

foot reaches out to the side and the foot flexes and drags sand and pebbles into the hole. When the hole is partly full, the female braces on her front feet and tail to form a tripod, makes a 'fist' of her hind feet and swings side to side punching the earth tightly in the nest. This whole process can only be described as beautiful beyond words."

Interspersed among the species accounts are "side-bars" of general interest: "Are Turtles Immortal?", "More Park Roads Would Mean Less Protection for the Park's Threatened Wildlife", "Hidden Talents", "Getting launched in life", "Salamanders and the danger of acid rain", and "Are frogs and other amphibians declining in Algonquin Park".

An attractive visual feature of the publication is the 138 colour photographs. These illustrate adults of all 31 species (5 turtles, 9 snakes, 7 salamanders and 10 frogs, treefrogs and toad) covered by the text. As well, they include juveniles and eggs of most, some key features, and habitat and field workers in Algonquin Park. There are four maps of approximate northern range limits for various groups of reptiles and the number of days above 18°C (from 250 and more for the most southern group to 100 and less for the Common Garter Snake). Two line drawings illustrate snakes'

belly scales, spilt (divided) and unsplit "cloacal" (anal) scales, and smooth and keeled scales. Ten mini-drawings depict representative species of the 10 families listed in the table of contents.

In contrast to the "cutting edge" information throughout most of the book, the account of the Blue-spotted Salamander complex has not been well updated; particularly noticeable is the omission of Canadian work of the last decade from University of Guelph (James Bogart) or the Royal Ontario Museum (Bob Murphy and Les Lowcock). Missed in the "Further Reading" section is *The Royal Ontario Museum Field Guide to Amphibians and Reptiles* by Ross MacCulloch (reviewed in *The Canadian Field-Naturalist* 116(4): 653-654), published in 2003 but perhaps not until after the Algonquin text had been prepared.

For any naturalist visiting Algonquin Park, this book is a must, but others, even if they will never go there but want to increase their appreciation and general knowledge of amphibian and reptile behaviour and adaptation, will find the text a joy to read cover to cover.

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Herpetology in Montana: A History, Status Summary, Checklists, Dichotomous Keys, Accounts of Native, Potentially Native, and Exotic Species, and Indexed Bibliography

By Bryce A. Maxwell, J. Kirwin Werner, Paul Hendricks, and Dennis L. Faith. 2003. Society for Northwestern Vertebrate Zoology, Olympia, Washington, Northwest Fauna Number 5. viii + 138 pages.

This meticulously prepared analysis of state distribution and literature justifiably bills itself as "the most thorough compilation of information on Montana's herpetofauna to date". It covers 12 amphibian and 17 reptile species regarded as native in the state in individual species accounts as well as a review of 7 additional species or subspecies which are possibly native and 13 species or subspecies that have been reported as exotic.

An initial 10-page history of Montana herpetology is followed by a summary of information on, and status of, the herpetofauna. Seven figures present chronological summaries of voucher and observation records, of major contributions, of articles and percentage contribution by types of literature, the number of articles by species, and maps of number of amphibian and reptile species by county. Checklists for the native amphibia and reptilia are followed by keys to amphibian eggs, larvae, and adults juveniles and to adult and juvenile reptiles.

A five-page introduction to the species accounts discusses the spot distribution maps (39 institutions provided information on 3396 amphibian and 1240 reptile voucher specimens and contained 3286 and 1163 mappable locality data, respectively; 4654 amphibian

and 2349 reptile observations from a variety of sources were also mappable). After the first mapping of this data base extralimital or otherwise questionable records were verified by contacting the museum or observer and a number of errors of identification were found, as well as some where verification was not possible because the museum specimens were now missing. The authors stress that anyone conducting primary research should confirm the interpretations of localities presented for museum voucher specimens by contacting the institutions directly.

The bulk of the text (pages 30 to 105) presents the species accounts which include a distribution map for each species with the total records on which the map is based, general comments, earliest records (literature and voucher specimen), maximum elevation voucher record, a voucher record summary by county, and a bibliographic index by topic. There is no field data, no descriptions (other than the keys) and no ecology or behaviour. The only illustrations are on the front (Western Rattlesnake) and back (neotenic Tiger Salamander and head views of Western Rattlesnakes) covers reproduced from the literature of the 19th century.

