

Book Reviews



THE WONDER OF BIRDS: What They Tell Us about Ourselves, the World, and a Better Future by Jim Robbins. New York: Spiegel & Grau, 2018. 352 pages. Paperback; \$13.62. ISBN: 9780812983760.

The photo of an Anna's hummingbird in flight is what first caught my attention. As I further inspected the cover of Jim Robbins's book *The Wonder of Birds: What They Tell Us about Ourselves, the World, and a Better Future*, I have to admit that I expected the book to be a secular version of John Stott's classic *The Birds Our Teachers*. I anticipated that each chapter would be a vignette about a wondrous feat accomplished by some far-flung species of fine-feathered friend, with each feat being a metaphor for our lives, or the human condition, or our relationships with each other. Instead, Robbins's book takes the reader on a four-part journey that reveals his insights regarding what birds tell us about the natural world, ourselves, and our future (as promised in the title of the book), along with a discussion of the "gifts of birds" (what ecologists might call "avian ecosystem services").

The book certainly includes the obligatory wondrous feats of birds that can be handy knowledge during a trivia contest (e.g., a calliope hummingbird can hover nonstop for 90 minutes, and bar-headed geese can migrate over the Himalayas at 30,000+ feet). However, the focus of his eighteen chapters is not really to wow us with impressive statistics, but to draw us to a deeper appreciation for our avian neighbors, which are often ignored and/or taken for granted. Each chapter of Robbins's book is prefaced with a handsome illustration of one of the chapter's focal species. But the book is not really about how pretty birds are (in fact, one chapter focuses on the unseemly practices of vultures and another chapter discussed slaughtering practices in the chicken industry), and appropriately, the illustrator, D.D. Dowden, does not embellish the drawings with mountains, ponds, prairies, or fields of wildflowers.

Robbins begins Part I (What Birds Tell Us about the Natural World) by bringing the reader up to speed on the origin of birds (as a surviving lineage of dinosaurs) and the evolution of bird flight. Upon reading the first chapter, I was starting to wonder whether the author had pulled a bait-and-switch, but my puzzlement was short-lived, as the next three chapters examine avian versus human (mechanical) flight, what canaries, black-backed woodpeckers, and other birds tell us about their/our environment, and flock dynamics (information used in the battle scenes in the *The Lord of the Rings* and *The Hobbit* film trilogies).

In Part II (The Gifts of Birds), Robbins presents us with other origin stories, those of industrial chicken production ("Big Chicken") and of the \$5 Costco fully-cooked rotisserie chicken. Robbins then discusses the myriad of ways that birds serve humankind just by doing what they do, and how the loss of birds can be catastrophic for human societies. For example, Robbins describes the recent loss of vultures in India due to poisoning by a livestock drug and the ripple-effects of this loss, including the loss of an estimated 48,000 human lives.

As a graduate student studying birdsongs of black-capped chickadees and house finches in the 1990s, I was often asked at social gatherings why anyone would care about birdsongs and whether there was something more important that I could be studying. I quickly learned that most people do not find birds to be particularly interesting, cool, or worthy of investigation. I soon began weaving what in my mind were embarrassingly simplistic fabrications to appease the masses—explanations about how studying birdsong development and song learning can help us understand more about human vocal development and perhaps provide us with treatments for speech pathologies such as delayed speech acquisition. Twenty years later, Robbins presents his readers, in Part III (Discovering Ourselves through Birds), with a similar but much less "fabricated" story about how spatial memory develops similarly in bird and human brains and how, if scientists can unlock the secrets of neurogenesis in the vocal centers and other areas of bird brains, we may be able to "usher in a new era of therapy for stroke, trauma, Alzheimer's, Parkinson's, and other brain ailments." Other topics in Part III include the soap-opera-like family dynamics of bee-eaters, the language of birdsongs in chickadees (ever wonder why there are sometimes so many "dees" in the "chick-a-dee-dee-dee" call?), the intellect of ravens and crows, and the athletic prowess of birds such as bar-headed geese.

