Handbook of the Birds of the World. Volume 13: Penduline-Tits to Shrikes

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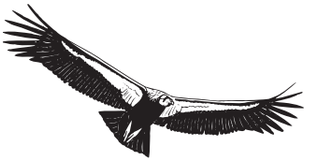

BOOK REVIEWS

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Handbook of the Birds of the World. Volume 13: Penduline-tits to Shrikes—edited by Josep del Hoyo, Andrew Elliott, and David A. Christie. 2008. 879 pp. Lynx Edicions, Barcelona, Spain. ISBN 978-84-96553-45-3. $265 (cloth).

Sixteen passerine families are covered in the latest installment of the landmark *Handbook of the Birds of the World* series, namely, the Remizidae, Aegithalidae, Sittidae, Tichodromidae, Certhiidae, Rhabdornithidae, Nectariniidae, Melanocharitidae, Paramythiidae, Dicaeidae, Pardalotidae, Zosteropidae, Promeropidae, Meliphagidae, Oriolidae, and Laniidae. The taxonomic coverage of the volume is strongly biased toward Old World groups, with the Nectariniidae and Meliphagidae accounting for roughly 40% of the book's pages.

In keeping with the now familiar format, Volume 13 begins with a foreword covering a topic of general ornithological interest, followed by a section for each family. Each of these sections comprises a general family account, followed by species accounts. One of the defining features of the *Handbook* has been the outstanding quality of the photographs used in the family accounts, and the 13th volume continues this tradition. While reviewing the text, I was constantly distracted by visual delights like the group of Black-throated Tits (*Aegithalos concinnus*) on page 82, and the pair of Velvet-fronted Nuthatches (*Sitta frontalis*) on page 112. Another commendable aspect of the photographs is that many of them show birds engaged in interesting behaviors, such as a hovering Northern Long-tailed Tit (*Aegithalos caudatus*) sipping meltwater from an icicle (p. 86) and a Great Gray Shrike (*Lanius excubitor*) plucking a rodent from the snow (p. 749). The text of each family account is split into the customary subsections dealing with systematics, morphological aspects, habitat, general habits, voice, food and feeding, breeding, movements, relationship with man, and status and conservation. References for each family account are not cited in the text but relegated to a general bibliography immediately preceding the species accounts. Further references are provided in each species account, with all the literature cited in the book listed in a sizable reference section at the end. An aspect of the *Handbook*'s family accounts that I have always found slightly puzzling is the absence of tables and/or figures. There are numerous places where information provided as text could have been much more effectively conveyed with a well-designed table or diagram. Two examples in Volume 13 are provided by the paragraphs listing plants fed on by sunbirds (p. 220–221) and honeyeaters (p. 543–547). A related issue, already noted in reviews of previous volumes, is that diagrams showing phylogenetic relationships would have made the subsections on systematics much easier to follow, particularly in the case of families that contain many genera or species.

Ian Newton's foreword provides an overview of avian migration. The first part describes global patterns of migration, such as the relationship between latitude and the proportion of breeding species that migrate and a comparison between the northern and southern hemispheres. Subsequent sections review flight speeds and distances, the timing of migration, and the influence of factors such as day length and weather. These are followed by a short section on migratory fueling, with the foreword then concluding with a discussion of navigation in migrants and some brief comments on birds as colonizers. To tell the truth, this foreword left me somewhat disappointed. The evolution of migration, for instance, is dealt with superficially in only three short paragraphs. Little information is provided on the methods used to identify migratory connections between populations, and the tremendous advances that analyses of ratios of naturally occurring stable isotopes have brought about in the last decade are not even mentioned. A section on conservation issues specific to migrants would likewise have been welcome. Another contemporary subject barely touched on is how climate change is affecting migrants. Overall, the foreword could have been improved by presenting many topics more concisely and adding sections dealing with other issues related to migration.

For this review, I did not read the text of all 16 family accounts but focused on the Nectariniidae. The account begins with a review of the systematics of this family, from Sundevall's 1872 classification through to the recent analyses by Bowie and colleagues. The large number of closely related species within the Nectariniidae means that disentangling evolutionary and biogeographic relationships within this group presents significant challenges. However, the authors of this account do a good job of synthesizing current knowledge, such as the relationships within the speciose genus *Cinnyris*, which includes Africa's double-collared sunbird complex, as well as the various clades thought to exist within *Nectarinia*, *Chalcomitra*, and *Aethopyga*. The subsection Morphological Aspects discusses tongue morphology in some detail and covers structure and function of the digestive tract, sexual dimorphism in plumage characteristics such as pectoral tufts and tail length, and several other topics. The subsection Habitat consists predominantly of lists of species occurring in different habitat types and provides little information about the habitats themselves. The various family accounts differ noticeably in terms of the habitat-related information provided. The corresponding subsection for the Meliphagidae, for instance, includes descriptions of the physical and botanical characteristics of the various habitats, as well as listing their representative honeyeaters, so the text is more balanced and readable than that for the Nectariniidae.

The next subsection in the account for the Nectariniidae, General Habits, provides information on a mixed bag of this family's behavioral and physiological traits. A brief discussion of torpor in sunbirds is followed by a statement that 13 additional species "are thermolabile, meaning that their temperature varies with that of the ambient." The phrasing of this sentence is rather misleading, since it suggests that these birds are thermoconformers. In reality, under laboratory conditions none of

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these species entered torpor but merely showed a small (3–4 °C) decrease in rest-phase cloacal temperature as air temperature decreased from 35 °C to 7 °C (Prinzinger et al. 1989). The subsection Food and Feeding surveys the various items fed upon by members of this family and includes overviews of recent work on diet preferences, nectar robbing, pollination, and the physiological mechanisms that permit feeding on dilute nectar. The subsection Relationship with Man includes the interesting point that in some parts of their range sunbirds are viewed as pests in certain commercial plantations because they serve as dispersants for mistletoes that reduce crop yield.

The species accounts are thorough and detailed, particularly in terms of descriptive notes, and are once again accompanied by high-quality color plates. Distribution maps show major rivers but not political boundaries. One minor error I noticed in the account for Anchieta's Sunbird (*Anthreptes anchietae*) is that the section Status and Conservation lists three conservation areas in Malawi in which the species occurs but omits Nyika National Park, one of its best-known locations.

The latest addition to the *Handbook of the Birds of the World* series continues the tradition of excellence established by the previous 12 volumes. The relatively minor issues I have highlighted above do little to detract from the monumental scale of what the editors of this series have achieved. The *Handbook* represents an invaluable resource to anyone with more than a passing interest in the world's birds and must rank as one of the most significant ornithological publications of the late 20th and early 21st centuries.—ANDREW E. McKECHNIE, DST/NRF Centre of Excellence at the Percy FitzPatrick Institute, Department of Zoology and Entomology, University of Pretoria, Pretoria 0002, South Africa. E-mail: aemckechnie@zoology.up.ac.za.

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