THE SPECIATION AND BIOGEOGRAPHY OF BIRDS

NEWTON, I. 2003. London & San Diego: Academic Press. 700 pp. with 108 figures, 57 tables, 20 line drawings. Hard cover. ISBN 0-12-517375-X, £49.99, US $75.

Ian Newton's book was judged the British Birds/British Trust for Ornithology Best Bird Book of the Year 2004: "While ostensibly a book for students and post-graduate academics, it covers a subject so close to the heart of the average birdwatcher as to be of very wide appeal, and is written in Ian's easily accessible style." To reviewers in *The Auk,* it is "an awkward step" in the direction of a sorely needed synthesis of research in biogeography and speciation, because "it is not about speciation or historical biogeography; instead it is a book about ecological biogeography" and suffers from being "grounded in the school of 'evolutionary systematics' ... which is not the paradigm used by the majority of modern systematists." Newton's adherence to the Biological Species Concept, of Mayr's and Lack's generation, is seen as retrograde. The habit of complaining that a book does not conform to the wishes of the reviewer is widespread, and taxonomists have historically been notorious for their acrimonious intolerance of dissent.

So how should the reader with a strong interest in seabirds approach this book? Hurry to use this very effective summary of current knowledge of seabird biology, while covering it in brown paper to hide it from those colleagues who are intent on being abreast of the latest trends in taxonomy; or dismiss it, unbought and unread, as old-fashioned. Massive reviews of the literature—and this one has 50 pages of references—can become obsolete very quickly, but there are descriptions and points of view here that will continue to be fruitful for a long time.

Chapter 8, "Seabirds," is a masterly 38-page digest of many aspects of their biology, but you are not being asked to pay two dollars a page for just this section, because seabirds reappear in many other parts of the book. Although Newton's own research has been in other fields, it seems to have enabled him to approach seabirds with a broad background of knowledge, yet with a fresh eye, and his treatment seems to have passed the scrutiny of that formidably knowledgeable critic Bill Bourne. I have no doubts: This is a book to be enjoyed for many reasons, high among them the vigorous sweep of its account of the relationships of seabirds to their regional and seasonal environments.

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THE GULF OF ALASKA: BIOLOGY AND OCEANOGRAPHY

MUNDY, P.R. (Ed). 2005. Exxon Valdez Oil Spill Trustee Council. Alaska Sea Grant College Program report AK-SG-05-01. Fairbanks: University of Alaska Fairbanks. 214 pp. with 21 figures and 19 tables. ISBN 1–56612–090-X. US $25.

In 1999, the Exxon Valdez Oil Spill Trustee Council dedicated funds for long-term monitoring and research in the area affected by the 1989 oil spill (the northern Gulf of Alaska). The resulting research program is called the GEM Program (Gulf of Alaska Ecosystem Monitoring and Research). As part of the GEM Program, scientists recently compiled current scientific knowledge about the Gulf of Alaska. The result is this interesting and informative book in 11 chapters.

Chapter 1, "Introduction," by Mundy and Spies, is an introduction to the leading hypotheses and principal ecologic concepts relevant to Gulf of Alaska (GOA) ecosystems. Chapter 2, "Physical and Biological Background," by Mundy and Cooney, provides an overview of principal GOA habitats and living resources and information on the influences of weather and of climate in general. Chapter 3, "Climate and Weather," by Mundy and Olsson, contains detailed descriptions of climate variability over a range of temporal scales. Chapter 4, "Physical and Geological Oceanography: Coastal Boundaries and Coastal and Ocean Circulation," by Weingartner, describes atmospheric forcing and physical oceanography of the GOA. Chapter 5, "Biological and Chemical Oceanography," by Cooney, provides information on marine nutrients and plankton production. Chapter 6, "Nearshore Benthic Communities," by Peterson, describes intertidal and subtidal communities. Chapter 7, "Seabirds," by Springer, provides an overview of marine avifauna, followed by specific case studies of well-researched species and sites. Chapter 8, "Fish and Shellfish," by Mundy and Hollowed, reviews current information on fish, shellfish, benthic invertebrates and forage fish. Chapter 9, "Marine Mammals," by Lowry and Bodkin, provides a review of GOA marine mammal fauna and detailed information on focal species (such as killer whales and Steller sea lions). Chapter 10, "Economics and Human Uses and Activities in the Northern Gulf of Alaska," by Richardson and Erickson, contains socioeconomic profiles of regions throughout the northern GOA, and a review of economics and ecologic impacts. Chapter 11, "Modeling," by Oosterhout, is a general overview of the purposes and methods of modeling, followed by descriptions of specific North Pacific physical and biological models.

