

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 One of the advantages of a lengthy monograph is that the authors were able to synthesize much unpublished data and "gray" literature in addition to published references, making it the most comprehensive reference on this species group that is currently available.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

next to the text in what is normally the margin, making great use of space. This alone is a great improvement.

Peru has about 1800 species or one fifth of the world's birds. Most sources cite this vague number. The few that are more precise give numbers that vary by up to 100 species. It is not surprising that a state of flux exists in such a vast and complex area. This book covers 1792 species which is probably as good as you do under such fluctuating circumstances. Trying to reconcile the list of species covered by both books or given in other sources is very difficult. It is a bit like trying to compile a list of "honest" politicians. The new book drops some questionable records like Plumbeous Ibis [one old, suspect, badly labeled specimen] but adds Bogota Rail [based on a current valid sighting.] Some birds are treated by Shulenburg as sub-species; Andean Ibis is listed as a sub-species of Black-faced Ibis whereas other sources give it full species status. There are complications due to name changes. For example, there are four toucans listed in both books. However, the names do not correlate well. This includes the scientific binomials, normally a very stable source of information. The old book has Toco Toucan *Ramphastos toco*, Black-mandibled Toucan *Ramphastos ambiguus* Yellow-ridged Toucan *Ramphastos culminates*, and Cuvier's Toucan *Ramphastos cuvieri*. The new book has Toco Toucan *Ramphastos toco*, Black-mandibled Toucan *Ramphastos ambiguus* plus White-throated Toucan *Ramphastos tucanus*, and Channel-billed Toucan *Ramphastos vitellinus*. The last two are new names for Cuvier's and Yellow-ridged Toucans. [Speciation in the whole toucan complex is confused.] I also noted that Andean Flamingo and James's [Puna] Flamingo have been updated to *Phoenicoparrus andinus* and *Phoenicoparrus jamesi*, respectively, but the Guanay and Red-legged Cormorants

have not been changed to *Leucocarbo bougainvillii* and *Leucocarbo gaimardi*. So those with a penchant for lists may need to do some research. That being said, this book is more than adequate as a field guide for the resident and visiting birder alike.

The color plates are opposite the descriptions and distribution maps. There are 13 illustrators, so there is some difference in style. The most disparate are Laurence McQueen and John O'Neill. O'Neill's work has the precise, almost photographic rendering we see in most modern field guides. McQueen's paintings are more flowing and look like paintings. My junior school art teacher would have said they were more "painterly." Daniel Lane's work is somewhat in between these two styles. Which style you like is a matter of taste. I have looked at many of the illustrations for accuracy and can find no problems. In fact, I particularly like the toucanets by O'Neill and the jaegers by McQueen. There are 4000 color illustrations at about six to a plate, meaning the illustrations are quite large [again the publisher has used the margins].

In addition to the species accounts there are well-written sections on Habitats, Molts-and-Plumages, and Conservation. In particular the terminology used for habitat in the species accounts is clearly documented. The text in the species accounts covers the key identification features, status, distribution, and song.

This book will please birders and biologists living in or visiting Peru. It is also useful beyond the borders of Peru into adjacent areas of South America. It is a little on the heavy side for dragging through a hot jungle, but what else can you expect with such an enormous bird list.

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The Freshwater Fishes of British Columbia

By J. D. McPhail, illustrated by D. L. McPhail, foreword by Joseph S. Nelson. 2007. University of Alberta Press, Edmonton. lxxiv + 620 pages. \$90.00.

This book is the latest treatment covering the freshwater fishes of British Columbia. Earlier books appeared in 1948 (132 pages) and 1967 (192 pages). They were published by the British Columbia Provincial Museum (now Royal British Columbia Museum) while the latest book is published, strangely, in Alberta. The present volume is 694 pages long with a larger format and is indicative of both the growth in knowledge and the need for a comprehensive work on this provincial fauna.

The book is composed of introductory sections covering purpose, use of keys, names of fishes, layout of the book, origins of the fauna, present distributions, and conservation. The sections on glacial events and

current distributions are a very useful synthesis as is the discussion on what a species is and why the various forms of sticklebacks and others have not been named taxonomically.

The bulk of the text is the descriptions of species. Family accounts give general information on the included species and the identification keys are found there. The species accounts are preceded by a pictorial key to families that works for the more distinctive body shapes but would have benefited from some annotations for those fish that are more similar in shape to enable the naïve reader to correctly identify the family. It is always a debate as to whether keys should be with the family or should form a separate section. The former works when reading through the book but the latter is much easier for the actual identification process in a laboratory or the field. The keys are well illustrated al-