In Part IV (Birds and the Hope for a Better Future), Robbins begins with a discussion of how we have put bluebirds and falcons to work controlling pests. Next time you are at a party and someone drinking a Spring Mountain (Napa Valley) chardonnay asks you why birds matter, you can tell them that they can thank western bluebirds for helping make their beverage pesticide-free. Robbins's next chapter focuses on the beloved yet maligned domestic pigeon, with the harrowing story of Cher Ami, the pigeon that saved a battalion of 194 US soldiers during World War I. While these stories seemed somewhat out of place as I read them (they seem like fodder for Part II), Robbins then shifts the focus toward the emotional connection some urban dwellers have with pigeons,

as the pigeons are the only nature some of them ever experience. Interestingly, Robbins posits that the love for pigeons may be vital to protecting the rest of the world's biodiversity. Robbins continues Part IV with chapters about the transformational power of owls and other raptors, including how at-risk inner-city youth were able to return the bald eagle to its historic nesting areas along the Anacostia River in Washington, DC. Robbins concludes with a discussion of ethno-ornithology, a relatively new field of study that looks at the holistic relationship between some tribal societies and their avian companions. As Robbins puts it, "Understanding the relationship between native cultures and birds may lead us back to a sustainable world in which their fate—and ours—is no longer in doubt" (p. 295).

This is a book that would appeal not only to fans of honeyguides, corvids, vultures, eagles, hawks, owls, linnets (house finches), penguins, chickens, hummingbirds, zebra finches, chickadees, egrets, flycatchers, waterfowl, starlings, bluebirds, raptors, pheasants, or any of the other myriad birds described in the book, but also to anyone who wants to learn more about birds and their roles in our lives. Robbins's use of swear words on two occasions might be distracting or offensive to some readers, but all in all, Robbins has produced a thoroughly researched and well-written book on the ecological, economic, and spiritual value of birds to humankind. The book reminds us of the value of biodiversity, and although Robbins is writing for a secular audience, his scientific approach to the subject matter and ability to weave the science into an entertaining narrative can help *PSCF's* readers and other Christians to understand more fully and to appreciate more deeply the responsibility we bear in having dominion over creation.

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HISTORY OF SCIENCE

DARWIN'S FIRST THEORY: Exploring Darwin's Quest to Find a Theory of Earth by Rob Wesson. New York: Pegasus, 2017. xxi + 383 pages, including endnotes, index, and 62 figures. Hardcover; \$29.95. ISBN: 9781681773162.

DARWIN'S FOSSILS: The Collection That Shaped the Theory of Evolution by Adrian Lister. Washington, DC: Smithsonian Books, 2018. 215 pages, including sources, references, index, 16 figures, and 9 maps. Paperback; \$19.95. ISBN: 9781588346179.

Charles Darwin, while en route to authoring *On the Origin of Species*, was widely appreciated as an explorer and as an observant field geologist. His geological and paleontological observations and inferences influenced his approach to nature as well as his appreciation for the significance of history for interpreting what we see today. The two volumes reviewed here narrate and interpret the effort, physical and mental, that Charles Darwin exerted as a young and vigorous naturalist while on board *H.M.S. Beagle* (1831–1836). *Darwin's First Theory* also covers Darwin's tutelage in field geology under Adam Sedgwick in the weeks prior to setting sail, and his field excursions in Scotland and Wales following his return. Together, the two books complement one another, revealing Darwin's growing understanding of Earth function, the implicated depth of geologic time, and the relationships of past biotas to those of today. These three subjects arguably provided the young scientist with a foundation for his later work on the mechanisms channeling the history of life.

The young Darwin was a keen geologist. His first book (1839) was his *Journal of Researches into the Geology and Natural History of the Various Countries Visited by H.M.S. Beagle*, only later retitled by a publisher as the *Voyage of the Beagle*. On the title page, the author's name is subtended by his credential as a scientist: "Secretary, Geological Society." This may have been meant in part as a claim to professional status, but it also declared the author's identity as a geologist. Wow! Darwin dedicated the second edition (1845) of the *Journal of Researches* to the geologist Charles Lyell, explicitly referencing Lyell's *Principles of Geology*. Darwin's debt to Lyell while a young scientist has been noted by many historians, but the intellectual link has often been developed merely to underscore Darwin's developing uniformitarian approach to natural history. This thinning of Darwin's early fascination with geology has been remedied by the biographies of Darwin by Desmond and Moore (1991) and by Janet Browne (1995; 2003). Further rehabilitation of Darwin the geologist and paleontologist has been provided by Richard Darwin Keynes, in *Fossils, Finches and Fuegians* (2003), a thorough account of the voyage of the *Beagle*; and by Sandra Herbert, in *Charles Darwin, Geologist* (2005), which examines many facets of Darwin's development as a scientific observer and communicator. The books by Lister and Wesson, here under review, continue this revelation of Charles Darwin, field geologist.

Darwin's Fossils, as the title suggests, is focused on the kinds of fossils that Darwin collected while on the *Beagle* expedition. A preliminary chapter introduces us to Darwin's associates on the *Beagle* and