

Books

The Hummingbird Book. Donald & Lillian Stokes. 1989. Little, Brown and Company, Boston. 89 pp. \$9.95.

This is a colorful, easy to use, and easy to read 8-1/2"x11" book about the hummingbirds of North America by the writers of the Stokes Nature Guides.

There are 70 full color photographs, eight range maps, diagrams of these birds' aerobatics, and detailed behavior descriptions, as well as six pages on orioles in North America.

Most of the pictures are of fine composition and color except for the male Ruby-throated on pages 73, which exhibits no ruby throat.

The chapter subjects range from attracting hummingbirds, behavior, amazing facts and photography, to specific information about each of the North American hummers. I found the book lacking the finer details of age-sex differentiations of which banders would have a more specific interest, even though most of us do not normally band hummingbirds.

Mickie Mutchler

Helping and Communal Breeding in Birds: Ecology and Evolution. Jerram L. Brown. 1987. Princeton University Press. xvii + 354 pp. Hardcover.

"Helping" and "communal breeding" as used in this book have a more restricted meaning than is implied by everyday connotations of the words. "Helping" refers to the display of parental behavior to young of one's own species, but not of one's own offspring; and "communal breeding" refers to social situations in which a pair is aided in raising their young by one or more other individuals. Studies of such behavior in birds are relatively recent and largely the product of work done in the last three decades, the bulk of it since the mid 1970s.

This book provides a comprehensive review of a recently burgeoning area of study for which there are significant recent advances in theory and field work, and about which there has been much debate. Overall, the book does a nice job of compiling a large amount of information and is remarkably up to date. It contains much of interest to a person casually interested in birds but is technical and requires at least minimal mathematical sophistication. It is not easy reading, yet provides interesting insights into recent work on "inclusive fitness," the post-Darwinian idea that one's overall fitness is reflected in the reproductive success of non-descendent as well as descendent kin.

Much of what is currently known about helping behavior is based on color-banded birds. There were only scant observations of well-documented helping and communal breed-

ing but the advent of color marking revealed that helping is much more widespread, with such behavior now known in over 200 species and its presence likely in many more whose social systems have not yet been studied. The reason that such behavior is not better known is that it has been reported mostly from equatorial areas and the southern hemisphere. There is no clear cut relationship with taxonomy but helping has been reported relatively more frequently in passerines with wrens (7 species), timaliids (16), fairy wrens (16), non-eyeteaters (13), starlings (9), and jays (17) represented most often.

Brown points out that regular helping behavior occurs regularly only in two social systems, the more common one in which helpers are related to the young through their parents, and the less common one in which some form of polygamy results in parents caring for young that may not be their own. His analyses of topics such as altruism, cooperation (or mutualism), selfishness (all in their biological sense), the association of delayed breeding and reduced dispersal with helping behavior, and various sorts of mating systems all quickly make apparent that bird behavior is far more complex than was thought even a few decades ago. Indeed, some of the chapter subtitles; e.g., "Female Miners sell sex for paternal care" and "brotherly love among Native Hens," sound as if they belong in other than an academic work. On the other hand, subtitles like "The augmentation hypothesis of reciprocity in the Green Woodhoopoe" are not conducive to extravagant fantasizing.

The book was produced quickly with Brown sending it for private review only eleven months after deciding to write it. The speed with which this book was produced is the source of both its strengths and weaknesses. Although the preface is dated 31 December 1985, the book cites 11 titles from 1986 and not less than 30 from 1985, making it remarkably current.

Despite my overall favorable impression, elements of hurriedness in preparation mar the book. In the early chapters there are too frequent references to discussions in chapters further on. The eleven page annotated glossary at the end of the book is helpful; but some of the material, a page and a half discussion of "helper" and two pages on "indirect fitness" would have been better incorporated in the main text. My overall impression of the book is that it is one necessary for a professional ornithologist working in this area because of its stimulating discussions, currency, and completeness (571 titles in the literature cited) but is also one that could have been strengthened with a little more reorganizing and rewriting of material.

Roger B. Clapp

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