

Book Reviews
**An Inventory of Breeding Seabirds of the
Caribbean**
**Petrels Night and Day. A Sound Approach
Guide**
Albatrosses, Petrels and Shearwaters of the World

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Source: Waterbirds Waterbirds Waterbirds Waterbirds, 32 32 32 32(4 4 4 4):604
604 606 608-609 606 608 609. 2009 2009 2009 2009.

Published By: The Waterbird Society

DOI: 10.1675/063.032.0416

URL: <http://www.bioone.org/doi/full/10.1675/063.032.0416>

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Book Reviews

An Inventory of Breeding Seabirds of the Caribbean.—By Patricia E. Bradley and Robert L. Norton (Eds.). 2009. University Press of Florida, Gainesville, Florida. 353 pp., 44 plates, 51 maps, 2 appendices. Hardcover: \$75.00 US. (ISBN 978-0-8130-3329-7).

This volume is essential to anyone interested in marine birds of the tropical Western Atlantic and is a key reference for all those involved in studies and conservation of tropical seabirds. In addition to being an important reference, it will serve as a benchmark for marine bird conservation within the region. Individual chapters summarize the different nesting areas within each country and review the nesting distribution and population sizes of seabirds on the various islands. Current threats to each country's seabirds are explained and conservation laws and needs are summarized. The text covers 23 species of seabirds nesting in the Caribbean. Seven represent species or subspecies endemic to the region, and 18 (78%) are considered to be of some level of regional to global conservation concern.

Like the earlier *Status and Conservation of West Indian Seabirds* (Schreiber and Lee 2000) this publication is an outgrowth of a Society of Caribbean Ornithology's seabird workshop in 1997. This volume addresses the topic on a country-by-country basis and covers a slightly wider area, while the former covered the issues from a species perspective. The core of the book is 25 chapters on the marine bird faunas of individual island nations. However, chapters in the book not addressing specific island faunas should be mentioned. Some bring information compiled by Schreiber and Lee (2000) up to date while others help to place island-specific information and regional seabird conservation issues into perspective. In addition to an introductory chapter by the editors, there are chapters on a geographic information system of West Indian seabird breeding sites, and on threats, status and conservation of Caribbean seabirds. The final chapter is a bibliography.

Two of these chapters deserve special recognition. Mackin's Geographic Information System (Chapter 27) is the foundation of this publication. This program is an important tool for monitoring long-term changes in seabird populations. It currently tracks over 800 nesting sites for 23 species. From this database one can map distributions and abundance of species, look at seabird populations of specific countries or individual nesting sites, track changes, piece together information such as 'on a region wide basis 13.4% of the documented nesting colonies are known to be extirpated or severely depleted,' or show that regionally there are only 580-750 pairs of Masked Boobies. The chapter also identifies the 25 most important nesting colonies and the 25 most endangered sites. This self-funded program will be important for the long-term conservation management of Caribbean seabirds. Wiley and Hayes (Chapter 31) prepared an extensive bibliography of regional seabird publications with over 1,500 references. Considering the factors of time (the earliest references date back to the early 1700s), the various political units and languages of the region, and the diversity of journals, newsletters and reports in which these references appeared, this compilation was a major task.

Comparing estimates provided in HALEWYN and NORTON (1984), SCHREIBER and LEE (2000) and the current volume, there are several trends. Obviously over time the estimates have been fine-tuned with expanded numbers of surveys resulting in increased accuracy. The current population estimates are better documented than the earlier ones, and are based on more recent and complete data sets. Some of the 'increases' or 'decreases' in total population sizes can be attributed to this. Yet, for a good number of species the estimates show sharp declines, often by 50% or more, in just a quarter of a century. Overall, the estimates are quite scary; those of us addressing the issue earlier had assumed, or at least hoped, that as our knowledge be-

came more complete we would find that the sizes of a number of important colonies had been grossly underestimated, or that key nesting sites had been overlooked. This does not appear to be the case.

