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This book represents an updated and expanded edition of The Reptiles and Amphibians of Maine (Hunter et al. 1992). Like its predecessor, Maine Amphibians and Reptiles provides a general introduction to the herpetofauna of Maine that is directed primarily toward the amateur naturalist. While the core of the book has changed little since the first edition, several new features have been added that significantly increase the book’s utility for non-specialists. Regrettably, however, several aspects of the original edition that limited the book’s usefulness among herpetologists remain unchanged in the new edition.

The book opens with a brief preface, followed by several short introductory chapters. The first and second chapters provide cursory overviews of the evolution, natural history, and physiology of amphibians and reptiles, respectively. Both of these chapters are rather brief (two pages each), and focus only on the most fundamental aspects of amphibian and reptile biology. The following chapter is a brief synopsis of the physical geography of Maine and its influence on the distribution of amphibians and reptiles within the state. While this chapter may be potentially useful for interpreting biogeographical patterns, I believe its utility in this capacity would be greatly enhanced with the inclusion of a topographical map of the region. The fourth chapter, dealing with conservation, details the most serious threats facing the state’s herpetofauna and the steps that are being taken to counter these threats. Included in this chapter is a useful table that gives the current status of all amphibian and reptile species listed as endangered, threatened, vulnerable, or of special concern in the six New England states and five provinces of Atlantic Canada. Finally, the introductory section of the book concludes with a short chapter on finding and enjoying amphibians and reptiles, as well as a brief overview of the regional range maps that were incorporated into the new edition.

The introductory chapters are followed by a checklist of Maine amphibians and reptiles and a 16-page gallery of color photographs. In the checklist, subspecific names are given only for those species that are represented in the state by multiple subspecies. While this was presumably done to make the checklist less daunting to the non-specialist, I found this convention to be awkward and unbalanced. The color photographs represent a new and valuable addition to the book. Although the quality of the photos is somewhat variable and one (of Nerodia sipedon) is printed upside-down, nearly all provide a greater level of detail than that which is found in the line drawings that accompany each species account. As a result, the book is now more likely to be useful for purposes of identification.

The remainder of the book’s text is devoted almost entirely to accounts of the 38 species of amphibians and reptiles that occur (or have occurred historically) in Maine, including both the introduced mudpuppy (Necturus maculosus) and the extirpated timber rattlesnake (Crotalus horridus). These accounts were contributed by 27 different authors, ranging from amateur naturalists to professional field biologists. As a result of the number of authors and their diverse backgrounds, the species accounts vary somewhat in coverage, use of references, and overall quality. This potentially distracting heterogeneity is limited to some degree, however, by the consistent format adhered to by the authors. Each account consists of six to eight sections: Description; Voice (for anurans only); Taxonomic Status (for species having multiple subspecies); Distribution and Status; Habitat; Reproduction; Diet; and Interactions with People and Other Animals. In general, the species accounts have changed little since the first edition. Most have been revised minimally to incorporate information from recent studies published between 1991 and 1998. However, the accounts of the spotted turtle (Clemmys guttata) and wood turtle (Clemmys insculpta) were contributed by new authors and have been entirely rewritten. Also new to this edition are line drawings illustrating some of the diagnostic characters useful for identification purposes for each of the four orders of amphibians and reptiles that occur in the state. While these figures are useful additions, they do not include all of the characters that are referred to in the text. For instance, the number of dorsal scale rows is given as a diagnostic character to distinguish Storeria dekayi from Storeria occipitomaculata, but the figure summarizing the external morphology of snakes neither labels the dorsal scale rows nor illustrates how to count them accurately.

In general, the species accounts provide accurate information and sufficient detail for the intended audience. However, I did notice two errors in terminology in these accounts. First, in both the description of Bufo americanus (p. 73) and the figure illustrating the external morphology of anurans (p. 71), the parotoid glands are referred to as ‘parotid glands.’ Second, in the account of Terrapene carolina (pp. 148–149), the upper jaws are referred to as the ‘upper mandible.’

Following the species accounts is a short chapter dealing with “hypotheticals” (species that are known from nearby states or provinces but have not been documented in Maine), “accidentals” (va-grants that occur only sporadically in Maine, e.g., sea turtles), and “other oddities” (exotic species that have been found in the state but have not become established). This is then followed by a key to Maine’s amphibian eggs. This key is one of the most valuable of the new additions to this book. In fact, its utility and simplicity prompted me to wonder why no key was included for adults.

The final section of the book is devoted to the geographical distributions of individual species within the State of Maine. Separate maps are provided for each species, documenting their known distributions by township according to records derived from the Maine Amphibian and Reptile Atlas Project (MARP). Species occurrences are plotted onto the maps according to 3 or 4 different levels of verification: 1) a specimen was collected or photographed; 2) a specimen was handled, then released; 3) a specimen was seen, but not captured; and 4) a specimen was heard, but not captured (applicable to anurans only). I was pleased to see the increased size of the range maps in this new edition, which makes them much easier to read than those in the original edition. However, I was disappointed to see that many conspicuous gaps still
exist in these range maps, despite the incorporation of approximately 1200 new MARAP records. This undoubtedly results both from the natural tendency to focus search efforts on rare species (often having highly restricted ranges) and from Maine’s relatively low population density (the lowest of any state east of the Mississippi River). I also thought that it was unfortunate that no effort was made to incorporate distributional data from museum specimens. Despite these criticisms, however, these maps serve as useful preliminary approximations of species distributions and will hopefully motivate both amateur naturalists and professional field biologists to intensify their searches for amphibians and reptiles in Maine’s less populated areas (such as central and western Aroostook County).

Given its reasonable price, I can recommend this book to non-specialists with few reservations. New additions such as the color photographs, the key to amphibian eggs, and the included compact disc with recordings of anuran vocalizations have substantially increased the book’s overall utility. While the book was not written for herpetologists, it nevertheless stands as one of the most comprehensive modern accounts of the herpetofauna of any New England state. Although herpetologists will likely find Klemens (1993) to be a more useful resource for a general account of New England’s amphibians and reptiles, anyone having a specific interest in the herpetofauna of Maine should buy this book.

LITERATURE CITED


ERRATUM

In the March 2000 issue (vol. 31, no. 2, page 108), the range extension note for Aulura anomaia by Borges-Nojosa and Caramaschi was listed under Gymnophiona, when it should have appeared under Amphibiaeana.