## **BOOK REVIEWS**

Ageing North American Landbirds by Molt Limits and Plumage Criteria: A Photographic Companion to the Identification Guide to North American Birds, Part I, by Dan Froehlich. 2003. Slate Creek Press. 51 pages, with 32 color photographs and 2 line drawings. Paperback, \$18.50. Available from Institute for Bird Populations (www.birdpop.org/danflyer.htm). ISBN 0-9618940-2-4.

As much as banders were thrilled to discover the wealth of new information published in 1997 by Peter Pyle in the Identification Guide to North American Birds, Part I (hereafter IDG1), many found themselves limited in their ability to use that book to its full capacity. In particular, the use of molt limits (basically, the points of contrast between old and new feathers) was a relatively new concept to most North American banders, among whom there was a general unfamiliarity with how to recognize all but the most obvious molt limits (e.g., on Black-headed Grosbeaks or on Spotted and Eastern towhees). In this photographic companion (hereafter Photographic Companion), Froelich seeks to provide the visual aids needed to connect what banders see in the hand with what they read in Pyle's book. He also provides detailed background information on molt patterns as they relate to age-specific plumages, which should increase the readers' understanding of what she or he sees, both in the photos and in the hand. The Photographic Companion does not provide photographs for every species included in the IDG1, but instead provides photographs of molt-limit patterns using 24 species from throughout North America as examples. As with the *IDG1*, this is primarily a book for banders, although increasing numbers of field ornithologists are starting to apply "in-hand" age criteria in the field.

The introduction provides a compelling assessment of why the *Photographic Companion* was produced—and, importantly, produced with encouragement from Peter Pyle. While the *IDG1* focuses on identification and using molt limits, it provides only basic descriptions of characteristics that allow one to discriminate between individual feathers of different age classes. The traits that distinguish such feathers are often quite subtle and difficult to convey in the *IDG1*'s black-and-white illustrations, warranting further guidance in order for banders to detect such differences. The introduction also includes reminders of the useful demographic knowledge that can be gained if post-juvenile birds are aged, and of the importance in being conservative rather than over-confident when assessing birds' ages.

The three main sections of the *Photographic Companion* cover prejuvenal molt, prebasic molt, and confounding effects. The section on prejuvenal molt is brief but thorough for the purposes of this book. The book's emphasis is in the section on prebasic molt, which includes subsections on how and where to look for molt limits. The third section discusses confounding effects that relate to recognizing molt limits, such as feather wear, prealternate molts, pseudolimits, and molt timing. Distributed throughout the text are photographs with text boxes containing descriptions of specific molt patterns, tips for identifying molt limits, and cautionary points. Finally, in a concise and very useful two-page summary, Froelich synthesizes all of the previous information.

This is clearly a much-needed reference for banders. Although European banders have long been using molt limits, it has not generally been common practice to age North American birds using these subtle techniques. Unless banders have been trained extensively by those experienced in molt limits, most need need further guidance before being capable of using them. The *Photographic Companion* helps provide this guidance, without striving to be as comprehensive as Jenni and Winkler's *Moult and Ageing of European Passerines* (a reference I recommend even for banders in the Americas). As well as providing some pertinent background information on molt, it offers specific tips for identifying molt limits. Some of these expand on those provided in the *IDG1*, whereas others will be novel for most North American banders

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(e.g., replaced feathers often have thicker and darker shafts, are longer, and have denser barbs than retained juvenal feathers).

Some prospective buyers may initially balk at the price for such a short book; however, the numerous color photos justify it, although they are not of a quality as high as those in Jenni and Winkler (1997). These are a mix of spread-wing specimens and live birds that in most cases clearly reveal even subtle molt-limit patterns, which are also described and labeled in ways that help one discern them. In most of the photos only one individual of a post-juvenile age class is shown, generally a bird with molt limits. Photos comparing individuals of the same species with and without molt limits are, unfortunately, rare; the few that do this further enable the user to appreciate differences between age classes, and more of these comparative photos would have been a good idea. Also, to have included at least one photo of an individual that is "intermediate" and cannot be aged by molt limits would have served as a powerful reminder that banders should be conservative when using such techniques—an important point that could almost get overlooked in this book.

Photos were selected with care and are placed near their first reference in the book, presumably with a view towards fluidity and reducing the need for page flipping. I found, however, that this approach interfered greatly with reading the text, particularly because of the large text boxes associated with each photo. For example, on page 16 there are just two lines of general text sandwiched between two text boxes for associated photos on the opposite page; these two lines are the termination of a sentence that followed just five lines of text on page 12, also sandwiched between text boxes. Having to search for those lines of text resulted in a distinct lack of continuity in reading. Because of numerous references to each photo throughout the book (chosen photos were certainly well used), it would have been more ergonomic to place all of the photos and associated text together at the middle or end of the book. Additionally, the subsection headings that divide the text are appreciated where they occur, but their absence throughout much of the book reduces the reader's ability to relocate information. Thus, although care was put into making sure the reader is given all the crucial information for understanding age-specific plumage and molt patterns, additional effort in organizing the book would have greatly increased its friendliness to users.

While the photos are likely to be the real breakthrough for many banders, there is also ample text in the  $Photographic\ Companion$  that is at least as useful. Some of this information is also available in the IDG1 and Jenni and Winkler's guide, but the  $Photographic\ Companion$ 's descriptions that illuminate finer details of differentiating replaced and retained feathers are the most accessible and detailed available for North American species. In conclusion, while banders will still need extensive practice before they become fluent in the use of molt limits, Froelich succeeds in providing them with the additional resources needed to tap into the seemingly daunting descriptions of different post-juvenile age classes within the IDG1. With an increased ability to age birds, there is greater opportunity to determine age-class differences in survivorship, site fidelity, migration routes and timing, and other demographic parameters that may be significant to a population. I am confident that the  $Photographic\ Companion$  will prove very useful and important for the banding community, and I hope it will be read and used by all banders, novices and veterans alike.

## LITERATURE CITED

Jenni, L., and Winkler, R. 1994. Moult and Ageing of European Passerines. Academic Press, New York.

Pyle, P. 1997. Identification Guide to North American Birds, Part I. Slate Creek Press, Bolinas, CA.

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