

Book Reviews

ZOOLOGY

Amphibians and Reptiles of British Columbia

By Brent M. Matsuda, David M. Green, and Patrick T. Gregory. 2006. Handbook, Royal British Columbia Museum, Victoria, British Columbia. 266 pages. \$17.33.

The British Columbia Provincial Museum (now the Royal British Columbia Museum) was second only to the Royal Ontario Museum to issue guidebooks to their provincial amphibian and reptile faunas for the public (by E. B. S. Logier in 1937 and 1939 for Ontario, and Clifford Carl in 1943 and 1944 for British Columbia). The Carl guides (Handbooks 2 and 3) subsequently went through reprintings with some revisionary material added in 1951 and 1968. In 1984 completely rewritten guides were published on reptiles (Handbook 44 by Gregory) and amphibians (Handbook 45 by Green), both coauthored with R. Wayne Campbell.

Now a new handbook (unnumbered) is a combined revised and partially rewritten text from the earlier Green and Gregory texts with updated distribution maps and the addition of a new coauthor. The previous authors are long-established, still active research herpetologists with extensive publications, Green primarily on frogs (in the broad sense including, as well as typical "frogs", toads, treefrogs, spadefoots, tailed frogs) and Gregory primarily on snakes but also including lizards, turtles and some amphibians. Dr. Gregory has spent his entire post-graduate career at the University of Victoria; Dr. Green was born British Columbian but his post-graduate career has been at the Redpath Museum at McGill in Quebec. Both have extensive field experience in British Columbia. The new addition, Matsuda, is characterised in the tongue-in-cheek authors' profiles (page 258) as an "overachieving ectotherm" (although this is surely not a unique characterization within this triumvirate) with a UBC M.Sc. who is now settled in British Columbia as an environmental consultant.

This handbook, like its predecessors, follows a standard guide layout. Preface, introduction (covering a wide range of aspects of amphibians and reptiles in general), checklist and conservation status, individual species accounts (for 39 species of which 4 are definitely and 2 possibly introduced) and a further section which includes additional introduced species which apparently have not persisted or whose occurrence is only speculative, an appendix which gives contact information for regional authorities, glossary of terms, bibliography (divided into additional reading and references), acknowledgements (about authors with illustrator credits) and an index. The black-and-white text

drawings are mostly repeats from the earlier guides except for newly included wall lizard and all of the amphibians. A few of the latter are superior to those of the earlier amphibian guide but many are not. The new salamander drawings are particularly disappointing with the number of costal grooves shown rarely agreeing with the counts given in the text. However, all are sufficient for identification. New are 60 small colour photographs inserted between pages 186 and 187.

Additions since the last guide new to British Columbia and Canada are the secretive salamander *Plethodon idahoensis* and the introduced European wall lizard *Podacris muralis*. Also new is the conclusion from molecular evidence by T. R. Jackson in 1998 that the *Aneides* salamander on Vancouver Island is an import with bark from California, *A. vagrans*, and not the geographically closer *A. ferreus* to which it had long been assigned. Other nomenclature updates from recent revisionary studies are *Dicamptodon tenebrosus*, *Ascaplus montanus*, *Spea intermontanus*, *Actinemys marmorata*, *Pseudacris maculata*, *Rana luteiventris*, *Pituophis catenifer*, and *Crotalus oregonus*. One accepted elsewhere that was not made is *Pseudacris* for *Hyla regilla*, and the more controversial generic changes *Lithobates* for *Rana sylvatica* and *Rana pipiens* (but not for *R. aurora*, *R. pretiosa*, and *R. luteiventris*) and *Anaxyrus* for *Bufo boreas*, even though one of the authors (David Green) is a coauthor on the paper detailing the latter changes (American Museum of Natural History Bulletin 297).

Many incidental facts liven the text (such as the observation that frogs always close their eyes when they leap (page 14)), that frogs can "hear" ground-borne vibrations by transmissions through their front legs (pages 21-22) and that females of many turtles species can store sperm from a single male for up to four years (page 32).

