

latter still to be published) do so now; British Columbia and the Maritimes are both using point counts in their current protocols. These will establish a baseline of species' abundance that can be used to compare with subsequent efforts.

Overall though, this is a very well-written and illustrated book that will not only inform about current and past breeding distribution, but give some basic biology of New York's birds as well.

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Birds of Europe, Russia, China and Japan: Non-Passerines Loons to Woodpeckers

By Norman Arlott. 2009. Princeton University Press, 41 William Street, Princeton, New Jersey 08540-5237 USA. 240 pages. 29.95 USD. Paper.

When I received the first volume [or is it the second?] companion book [*Birds of Europe, Russia, China and Japan: Passerines*] my wife and I were due to visit China and Mongolia. This trip was cancelled due to earthquakes and a Muslim insurgency. Just as we decide to revive our trip to China [by sea, with stops in Japan and eastern Russia] this second book makes a timely arrival.

Between the two guides Arlott covers approximately 1800 bird species in Europe, Asia north of the Himalayas, Africa north of the Sahara Desert, and the Middle East excluding the Gulf countries. This new volume covers seabirds, ducks, shorebirds, gulls and terns, raptors, owls, swifts, hummingbirds, cuckoos, and pigeons. Despite the author's statement that he has covered all the birds recorded up to early 2008, I immediately noticed that the White-eared Night-heron *Gorsachius magnificus* is missing. It is found in China [and Vietnam] and numbers less than 1000 so is not likely to be seen by a visitor. Also Formosan or Taiwan Blue Magpie (*Urocissa caerulea*), an endemic bird from a small area in the mountains of Taiwan, is missing. More important to me, however, is the good coverage of seabirds along the China-Japan-Russia coasts. However, this also points out the one real failing of these two books. The adult, white-and black, short-tailed Albatross is nicely illustrated from above and below, but the all brown juvenile [and the one that could be confused with a juvenile Black-footed Albatross] is not shown. I think we must accept this in books that cover 1800 species and, combined, are two thirds the size of my Sibley's [The Sibley Guide to Birds, by David Allen Sibley, National Audubon Society, which covers only 810 species]. Generally it is only adult plumages and all but the raptors, seabirds and swifts are not shown in flight. These details are most significantly missing in the gulls. Here wing patterns and the sequence of moults are very important.

Norman Arlott, a leading and experienced bird artist has illustrated and described the adult plumage of the non-passerine birds of this region. As before, the illustrations are top quality and, in this book, the printer has

achieved better quality control. The European Bee-eater is a good example as it has both the correct hue and saturation ["colour" and "depth of colour"]. Cramping together so many species has led to some proportional errors. For example, the Rufous Hummingbird is 30% bigger than it should be compared to the African Grey Hornbill on the same page. Once I realized this, I looked at other illustration more carefully. I noted several species are not quite to scale. For example the Gyr Falcon is a mere 14% bigger the Peregrine next to it, when it should be twice that. Similarly, the Cape Pigeon should be larger than the neighbouring Murphy's Petrel.

There is one page that covers eight species of snipe and two woodcocks. While Arlott has depicted the minute differences accurately [in, for example, the width of the supercilium] and he does give basic differences in the text, it would be hard to use this plate in the field. Therefore I would not recommend this book for beginners. People with experience or novices with a more detailed text [like Sibley's] will find it a splendid reference. I look forward to using it in the fall. It will jog my memory of details about such birds as Slaty-backed Gulls, Wedge-tailed Shearwaters and Oriental Turtle Doves.

I used the mask I created for the first book [Made from a piece of clear plastic sheet with the outline map traced in blue, and I added transparent green to cover the region I now plan to visit.] By placing the mask over each map and I can quickly see if I will be in any bird's range. The range maps are 2" x 7/8" [5 x 2 cm] and again cover from Britain to Kamchatka, from Svalbard to Northern India. I have found this to be a rewarding exercise, especially for the open sea of the north Pacific — an area seldom visited by birders. It will be interesting to see how well my predictions work out. In particular, the range map for Lesser Black-backed Gull shows a winter distribution on the coasts of southern Japan and China. This is not supported by any other publication. It could be that Arlott has included the range of a bird once considered a sub-species of Heuglin's Gull as "*Larus heuglini taimyrensis*." This

Lesser Black-backed Gull-like bird is now considered a hybrid of *Larus heuglini* and *Larus vegae*. This controversial bird winters in very small numbers in the area depicted.

