
Books

CRC Handbook of Avian Body Masses. Edited by John B. Dunning, Jr. 1993. CRC Press, Boca Raton, FL. 371 pp. \$78.00 + \$7.50 postage and handling (Canadians add \$5.99 U.S. for tax).

Although *NABB* was not sent a review copy of this book, we would be remiss not to review a volume of such obvious interest to banders. Furthermore, its roots are in a 1984 monograph by Dunning published by the Western Bird Banding Association. In addition, many *NABB* readers have contributed data to the book either through their own publications or through personal communications to Dunning or through work at bird observatories whose data Dunning includes.

This handbook consists of three parts. The first, "Body Masses of Birds of the World," by Dunning constitutes the bulk of the book (pp. 3-310). A brief introduction describes the history of the project, outlines data sources, defines terms, discusses uses and limitations of mass data and acknowledges a long list of contributors to the book. Dunning also requests additional data, noting that this is intended as the first major compilation of bird weights, but not as the definitive work. This introduction is followed by a tabular catalogue of all species for which Dunning was able to find mass data (6283). Species are listed under orders and families, using the most recent (1991) edition of Clements' World checklist. For each species, the Latin name is followed by information (if available) on sex, sample size, mean, standard deviation, range, season data were collected, location, and a species number from Clements' checklist. Whenever possible, Dunning uses data from living wild birds in the breeding season, but when such data are lacking or minimal, data from other seasons and/or from museum specimens or captive birds are used. For several species, data from more than one race or population are listed separately. Part II consists of more detailed data on body masses (wet, dry, fat-free, and sometimes ash-free) from birds that struck towers in the eastern U.S.A. in the 1960s. This chapter, by Eugene P. Odum, lists data for 43 species by age and sex. Part III,

labelled literature cited, is a list of both published and unpublished sources. An index to genera closes the book.

A glance through Dunning's sources shows that he did not accomplish the impressive feat of finding data on 6283 species without considerable work and persistence. His published sources include not only the bird weight papers, geographical handbooks and tomes on particular taxonomic groups that one would expect, but also numerous papers on aspects of a species' biology that would not necessarily be expected to include mass data. Many of these are in rather obscure journals. Several birds are listed because of data contained in papers on their predators. Besides combing the literature, Dunning has made extensive use of a long list of museum collections, data from bird observatories, and data from individual banders. As impressive and useful as this compilation is, Dunning is far from complacent, calling for data on the 35% of the world's species he was unable to cover and for more data on those with small sample sizes.

Sources of data are cited by reference number rather than by author and year in the text. Although this could increase errors, as the numbers would shift each time a reference is added, most of the numbers listed in the text match appropriate-sounding reference in the literature cited. The number of references with "a" following the number suggests that after a certain date, numbers were not changed when new references were added. In fact, a few literature sources are listed simply as "reference deleted," suggesting that Dunning found a better source late in the publication process. A few reference numbers in the text don't exist in the literature cited: 923 for *Mitu mitu*, 180a for *Otus kennicotti quercinus*, and 219a for *Alcedo websteri*, *Tordirhamphus albonotatus* and *T. chloris*. In addition, source numbers are missing for *Chalcopsitta sintillata*, *Phaenicophaeus javanicus* and *P. curvirostris*, *Tanysiptera galatea*, *Meliphaga flavirictus* and *Zosterops virens*. Baver and Glutz cited on page 3 should read Bauer and Glutz, as cited correctly in the literature list. Most other errors are computer glitches, placing num-

bers or words in the wrong column or running two words together. The blurry ink on some pages in my copy is a disappointing production flaw in such an expensive book.

Barny Dunning has done a remarkable service for avian biologists in pulling together so much published and unpublished data on bird weights. Besides providing an easily accessible source to such a mass of data, the book serves to stimulate plenty of further research to fill in missing species, bolster sample sizes, and seek comparative data among populations, races, and geographic areas, as well as variation with season. The steep price will, unfortunately, exclude this book from many private libraries, but bird observatories, government research facilities, and universities should be encouraged to acquire copies that can be consulted by banders and other researchers. Banders who buy or consult a copy and then publish supplementary data from their files will help contribute to the next edition.

Martin K. McNicholl

A World Checklist of Birds. Burt L. Monroe, Jr. and Charles G. Sibley. 1993. Yale Univ. Press, New Haven, CT. 393 pp. \$45.

Burt Monroe has put his prodigious skill at data assemblage and handling to work in the production of another form of the Sibley-Ahlquist-Monroe taxonomy (discussed in greater detail in *Distribution and Taxonomy of Birds of the World* and its Supplement by the same authors). Although many other one-volume world checklists have appeared previously, this is the first "primary" checklist, produced by the taxonomists who assembled and evaluated the data on which it is based.

What significance does the checklist have for banders and others who mark birds? First and foremost, it is an introduction to the taxonomy that will gradually be adopted by ornithologists world-wide. Its influence is already appearing in field guides: in Australia, Simpson and Day have incorporated a "modified" Sibley and Ahlquist family order in their guide. Second, Monroe and Sibley list "well-marked subspecies" that have been or may be split; these cover most of the forms banders distinguish.