The marine *Cadborosaurus* and the Okanagan Lake "Ogopogo" are only mentioned under folklore (page 49) with the (arguable by some) statement "Sporadic sightings of these beasts continue, but evidence of their existence is lacking."

Few slips were missed in proofing such as the failure to italicise *Hyla versicolor* and *H. chrysoscelis* on page 29, and the only British Columbia specimens of the horned lizard *Phrynosoma* given as "two near Osoyos in 1898" on page 182 but as "two records from Osoyos area in 1910" on the facing page 183 (the first is correct).

This guide brings British Columbia herpetology effectively into the 21st century as to be expected from the distinguished authors. It is a must for any west coast naturalist's bookshelf and/or field jacket with an out-sized pocket.

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Blue Grouse: Their Biology and Natural History

By Fred C. Zwickel, and James F. Bendell. 2004. National Research Council of Canada, Ottawa, Ontario. 284 pages. \$69.95 Paper.

This monograph is the culmination of two lifetimes devoted to studying Blue Grouse population biology and behaviour, both in the field and in aviaries, predominantly in coastal British Columbia. One of the advantages of a lengthy monograph is that the authors were able to synthesize much unpublished data and "gray" literature in addition to published references, making it the most comprehensive reference on this species group that is currently available. As such, it is not a book for the general reader of natural history (the colour and black-and-white photographs scattered throughout are quite small), but a scientific reference full of tables and graphs and lots of detail (there are 12 pages each of references and results of statistical tests).

Unfortunately, only two years after Zwickel and Bendell's monograph was published, the American Ornithologists' Union (Banks et al. 2006) re-split Blue Grouse into two taxa, *Dendragapus obscurus* in the Pacific Coast Range and the Sierra Nevada, and *D. fuliginosus* in the Rocky Mountains. These two taxa had originally been considered two species (Brooks 1929), but were conspecific for most of the 20th century. The re-split resulted from the recent DNA-based work of Barrowclough et al. (2004), who also found that the New Mexico populations of Dusky Grouse were perplexingly different, but not enough to consider them separate species. Populations in the northern parts of the range (i.e., north of the Chilcotin in central B.C., through to Alaska) were not included in the Barrowclough et al. study, but the separation into coastal and inland species is assumed to hold true. Unfortunately, the AOU split makes the monograph more difficult to use, but in their favour, Zwickel and Bendell use the scientific names, often with full trinomial reference

to the eight accepted races at the time of publication, throughout, as well as referring to "coastal" and "interior" subspecies analogous to the new split. I recommend that the serious reader really study the chapter on taxonomy and distribution with Barrowclough's paper (available on the internet) in hand.

As a serious naturalist, I found the chapters on historical review, physical environment, integument (plumage especially), behaviour, habitat use and movement, population parameters, predators and disease the most interesting. The seven chapters on form and function – integument, morphology, reproduction, growth and development, food and nutrition, energetics and genetics – will be of interest mostly to serious students of Blue Grouse.

Although Zwickel and Bendell refer to studies from other parts of Blue Grouse range, they admit that the strong focus on the coastal species (*D. fuliginosus*) is unfortunate because there are a number of characteristics, such as vocalizations, that are clearly different between the two species. The authors hint at a future publication that will explore the population ecology of Blue Grouse, and it is to be hoped that they are able to overcome this geographical disparity.

Literature Cited

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Birds of Peru

By Thomas S. Schulenberg, Douglas F. Stotz, Daniel F. Lane, John P. O'Neill, and Theodore A. Parker III. 2007 Princeton University Press. 656 pages. U.S. \$49.50 Cloth.

In 2001 I was delighted to find *Birds of Peru*, by J. Clements and N. Shany. It was a good modern field guide and proved its worth in Peru. However, there were a few times when I needed to borrow a more comprehensive text to be certain of my identification. Now

we have a new guide by Schulenberg et al. and the obvious question is whether it is an improvement.

The first difference is that the new guide has range maps. This means I do not have to struggle with phrases such as "on the east bank of the Rio Utacamba at the south end of Cordillera de Colon." [Marvelous Spatule-tail] Now I can look at the map and have an immediate understanding. The range maps are conveniently set