

BOOK REVIEWS

Gathering of Angels: Migrating Birds and Their Ecology. Kenneth P. Able (editor). 1999. Cornell Univ. Press, Ithaca, NY. 193 pages, including 24 pages of full-color plates, 10 black and white photos, 12 maps, 16 figures and tables. Hardback, \$29.95. ISBN 0-8014-3362-2.

While slender in volume, *Gathering of Angels* is robust in information on the migration of birds. Editor Kenneth Able, himself a renowned authority on bird migration, convinced eight of his North American colleagues to contribute chapters on the migrations of birds that pass through North America.

The book begins with two general and brief chapters by Able on the scope and evolution of bird migration and the behavior, energetics, and navigation of birds. These serve to introduce the reader to the many-faceted issues of bird migration. Fittingly, the first chapter by an invited author is by Sidney Gauthreaux, a pioneer in the study of bird migration through the use of radar. He presents an insightful look into the controversy over whether birds migrated across the Gulf of Mexico or around it, and how radar studies helped solve some of these mysteries. This chapter is followed by another centered on Gulf of Mexico migrants, by Frank Moore, dealing especially with the stopover ecology of these birds. He shows how critical it is for migrants to have protected stopover sites where they can rest and build up fat reserves in the absence of disturbance before continuing migration.

The next six chapters of the book focus on the migration of either one or just a few species of birds ranging from cranes to hummingbirds. These chapters emphasize the fact that while we have pieced together much about the migration of certain bird species, we actually know little about the migration of individual birds, because of the difficulties in tracking them over large distances. James Baird's chapter on Blackpoll Warblers is a good example. He presents a great deal of evidence that suggests these 12-gram birds can and do fly nonstop from eastern Canada and northeastern United States to northern South America via a transoceanic route, yet it has still not been proved conclusively. Perhaps it never will, although today's small radiotransmitters make this a possibility. Contrast the Blackpoll's migration route with that of the Broad-winged Hawk as written about by Keith Bildstein. Bildstein describes the Broad-winged Hawk's aversion to water as due to its reliance on thermals for migration. While southbound Blackpoll Warblers and Broad-winged Hawks may start from the same place in the northeast, Broad-winged Hawks migrate through the United States, around the Gulf of Mexico, and through Mexico and Central America on their way to South America.

Following Bildstein's chapter is one by Gary Krapu on Sandhill Cranes. This chapter focuses attention on the Platte River habitat used by staging cranes during spring migration rather than on their actual migration, and as such it stands apart slightly from the other chapters. Krapu tantalizes the reader with a mention of Sandhill Cranes' being fitted with satellite platforms so their migration can be followed but offers no results from the first season of tracking.

The next two chapters, by scientists who have helped lead the way in the study of shorebird migration in North (and South) America, deal with shorebirds. Brian Harrington writes on the truly spectacular migrations of the White-rumped and Baird's sandpipers. These high Arctic breeders appear to make a non-stop transoceanic flight of up to 4000 km from eastern Canada and northeastern United States to northeastern South America (like the Blackpoll Warbler), then continue to southern South America for their nonbreeding season. Their return flight takes them on a different route across the Caribbean and Gulf of Mexico, through the ephemeral wetlands of the Great Plains, and then back to the high Arctic. While White-rumped and Baird's sandpipers do not generally rely heavily on any single stopover (with the possible exception of Cheyenne Bottoms in Kansas, a site that dries up in some years),

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Dunlins and Western Sandpipers do, as described by Stan Senner. The immense, remote Copper River Delta just southeast of the Prince William Sound in Alaska, is arguably one of the most important stopover sites for migratory waterbirds in the world, and the author does a captivating job in describing its importance to the successful migrations of Dunlins and Western Sandpipers. Almost the entire world's population of Western Sandpipers appears to stop at the Copper River Delta during spring, and most of the west coast population of the Dunlin (*Calidris alpina pacifica*) does the same.

The last chapter focusing on specific species deals with our smallest birds, the hummingbirds. William Calder has long studied the migration of hummingbirds, especially the Rufous and Broad-tailed, through the Rocky Mountains. He presents an amazing picture of how these tiny creatures gather enough fuel in the form of body fat, in a very unpredictable environment, to complete migrations of thousands of kilometers successfully.

Ables ends the book with a succinct plea for why we should be concerned about conserving migratory birds and what problems these creatures face. In a pessimistic but politically brave note, he points out that unless industrialized and nonindustrialized countries do something about curbing their insatiable expansions, especially through population growth and use of resources, life's diversity, including migratory birds, faces a diminished future.

Gathering of Angels is generally well edited. There are few and minor typos such as "Great plains" on p. 105 and labeling the figure on p. 18 as map 2.1. The maps and figures are clear and informative, with the exception of map 7.1 (p. 107), which in my copy is blurry and hard to read. Photographs are well selected.

Who should buy *Gathering of Angels*? Even before I was asked to review this book, I had purchased it as a perfect book to read while traveling. For those looking for the latest review on bird migration, tied in to the latest theories, with a complete list of references, this book is not for you (nor was it intended to fill such a role). Instead, it offers a fascinating, very readable, and personal look at bird migration in North America from the long-term perspectives of the distinguished contributing authors. *Gathering of Angels* should be an automatic buy for all private, public, and academic libraries with bird sections, especially given its relatively modest cost.

Nils Warnock

Swifts: A Guide to the Swifts and Treeswifts of the World, second edition, by Phil Chantler, illustrated by Gerald Driessens. 2000. Yale Univ. Press, New Haven, CT. 240 pp., 24 color plates. Hardback \$40.00. ISBN 0-300-07936-2.

The first edition of *Swifts* was published in 1995 and received mixed reviews (e.g., see *Cotinga* 6:42-43, 1996). Hence, perhaps, the fairly quick appearance of a second edition. The jacket cover notes that particular attention has been paid to neotropical swifts and that several plates have been revised. I reviewed *Swifts* in terms of New World species and changes over the first edition to answer two questions: if you own the first edition is it worth buying the second? If you own neither, should you make the financial leap?

Numerous specific criticisms of the first edition have been addressed, and in particular I commend the author (and publisher) for more frequent inclusion of direct literature citations. Although citations seem to have been included at random, and remain rather thin on the ground, the author has summarized a wealth of literature concerning swifts. Inevitably some references were overlooked. Not surprisingly perhaps, given the publication date, records from Sonora of the White-naped Swift and Chestnut-collared Swift (Russell and Monson 1998, *The Birds of Sonora*, Univ. Arizona Press) were missed, but White-collared Swifts have been known from central-