The Birds of Paradise

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The Birds of Paradise.—Clifford B. Frith and Bruce M. Beehler. 1998. Oxford University Press. Oxford, England. xxx + 613 pp., 15 color plates, 124 text figures. ISBN 0-19-854853-2. Cloth, $85.00.—For centuries, the natural wonders of New Guinea have attracted amateur and professional biologists, but none have attracted more attention than the birds of paradise. It is believed that bird of paradise plumes were traded among the islands of New Guinea and those of Indonesia and southeast Asia as early as 5,000 years ago, and the first skins were brought to Europe in the 1520s. With bizarre plumes and fantastic display dances, these birds interested many early explorers, collectors, plume hunters, naturalists, and (more recently) birders in coming to New Guinea.

The first ornithological treatment of the family was published in 1802, and no fewer than seven other monographs have focused on birds of paradise. The last authoritative synthesis was published posthumously by E. Thomas Gilliard in 1969. Nearly 30 years has passed since Mary LeCroy compiled and delivered Gilliard's work to the publisher, and now, with much new work to summarize, Frith and Beehler have compiled this tremendous volume for Oxford's series, ''Bird Families of the World.''

This book treats 42 species in 17 genera, and includes *Macgregoria pulchra* (now believed to belong to Meliphagidae), the Cnemophilinae (or the ''wide gaped birds of paradise''), and the paradise crow (*Lycocorax*). It does not explicitly include the genus *Melampitta*, which is believed to be the sister group to Paradisaeidae, although they do discuss its possible taxonomic position with relation to birds of paradise.

Like other books in this series, this book has two major sections. The first section includes eight chapters that summarize general bird of paradise biology, history, and cultural significance. Chapter 1 examines bird of paradise morphology and introduces the reader to unusual or unique attributes including morphology (unusual feathers in most groups, elongated trachea in Manucodes, elaborated skull morphology, etc.), behavior (lekking, mating displays), ecology, long lives, delayed male mating, etc. Chapter 2 summarizes the colorful history of bird of paradise exploration and discovery.

Chapter 3 focuses on evolution, systematics, and biogeography. This chapter discusses the placement of the birds of paradise within the Passeriformes and presents alternative phylogenies proposed for Paradisaeidae genera. The authors add their own cladistic analysis of the 17 Paradisaeid genera, using 52 morphological and behavioral characters. They readily convey the philosophical and practical difficulties of constructing and interpreting phylogenies—unusual but essential for welcoming a lay audience into this fascinating but contentious field. Their own tree comfortably recovers many conservative findings and adds new data for placing difficult species, such as the Twelve-wired Bird of Paradise [*Seleucidis melanoleuca*]. The fourth chapter discusses ecology, but focuses primarily on foraging ecology, in part because other topics in ecology are covered in chapters 5 (reproductive behavior) and 6 (nesting biology and parental care.) Those chapters provide a nice overview of the factors that influence the ecology, behavior, and evolution of bird of paradise ornaments and unusual mating displays and behaviors. The final two chapters in that section describe human culture and tradition surrounding birds of paradise, and a final chapter discusses conservation status of birds of

paradise. This section is 167 pages long, representing <30% of the book.

Over 50% of the book (328 pages) are devoted to species accounts. Those accounts average about 6 to 8 pages per species, but range from 2 pages (Long-tailed Paradigalla [*Paradigalla canunculata*]) to 14 pages (Raggiana Bird of Paradise) depending upon how much is known. Like other books in the Oxford series, each account provides name with synonyms (including some New Guinea village names), a species description, the species distribution, systematics and nomenclature, weights and measurements, habitats and habits, diet and foraging, vocalizations and other sounds, mating system, courtship behavior and breeding behavior, descriptions of any annual cycle, status and conservation, knowledge lacking and research priorities, and a summary of any avicultural information. Those written accounts are associated with numerous sketches and line drawings by W. T. Cooper as well as black-and-white photos of nests, displays, or other materials. This is clearly the meat of the book, and those descriptions are as thorough as possible and do a nice job of citing primary literature when it contains more information.

The book also includes a short glossary, a thorough bibliography, and seven appendices. The appendices either present new data (fruit diet items of birds of paradise, moult data from museum specimens), or reference and summarize other resources—some of it specific to birds of paradise (information concerning hybrids, published recordings of vocalizations, how best to study birds of paradise) and some of it general for New Guinea biology (an annotated list of New Guinea exploration and a gazetteer of localities.)

The authors' careful attention to detail, meticulous recording and compiling of museum data, field observations, and other published and unpublished accounts, make this the definitive status report of our current knowledge of the Paradisaeidae. Their task was huge, but they successfully accomplished it, and yet they present the work humbly and cautiously while generously acknowledging the many researchers who have contributed to our knowledge of birds of paradise. Frith and Beehler set a new high standard for this Oxford Bird Families of the World series. For many readers, this book will replace the monographs that have come before. For the more academic and discerning reader, it will serve as your new starting point and road map for delving into the literature of the biology, history, and tradition surrounding birds of paradise. This book is the bible for anyone hoping to study birds of paradise and a must for any libraries of Australasian birds. Because of the historical information, general information on mating system biology, ecology of frugivory, gazetteer, and many other general resources, this will be a valuable addition to many ornithological libraries.—

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