

BOOK REVIEWS

Field Guide to Bird Sounds of Western North America, by Nathan Pieplow. 2019. Houghton Mifflin Harcourt. 633 pp. Many drawings, photos, figures, spectrograms. Recordings and spectrograms of all the sounds also available as supplemental material at www.petersonbirdsounds.com. Paperback, \$28.00. ISBN 978-0-547-90557-0.

Like many of you, I have bookshelves overflowing with all sorts of bird books—to the point where I have adopted a personal policy of buying a new one only if it replaces one I have, or if it represents a unique contribution. When Nathan Pieplow's earlier eastern version of this guide appeared, there was no question that it met the second requirement. That book sits within arm's reach of my desk. Living in the West, however, I have been eagerly awaiting the completion of the set with the publication of a western version.

Pieplow has created the first comprehensive publication covering the sounds made by North America's birds. But that does not represent his most valuable contribution. That lies in the introductory material. In those sections he gives us a systematic way to listen to bird sounds, to describe them, to remember them, and to communicate with others about them. Most of us distinguish the trilled songs of the Chipping Sparrow and Dark-eyed Junco by the junco's song having a ringing, more musical quality than the somewhat mechanical sound of the chippie. But Pieplow shows us what those subjective descriptions mean in objective, visible terms. That sort of information can be applied to a variety of comparisons of similar songs and calls. He gives us five basic and easily remembered ways to describe a single note's pitch pattern. This not only makes it easier to recognize notes, it allows us to explain to others what to listen for when learning a new bird sound. Using simple stylized spectrograms, he shows exactly why we call some sounds whistles, others ticks, or others buzzes. Why does that nuthatch call sound nasal? What produces the ethereal sounds of many thrush songs? All of this is demystified in a few easily digested pages.

Of course, most of us rely on mnemonics based on human speech to represent, learn, and remember bird sounds. These can be highly personal (I think our Audubon's Yellow-rumped Warblers say "chimp," but no one else seems to hear it that way...). Here again, Pieplow removes much of the subjectivity by showing exactly why one bird's call is a "peep" while another's is a "keek." This takes away much of the personal variation and gets us closer to having a common language for many of these sounds. Pieplow also provides a more systematic way of characterizing songs into types such as warbles, trills, series, and phrases. This way of describing a song can be readily grasped: Horned Lark songs start with a few distinct phrases and proceed into a warble; the Black-chinned Sparrow's song begins as a series of musical notes, accelerates into a trill and then into an unmusical buzz.

The effort that must have been expended to compile and organize all the information in the species accounts is simply mind-boggling. Terms such as "comprehensive" or "exhaustive" seem almost inadequate. The Savannah Sparrow account is typical of how each species is treated. It includes spectrograms and verbal descriptions of the most common song types with information about repertoire size, regional variation, time of year heard, and similar songs. Examples of six different calls include the common thin, high-pitched call ("tsew"), a metallic "tink," and that flat "chip" I have sometimes mistaken for a junco call. He also includes three more unusual calls associated with specific behaviors (whine series: "By both sexes in same-sex aggression, or in response to predators"). I challenge even the most devoted student of bird song to NOT learn something new in almost every account. At the top of each page is a color drawing of the species with a small range map and a short description of typical habitat. While this repeats information available from many other sources, it may be helpful to someone trying to determine if the sound they heard might be from that species.

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My main criticism of the book, the lack of a bibliography of sources, stems directly from the very thoroughness of the species accounts. It is clear that Pieplow has scoured the published literature on North American bird song like no one before him. Therefore, it would be great if most of those sources were cited. I understand why a publication intended for a general audience precludes citations within the text. However, a bibliography of sources organized by family would have been a useful addition.

The color-coded “Index to Bird Sounds” at the back of the book, coupled with a summary of terms on the inside back cover, is Pieplow’s ambitious attempt to create something akin to a botanical identification key. That is, a method for identifying an unknown sound by working from a given note or song type down to the candidate species. I suspect most users will find this a bit cumbersome. In most cases, the source of an unidentified sound can be narrowed down to a short list on the basis of habitat, time of year, and qualities of the sound. Also, as with any identification key, if you don’t start with the correct category of sound type, you will never get to the correct answer.

These very minor concerns aside, whether you are just beginning to learn or are hoping to improve your knowledge of and ability to communicate about bird song, you need to make room on your shelves for this book—preferably just above your desk.

Edward R. Pandolfino

Birds of Prey of the West: A Field Guide, by Brian K. Wheeler. 2018. Princeton University Press. 360 pp., 175 illustrations, 58 maps, numerous habitat photographs. Flexibound, \$27.95. ISBN 978-0-691-11718-8.

Raptors can be a challenge to identify, particularly because of their variability, but with practice it becomes easier and clearer. Numerous identification guides are available for the raptor enthusiast, hawk watcher, or biologist to use in the field, as a reference on a library shelf, or now as an app on a smart phone. The new *Birds of Prey of the West* is a complement and update to Wheeler’s 2003 book *Raptors of Western North America*, now out of print (reviewed by David Lukas in *Western Birds* 34:252–253, 2003). At first glance, this new version has the feeling of a standard field guide, but deeper reading reveals that this is a field guide for the advanced raptor enthusiast.