This book will be most useful for readers with some knowledge of the physics, biology or human communities of the Gulf of Alaska (GOA) at the graduate level or above. That said, those with no previous knowledge of the GOA will nonetheless benefit from reading this book because they will be exposed to some key aspects of the GOA and can follow up with more extensive reading based on the literature citations.

This book has a number of strong points. The graphical summary of the physical and biological elements of the ecosystems of the GOA presents a large amount of information in an informative and attractive way. The graphical depictions of fluctuating inshore and offshore production regimes are likewise excellent. These figures are found in the introductory chapter.

The individual chapters provide interesting and informative descriptions of processes, habitats and species with links to other trophic levels and to climate variability. For instance, under Biophysical Implications in Chapter 4 ("Physical and Geological Oceanography"), there is an interesting discussion of the many different processes that contribute to spring bloom conditions. The authors show how the complex dynamics can lead to considerable spatial and temporal variability in primary production, with potentially significant effects on zooplankton recruitment. An interesting section in Chapter 8 ("Fish and Shellfish") describes five hypotheses about factors that influence forage fish production. The seabird chapter (Chapter 7) contains detailed summaries of population trends at well-studied sites and, where possible, relates those trends to prey availability. In Chapter 9 ("Marine Mammals"), extensive information for particularly well-studied species is provided—information on stock structure, habitat use, life history, feeding, population trends, anthropogenic effects and climate change impacts.

I found the review of links between economic activities and ecologic impacts in Chapter 10 ("Economics of Human Uses and Activities in the Northern Gulf of Alaska") particularly interesting. An economic analysis within the context of GOA ecology is well-suited for what I assume will be primarily an audience of biologists. The chapter provides the often-neglected social and economic perspectives and builds well on previous chapters on the physics and biology of the GOA.

There are a few weak points. I found it curious that the affiliations of the chapter authors are not provided. Maps showing oceanographic regions, currents, geographic features and cities or towns referred to in the text are often lacking. This will be a problem particularly for readers unfamiliar with the GOA. Photographs or drawings of selected fish, shellfish, seabirds and marine mammals would have increased the value of the book, particularly, again, for readers new to the region.

The last chapter ("Modeling") was the weakest of all the chapters by far. Most of the chapter comprises an overview of modeling in general, with virtually no specific links to GOA studies. Issues such as the purposes of modeling, hierarchical frameworks, and the definition and evaluation of model strategies are interesting, but seem out of place in this book. The final section on North Pacific Models does provide specific information on GOA modeling studies. However, the descriptions are too brief and references for the studies are not provided (a contact person for each model is named)—an unfortunate ending to an otherwise useful, informative, and entertaining book.

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MARINE CONSERVATION BIOLOGY: THE SCIENCE OF MAINTAINING THE SEA'S BIODIVERSITY

NORSE, E.A. & CROWDER, L.B. (Eds). 2005. Washington: Island Press. 470 pp with numerous black-and-white figures. Hard cover: ISBN 1–55963–661–0, $90. Soft cover: ISBN 1–55963–662–9, $50.

Conservation biology is a synthetic discipline that has seen enormous growth over the last few decades, driven by the growing awareness of human impacts on natural systems. Cynics may argue that conservation biology lacks a coherent identity as a science, being merely a pastiche of other disciplines, but there is no denying the subject's current importance, within academic circles and more broadly in the public arena. Like many new disciplines, much of the initial interest was focused on terrestrial systems, but marine conservation has not lagged too far behind, and it is perhaps surprising that it has taken this long for a volume to be produced that is dedicated to the conservation of marine systems.

