

Songbird Journeys: Four Seasons in the Lives of Migratory Birds

By Miyoko Chu. 2006. Walker & Company, 104 Fifth Avenue, New York, New York 10011 USA. 312 pages. U.S. \$23. Cloth.

This is a welcome, attractive, and highly recommended book. Each chapter is preceded by a well-chosen quotation, often an appropriate full-page poem.

Miyoko Chu has combined the best of investigative journalism with a passionate account of bird migration that holds the reader's attention. Four chapters deal with spring migration and two with fall migration. She also must deal with where these migrating birds summer and winter, so five chapters deal with these intervening seasons. Not only does she tell of the latest research into bird migration, but she interviews at length some of the leading authorities. Thus, we read fascinating stories about exceptional people who are studying interesting birds. I will mention a few highlights.

Her opening chapter deals with a long-unsolved question: do large numbers of birds make the seemingly impossible long-distance flight over the Gulf of Mexico, as George Lowery fervently believed, or was this a preposterous fiction of people's imaginations, as George Williams posited? Lowery began by studies through a telescope, and admitted that trans-Gulf migration was "fraught with enigmas and strained one's credulity." Williams accused Lowery of jumping from minute observations to sweeping conclusions, of extrapolating from the 12 birds he had seen through the telescope to claim a migration of 21 million birds. Sid Gauthreaux, when 17 years old in Louisiana, inveigled his way into one of the first weather radar stations and persuaded the meteorologists to let him look at the fuzzy dots that he thought must be movements of birds. He then persuaded Lowery to accept him as a graduate student, embarking on a master's thesis and then a doctoral dissertation that proved to doubtful ornithologists everywhere that radar was a superb modality for studying many aspects of migration. In so doing, he proved beyond doubt that Lowery was correct.

Frank Moore's group at Johnsons Bayou, Louisiana, studied weights and condition of migrants as they first reached landfall, after crossing the Gulf. Almost half the birds arrived with their fat reserves totally depleted.

Richard Graber, at Urbana, Illinois, was an incredibly early pioneer, four full decades ahead of the pack, in placing tiny radio transmitters on small birds. His friend, Bill Cochran, made him a number of tiny, 3 g transmitters, which he glued to the backs of thrushes that weighed about 30 g each. He tuned his receiver to the appropriate frequency and then followed the signals by truck, and once by aeroplane for 400 miles in eight hours. Cochran then took over the study and with special equipment he logged 150 000 miles by truck to follow individual birds for a total of 30 000 miles. He followed one Peregrine Falcon from Wisconsin

to Tampico, Mexico, a Sharp-shinned Hawk from Cedar Grove, Wisconsin, to Huntsville, Alabama, and a Common Nighthawk from Illinois to South Carolina.

Another hero is a bird, a Yellow Warbler, nicknamed "Wally," that carried band 1750-17109, and returned for nine years in a row, to sing near the Long Point Bird Observatory in Ontario. At Hubbard Brook in New Hampshire, where Richard Holmes and his colleagues have studied birds since 1969, bird numbers have declined by about sixty percent. There, Black-throated Blue Warblers produce more young in years when caterpillars are common and in La Niña years.

When Olin Sewall Pettingill was a boy in Maine, his mother showed him a Bobolink nest. But they faced hazards. About 720 000 Bobolinks were shipped as game from one place in South Carolina in 1912 alone. In Argentina, Pettingill learned in 1978, Bobolinks were now being shot as pests for eating rice crops. It is not surprising that the number of breeding bobolinks has dropped by 75 percent in 25 years.

A new branch of science, studying the calls of nocturnal migrants to recognize individual species, was pioneered particularly by Bill Evans in 1985, who produced a cassette tape of the night calls of the thrushes. His compilations were joined by those of Michael O'Brien in 1991. Four years later they had "nailed down" the final two species that had eluded them, the night calls of Canada and Wilson's Warblers. By 2001, they produced the landmark guide that identified the flight calls of 211 species of migrating landbirds in eastern North America. Collaboration with researchers and software programmers at the Cornell Laboratory of Ornithology allowed analysis of different bird species from their individual characteristics. There are now thirty rooftop stations monitoring nocturnal migration with these new methods. Although Chu fails to list the Evans/O'Brien CD in her references, it became available in 2002 and can be ordered through <http://oldbird.org>.

Only in 1995 was Bicknell's Thrush recognized by the American Ornithologists' Union as a separate species from the similar Gray-cheeked Thrush. Chris Rimmer studied this thrush, one of the rarest migratory birds in North America, in its breeding habitat among the stunted firs near the top of Mount Mansfield in Vermont. But where did they winter? Rimmer's crew found them in the Sierra de Bahoruco in the Dominican Republic and, miracle of miracles, in 1995 captured in a mistnet one of the banded birds they had tagged in Vermont the previous summer – and then recaptured the same bird again in Vermont during the next two summers!