In the introduction, Wheeler outlines the book’s scope, format, and the color scheme of the plates, and provides terminology for raptor anatomy and plumage. His discussion of recent genetic studies informing our understanding of avian taxonomy is what stands out in the introduction and makes this section a must-read. He notes, “it is difficult to dispute multiple DNA studies that have arrived at the same conclusion” (p. 17). The introduction also provides a discussion of age classification and molt stages, the latter in layperson’s terminology. For readers interested in how to age raptors more precisely, the figure on page 49, “In-Flight Field-Visible Wing and Tail Molt” will be helpful. *Raptors of Western North America* also describes these molt patterns, but *Birds of Prey of the West* provides supplemental data in picture form by showing waves of molt. Wheeler worked with Peter Pyle to develop several plates and ensure accuracy in depiction of molt sequences. In the illustrations directional arrows from molt centers allow the reader to follow along with a description as complicated as “there are 2 molt centers and 3 molt units. The 1st molt center is on the mid wing, at s5” (Falconiformes, secondary molt, p. 45; illustration, p. 49). This series of illustrations, which covers seven species, is much more informative to the visual learners than a simple list of locations of molt of the primaries and secondaries.

Species accounts begin with the common name listed in the top left corner, making it easy for the reader to flip quickly through the book for the raptor of choice. Each page has a plate number, common and scientific names, and age as the header, above information on age classification, color morphs, size, habits, food, flight, and voice. This is all opposite of the illustrations, saving the reader from flipping back

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and forth to a separate plate section. After the plates, an account of natural history describes each species' habitat, status, nesting, and movements, and compares it to similar-looking species.

Wheeler admits to reusing some of the range maps from *Raptors of Western North America*, but the maps in this latest version are larger and updated. They include irregular sightings but not migration routes. If they had, the maps for the long-distance migrants might have ended up at a much larger scale. Migration is discussed briefly under the "Movements," adjacent to the range maps. A person reading the section on movements and looking at the range map but unfamiliar with western raptors could conclude the Broad-winged Hawk to be a rarity in the West, but raptor-migration sites in the West do count Broad-wings during the fall, sometimes in good numbers. For example, the icon indicating that the Broad-winged Hawk is irregular in the San Francisco Bay Area is misleading because a few hundred Broad-wings pass through every fall. On the plus side, the photographs of a species' typical habitat are a great addition because it is handy to visualize where the bird can be found. All the information provided is extremely thorough, though the font is small, which might make it hard to read in low light.

Field guides can be photographic or illustrated, and both approaches have their pros and cons. I agree with Wheeler that "illustrated guides make for a far better education tool." Completing such illustrations, however, can be a lengthy process: Wheeler spent 13 years working on this comprehensive illustrated field guide. In a photograph, "field marks are easily masked by irregular lighting or distorted angles of view" (p. 11). Nevertheless, photographic guides, if put together properly, can be valuable as well. For example, Jerry Liguori's *Hawks from Every Angle: How to Identify Raptors in Flight* (reviewed by Steve Howell in *Western Birds* 37:58–59, 2006) and *Hawks from a Distance: Identification of Migrant Raptors* use photographs to depict raptors in various situations and angles of lighting.

Birds of Prey of the West is a beautifully illustrated field guide and includes all the age, sex, and color-morph plumage characteristics a raptor fanatic will want and more. The time Wheeler spent on developing this book shows, and for its purpose the choice of illustrations over photographs is the correct one. The paintings show characteristics that could be missed in a photograph. Wheeler based his illustrations on museum specimens, allowing for a level of detail impossible with photographs. Having worked up close with raptors for about two decades, I was impressed by depiction of details I have noticed only with a bird in hand, not in flight. One characteristic that confused me, however, is the "spot" on the back of the head or nape in the illustrations of the Rough-legged Hawk, plates 42 and 43. It isn't as prominent as the illustration suggests.

The preface provides the reader with a look into Wheeler's artistic background and enriches the experience of viewing the illustrations. Wheeler drew and painted all the plates, which are visually stunning and impressively detailed. There are many beautiful illustrations, but the plates that stand out to me are on molt of birds in flight on page 49, the kestrels on plate 60, and the three subspecies of the Merlin on plates 61, 62, and 63. To make it easier to compare similar species, the figures are drawn with the bird posed in the same positions. Birds are illustrated perched positions and in four positions in flight. Illustrations of each species are arranged from youngest to oldest. Subspecies are placed on separate plates. Close-ups of heads and tails are presented in either dorsal or ventral views. Some plates have illustrations of specific feathers, for example, a secondary of the Broad-winged Hawk, a breast feather of a juvenile Red-shouldered Hawk, or the undertail coverts of a Cooper's Hawk as flared in courtship. These are small details but stand out as an example of this field guide's dedication to detail.

