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The Cornell Lab of Ornithology Handbook of Bird Biology, third edition

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BOOK REVIEW

The Cornell Lab of Ornithology Handbook of Bird Biology, third edition

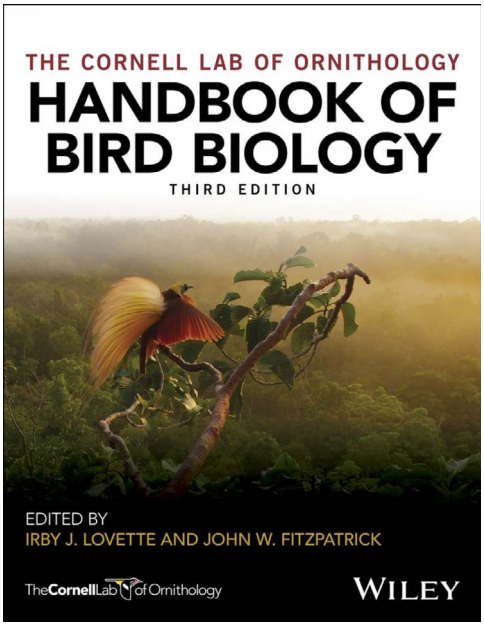
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The Cornell Lab of Ornithology Handbook of Bird Biology, third edition edited by Irby J. Lovette and John W. Fitzpatrick. 2016. Wiley, Hoboken, NJ, USA. 716 pp., 1,150 figures, tables, and photographs, full color. $125.00 (hardcover). ISBN 978-1-118-29105-4.

One might think it would be difficult to improve upon the second edition of the *Handbook of Bird Biology* (Podulka et al. 2004), which arguably was the best ornithology book ever compiled and written, yet the Cornell Lab of Ornithology has found a way to do so in its third edition. The changes include printing in full color; extensively expanding, reorganizing, and revising content; increasing the number of chapters (from 11 to 15); and adding 13 new contributing authors, several from around the world—all while significantly reducing the book's size.



This is the first ornithology textbook to be printed in full color. The remarkable photos—including many species that are seldom observed, let alone photographed—greatly improve the book's visual appeal. Many were selected because they demonstrate a key feature (e.g., mosquito vector) or concept (e.g., low vs. high wing loading). Moreover, lines and pointers have been added to several photos to direct the reader's attention to key features (e.g., location of a barbule) or to aid in visualizing a concept (e.g., aspect ratio). These subtle additions make challenging concepts (e.g., the pitch, yaw, and roll of avian flight) more accessible and comprehensible. Likewise, the use of color makes the relationships and trends depicted in the figures more accessible—the data points and fitted lines or curves jump off the page. I found myself staring at a figure longer than if it were just black and white (cell phone developers have used humans' sensory bias for color to their advantage).

I was further impressed by how the editors expanded the text, figures, and photographs while also reducing the book's overall size by about one-half, making it both more transportable and more likely to be picked up and read. They did this by using a smaller font size, being more efficient with space, increasing the number of columns of text from one to two, and either reducing the size of some figures and tables or eliminating them. For example, a figure that illustrated the stages of egg formation across an entire page in the second edition occupies less than half the space in the third and is accompanied by an additional figure plus three paragraphs of text; and a table comparing the traditional and the Humphrey-Parkes systems of plumage nomenclature, which filled a page in the second edition, now occupies but only a quarter of a page. For those of us in the 50+ age category, rest assured that the reduced illustrations and reduced font size are readable.

The four new chapters in the third edition arose from splitting some of the chapters from the second edition into two parts. This reorganization enables the reader to find specific topics more readily. For example, a single chapter in the second edition that discussed both flight and migration (Chapter 5) has been divided into Chapter 5 (Avian Flight) and Chapter 12 (Avian Migration and Dispersal). Similarly, the chapter on anatomy and physiology in the second edition has been split into individual chapters on anatomy and physiology. The second edition's

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chapter on bird behavior has been divided into one chapter on food and foraging behavior and another on mating and social behavior, and its chapter on the ecology of birds is now two chapters, on the ecology of populations and the ecology of communities.