As would be expected there is considerable variation in the depth of coverage between the various island chapters. This results from differential amounts of local information, complexity of the faunal assemblages, funding levels, local perceptions of the relative importance of conservation issues, and the knowledge of the individual chapter's authors. Some examples: The chapter on the Bahamas is extremely well done despite the fragmented nature of the country, its diverse seabird fauna, and the fact that many of the more remote islands have been infrequently visited. The chapter on Bermuda is almost totally lacking in literature citations, making it difficult to understand the basis for many of the author's statements. The decades of dedicated conservation work by David Wingate, for example, are hardly acknowledged and not cited. The Cuban chapter omitted the only papers published since the late 1800s on the status of the White-tailed Tropicbird on that island, despite one of these being co-authored by a Cuban biologist and both being published in journals based in the West Indies.

The occurrence of nesting Common Terns throughout the West Indies remains problematic. In the past, various authors have indicated they occur at scattered sites throughout the region. While these terns unquestionably breed in Bermuda and on islands off the northern South American coast, their presence as a breeding species in the Greater and Lesser Antilles needs verification. Earlier published reports of Common Terns being widespread would appear to be mostly based on misidentification of red-billed Roseate Terns. The problem arises again in this volume, with reports of possible nesting on Anguilla and Basse-Terre, and breeding in Barbuda, Cuba, St. Barts, Martinique, and East Caicos. Information provided in this book does nothing to document breeding. Plate 25, labeled as "Common Tern in breeding plumage", shows a sub-

adult bird which was unlikely to have been a breeding individual; in Plate 30, a photo of a tern colony in Cuba, the birds identified as Common Terns are, in fact, Roseate Terns. The nesting of Common Terns in the Antilles needs verification.

Prior to the last several decades, interest in West Indian bird conservation had been mostly directed toward endemic land birds and seabirds had been all but ignored. Bermuda's long standing laws, enforcement, and management of nesting seabirds and the success of their programs should be an inspiration for all island nations in addressing conservation issues. Gochfield *et al.* (1994) reported on other successful and partly successful conservation efforts on Culabra, Desecheo, Jamaica and Aruba. Countries in the West Indies and Greater Caribbean should, by now, be aware of the problems and the solutions, and the fact that the protection and management of seabird populations is in their hands. The publications of Halewyn and Norton (1984), Schreiber and Lee (2000), and the volume under review are giving a consistent message.

Although some island nations have various laws protecting seabirds, in most cases the sites themselves are not protected and enforcement is all but nonexistent. As coastal development and tourism continue to expand, more remote and out-of-the-way islands, the very sites on which nesting seabirds are now dependent, will be targeted for development. It will be informative to watch as powerful Ministries of Tourism and Economic Development compete with understaffed conservation departments over the future of coastal areas and uninhabited islands and cays. And stay tuned as island nations turn to wind fields for local energy needs: the placement of the turbines in relation to seabird nesting sites will require much consideration as remote sites currently supporting relict nesting colonies of seabirds will be prime targets for energy development.

Compared to previous publications that chose to address the topic on the species level, the major strength of this volume is its country-by-country coverage of seabird pop-

ulations, with island-specific discussions of conservation issues and management needs. This should allow governments to focus on their local issues. In many cases the real challenge is not simply protecting existing colonies, but restoring them. While additional field research is certainly important, and monitoring is key in tracking success of current and future conservation efforts, nothing should take precedence over immediate pro-active protection and management.

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Petrels Night and Day. A Sound Approach Guide.—By Magnus Robb, Killian Mullarney and The Sound Approach. 2008. Published by and available for purchase from The Sound Approach, 29 High Street, Poole BH12 1AB, UK. (www.soundapproach.co.uk). 300 pp., 2 CDs, many illustrations and sonagrams. £34.95 (approximately \$55 US). (ISBN-13 978-90-890133-2-3).

