

that includes mainland Labrador (accounting for the salamanders included), or that the generally arctic Nunavut extends south to include islands in Hudson Bay (accounting for the occurrence of a frog and a toad in the territory).

The foreword, an endorsement by Carolyn and David Seburn, rightly extols the book for its overriding themes of excitement in observing amphibians and reptiles, the need to treat them with respect, and the importance of conserving their habitats. But they overlook, or were unaware of, problems precipitated by generalizations and simplifications while copying information from the literature apparently without personal experience with many forms. Particularly misleading in all frog and toad accounts is that the num-

ber of eggs is followed by an "adults appear" which actually refers to when tadpoles transform, the resulting froglets are not "adults" (mature) for months or another year or more later. For all toads, spadefoots, and treefrogs only the aquatic habitats where they breed are given under "where they live" whereas most are terrestrial much of the year. Unfortunately, such "information" is as easily absorbed by the unwary and uncritical beginner as fact, and detracts from the otherwise commendable concept and aim of the effort.

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Conservation and Ecology of Turtles of the Mid-Atlantic Region: A Symposium

Edited by Christopher W. Swarth, Willem M. Roosenburg and Erik Kiviat. 2004. Bibliomania! books@bibliomania.com. 122 pages. U.S. \$22.50.

The Mid-Atlantic region of the USA (from Virginia to New York) is an area of exceptional turtle diversity, with 22 species (including four sea turtles). It is also an area under exceptional development pressure. A two-day conference was organized to discuss the status and ecology of the species affected and held in October 1999.

This volume brings together 11 peer-reviewed papers and 18 abstracts from the conference. The book begins with an introduction by the editors and the text of a keynote address by Michael Klemens, who briefly summarizes the conclusions from his book *Turtle Conservation* (2000; Smithsonian Institution Press). The papers cover only six of the possible species occurring in the area, with three papers on each of the Diamondback Terrapin and the Box Turtle, two on the Red-bellied Turtle and one each on the Blanding's Turtle, Bog Turtle, and Spotted Turtle. The papers cover a wide range of topics including nest predation, head-starting, habitat change detection, and population

ecology. Although the papers are peer-reviewed, they are of varying quality. One of the papers is barely more than a page in length and is little more than a report on the number of turtles caught at one site. From a conservation perspective, the most interesting paper is by Erik Kiviat (one of the editors) and various collaborators and deals with the response of Blanding's Turtles to wetland and upland habitat creation as part of a wetland mitigation project. Although the results are still preliminary (three years) Blanding's Turtles made use of constructed nesting sites and wetlands. It is interesting, however, that the turtles did not choose to overwinter in constructed wetlands.

This collection is not the definitive statement on the conservation of turtles in the eastern U.S. There are no papers (although some abstracts) on many topics, such as traffic mortality, or the effects of toxins, or genetic isolation. Nonetheless, it is a valuable snapshot of the wide range of activities being undertaken and it will be of interest to anyone involved in turtle conservation.

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For Love of Insects

By Thomas Eisner. 2003. The Belknap Press of Harvard University Press. Cambridge, Massachusetts, and London, England. 464 pages. U.S. \$29.95. Cloth.

Thomas Eisner is an entomological legend. His photo, on the dust jacket of this fine book, shows a middle-aged man cockily riding his bicycle, seated backward on the handle bars. Eisner is to entomology what Richard Feynman was to physics — brilliant, quirky, and full of good stories. If, for some reason, you need to be convinced of the fact that insects are among the most amazing creatures on earth, this is the book for you.

The preface to this book of insect tales compares Thomas Eisner to Jean-Henri Fabre, the pioneer writer on insect behaviour, who lived in the 19th century in the

south of France. E. O. Wilson, the preface's author, seems comfortable with this comparison, but to me they are two very different sorts of scientists. Fabre was a poor man, and a loner. His observations were conducted with no institutional support, and his genius (Darwin called him "the incomparable observer") was not recognized until Fabre was a very old man. Eisner, by contrast, is a hot-shot researcher at the top of his game, at what is probably the finest university for insect studies in North America (Cornell, in Ithaca, New York), surrounded by cooperative peers, graduate students, and lots of grant money. While Fabre's stories tell of hardship and isolation, Eisner's explore the life of a modern biologist in the publish-or-perish world of research science. (Publishing, by the way,

seems to come as easily to Eisner as sneezing comes to most of the rest of us.)