Marine Conservation Biology is an edited volume, comprising a series of essays by some of the field's leading practitioners. It starts with a brief foreword by Michael Soulé, the venerable father of conservation biology, followed by a couple of introductory chapters by the book's editors. The remainder of the book consists of 23 chapters assigned to five sections, with a brief introduction to each section providing a useful summary of its chapters. The first section on the basics of marine populations considers the life history traits of marine species and how these often differ from terrestrial species, the problems faced by small marine populations, and the threat of extinction to marine taxa, with an overview of historical extinctions. Finally, Julia Parrish discusses how it is essential to understand the behaviour of marine organisms if we are to make sensible conservation-management decisions, a point that will doubtless strike a chord with most marine ornithologists.

The second section considers the threats to marine biodiversity. It comprises chapters summarising the proximate threats, although the editors are quick to highlight the ultimate threats underpinning these factors: overpopulation, excess consumption, lack of knowledge, undervaluing and inadequate institutions. The proximate threats identified are overexploitation, physical alteration and pollution, alien species and climate change, but the four chapters focus on eutrophication, invasive aliens, disease and the interactions between multiple stressors.

The third section considers the impacts of fisheries as the greatest threat to marine biodiversity. First, Dave Preikshot and Daniel Pauly discuss the culture of single-species management and how to change this to a broader, ecosystem-based approach. They also provide an interesting contrast between large-scale industrial fisheries and small-scale, artisanal fisheries. The second chapter discusses the impacts of trawls on benthic communities. The third deals with bycatch of long-lived species, including seabirds, although they are given little attention—indeed, the chapter still refers to the 1994 *Birds to Watch 2* rather than to the more recent red data lists for birds. The fourth examines the evolutionary impacts of selective fishing, and the final chapter by Ray Hilborn argues that

fisheries can be managed sustainably, but that this is seldom the case in modern fisheries.

Section four discusses marine protected areas (MPAs) and zoning systems under the rather uninformative title of "place-based management of marine ecosystems." Three chapters summarise the benefits of establishing MPAs for biodiversity conservation and fishery management, including a consideration of metapopulation dynamics of harvested populations, but for the most part they fall short of the recent World Conservation Union publications on this subject. Perhaps the most interesting chapter considers the viability of establishing MPAs in the open ocean to protect not only static features such as seamounts, but also dynamic features such as fronts and convergence areas.

The final section is a rather mixed bag of six chapters under the heading of "human dimensions," which cover topics ranging from conservation policy and restoration of marine systems to coping with uncertainty in managing marine systems. Here the editors argue that researchers must move away from the comfortable study of "natural" systems, and tackle head-on the complexities of systems that are increasingly influenced by human actions. To do so, biologists must understand the motivations underlying human actions, and must therefore gain a working knowledge of psychology, economics, ethics and politics. This echoes the sentiments of mainstream conservation biology: only by understanding the behaviour of humans can we hope to change destructive practices and, ultimately, improve the conservation status of the oceans.

What does *Marine Conservation Biology* have to say about the conservation of seabirds? A quick flick through the subject index is not encouraging. The sole reference to seabirds is a short, very basic paragraph in the chapter on extinction risk that reports the problems associated with the bycatch of seabirds on pelagic longlines. The species index reveals quite a few more references to seabirds, but this coverage is far from comprehensive. There is no mention of the impacts of diseases such as avian cholera that seabirds are being exposed to as a result of human actions, nor is mortality in trawl fisheries addressed. But perhaps the greatest omission, to my mind, is the failure to consider land-based impacts on marine organisms that are tied to land for reproduction, such as seabirds, seals and turtles, or fish that use estuaries and fresh-water systems for breeding or nursery areas. Such animals often are affected both at sea and on land, and the editors may wish to put more emphasis on land–sea interactions in future editions.