This book recounts the authors' seven-year quest to make sound recordings of all the petrels that breed in the Western Palearctic. The term 'petrels' is used in the broad sense, to include gadfly petrels (*Pterodroma* spp.), Bulwer's Petrel (*Bulweria bulwerii*), shearwaters (*Calonectris* and *Puffinus* spp.), Northern Fulmar (*Fulmarus glacialis*) and storm-petrels (Hydrobatidae). The general

theme of the book is that most petrels are nocturnal, so that they have to be studied at night if their behavior and adaptations are to be understood.

The text is written in the first person by Magnus Robb, although he acknowledges the input and participation of his co-authors and many others. At one level, the book follows the tradition of natural history exploration. It recounts expeditions to many of the remotest outposts of Europe and northwest Africa, including windswept islands off Iceland, Scotland and Ireland, mountain ridges in Madeira, desert islands and laurel forests in the Canaries, sea cliffs and caves in the Aegean and Balearics, and volcanic islands in the Azores and Cape Verdes. There was even one expedition to Korea to record Swinhoe's Storm-petrel (*Oceanodroma monorhis*). Besides the usual hazards of island expeditions such as stormy weather and rickety boats, the authors had to communicate with fishermen and guides in rustic dialects of many languages, from Greek to Portuguese and from Icelandic to Mallorquin, not to mention Korean, Creole and "something like French". Adding to the workload was the need to land on exposed rocky shores, carry heavy equipment up cliffs, navigate precipitous mountain trails at night, and make sound recordings in noisy places. As Robb pithily points out, "behavioral studies are not straightforward on nearly vertical cliffs in the dark" (p. 20). These aspects of the book will entertain and impress all who have tried to work on seabirds in remote places in changeable weather.

At a second level, the book serves as a descriptive natural history and guide to identification. Besides detailed accounts of vocalizations, the text includes a liberal sprinkling of information on history, feeding habits, behavior, breeding biology and conservation of each species, with an 11-page bibliography. Each species is depicted in a full- or half-page plate of high-quality illustrations by Killian Mullarney, and there are excellent photographs of almost every species. As a field guide, this book supersedes its most recent predecessor (Onley and Schofield 2007), although that book covered all the world's pe-

trels, not just those in the Western Palearctic. Its main deficiency is that few molting birds are depicted, although the text states that molt patterns could be helpful in separating cryptic species (p. 243).

At a third level, the book presents detailed accounts and preliminary analyses of the vocalizations of each species. Two CDs are attached with 127 cuts recording the voices of all the breeding species, plus one migrant (Greater Shearwater *Puffinus gravis*) recorded at sea. Given the circumstances in which they were recorded, the clarity and lack of background noise in most of these recordings are very impressive. Sonagrams are presented for almost every cut, and are annotated and interpreted in the text. Differences between sexes and among related species are pointed out in detail. Some statistical differences are reported, but there is no formal analysis, although the authors state their intention to publish details in scientific journals in the future (p. 12).

At a fourth level, the book has some taxonomic pretensions, presenting several proposals for further splitting of species that have already been split in recent years. Whereas Cramp and Simmons (1977) recognized ten breeding species of petrels in the Western Palearctic and Onley and Schofield (2007) recognized 14, this book proposes recognizing 21, including three species of *Pterodroma* (*P. "deserta"* as well as *faea* and *madeira*), three species of *Calonectris* (*C. "diomedea"* as well as *borealis* and *edwardsii*), two species of *Hydrobates* (*H. "melitensis"* as well as *pelagicus*), and five species of *Oceanodroma* (including four species of "band-rumped" storm-petrels). In addition, the book has a chapter on the enigmatic Swinhoe's Storm-petrel, which has recently been reported widely in NW Europe and has been found repeatedly prospecting potential nest-sites in the Selvagens. The book also mentions at least five recently-extinct species: four shearwaters and one gadfly petrel (pp. 40-41, 133, 156).

