

BOOK REVIEW: *Birds in Brazil*

by John Kricher

Birds in Brazil by Helmut Sick, illustrations by Paul Barreul and John P. O'Neill, translated from the Portuguese by William Belton. Princeton: Princeton University Press, 1993, 703 pages with 47 plates, 38 of which are in color, \$125, cloth.

This volume is a welcome addition to the literature in neotropical ornithology. It is an English translation of what was a two-volume work, originally published in 1985 and written in Portuguese by the late Helmut Sick. Thanks to sponsorship from the International Council for Bird Preservation and from the Companhia Vale do Rio Doce, not only has Sick's work been translated and brought together in one volume, it has also been updated and somewhat enlarged. William Belton, the translator, is to be commended for making this book available to an English-speaking audience. It is not a small book. Those who seek a convenient field guide to Brazilian birds will be disappointed. They do not make backpacks sufficiently large to comfortably accommodate this 8.5" x 11", 4.5-pound tome. You will need to read it first but probably leave it home. It is also not meant to serve merely as an aid to identification. Rather, it is a comprehensive natural history of the diverse Brazilian avifauna.

And what an avifauna. Brazil boasts a total of 1635 species representing 91 families and 23 orders, approximately 55 percent of the bird species recorded in all of South America, and 18 percent of all species recorded in the world. Besides the obvious species richness, Brazil is home for an extraordinary number of fascinating species, each of which is discussed, though to varying degrees.

The first five chapters, referred to as Part One, provide a general overview, before launching into the details of the birds themselves. Chapter One provides a helpful introduction to the geography and ecology of the South American continent, with an obvious focus on Brazil. It introduces the principal habitat types, not surprisingly emphasizing the vast rain forest of Amazonia. Non-rain forest habitats, including montane forest, cerrado, campos, caatinga, and Pantanal, are also discussed with sufficient detail that the reader can easily grasp their unique characteristics along with a brief mention of some of their most distinctive bird species. Eight pages of black and white photographs illustrate the various major habitat types. Chapter Two discusses the history of Brazilian ornithology, and Chapter Three considers issues of conservation in Brazil. The major focus in this chapter is the array of conservation problems that have beset Amazonia, including deforestation, hydroelectric installations, infringement on Indian lands, loss of biodiversity, and increasing pollution. This chapter is not encouraging, though it tries to end on a positive note, claiming that new attitudes toward enlightened conservation practices are emerging within the

Brazilian government.

Chapter Four, Biogeography and Speciation, was contributed in part by Jurgen Haffer, well-known for his theory that various restricted rain forest refuges existed during the Pleistocene, helping to account for the extraordinarily high diversity patterns seen in various parts of Amazonia. Haffer's comments alternate with those of Sick throughout the chapter. This brief chapter provides a very clear explanation of the Refuge Theory, noting both its strengths and weaknesses. Chapter Five is a broad overview of Brazilian birds, with much attention given to the concept of endemism.

Chapter Six, comprising 549 pages (78 percent of the book), contains family and species accounts, order by order, beginning with the tinamous and ending with the waxbills. This chapter is the real strength of the volume. Anyone interested in acquiring a thorough knowledge of neotropical birds ought to read it through. Each order is considered family by family. Introductory comments detail (to varying degrees from one order to another) the following: morphology, special adaptations, identification, vocalization, feeding, behavior, population characteristics, mating, egg, parental care, young, reproductive potential, habitat, distribution, evolution, folklore, parasites, enemies, conservation concerns, and captive breeding. Not all of those topics are considered for each order, but those orders well represented in Brazil are treated in detail. Following the overall discussion is an annotated list of each species known from Brazil. These generally brief accounts detail the field marks (including voice), range, and degree of commonness or rarity of each species. These accounts are useful for anyone planning a trip to Brazil who is interested in which species to expect in a particular region. Unfortunately, range maps for each species are not included. Each order concludes with a brief, selective bibliography.