The book is more a vehicle for the ideas and concepts underpinning marine conservation, rather than a compendium of marine biodiversity and the threats and impacts afflicting marine systems. It is written at a level that will engage and inform professionals, but the language and writing style are gratifyingly straightforward, making the book equally accessible to the informed layman. The chapters are concise and uncluttered, and for the most part, the figures and illustrations enhance the text. The average chapter length (excluding references) is only about 12 pages, which allows the reader to dip into the book a chapter at a time with relative ease. The main drawback I perceive is that the book is heavily biased towards a North American view of the world, with both editors and all but five of the 42 contributing authors based in the United States and Canada. This manifests mainly through a preponderance of examples from the United States, especially when it comes to legal and policy issues, but also results in occasional naïve comments (at least from a developing world perspective), and some editing oversights (such as the failure to map any trawling activity off South Africa).

It is unlikely that marine ornithologists will learn much about seabird conservation from reading this book. Its value lies in the broad overview it presents of marine conservation issues and of the range of initiatives being undertaken to attempt to improve the conservation status of the oceans. I enjoyed the encouraging views on the need for ecosystem-based management of fisheries, and the discussion of a "protected areas" approach to conservation in a dynamic marine environment. It makes an interesting read for anyone interested in the broader issues of marine conservation.

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A FIELD GUIDE TO NORTH ATLANTIC WILDLIFE: MARINE MAMMALS, SEABIRDS, FISH, AND OTHER SEA LIFE

PROCTOR, N.S. & LYNCH P.J. 2005. New Haven and London: Yale University Press. 221 pp. with 100 colour plates illustrated by Patrick Lynch and distribution maps for 172 of the 273 species (88 of the 89 bird species). Soft cover. ISBN 0–300–10658–0. US $19.95.

There are already several field guides dedicated to the seashore and coastal areas of Atlantic North America including seaweeds and invertebrates (Gosner 1978, Martinez 1999), fishes (Goodson 1976, Ray *et al.* 1986), shorebirds (Chandler 1989), seabirds (Jones & Gaston 1984), and marine mammals (Kinze 2001). So what could Proctor and Lynch have to offer? Few guides have managed to effectively merge these various taxa into a single book, but Proctor and Lynch have succeeded with an extremely compact and comprehensive *field* guide with impressive illustrations. Moreover, this book is a truly pelagic rather than coastal look at western Atlantic wildlife from Newfoundland, Canada, to Cape Hatteras, North Carolina. Aimed at increasing awareness of the ocean environment and enjoyment of watching marine wildlife, this book has something to offer boaters, fishers, whale and seabird watchers, and just about any traveler of the western North Atlantic.

The book opens with some typical, and practical, field guide preamble, including a brief summary of North Atlantic oceanography and a strong emphasis on conservation issues, such as fisheries declines, seabird bycatch, marine pollution and whale entanglements. Two notable features are the detailed range maps and an emphasis on vulnerable species. Species red-listed by the World Conservation Union (IUCN) are clearly identified by red type, followed by their Red-list classification. Detailed range maps are presented adjacent to species descriptions for most (but not all) species, distinguishing between summer, winter and year-round ranges, and major breeding

colonies are shown for some birds. Unfortunately the range maps stop at Cape Hatteras in the south and are cut short in the north, bisecting Newfoundland (note that the eastern North Atlantic is not included in this book).

The first part of the field guide covers algae (4 species), jellyfish (7 species), comb-jellies (5 species), and a variety of other pelagic invertebrates from plankton to shrimp. At first glance, it seems that only a superficial coverage is given to these groups—although this is expected considering the extent of the book. The authors' aim is to cover some of the more commonly seen species and interesting anomalies, but the book lacks a few key Atlantic players. The plankton section, for example, features some unique oddities but conspicuously excludes copepods and krill (euphausiids). However, praise should be given to the short section on squids, making for easy identification between the three common species. The brief coverage of invertebrates may provide limited identification of potential seabird prey.

One of the best sections in the book covers 29 species of Atlantic sharks. Proctor and Lynch are not as scientifically rigorous as Grace in his guide to Atlantic sharks (2001); however, they provide beautiful illustrations for pelagic, inshore and less common species. The basking shark and whale shark are each covered in more detail with range maps and descriptions of habits. Though not as comprehensive as works by Goodson (1976) or Ray *et al.* (1986), the section on bony fishes (79 species) includes most of the larger epipelagic species and the schooling species that fall prey to seabirds. Interesting notes on ecology, spawning runs, fisheries, sport fishing and cautions of declining species are also included. But, disappointingly, range maps are omitted for many species, being replaced with range descriptions. This section should be useful for basic identification of seabird prey at certain life stages (e.g. most adult but not larval fishes). The graceful sea turtles (5 species) are covered in a small section, complete with range maps and extensive focus on the more frequently sighted leatherback.