Each of the original chapters has been enhanced with findings from more recent literature. Chapter 2 (Avian Diversity and Classification), likely the most important one to update, was expanded appropriately to include new species that have been described (e.g., Cambodian Tailorbird [*Orthotomus chaktomuk*]), updates on feather interpretations of theropod dinosaurs, and the most recently constructed avian phylogenies. Chapter 3 (How Birds Evolve) discusses new interpretations of the origin of endemic songbirds on the Hawaiian archipelago, as well as an intriguing update on sexual selection in Barn Swallows (*Hirundo rustica*) from research conducted in Israel. Chapter 5 is more technical and detailed than in the second edition, which some readers will find extremely helpful in understanding the dynamics of flight, though others may find it too detailed. The reorganization of Chapter 7 (Avian Physiology) is particularly useful for gleaning information, and there is a nice discussion on frugivory, ecoimmunology, and exercise physiology. Chapter 10 (Vocal Behavior) includes some new and important research in advancing our understanding of duetting, how birds adjust their songs during the dawn chorus, geographic variation in suboscine vocalizations, vocal development in suboscines, and singing in noisy places. The maps, figures, and photographs in Chapter 12 are particularly useful in illustrating and clarifying the information on migration and dispersal. Chapter 15 (Bird Conservation) remains an excellent resource. In addition to providing updated information on the historic declines of Asian vultures, it now includes discussions of climate change and setting conservation priorities (i.e. taxonomic distinctiveness, genetic distinctiveness, endemism, etc.).

In order to get the new edition to a workable size, some contents (including some tables) from the second edition were reduced or removed. For example, the stand-alone sidebars associated with each chapter were removed; in the second edition, these provided authors the opportunity to muse on specific topics and made for enjoyable reading (e.g., M. Lipske's "Feather Detective"; D. Kroodsma's "Do Birds Think?"; and P. Wrege's "Ant Followers"). However, some of that material has been incorporated into the text, or within boxed text, in the third edition (e.g., "Avian professionals: Ocellated Antbirds (*Phaenostictus mcleannani*) trailing army ants"). References are presented at the end of each chapter instead of as a large agglomeration at the end, so it is easier to track down primary literature.

As the number of global students who take Cornell's online ornithology course increases, there is a need to better serve them. Therefore, Cornell has broadened the book's coverage, using many more examples of birds from around the world, not just the Americas, to illustrate concepts and principles. I am not sure how some readers from North America will relate to a Green-backed Firecrown (*Sephanoides sephaniodes*), Greenish Schiffornis (*Schiffornis viresecens*), or Sapayoa (*Sapayoa aenigma*), but in a global world, I join many others in applauding Cornell for moving in this direction. Also, a plethora of online materials, including learning modules on a range of topics, from sexual selection to feather types, accompany the book. These materials are available on the Bird Academy website of the Cornell Lab of Ornithology.

Overall, the editors did an excellent job overseeing this colossal revision. It has been extremely well thought out and organized. Similarly, all the contributors and support staff should be lauded for bringing the vast amount of ornithological literature up-to-date. Textbooks read like textbooks, except this one—it is lucid. There is a freshness to it (perhaps it's that color sensory bias!), and it contains enough technical and detailed information to be useful to the professional. This textbook is a great resource for anyone interested in birds, from the casual birder to the student to the professional ornithologist. It is an excellent read and will quickly become a favorite. Lastly, I want to thank the originator of the phrase "Never give up," the last subheading in the book. It is a particularly important message given the current governmental standing on environmental issues. I highly recommend this book for anyone with an interest in birds—it will not disappoint.

LITERATURE CITED

Podulka, S., R. W. Rohrbaugh, Jr., and R. Bonney (Editors). 2004. Cornell Lab of Ornithology Handbook of Bird Biology, second edition. Princeton University Press, Princeton, NJ, USA.

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