A notable exclusion from the verified species list (but included in the "potentially native" list) is *Bufo hemiophrys*, widespread over much of Alberta and Saskatchewan to the north. It was recorded only in the northeastern corner of the state by the late Jeffery Black in his surveys in the late 1960s and early 1970s and no

voucher specimens can now be found. Another Black Montana record, the Spotted Chorus Frog, *Pseudacris clarkii*, is here relegated to the "exotic species" list, as based on misidentification of green-spotted variants of the widespread and abundant Boreal Chorus Frog, *Pseudacris maculata*. This is certainly the correct interpretation as similarly patterned individuals are present in adjacent populations of Boreal Chorus Frogs in Alberta and Saskatchewan (FRC, personal observations).

A bibliographic index of amphibian/reptile guides for Montana and surrounding states and provinces has surprisingly omitted The British Columbia Museum Handbooks to amphibians by Carl first published in 1943, and by Green and Campbell in 1984 and to reptiles by Carl first published in 1944 and by Gregory and Campbell in 1984. Perhaps they are regarded as superseded by the more recent publications listed for American authors which include British Columbia.

Guide to the Reptiles of the Eastern Palearctic

By Nikolai N. Szczerbak. Technical Edit by Michael L. Golubev. 2003. Krieger Publishing Company, P. O. Box 9542, Melbourne, Florida 32902-9542, 250 pages. Cloth U.S. \$73.50 ISBN 1-57524-004.1.

The text was originally prepared to cover the 22 million km² (11 million of which is affected by permafrost) of the Union of Soviet Socialist Republics but the subsequent breakup of that political entity necessitated retitling. As the former USSR encompassed much of Palearctic [Palaeartic of some texts] of zoogeographers, exclusive only of western Europe and southern Asia, the revised title is appropriate. The author, Nikolai N. Szczerbak (1927-1998) had excellent credentials as a long-time staff member of the zoological museum of the Ukrainian SSR Academy of Sciences Zoology Institute and, later, the Ukrainian Natural History Museum. He participated in almost 60 expeditions, visiting every area of the USSR, and authored or coauthored 24 monographs, 12 popular science books, and close to 300 scientific articles. From the title one expects a volumen equivalent to the 1999 *Amphibians of the Former Soviet Union* by S. L. Kuzmin (reviewed 2002 in *The Canadian Field-Naturalist* 116(4): 665-666) but much less detail is delivered here, not surprising in that over four times the number of reptiles are covered compared to the amphibians (165 vs 40).

There are only 11 pages of introductory general material and a herpetological overview of the eastern Palearctic and its subdivisions. The bulk of the text, 220 pages, is keys and species accounts. The latter give Distribution (for former USSR and extralimital), Natural History (including habitat, food, activity, fecundity, incubation or gestation, size at hatching or birth, age of maturity and maximum size), Status (abundance and if at risk), References and Remarks, the latter including taxonomic notes and subspecies recognition

Canadian provincial guides to Alberta and Saskatchewan, however, are included. A bibliography includes 543 entries. A detailed form for reporting incidental observations and a map of Montana counties conclude the book.

The thoroughness of preparation and evaluation of records make this volume a notable contribution to the growing effort to produce detailed state atlases. When the records are as carefully evaluated as they are here, they have broad use, not just for conservationists and zoogeographers, but for keen field naturalists who want a base-line of information in order to evaluate their own past and future observations for potential significance.

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and range. There is an outline map of the former USSR for each species with the range indicated in black. The centre of the book has 194 adequate colour photographs depicting habitats (half page each) and species and subspecies (a third of a page each), the latter most often on natural backgrounds.

A total of 168 species (55 genera) are recognized for the region. Included are 7 species (5 genera) of turtles and tortoises; 98 (25) lizards; and 63 (25) snakes. This contrasts with 39 species (26 genera) of reptiles for Canada where there are 8 (7) [exclusive of marine and introduced species] turtles; 6 (3) lizards; 25 (16) snakes. The disproportionate numbers of snakes and lizards in the eastern Palaeartic is largely due to more extensive southern latitude arid areas included where a greater diversity of reptiles have evolved, as in the arid southwestern United States. All three turtle families represented have species in Canada, as do 3 of the 6 families of lizards and 3 of the 6 families of snakes. No species and few genera are common to Canada, only the large "catch-alls" of the latter, *Eumeces* for the lizards, and *Coluber* and *Elaphe* for snakes. For them, eventual revisions will likely distinguish a nearctic group from the palearctic one as already has been accepted for the turtles *Emydoidea* and *Emys*, and snakes *Nerodia* and *Natrix*.

The book concludes with a 13-page bibliography, including many papers in Russian [with translated titles], mostly from the 1980s and early 1990s, none later than 1996.

Overall this useful summary of knowledge of the northeastern Palearctic herpetofauna to the mid-1990s has much to stimulate the comparative zoogeographer and/or ecologist.

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