In the case of the band-rumped storm-petrels, the authors anticipated the formal description of Monteiro's Storm-Petrel (*Oceanodroma monteiroi*: Bolton *et al.* 2008) and pub-

lish sound recordings and photographs of it. They treat storm-petrels breeding in the Cape Verdes as another distinct species *O. jabjabe*, and propose that the birds that breed sympatrically in summer and winter in Madeira, the Selvagens and Canaries also represent different species. If the latter suggestion is found to be valid, the name *O. castro* would be restricted to the winter breeders of that area and the more widespread summer breeders would need new names (they propose "Grant's Storm-Petrel" and "*O. granti*").

These suggestions are not formal taxonomic proposals, and several are not yet supported by genetic data. Instead, they are based primarily on vocal differences, plus in some cases geographic separation or differences in breeding seasons (pp. 36, 42). The authors recognize that morphological and plumage differences among these cryptic species are very small, but make the reasonable argument that nocturnal species are more likely to diverge in voice than in external appearance. They also argue that petrels are highly philopatric, so that geographic separation implies genetic isolation (pp. 36, 125).

Nevertheless, questions can be raised about each of these arguments. For divergence in breeding seasons, the authors themselves give counter-examples (Bulwer's Petrel, p. 51; Leach's Storm-petrel *O. leucorhoa*, p. 94) in which populations of the same species breed several months apart in response to local conditions. For geographic separation, the authors themselves mention numerous cases of petrels prospecting at potential breeding sites far outside their normal ranges (e.g. Deserta Petrel, Cahow *Pterodroma cahow* and Madeiran Storm-petrel in the Azores; Boyd's Shearwater *Puffinus boydi* at St. Helena; Cory's Shearwater *Calonectris borealis* in Ireland; Wilson's Storm-petrel *Oceanites oceanites* in Iceland, etc.), not to mention actual long-distance colonizations (Scopoli's Shearwater *C. diomedea* in Atlantic France; Manx Shearwater *P. puffinus* in Newfoundland; Leach's Storm-petrel in South Africa). Clearly, wide separation does not imply geographic isolation in petrels. As to vocalizations, the authors are the leading ex-

perts, but even they characterize some of the vocal differences as “slight” or “subtle” and acknowledge extensive overlap in some cases (pp. 35, 67, 104-106, 143-144). More rigorous analysis would be required to support the claims that these differences are not mere dialects (pp. 124-125, 194).

Despite these caveats, this book reports an impressive body of fieldwork. It will be of interest to all petrel biologists and lovers of islands, as well as to sound recordists. It shows the potential value of sound recordings in detecting cryptic species, and should stimulate similar work in other areas with a diverse range of nocturnal petrels, such as the SW Pacific or New Zealand. However, it will be difficult to match the combination of exploratory zeal and technical expertise that is displayed in this book.

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Albatrosses, Petrels and Shearwaters of the World.—By Derek Onley and Paul Scofield. 2007. Christopher Helm, London. 240 pp. Softcover, £19.99 (approximately \$32 US). 45 color plates. (ISBN 978-0-7136-4332-9).

This identification guide, the first since Endicott and Tipling's *Seabirds of the world* (1997) and the first with painted plates since Harrison's *Seabirds: a guide to identification* (1983), covers 137 species of Procellariiformes. Relative to these previous guides, Onley and Scofield include 24 additional taxa due to taxonomic revisions and one newly rediscovered species (New Zealand

Storm-Petrel). All species are illustrated by color plates. I find the illustrations attractive and reasonably accurate, though perhaps not of the same caliber as the best field guide illustrations around today. There are introductory sections on taxonomy, descriptions of the four families of Procellariiformes, identification, conservation, “How to Use This Book” and Seabird Topography. The color plates have accompanying thumbnail descriptions of each species on the facing page; this section is then followed by more complete textual accounts of each species, in a format similar to Harrison (1983).

