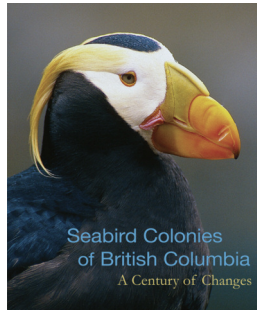


ORNITHOLOGY

Seabird Colonies of British Columbia: A Century of Changes

By Michael S. Rodway, R. Wayne Campbell, and Moira J.F. Lemon. 2017. *Wildlife Afield*, Volume 13, Numbers 1 & 2, January–December 2016. Biodiversity Centre for Wildlife Studies. 298 pages, 40.00 CAD, Paper.

This book provides a detailed synthesis of knowledge on the distribution and status of 16 species of colonial seabird (two species of storm-petrel, three cormorants, one shorebird, one gull, and nine alcids) that had nested in British Columbia (BC) up to



1990. One additional species has since nested in the province, that being Black-legged Kittiwake (*Rissa tridactyla*). When I began reading this book, I was disappointed to read that the cut-off date for data summaries on these colonial seabirds was 1990 (the last year of focussed surveys and associated comprehensive provincial population estimates by the Canadian Wildlife Service). However, as it turns out, even though the cut-off date for detailed data inclusion is 1990, the book actually contains substantial information for at least some species up to 2015.

The book begins with a tribute to Harry Carter, one of the important contributors to seabird monitoring and research in BC, followed by introductory chapters that provide an overview of how the species for the book were selected, important attributes of BC's coastal environments, the history of seabird monitoring and research in BC, and detailed discussions of survey methods, data presentation, and population estimation. There is some repetition between these introductory sections and the species accounts, but it is useful to have all of the survey history and methodology summarized initially, even if some of those same topics recur in later parts of the book (albeit with different levels of detail).

The heart of the book for most readers will be the species accounts. These occupy roughly a third of the book. Each species account provides general information on the species in BC, as well as sections on appearance, breeding, and conservation. Detailed tabular sum-

maries of numbers of nests/burrows and numbers of birds observed at each colony are provided, accompanied by cartographic summaries showing the relative size of each colony and its location along the coast. One of the interesting additional attributes of each species account (and of other parts of the book) is the sidebar that provides anecdotes about the species, about incidents that occurred during the surveys, or about relevant contributions of some of the surveyors, all of which add to our understanding of these species and the challenges involved in monitoring them. Each species account also is accompanied by a line drawing and usually several black and white photographs of the bird and/or its colonies. These accounts are fascinating and provide insights into each species' biology. For example, although Brandt's Cormorant (*Phalacrocorax penicillatus* [unfortunately misspelled *penicillatus* in the book]) is rather rare and localized as a breeder in BC, numbers build in the late summer from colonies further south along the American west coast, so that the species is relatively common and more widespread on the BC coast during fall, winter, and early spring, before the southern birds return to their breeding colonies.

Following the species accounts, additional chapters cover threats to seabirds and their colonies in BC (including direct exploitation, logging and erosion, man-made obstacles, real estate-associated development, mariculture, commercial fishery interactions, oil pollution, plastics and other pollutants, parasites and diseases, natural predators, introduced species, climate change and associated oceanic changes, and natural disturbances). There is also a section dealing with conservation measures and recommendations. The final part of this book is the Literature Cited section, which is often ignored by readers unless they are searching for a reference. However, in this book, the section is sprinkled with photographs that supplement or further explain the results of some of the papers cited. I really enjoyed reading the captions of these photographs, which add value to the Literature Cited section, in my opinion (an unorthodox approach, but welcome).

There is one subsection in the “Conservation Measures and Recommendations” section dealing with legislation and conservation status listing of species that I disagreed with, particularly with regard to peripheral or range-edge taxa. There are varying opinions as to how such taxa should be dealt with. Although I agree that there may be higher priority species that should be listed before range-edge ones, I do not agree that range-edge populations are not likely to be genetically diverse. No evidence is provided for this proposition, yet, in other groups of organisms (e.g., various angiosperms), there is ample evidence that important evolutionary processes occur in range-edge populations. Furthermore, range-edge populations may become source populations for northward colonization as climate changes (not necessarily a reason for listing, but certainly a reason for certain types of conservation action).

When reading this book, it is important to remember that the context for the species accounts and discussion is BC-focussed. For example, observers on the coasts in

the Maritime Provinces might be bemused by the suggestion that Double-crested Cormorant (*Phalacrocorax auritus*) could be called “Freshwater” Cormorant; certainly, it is the cormorant most likely to breed on freshwater bodies, but by no means exclusively. Another BC seabird-centric comment that would not hold true in many oceanic regions of the world is that “seabirds ... are easy to ... identify compared to other marine species ...” (p. 220).

Overall, I found this book to be an excellent in-depth account and summary of the breeding occurrence and status of the 16 seabird species that nested in BC up to 1990. I did find a number of typographical errors and an occasional missing word but, all in all, these do not detract from the value of the book. For anyone interested in seabirds in general, or for breeding birds of BC specifically, this book is well worth reading.

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