



BOOK REVIEW

## ***Birds of New Guinea: Distribution, Taxonomy, and Systematics***

Reviewed by John P. Dumbacher

California Academy of Sciences, San Francisco, California, USA  
[jdumbacher@calacademy.org](mailto:jdumbacher@calacademy.org)

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**Birds of New Guinea: Distribution, Taxonomy, and Systematics** by Bruce M. Beehler and Thane K. Pratt. 2016. Princeton University Press, Princeton, NJ, USA. 668 pp., 14 color plates. \$75.00 (hardcover). ISBN 978-0-691-16424-3.

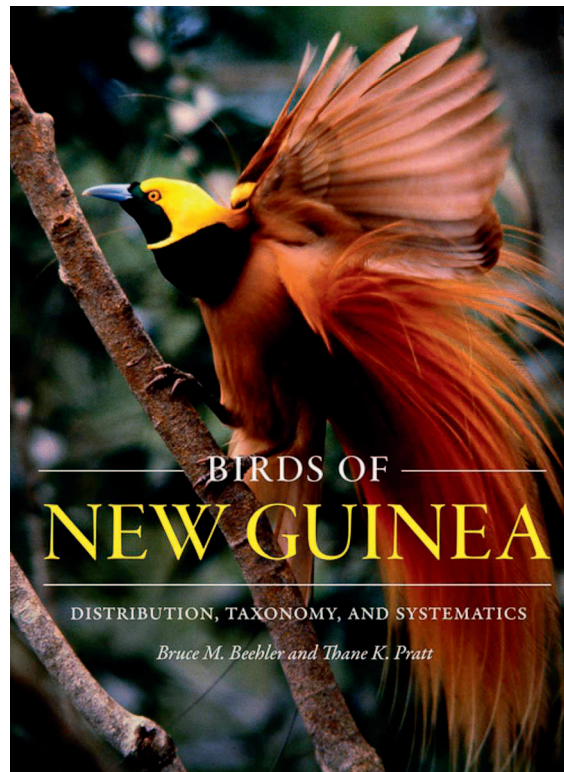
For years, I've relied heavily on Ernst Mayr's 1941 *List of New Guinea Birds* for key information on bird names, authorities, localities, and historical expeditions. Beehler and Finch's (1985) *Species-Checklist of the Birds of New Guinea* has also been essential; it updated the New Guinea checklist with names of accepted species and provided the taxonomy for Beehler et al.'s (1986) now classic field guide, *Birds of New Guinea*. But that was more than 30 years ago, and much work has been done since.

Working in Europe and the Americas, it is easy to forget how much our work relies on an authoritative checklist. In the Americas, for example, the North American Classification Committee meets annually to review the latest proposals for name changes and the associated literature. The committee ensures that names are properly formulated and that they reflect the latest understanding of the phylogenetic relationships of birds. The rest of us rarely have to look back more than a couple years for trustworthy information on bird names; usually the latest field guide or *Birds of North and Middle America Checklist* will provide the appropriate names for your study species. Keeping these checklists is a huge and thankless undertaking, but it is absolutely essential work for

everyone from the checklist-minded birder to the professional biologist.

Places like New Guinea have no checklist committee. There are no annual meetings to make sure that taxonomy is up-to-date and reflects current systematic thinking. Yet New Guinea hosts a similar number of bird species (~769) as the continental United States, with mind-boggling biogeographic complexity. Additionally, no single country has specimens from across the entire New Guinea region. Collections are scattered from the Netherlands to Paris to Sydney to Tring to New York and beyond, and many specimens were collected over a century ago. Even today, many phylogenetic studies are not constructed primarily to test New Guinea hypotheses, but they may contain key New Guinea representatives that shed new light on avian evolution on this dense island. So New Guinea bird taxonomy has been in desperate need of an overhaul.

*Birds of New Guinea: Distribution, Taxonomy, and Systematics* represents an unbelievable scholarly advancement. This is not a mere checklist with summaries of work done to date. The authors have wrestled with the validity of every taxon for which there are new data post-1941 (virtually every species!), critically evaluating the evidence supporting each taxon down to subspecies, summarizing and documenting the known distribution, considering the characters (morphological, genetic, and behavioral) that



define a taxon, and evaluating the Latin and English names. They have dismissed or synonymized more than 400 previously named subspecies and have split several species. They hedge only when museum material has been unavailable or studies are unclear, and even this uncertainty is clearly flagged with question marks, in order to steer the next generation of ornithologists toward these taxa.

To get an idea of how much effort was put into this book, consider that the authors began the work around the year 2000 and have taken more than 15 years to review and compile all the necessary information. They consulted many dozens of people with special expertise to evaluate their thoughts and conclusions. Their work is thorough and includes critical historical information as well as information from the latest genomic phylogenies.

The book is organized into three sections: Introduction, taxon accounts, and reference materials (Bibliography, Gazetteer, Index, etc.). The Introduction contains an excellent synopsis of the biogeography of the region, citations to some of the most foundational resources, and summaries of the challenges of modern systematics and taxonomy. The authors wisely discuss their philosophy regarding naming, species, and subspecies concepts so that it is clear how the checklist might reflect evolution, biogeography, and even conservation priorities.

Part II comprises the taxonomic accounts that are the meat of the book, occupying some 484 of its 668 pages. These include general accounts for each order, family, and genus but also very detailed accounts of each species and subspecies. Each species account includes taxonomic authorities and full citations to the original species description, as well as vetted scientific and Latin names, type locality, full description of the geographic range, and a diagnosis for the species. Typically, the geographic range description forms the bulk of the account and includes an overview as well as a thorough and well-referenced listing of documented localities. The use of abbreviations for common references is a little hard to get used to, but it is a small price to pay for the completeness and compactness of the accounts. The Notes section includes additional notes on taxonomy, systematics, and distribution, again with thorough references to all relevant material.

The book does not contain species accounts in the style of *Birds of North America* or the *Handbook of Australian,*

*New Zealand, and Antarctic Birds*. There is little if any information on the ecology, behavior, demography, or other biology of these species, so do not expect data or accounts of that sort. Indeed, relatively little is known for many New Guinea species compared to the avifauna of most other regions, with the exception of unusual New Guinea birds that have attracted special study (e.g., birds-of-paradise, bowerbirds, cassowaries) or those that have ranges outside of New Guinea and have been studied elsewhere. If you are looking for information on diet, song, or breeding behavior, you are looking in the wrong place.

Part III includes the Bibliography, a Gazetteer of New Guinea Ornithology, and an Index. These too are priceless and current resources for New Guinea ornithologists. The Gazetteer is especially useful, as its authors (Jennifer Mandeville and William Peckover) have identified latitude and longitude for the localities often encountered on museum tags and publications. Students of New Guinea ornithology can now easily put points on the map for analyses of elevational distribution, climate niche modeling, and other ecological analyses.

This volume is a tremendous summary and synthesis of work done to date and marks a clear milestone in New Guinea evolutionary study. Because the work is so thorough, it will also be a very useful jumping-off point for new students of regional birds. There are so many ways to mine the data in this book; there are even discussions within species accounts of putative forms that have yet to be collected or described, hinting at promising avenues for future work. This book will interest all ornithologists working on New Guinea birds, and it is essential for any taxonomist, systematist, or biogeographer working in the region.

#### Literature Cited

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Book Review Editor: Jay Mager, j-mager@onu.edu