The worst thing about this book is the authors' extensive and uncritical use of the term “jizz”. This term, almost certainly derived from the Royal Air Force's “GISS” (for General Impression of Size and Shape) used in identifying enemy aircraft, may be useful in casual conversation, but is an annoying cop-out within an authoritative book on field identification. I found myself mildly annoyed at statements such as “With practice, jizz often the best way to separate the species” for separating large albatrosses, and practically tearing my hair out by the time I got to storm-petrels. I defy the authors to defend how the following statement (p. 174, Kermadec Petrel) is improved through the use of the j-word: “Long, broad-winged, square-tailed jizz reasonably distinctive with experience”. I sincerely hope any future editions will abandon this sloppy language.

That being said, this is a useful book that adds substantially to the literature of field identification of these birds. There is a good discussion of the effects of molt, lighting and weather conditions upon the appearance of petrels (although the dramatic effect of missing upperwing coverts on shearwaters is perhaps underemphasized, as is the very white appearance of reflective patches on the undersides of primaries of petrels, especially Murphy's Petrels). In each account, one gets the impression that the authors have considerable first-hand experience with petrels in the field. There is an important and timely section on the urgent conservation issues that petrels now face.

The entire book would have benefited from more thorough review and editing. There is some inconsistency in the separation of regularly mapped ranges from vagrant occurrences. For example, off the southeastern coast of the United States, Trindade Petrel occurs at least as frequently as does Fea's Petrel, yet the former is not shown as occurring in the North Atlantic Ocean at all, while the latter has a mapped range off North Carolina. White-faced Storm-Petrel, which appears off eastern North America considerably more frequently than either of the two previous species, is not mapped as occurring there at all. Similarly, Bermuda Petrel, which occurs regularly off North Carolina but has never appeared in the northeast Atlantic, is shown as only occurring in the immediate vicinity of Bermuda with a vague arrow and question mark suggesting dispersal to the northeast. Inconsistencies such as these could have been easily picked up through peer review of drafts.

I feel compelled to offer some nitpicks, first under the topic of identification: the short *bill* is not mentioned as being of primary importance in distinguishing Short-tailed from Sooty Shearwater; the highly distinctive flight of Grey Petrel (spurts of duck-like wingbeats interspersed with gliding) is very poorly described, and this species is only solitary where it is uncommon—flocks of hundreds appear near nesting islands and around trawlers; the primary distinction between South Georgia and Common Diving-Petrels, bill *depth*, is not mentioned; the highly characteristic fine whitish feather edgings of Southern Royal Albatrosses, perhaps the best distinction from Wandering, are only vaguely described; and the bills of Juan Fernandez, White-necked and Vanuatu Petrels all look much too small. Finally, the bill of two- and three-year-old Gray-headed Albatross is shown as pale with a dark tip, like Black-browed. Other sources have suggested that Gray-headed always has a solidly dark bill; I am not sure of the correct answer but

evidence (known age, banded birds) should be provided to settle this question.

Under the topic of distribution: Broad-billed Prion appears to be mapped as breeding on Amsterdam Island (it doesn't breed there or anywhere else in the Indian Ocean); Jouanin's Petrel occurs regularly much farther south than mapped (off central Madagascar); Flesh-footed Shearwater occurs regularly off the western United States, as does Manx Shearwater with 25+ records per year off California; Shy and Salvin's Albatrosses both occur regularly on the Patagonian Shelf off Argentina. The nesting range for Vanuatu Petrel is incorrectly mapped as being on New Caledonia, and the citation for Shirihai (2004) is not listed in the literature cited.

I offer the observation that my colleagues and I have seen fairly large numbers (20 per day) of the dark morph of Soft-plumaged Petrel off Kerguelen, so it is perhaps not as rare as the authors suggest; these dark birds are easily distinguishable from Kerguelen Petrels by their much lighter, almost pale bluish color.

Books like this invite detailed criticisms and the tone of this review is probably rather negative. Nevertheless, I find this to be a very useful and compact summary of the latest on the identification and distribution of tubenoses and I will carry it on all future ocean voyages. It is a must for all serious pelagic bird enthusiasts.

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