Of course, the readers of this journal are here for the birds. This book is not destined to replace Harrison's (1983, 1987) classics or even Sibley's (2000) dedication to North American birds, but Proctor and Lynch offer something for the amateur and the experienced birder alike. For the novice, the birds include mainly oceanic species, emphasizing identification characteristics and in-flight illustrations. The authors take a comparative approach to identification, showing multiple and similar species side by side on colour plates. For the experienced birder, the book offers a compact quick reference, easily kept at your side, and detailed range maps adjacent to species descriptions. Coverage of coastal species (herons, bald eagles, etc.) is extremely minimal, and shorebirds are all but ignored: the phalaropes and only two other species are included. The Procellariidae are well covered with both ventral and dorsal views in flight as are some rare species: Black-capped Petrel (*Pterodroma hasitata*), Herald Petrel (*Pterodroma arminjoniana*), and Fea's Petrel (*Pterodroma feae*). Seaducks, loons, grebes and alcids are thoroughly documented, although many species are shown only in one plumage (some winter and others breeding). Gulls are shown in a variety of plumages, including a four-page spread on immature and mature gulls in flight. Terns are well documented, though again lacking in plumage variation. One particularly nice feature in the bird section is the natural history provided for some of the more common species (fulmar, pelican, gannet) and, where possible, identification of nesting colonies on range maps (though some nesting colonies seem absent—e.g. common murres in the Bay of Fundy). Overall, the birds in this book are covered exceptionally well for a compact marine guide, though lacking in descriptions of plumage variations.

A nice accompaniment for the avid birder is the inclusion of an excellent section on marine mammals with extensive identification tips in a compact layout. In addition to the well-illustrated full-body profiles, many of the whale species are shown with useful profiles of surfacing, flukes and blow patterns, which are more commonly seen from a boat or the shore. There is a page comparing all the dolphins and porpoises and another devoted to comparing the "blackfish" (i.e. killer whales and pilot whales). Illustrations of seals include both adults and immature individuals, and head profiles are compared between the grey seals and harbour seals for easier identification. Range maps describe when and where each species is more commonly encountered.

Proctor and Lynch's field guide makes a nice addition to any wildlife enthusiast's collection. It covers a wide range of taxa with beautiful illustrations, key identification characteristics, and some notes on natural history. It is also very compact, allowing more room for your binoculars and camera equipment.

REFERENCES

CHANDLER, R.J. 1989. North Atlantic shorebirds: a photographic guide to the waders of western Europe and eastern North America. New York and Oxford: Facts on File.

GOODSON, G. 1976. Fishes of the Atlantic coast: Canada to Brazil, including the Gulf of Mexico, Florida, Bermuda, the Bahamas, and the Caribbean. Palo Alto: Stanford University Press.

GOSNER, K.L. 1978. A field guide to the Atlantic seashore: from the Bay of Fundy to Cape Hatteras. New York: Houghton Mifflin.

GRACE, M.A. 2001. Field guide to requiem sharks (Elasmobranchiomorphi: Carcharhinidae) of the western North Atlantic. NOAA Technical Report NMFS 153. Seattle: US Department of Commerce. 32 pp.

HARRISON, P. 1983. Seabirds: an identification guide. Boston: Houghton Mifflin.

HARRISON, P. 1987. Seabirds of the world: a photographic guide. Princeton, NJ: Princeton University Press.

JONES, I.L. & GASTON, A.J. 1984. Guide to the seabirds of eastern Canada. Ottawa: Canadian Wildlife Service, Environment Canada.

KINZE, C.C. 2001. Marine mammals of the North Atlantic. Princeton, NJ: Princeton University Press.