The reader is also given detailed directions to North American birding migration hotspots, in both spring and fall, and mid-winter hotspots in Yucatan, Belize, Costa Rica, and Panama. She provides instructions for amateurs to help contribute to knowledge, by partici-

pating in Nest Record Card programs and Project FeederWatch.

Chu concludes by calling attention to the many hazards facing bird populations, such as loss of habitat, increasing parasitism by cowbirds, deaths from striking windows, communication towers, pesticides, carbon dioxide emissions, and acid rain. Twenty-nine species

have declined by more than fifty percent in the last 40 years. Despite these losses, the arrival of songbirds every spring remains a cause for celebration.

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BOTANY

Wildflowers of the Rocky Mountains

By G. Scotter and H. Flygare. Whitecap Books, 351 Lynn Avenue, North Vancouver, British Columbia V7J 2C4 Canada. 255 pages. \$ 29.95 Paper.

Plants of Alberta

By F. Rover and R. Dickinson. 2007. Lone Pine Publishing. 10145 – 81 Avenue, Edmonton, Alberta T6E 1W9 Canada. 527 pages. \$ 29.95 Paper.

It is most interesting that these two books have been published within such a short space of time. They were of immediate interest to me as I visit family in Alberta and usually manage a trip or two to the Rockies or the prairies. While they cover very different areas they include many of the same species. Furthermore, the authors have taken significantly different approaches.

Wildflowers of the Rocky Mountains [Wildflowers] contains 350 species of selected plants in six sections by flower colour [white, yellow and cream, green, pink, red, orange, and brown, purple and blue.] Each page depicts typically two species, all with a description, a photograph and a range map. The authors say they have chosen the most common species (typically the pretty species) likely to be encountered during visits to the Rockies, plus a few rarities. The area covered is the Rocky Mountain zone from northern British Columbia to New Mexico. This is a complete revision and expansion of a 1986 guide, that covered 228 species. The authors state that over the years they have learned to use non-technical language. They have been successful in applying this talent and has produced a very readable book.

I have a few problems with *Wildflowers*. I have a different view on the choice of colours. For example, I consider Mountain Sorrel to be reddish-brown not pink as the authors contend. Similarly, I think of Flame-coloured Lousewort (*Pedicularis flammea*) as red, but the authors have placed this plant in the cream section (because the flowers have a cream base). To further add to my confusion this plant is called Oeder's Lousewort (*P. oederi*) but *P. flammea* is given as the synonym. (However a web search of *P. oederi* showed images of cream-only flowers, while an image search for *P. flammea* showed cream-based flowers with significant amounts of red on the tips. A search for synonyms of *P. oederi* did not include *P. flammea*.) The alternative names are not included in the index. Many of the English, and some of the scientific names are not the ones I am used to. As an example, this book's Four-part

Dwarf Gentian or Felwort is called Alpine Gentian in other texts.

The range maps are coloured in for the entire state or province regardless of how widespread the plant is. So Bear Grass is shown as occurring in Alberta, whereas it can only be found in the vicinity of Waterton Lakes National Park. This greatly reduces the usefulness of these maps.

I thought the approach used by *Wildflowers* – arranging the species by flower colour – was useful only for beginners. After a couple of years most people know the major families, like vetch, violet, saxifrage and so forth and I thought this is the way people progressed. Recently I was told that women prefer books organized by flower colour and I found my wife agreed.

The photographs are very good and will be useful in identifying blooms in the field. The descriptions in *Wildflowers* are written in prose, often in a poetic style that makes for pleasant reading. There is an excellent introduction on the eco-zones and a wonderfully clear glossary.

The second book is *Plants of Alberta* (*Plants*) which covers over 1500 native plants that can be found in Alberta. It is arranged by family and includes aquatic plants, grasses, ferns and trees (so not just the pretty flowers). Certainly I prefer the *Plants* method of arranging by families so I can reference all the orchids, violets, louseworts, etc. together. It too has a description, a photograph and a range map also shown two to a page. There is a short introduction and a decent glossary.

Plants' descriptions are cryptic and scientific. Compare "While other saxifrages may dress in flowers of white or yellow, Purple Mountain Saxifrage is garbed with flowers of the richest rose-purple to royal purple" (in *Wildflowers*) with the terse "Flowers: Purple (occasionally pinkish or white.)" (in *Plants*)

The photos in *Plants* average about twice the size of those in *Wildflowers* – a considerable benefit. This is achieved by having no margins, giving 20% extra space. Also the headers giving the plant names and family are 60% smaller [but less artistic!]. As the text is shorter the text size is bigger – great advantage for older eyes. The larger script comes at the loss of poetic text to terse notes. So despite the book's slightly smaller pager size (10%), by the creative use of space the publishers have created a more appealing looking book.