The greatest thing about Eisner, however, is that he keeps the passion alive, and dwells not on the institutional politics of science, but on his life-long fascination with the creatures that he studies. Eisner is a chemical ecologist, and thus the book is largely about insects and the chemicals they produce. But don't get the impression that it is technically difficult to understand. It begins with a chapter on bombardier beetles, and the amazing way that they spray boiling quinines out their butts, and direct them accurately into the faces of their enemies. This chapter, like the others, does a nifty little dance between the insects and their adaptations on the one hand, and the process of scientific discovery on the other. The rest of the book is just as spellbinding, and in it the reader is treated to such juicy tidbits as explanations of how living things can defend themselves with cyanide without accidentally committing suicide, along with a host of other marvelous insect adaptations, all skilfully elucidated by Eisner, his colleagues, and his students. The chapter on spider webs is wonderful. And if you think you understand insects and mimicry, this book will surely

expose you to vast unexpected dimensions to this supposedly simple phenomenon.

Thomas Eisner is also a superb photographer, and one of the other great strengths of this book lies in the pictures. He also uses clever illustrations to make his point, and is clearly the sort of person who is good at entertaining his undergraduate students while he teaches. All of this comes together masterfully, to create a very fine book indeed. Do I have any criticisms? Not really, although for a book about "insects" it contains a wealth of information on arachnids as well. I suppose Eisner and his publisher didn't want to use the term "arthropods," or the term "bugs" to get around this perennial problem. No—this is a superb book, and a book that naturalists at all levels will enjoy. At the weekly entomology luncheon at the University of Alberta, I found that many of my senior colleagues (very well-read and enthusiastic entomologists!) were amazed by how much they learned from "For Love of Insects." I enthusiastically agree, and recommend it heartily.

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The Freshwater Fishes of Manitoba

By Kenneth W. Stewart and Douglas A. Watkinson. 2004. University of Manitoba Press, 301 St. John's College, University of Manitoba, Winnipeg, Manitoba, R3T 2M5. xvii + 276 pages. \$29.95. Paper.

This book is a delight to read and use. The layout is innovative and the text is in an exceptionally clear font and is well written. The book is dedicated to the late Dr. Ed J. Crossman of the Royal Ontario Museum and co-author of the book *Freshwater Fishes of Canada*.

The freshwater fishes of Manitoba comprise 79 native species, 1 re-introduced species after extirpation, 10 introduced species, 2 artificial hybrids and 4 estuarine species from the Hudson Bay coast. This is the third most diverse ichthyofauna in Canada after Ontario and Quebec. Fifteen species from waters outside, but neighbouring Manitoba, are included as they may eventually be discovered in the province. There are various introductory sections such as biogeography, geography, species diversity patterns, and summary sections like a glossary and a checklist, usually found in fish books. There is also an appendix which summarises fish distributions by watershed and a list of references. There is no index but the unique layout assists in navigating the pages.

The presentation of the book is very attractive and easy to use. Each family account with its species has a unique colour which appears in text headings, scientific and common names here and in tables elsewhere, and along the upper half of the outer page margin (outlining the English and French names) which allows rapid flipping as a search mechanism. It is immedi-

ately obvious when one moves from one family to another in the text and quick searches for a particular group are facilitated. The scientific and English family name is at the top right and left of each page and also allows rapid flip searches.

The series of habitat photographs in the geography section are excellent, and have descriptive comments. One, showing the lower Churchill River could be almost anywhere in the vast boreal forest except for that peculiar hazard to Manitoban freshwater ichthyologists, a Polar Bear paddling by.

Each species account gives the English, French and scientific names, a colour photograph of the fish, a section on Identification with key characters in bold (sometimes only a single, short sentence for distinctive species), a Distribution in Manitoba, Biological Notes including spawning, growth and adult size, feeding, habitat, and ecological role, and Importance to People. The latter refers to commercial, angling, ecological and conservation importance. There is no lengthy anatomical description of the species as is seen in most fish books, characters being restricted to those used in identification with some explanation of colour variations and amplification of characters from the Keys.

All the fish illustrations are ideally positioned in the species description rather than grouped as colour plates. These photographs are generally excellent, although some key characters such as mouth parts are not evident and a close-up photograph of them would have added to the reader's understanding.