

BOOK REVIEW: *The Song of the Dodo*

by William E. Davis, Jr.

The Song of the Dodo: Island Biogeography in an Age of Extinctions, by David Quammen. New York: Simon & Schuster, 1996. 702 pages. \$17, paperbound.

Most of my birding friends started birding as enthusiastic listers and chasers, enjoying being outdoors at all seasons, relishing the thrill of the chase, but always getting special enjoyment from the esthetic appreciation of a really spiffy bird. But almost without exception, their interest in birds has expanded through the years to encompass bird behavior and other aspects of bird biology. All have become involved at one level or another in conservation (it makes sense to worry about the continued existence of the objects of your affection). And most have developed interests in natural history that extend beyond birds to include the fundamental processes of nature. This book is for those people who wish to expand their horizons to include a deeper understanding of ecology and the processes that delineate and constrain the theory and practice of conservation. This is not an easy book — it requires you to think. But it contains more information about natural processes, and about the people who have discovered their importance, than any other book I have read.

Known to many for his witty essays on natural history, David Quammen manages to express complex ideas in an understandable way. Part of this stems, I suspect, from a less-than-full appreciation of the world of mathematics and statistics: in describing someone else's work he states, "It contains a few simple diagrams, a few maps, but no outbursts of statistical abracadabridizing, no tirades of hieroglyphic calculus, almost no mathematics at all. So it makes easy reading for those of us who are mathematically impaired." Hence, although his discussions are not mathematically rigorous, they are accessible to all, and although the subjects discussed are serious, a sense of humor surfaces with regularity.

The book consists of ten chapters which trace the development of modern ideas about evolution and explain the role of biogeography (the study of patterns of distribution of species) — especially as it relates to islands — in shaping those ideas. Quammen thoroughly researched the historical literature about, for example, the Darwin-Wallace simultaneous publication of the theory of natural selection, and he traveled to many of the Australasian sites that Alfred Russel Wallace visited during the years of intellectual incubation that led to the final theory. The narrative of Quammen's travels is woven through the historical treatment to provide a highly readable account, spiced with adventure. He visited many of the areas he was writing about, and his commentary about Komodo dragons (giant carnivorous monitor lizards) in southeast Asia, lemurs

in Madagascar, saki monkeys in the Amazon, Mauritius and the ghost of the Dodo, and, of course, the Galapagos islands with their tortoises, mockingbirds, and finches, provides fascinating interludes and supports his discussion of island biogeography theory. His adventures are real and stimulate empathy. For example, as a person who finds spiders a less-than-adorable example of evolutionary diversity, I appreciated his description of walking into the web of a Guam spider with a body as big as a prune:

I freeze. My pores pucker like sphincters. I feel the strong tiny threads, sticky with some sort of glandular arachnoid exudate, stretched taut against my forehead and cheeks. With false calm, I back my way out. Doubled over, I brush my hair, swat my ears, scoop at my collar. The silk is like cotton candy. I peel away what I can. Then I look up to see a long-legged black spider at eye level just in front of me. From this perspective the prune simile seems inadequate; her abdomen looks as big as eggplant.

Although the book brings everything from insects to elephants into the story line, there are still plenty of birds — e.g., birds-of-paradise, ostriches, Guam Rail, flightless cormorants, and, of course, the Dodo. The concept of adaptive radiation is exemplified by Darwin's Galapagos finches and the honeycreepers of the Hawaiian Islands.

Islands have become important natural laboratories for the study of evolution, and Quammen takes the reader through the historical assessment of patterns (for example, giantism and dwarfism) that characterize island faunas: "Midgets and giants, behemoths and runts — it's all a confusing welter of upscaling and downscaling." The discussion of the theory of island biogeography, originally proposed by Robert MacArthur and Edward O. Wilson, and the subsequent challenges and debate which the theory elicited, are humanized by intriguing interviews Quammen had with Wilson, Thomas Lovejoy, and others in the cast of characters. Science comes across as much less "cut-and-dried" than it is usually portrayed — scientists appear as actual people, with strengths, weaknesses, and political agendas. The important theoretical contributions of twentieth-century giants of ornithology such as Ernst Mayr (Harvard University) and David Lack (Great Britain) are presented as background for the biological disputes of today, particularly conservation issues such as the SLOSS ("single large or several small") arguments about the best way to construct nature preserves. Quammen takes the lessons learned from the study of islands — ". . . insular evolution, for all its wondrousness, tends to be a one-way tunnel toward doom" — and extends them to continental masses, where fragmentation of ecosystems can produce "islands" of habitat that mimic the biological processes observed on true islands.

The book deals with extinction — a sober subject — and the role and extent of human influence. The story is not pretty, but is told in a nonpolemical way, which makes it even more chilling. In discussing an introduced snake that has wreaked havoc among bird populations on Guam, Quammen states, "It's not an evil animal, after all. It's just an amoral and earnestly stupid creature in the wrong place. What it has done here in Guam is precisely what *Homo sapiens* has done all over the planet: succeeded extravagantly at the expense of other species." *The Song of the Dodo* isn't all gloom and doom, however, and describes success stories, such as bringing the Mauritius Kestrel back from the brink of extinction, as well as disasters. Quammen even ends the book on an upbeat note: "Meanwhile, though, there's still time. If time is hope, there's still hope."

This may not be a book for everyone, but if you are willing to read this long, serious, and insightfully written science adventure story, you will most certainly gain a better understanding of the condition of our planet and what might be done to improve it. I learned a lot from the first reading, and am about to read it a second time.

