the systematics and nomenclature of fishes that is very useful to beginning students of ichthyology.

The glossary and family and species keys contained in Part V (72 p) are excellent. Many of the couplets, however, are quite voluminous, constituting virtual species descriptions, exceeding that necessary for identification and being redundant with the species accounts. Part VI (583 p) contains the major content of the book, the 166 species accounts. One organizational drawback mentioned by Bailey (1959) was the lack of comprehensive family and generic description contiguous with the species accounts; this situation has not been rectified. It is still necessary to thumb through several pages to gather characters of a given species. Perhaps the most illogical point of organization is the order of species accounts. Families follow generally accepted phylogenetic arrangements (cypriinids have now been moved ahead of catostomids in the new edition, etc.), but, beyond this, the order is difficult to follow, as species are grouped according to relationships (subgenera or species complexes), or similarities in appearance, a scheme only apparent to knowledgeable ichthyologists, and one which lacks a logical progression whereby the reader can easily locate a given taxon, thus constituting a considerable inconvenience in larger families. An alphabetical arrangement by genus and species would have been preferable. Reproduction verbatim of original accounts has resulted in chronological inconsistencies in some cases as, for instance, "recent changes" referred to in the 1957 edition are no longer such.

A second drawback alluded to by Bailey (1959) was the lack of biological information (feeding habits, reproduction, behavior, etc.) incorporated into the species accounts. Again, in 1981, this facet has been omitted. Trautman perhaps should

not be faulted for this, but information is available in the literature on a very high percentage of Ohio's fishes, and its inclusion would have resulted in one of the most complete fish references anywhere. Available space, otherwise wasted at the ends of accounts and, in some cases, in larger than necessary maps, could have been put to such use at little additional cost.

The updated range maps, a central focus of Trautman's approach, are excellent and obviously the result of endless efforts. Ohio is one of the most thoroughly surveyed of all states and to translate these data to visual understanding is an unenviable task for which the reader should be deeply appreciative. In a few cases the multiplicity of symbols is difficult to fathom but such instances are hardly avoidable without multicoloration. Distinct symbols are used for counties that have been stocked with a species. The inset North American range maps are roughly accurate in most cases, considering that Trautman did not have the new *Atlas of North American Freshwater Fishes* (Lee et al. 1980, North Carolina St. Mus. Publ.) at his disposal during rendition, but a gross inaccuracy or two has resulted. For instance, the range of the silverjaw minnow, *Ericymba buccata*, is not a continuous north-south expanse as depicted but rather is divided into northern and southern populations separated by hundreds of miles. Such inaccuracies, however, are diminished in the face of the overall fine quality of the work. Also of exceptional quality are the species illustrations originally rendered by Mrs. E. R. Weeks and Trautman himself for the 1957 edition. They are among the best of their

kind in a fish reference work, and serve well to facilitate identification of specimens in hand. Those intimately familiar with the species depicted may note some inaccuracies in head profiles of a few drawings and, as pointed out by Bailey (1959), a few scale row counts and fin ray illustrations are in error. The 21 beautiful color plates of Lydia Hart Green have again been presented in the revised edition.

The new edition of *The Fishes of Ohio*, featuring bolder, easier to read type, a much more efficient index, an attractive new jacket, and binding apparently as durable as that of the first edition is a welcome acquisition to those of us who have anxiously awaited its printing. As expected, it is the reincarnation of a classic ichthyological work complete with updated analyses of Ohio's ichthyological heritage. It certainly ranks with La River's (1962) *Fishes and Fisheries of Nevada*, Scott and Crossman's (1973) *Freshwater Fishes of Canada*, and Moyle's (1976) *Inland Fishes of California* as among the finest and most informative on a regional basis. As one who is currently involved in the attempted preparation of such a work, I can doubly appreciate the labors of Trautman and those who assisted him. I heartily recommend this work to scientist and layman alike. Anyone concerned with or otherwise interested in the fishes, aquatic environments, or general natural history of Ohio or eastern North America should consider this book a valued addition to their library.

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Editor's note. Some couplets of the cyprinid key lead to the wrong number. For example, on page 97 couplet 33 leads to 42. It should indicate 43. Likewise, couplet 36 refers to 39 when 40 is correct. There may be other instances in which the 1957 numbers are confused with the 1981 version.