MARTINEZ, A.J. 1999. Marine life of the North Atlantic: Canada to New England. 3rd ed. Locust Valley, NY: Aqua Quest Publications.

RAY, C., ROBINS, C.R. & Douglas J. 1986. A field guide to Atlantic Coast fishes: North America. New York: Houghton Mifflin.

SIBLEY, D.A. 2000. The Sibley guide to birds. New York: Knopf.

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RARE BIRD: PURSUING THE MYSTERY OF THE MARBLED MURRELET

RUTH, M.M. 2005. New York: Rodale Books. 304 pp. with line drawings by Paul H. Jones. Hard cover. ISBN 1–59486–090–4. US $24.

Despite more than a decade of intensive and expensive research, the Marbled Murrelet (*Brachyramphus marmoratus*) remains a secretive and elusive seabird. Unlike most alcids, this murrelet is non-colonial, usually nesting solitarily, high in the canopy of very large old-growth conifers. This preference for large, old trees has put the species squarely in conflict with the timber industry throughout most of its range. Ranging from the Aleutian Islands through southern Alaska and south-to-central California, this alcid is one of the most widespread, but until it came into open conflict with the logging industry, almost nothing was known about its biology and nesting habits. In the coastal forests of the Pacific Northwest the species is now second only to the Spotted Owl as the focus of loggers' wrath and environmentalist fervour. How this came about, from Captain Cook to George W. Bush, is Maria Ruth's story.

Ruth has written many books on diverse natural history topics. She once worked for *National Geographic* as a researcher and editor. This book is written in the *National Geographic* manner, blending facts with "I was there" experience. This is not a book for those seeking detailed biologic information on the murrelet. Those seekers can get their fill from recent reviews (Ralph *et al.* 1995, Nelson 1997, Burger 2002, McShane *et al.* 2004) and a plethora of recent papers. Ruth's book focuses instead on the history of research and conflict involving the species, from its first scientific collection in 1780 on Captain Cook's last expedition, through the protracted quest to locate its nest sites, to the dozens of research and monitoring projects now under way. The basic biology of the bird is summarized in seven pages in Chapter 1, with additional bits added throughout the rest of the book. An index to help keep track of information would have been a useful addition.

I found the chapters on early history fascinating, and I commend Ruth for her background reading and archival digging to uncover obscure early material, and for her presentation of it in a fresh, clean manner. We learn why the type specimen is now in Vienna despite being collected on a British expedition, how the species shifted from being a "guillemot" to a murrelet, and how Audubon's painting provided the first publicity. Ruth deftly leads us through a century with little scientific interest in the murrelet, followed by another century of frustration and slow scientific progress featuring Joseph Grinnell (who, in 1897, first hinted that these birds might nest in trees), George Cantwell (who, in the same year, collected the first egg from a female shot at sea), William L. Dawson (who provided strong evidence of inland nesting in 1923), and others. Along the way Ruth throws in a touch of native mythology and archaeology, and recounts the shady dealings of S.J. Darcus, who deceptively sold eggs of Ancient Murrelets to collectors eager for the marbled variety. The pace picks up with the pioneering field work of Charlie Guiguet in the 1950s and 1960s and of Spencer Sealy and Harry Carter in the 1970s and 1980s. Ruth describes in great detail the discovery of the first intact nest with a chick, by tree pruner Hoyt Foster in Big Basin Redwoods National Park in 1974 (see Carter and Sealy 2005 on the precedence of nest discoveries). Even that major event failed to trigger a burst of research and habitat protection. Those came much later, in 1992, when the Audubon Society, using the growing evidence of population decline and habitat destruction summarized in David Marshall's pivotal report, successfully forced the US government to list the murrelet as a threatened species under the *Endangered Species Act.* The species had earlier been listed as Threatened in Canada in 1990—a point missed by Ruth.