Third, this volume is also a much more manageable size and price than *Distribution and Taxonomy* with its Supplement. Finally, the checklist is eminently useful as a place to record bird species seen, banded, or otherwise encountered—its intended use. With a square for ticking, followed by scientific and English names, a very short range description, and the remainder of the line for a note, it follows standard ticklist format. Abbreviations and symbols for range are given in the introduction, be sure to read them; e.g. CA and MA stand for Central and Middle America, not California and Massachusetts. Extensive indices to genera and English names complete the volume.

Is this listing of 9702 species the final word? Will this list be adopted verbatim? The answer to both questions is, "Of course not." Many reviews of *Distribution and Taxonomy* by taxonomists cited a wide range of disagreements, primarily in areas where Monroe had adopted older taxonomy to "flesh out" to the genus and species level, the framework established by Sibley and Ahlquist. Undoubtedly the valid criticisms as well as other new work were incorporated into the Supplement.

Still, two major problems remain, particularly in the species and genus relationships. In some parts of the world, many species and genera have had little study beyond their initial identification. As more work is done on these birds, both with biochemical and classical techniques, the new knowledge gained will cause many changes at these lower taxa levels. Second, it is extremely difficult for anyone, even someone as knowledgeable and organized as Monroe, to be an expert on 9702 bird species and make the best decisions on all of them, faced with ambitious publication schedules and a continuing flood of new data.

Thus, it is not surprising that some decisions on splitting or not seem inconsistent. For instance, in western North America, Monroe and Sibley re-split Black-crested and Tufted Titmouse, but do not split the Plain Titmouse into California and Rocky Mountain species as suggested by Johnston, whose biochemical work indicated that separation between the California and Rocky Mountain forms was much wider than between Black-crested and Tufted Titmouse. Monroe sometimes seems to

have a bias toward reversing old lumps as opposed to new splits based on biochemical evidence. However, the Northern Oriole is retained, perhaps because Bullock's and Baltimore Orioles were lumped based on older field work by Sibley. The suggested split of the Gilded Flicker from the Northern Flicker is controversial in southeastern Arizona where most flickers seen in overlapping breeding zones (Red-shafted and Gilded) are hybrids. Splitting these two populations, in the absence of compelling biochemical data, makes no more sense than splitting two visually distinct populations of Purple Martins which breed in different habitats in southeastern Arizona.

The definition of a species is currently a hot topic among avian taxonomists, as they debate the relative merits of the Phylogenetic and Biological Species Concepts. While the Biological Species Concept was generally accepted in the past, its application was not completely consistent. As mentioned, Bullock's and Baltimore Orioles were lumped since they interbreed at a few points where their ranges now overlap, while Golden-winged and Blue-winged Warblers interbreed extensively (with named hybrid forms) and are still considered separate species. The Phylogenetic concept, emphasizing common recent ancestors, is more consistent with biochemical evidence and deals more easily with ambiguities introduced by human-caused habitat changes which bring together formerly isolated species.

As with any book of its complexity, errors have crept in. Two that I noted on casual inspection are: p. 243 where Willow Tit is listed incorrectly as a subspecies of Sombre Tit and also in its correct position; p. 304 *Carduelis cucullata*, range should be n SA, not n SW.

A World Checklist of Birds is an excellent introduction to what avian taxonomy will look like, as well as being an attractive format for recording bird species.

Robert C. Twelt

A Supplement to Distribution and Taxonomy of Birds of the World. Charles G. Sibley and Burt L. Monroe, Jr.. 1993. Yale Univ. Press, New Haven, CT. 108 pp. \$25.

If you can imagine 108 pages of errata (corrections and updates), you can visualize this book. The soft cover duplicates the dust jacket design of the original volume. A brief introduction precedes the body of the volume, whose contents are coded to pages in the original.

As well as correcting typographical and other minor errors in the original volume, the supplement provides a wealth of new taxonomic information. As an un-indexed supplement, it is useless without the original volume, which in turn has been made obsolete by the wealth of new information. In fact, to use the resources provided in *Distribution and Taxonomy* and the supplement efficiently, you also need *World Checklist of Birds* in order to readily visualize the overall order and scope of the revised list.

Since the combined price for the three volumes is \$195, I hope the publisher will consider a lower package price for the three volumes to make this extremely valuable reference more widely available to individuals and libraries. Now that avian taxonomy has become a "hot" field, due in large part to the work of Sibley and Ahlquist, I strongly recommend that future revisions be published on CD-ROM disks with the entire updated text available in one place. This would avoid the problems of multiple supplements which are always slow and tedious to use and free the authors from the text limitations imposed by the physical size of a book like *Distribution and Taxonomy*.

I have not included any specific comments on the content of the book, as it is definitely the least "accessible" or "user-friendly" of this set. *World Checklist* is the only volume of the three useful by itself. The "Supplement" is indispensable for users of *Distribution and Taxonomy*, but useless without it.

Robert C. Twelt