It is an understatement to say that there is a wealth of information here. Helmut Sick was, to put it mildly, an expert on the natural history of Brazilian birds. The book abounds with obscure but fascinating information. For example, cracids (chachalacas, guans, and curassows) suffer from roundworms beneath the nictitating membranes of their eyes. Sick points out that the means by which these parasitic worms infect guan eyes is, perhaps unsurprisingly, not understood, although he notes that domestic fowl have similar worms, traced to insects such as cockroaches that are consumed by the birds. We also learn that roosting cracids may on occasion have some of their blood devoured by a species of vampire bat that skillfully cuts the skin around the birds' feet or cloacal opening. Such is life in the jungle.

Next time you are wandering around South America, look sharply for pygmy-owls. Sick points out that many people believe these little owls, with "eye spots" on the backs of their heads, have the power to bring good luck. In Amazonia a small toucan species (*Ramphastos vitellinus culminatus*) looks

virtually identical to a larger, more aggressive species (*R. tucanus cuvieri*), both having white throats and yellow upper tail coverts. Elsewhere, where their ranges do not overlap, the smaller species has a yellow throat and red upper tail coverts. Sick believes that the convergence in appearance, where the large and small species are sympatric, is a case of "aggressive mimicry," where the smaller species is less apt to be expelled from a fruit-laden tree because it looks so similar to a larger, more aggressive species. I could go on, but these examples should suffice to give you a sense of the degree of information in this book.

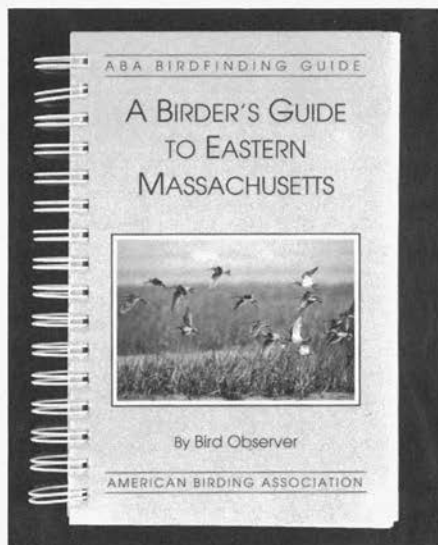
The forty-three plates by Paul Barreul are quite splendid. All but nine are in full color, and the color reproduction is of the highest quality. Barreul's plates include 380 species. In addition, there are two color plates by John P. O'Neill that include twenty-two more species. The last two color plates are of an Indian's feathered collar and an ancient world map showing the Brazilian coast. Besides the plates, throughout the book there are many black-and-white illustrations, some quite detailed, as in the Racket-tailed Coquette plucking a spider from a web (page 346), and some rather crude, as in the Red-ruffed Fruitcrow mooing (page 513). Altogether, 327 figures are in the text, including drawings of nests, bill movements while processing food, territorial and mating flights, distributional maps for various genera (mostly based on Haffer's work), and unique anatomical characteristics (e.g., trachea of a limpkin).

In addition to the selected bibliography that concludes each order account, there is a general bibliography of 439 references. There are two species indexes, one to scientific names, one to English names.

Many readers of *Bird Observer* may wonder if the relatively high price of this volume merits its purchase. The decision, of course, depends on what one is trying to learn about tropical birds. There is no field guide that provides comprehensive coverage of Brazil, and this book, as well, is not a field guide. However, I know of no other single volume that contains such extensive information on the natural history of virtually all groups of neotropical birds. The new series by Ridgely and Tudor on the birds of South America will eventually be five volumes and cost probably about \$400 for the set, maybe more. Currently, only two volumes in that set are published. The numerous books by Skutch are superb studies of selected species but lack the coverage provided within this single book. None of the various neotropical field guides (Venezuela, Colombia, Costa Rica, Panama) rival *Birds in Brazil* in terms of breadth of information. *Birds of the High Andes* compares favorably and, interestingly, costs just as much. Good, well illustrated, quality bird books are becoming increasingly expensive. Compared with handbooks such as the Cramp series on Palearctic birds, the *Birds of Africa* series, and the new series on the birds of Australia, New Zealand, and Antarctic, *Birds in Brazil*, at a mere \$125, is probably a bargain.

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Massachusetts. John has authored nine books on natural history, including *A Neotropical Companion*, *A Field Guide to the Ecology of Eastern Forests*, and *A Field Guide to the Ecology of Western Forests*. John serves as department head for feature articles and field notes for *Bird Observer*.



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