Based on these listings, the years since the early 1990s have produced an outburst of research, management and politics. Those who attended Pacific Seabird Group (PSG) meetings will know of the many Marbled Murrelet presentations there—tedious to some, but ground-breaking and exciting to murreleteers. This is a reflection of the leading role that the PSG has played in developing research protocols, providing a vigorous technical working group, and lobbying government agencies and politicians in the United States and Canada. But the same period has also seen stormy times, involving not just biology, but also lawsuits, environmental protests, data forgery and industrial maneuvering. I found the financial side of things interesting too. In 1970, *Audubon Field Notes* offered a one-hundred-dollar reward for the discovery of the first Marbled Murrelet nest—a reward that was never claimed. Perhaps it was inflation, but in 1996, an oil company paid $45,000 in compensation for each of the 11 murrelets killed in an oil spill—an amount that was claimed and used to buy redwood forest habitat for murrelets in California.

Ruth develops the human side of this story, interviewing most of the major players and often working with them in the field. She arranges to be trained and qualified as a murrelet audiovisual surveyor, and experiences the drudgery and thrill of field work in foggy forests and soggy seas. But she remains an "accidental naturalist," an objective observer, and we seabird biologists can learn something here about how others see us and our quirky work.

The murrelet's unique nesting habits demand unique research techniques. Ruth traces the development and application of some of these in great detail (e.g. dawn audiovisual surveys in the forest, stakeouts at possible nest trees, radio-telemetry), but others get short shrift (genetic biogeography, radar tracking, marine habitat studies) or are not mentioned at all (habitat and population modeling, low-level helicopter surveys). Often she is more interested in the personalities of the people involved, than in the clout of their contribution. Her geographic focus is on the main areas of conflict in the United States (California, Oregon and Washington), and she covers little of the recent work done in Alaska and British Columbia. I would also have liked to read more about the Asian murrelets. Although they are now recognized as a separate species (the Long-billed Murrelet *B. perdix*) discoveries of their tree nests in the Russian far east preceded those in North America and helped to focus the search here.

Overall, this is a delightful book, carefully written, with remarkably few errors and often sparkling prose. One erudite murrelet biologist is admiringly described as "a man who seems capable of inhaling salty air and exhaling data sets." The book arrives at a critical moment for murrelets in the United States. Under pressure from the timber industry, George W. Bush's appointees have taken aim

at the Marbled Murrelet and announced their intention to de-list the species. As I write this review, members of the PSG are drafting a letter to the US Fish & Wildlife Service in response to this threat. So, if you live in the United States, buy a second copy for your congressional representative or senator, or perhaps better still, send one to the best environmental lawyer in your neighbourhood.

REFERENCES

BURGER, A.E. 2002. Conservation assessment of Marbled Murrelets in British Columbia: review of the biology, populations, habitat associations, and conservation. Technical Report Series. Report No. 387. Delta, BC: Canadian Wildlife Service. [Available online at: www.sfu.ca/biology/wildberg/bertram/mamurt/links.htm]

CARTER, H.R. & SEALY, S.G. 2005. Who solved the mystery of the Marbled Murrelet? *Northwestern Naturalist* 86:2–11.

MCSHANE, C., HAMER, T., CARTER, H., SWARTZMAN, G., FRIESEN, V., AINLEY, D., TRESSLER, R., NELSON, K., BURGER, A., SPEAR, L., MONAGEN, T., MARTIN, R., HENKEL, L., PRINDLE, K., STRONG, C. & KEANY, J. 2004. Evaluation report for the 5-year status review of the Marbled Murrelet in Washington, Oregon, and California. Unpublished report prepared for US Fish and Wildlife Service, Region 1. Portland, OR, and Seattle, WA: EDAW, Inc. [Available online at: www.earthjustice.org/backgrounder/display.html?ID=100]

NELSON, K. 1997. Marbled Murrelet (*Brachyramphus marmoratus*). In: Poole, A. & Gill, G. (Eds). Birds of North America, No. 276. Philadelphia, PA: Academy of Natural Sciences; and Washington, DC: American Ornithologists' Union.

RALPH, C.J., HUNT, G.L. Jr., RAPHAEL, M.G. & PIATT J.F. (Eds). 1995. Ecology and conservation of the Marbled Murrelet. General Technical Report PSW-GTR-152. Albany, CA: Pacific Southwest Research Station, Forest Service, US Department of Agriculture. [Available online at: www.fs.fed.us/psw/rsl/projects/wild/gtr152/]

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