So once again I believe Princeton has published a very useful guide for the traveller. This book may not

be ideal for all birders, but for those of us who have to be concerned with weight and size, this compact volume is a gem.

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Carnivores of British Columbia

By David F. Hatler, David W. Nagorsen, and Alison M. Beal. 2008. Royal British Columbia Museum, 675 Belleville Street, Victoria, British Columbia V8W 9W2 Canada. 416 pages. 27.95 USD.

Carnivores of British Columbia is the fifth in a series of six books to replace and update the 1964 handbook, *The Mammals of British Columbia* by Ian McTaggart-Cowan and Charles Guiguet. The first four of the series cover (1) bats, (2) opossums, shrews, and moles, (3) hoofed mammals, and (4) rodents and lagomorphs. The sixth volume will cover marine mammals.

This well-researched volume covers 21 carnivores that occur in British Columbia. The carnivore families presented include the canids, ursids, procyonids, mustelids, and felids. Although carnivores as well, the five species in the Phocidae (haired seals) and Otariidae (eared seals) families will be included in the marine mammal volume.

The book begins with a general biology section that discusses why an animal should belong to the Order Carnivora – a central theme in the ecology of the carnivore group as a whole is the procurement of food by predation. Unique features that set carnivores apart from other mammals include canine and carnassial teeth, relatively heavy skulls with strongly developed facial muscles, and clawed digits on each foot. Carnivores tend to travel widely in search of prey, search out new territories, and other activities that require long ventures. Carnivores have keen senses and large brains, needed to help track down food, as well as to avoid danger and interaction with other species. The general biology section also covers resting and den sites, movements, home range and social behaviour, reproduction, mortality, health, and longevity.

The biogeography of British Columbia is included to provide the reader with the geographic background and a required land mass orientation lesson on the distribution of British Columbia carnivores within the 10 ecoprovinces. The first table in the book provides a handy reference where the reader should expect what carnivore species is in what ecoprovince. Some species, such as the coyote (*Canis latrans*), occur in all 10, but others, such as the sea otter (*Enhydra lutris*), occur only in one (but may have a minor occurrence in another). Following the general biology section is a checklist of species, an identification key, and a skull key.

The species accounts for the 21 British Columbia carnivores follow the same order as the checklist, which is on pages 41 and 42. Each account includes a drawing of the animal and the skull. Each account is tailored to British Columbia, making the information relevant for that specific geographic region. If a particular ecological aspect of a British Columbia carnivore is not well researched, information about that carnivore from other studies outside of British Columbia is used to fill the data gap. The information in the species accounts is divided into nine sections: (1) other common names, (2) description, (3) distribution and habitat, (4) natural history, (5) human uses, (6) taxonomy, (7) conservation status and management, (8) remarks, and (9) selected references. These sections provide an adequate and comprehensive ecological study of the species, and are a result of more than 40 years of research published in peer-reviewed journals, and other sources. Each account has a distribution map specific to British Columbia showing both museum and harvest records, and throughout most accounts are other relevant black-and-white photos. For example, on page 117, there is a picture of black bear (*Ursus americanus*) claw marks on a poplar trunk, showing the reader what might be encountered in the field.

At the end of the book is an appendix listing the scientific names of organisms mentioned in the book, as well as a glossary, and a list of references. Overall, the book is well organized and written. Unfortunately, the handbook does not have a colour plate section showing the 21 carnivore species, although publication costs were the likely reason it was not included. *Carnivores of British Columbia* is an excellent addition to the six-part series, and anyone interested in the carnivorous mammals of British Columbia will be in good hands with this volume.

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