The amount of detail in each illustration is amazing—you can tell that Wheeler has been drawing, painting, and studying birds his entire life and enjoys it. The illustra-

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tions of the California Condor on plates 4 and 5 are of specific individuals, including their wing tag, and specify the date of hatching and the year photographed. Plate 12, on the Sharp-shinned Hawk, includes a variety of ventral tail figures, showing the differences between the tails of the male (more squared) and female (more rounded), which could aid the reader in understanding why you can't always rely on a square-shaped tail to tell a female Sharp-shinned Hawk from a male Cooper's Hawk. The white tips of the tail, which might otherwise be lost on a white background, show up nicely against the neutrally colored background. In contrast to the practice in many field guides, Wheeler places species on backgrounds of rich blue, orange-tan, brown, blue-gray, blue-green, and green, to "allow for an easy-on-the-eyes natural-world viewing scenario" and to accentuate some of the white tips of the wing and tail feathers. I think this color scheme represents another artistic aspect of this guide.

The species that stands out the most in this book is the Red-tailed Hawk. There is a book within a book on the Red-tailed. In the most comprehensive account of the Red-tailed Hawk's subspecies I have seen, six subspecies are described: the Eastern, Krider's, Western, Harlan's, Fuertes', and Alaskan, with a plate and text on juveniles and adults for each of the first four listed. Fuertes' and Alaskan are grouped together on a single page. There is also plate with accompanying text for leucistic and other variants. Because of new data discovered during the writing of the account of the Eastern Red-tailed, two essays following the natural history text discuss that subspecies' plumages and distribution in depth. Although some readers may glance through this section because of its density, *Buteo* enthusiasts will find it fascinating.

One confusing point for me was that the accounts of the Red-tailed and Red-shouldered Hawks both begin with the eastern subspecies. Why, when this edition highlights western raptors? Although the subspecies of both hawks should be compared, for the purpose of this book it would have made more sense to lead with the western subspecies.

Following the species accounts for the raptors more widespread in the West, there is a regional section, "Southwestern specialty species," which addresses ten species: the Hook-billed Kite, Swallow-tailed Kite, Common Black Hawk, Harris's Hawk, White-tailed Hawk, Gray Hawk, Short-tailed Hawk, Zone-tailed Hawk, Crested Caracara, and Aplomado Falcon. Following the Aplomado Falcon account is an interesting essay, "Reasons for the Aplomado Falcon's Demise and Difficulties in Reestablishing Populations."

This might not be the best field guide for the novice birder to start with, but is a great addition to the advanced raptor devotee's library. Wheeler's earlier *Raptors of Western North America* is a great reference book because of the photographs of birds and extensive glossary, but *Birds of Prey of the West* is a better field guide. However, even though it could be used in the field because of its size, detailed illustrations, and large range maps, it is a valuable reference book because it is so comprehensive. The details will be appreciated by people who want to develop their advanced skills, such as aging raptors in flight aging skills or understanding the Red-tailed Hawk's subspecies. I think *Birds of Prey of the West* paired with Liguori's *Hawks from Every Angle* or *Hawks from a Distance* should be the books I carry in the field because they balance each other out. The detailed illustrations in Wheeler's book plus the photos of birds in flight in Liguori's books give a birder the resources to figure out those difficult-to-identify hawks. *Birds of Prey of the West* is truly comprehensive, beautifully detailed, and is a good read while being small enough to fit in a day pack.

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How to Know the Birds: The Art & Adventure of Birding, by Ted Floyd. 2019. National Geographic. 303 pp., 45 black-and-white illustrations by N. John Schmitt. Hardback. \$37.00. ISBN 978-1-4262-2003-6.

In his inimitable style—articulate, eclectic, and thoroughly readable—Ted Floyd unfolds the stages, events, and epiphanies of a lifelong interest in bird study. Two hundred epistles organized in six chapters are arranged by season of the year and growing length and depth of experience: January–February, “Spark Bird”; March–May, “After The Spark”; June–July, “Now What?”; August–September, “Inflection Point”; October–November, “What We Know”; and December, “What We Don’t Know.” In a baker’s dozen examples chosen almost at random, these chapters include subjects such as (16) If It Walks Like a Duck, (17) A Colorless, Shapeless, Amazing Bird, (22) The Value of Local Experience, (33) Do the Checklist Shuffle, (40) The Absolute Best Way to Learn Birdsong, (62) The Logic of Migration: A Tale of Two Teals, (83) Whither the Field Notebook?, (119) What Is Molt Anyway?, (121) Two for The Price of One, (161) On The Origins of Knowledge: Bird Banding, (164) On the Origins of Knowledge: Scientific Collecting, (177) Schrödinger’s Hawk, and (200) Who Knew?

You cannot go wrong here. I think that anyone’s interest in bird study will only be enhanced, and often clarified, by reading this book. And John Schmitt’s handsome illustrations punctuate the work at every turn.

Daniel D. Gibson