

BOOK REVIEW: *Check-list of North American Birds: The Species of Birds of North America from the Arctic through Panama, Including the West Indies and Hawaiian Islands*

by John Kricher

Check-list of North American Birds: The Species of Birds of North America from the Arctic through Panama, Including the West Indies and Hawaiian Islands. The Committee on Classification and Nomenclature of the American Ornithologists' Union, Seventh Edition, 1998. 829 pages with endpaper maps. \$49.95 (\$39.95 to members of the AOU), hardbound.

At first glance, the tome which is the subject of this review would seem to have all the charisma of the Greater Boston telephone directory: a bulky, alphabetically arranged compendium, totally lacking in illustrations or engaging text, a dull reference work destined to collect dust and to be consulted only infrequently. But unlike any telephone directory, Boston or otherwise, this volume has been long anticipated and is now being eagerly perused and used by professional and amateur ornithologists alike. Birders unfamiliar with the *AOU Check-list* may be pleasantly surprised at how interesting and useful a book it can be.

The American Ornithologists' Union (which has its historical roots in the local Nuttall Ornithological Club of Cambridge) has for many years assumed the responsibility of coordinating information on the classification of North American birds. The AOU Check-list Committee is recognized as the sole authority for such things as species designation, taxonomic classification, and nomenclature, including official common as well as scientific names. The Sixth Edition of the *Check-list* saw the light of publication in 1983, so fifteen years had passed before the Seventh Edition was published last year. As any field birder knows, many exciting discoveries and controversies regarding species status and classification surfaced in that decade and a half, and it fell to the AOU Check-list Committee to sort it all out and be the arbiter of numerous and often contentious questions pertaining to lumping, splitting, DNA-based classification, and other issues that raise the passions of ornithological systematists and birders alike. To say that the Committee has done an admirable job is an understatement. The new *AOU Check-list* is full of changes, and it is actually fun to pore through it, so numerous are the surprises (I can only skim the surface in this brief review). Future field guides that adhere to the order of birds in the *AOU Check-list* will be arranged differently from those currently in print. And they will be larger.

Birders may be surprised at the number of species included in this volume, but the AOU considers all species from the Arctic Circle to Panama to be "North American." Thus, all of the Central American species find their way into the

Check-list. Those of us with a fondness for Neotropical birds will find the *Check-list* as essential for Belize as for Boston.

The new *Check-list* recognizes 2,008 species, compared with 1,913 listed in the previous edition. Needless to say (but I'll say it), the additional 95 species are not newly evolved (or created) but rather newly recognized by the AOU. Why? It is a historical truth that the science of systematics is a bit cyclic, depending upon whether "lumpers" or "splitters" are dominant. Currently, the splitters would seem to rule the day; thus, what was once the Northern Oriole has reverted back to the Baltimore and Bullock's orioles. What was once the Sharp-tailed Sparrow is now Nelson's and Saltmarsh sharp-tailed sparrows. The Rosy Finch has gone from one to three species (Black, Brown-capped, Gray-crowned), which they once were (when splitters ruled) but then weren't (when lumpers ruled) but now are again. Some birders express skepticism about just how "scientific" these taxonomic designations really are. But the fact is that it is often hard to designate species, and the AOU Check-list Committee evaluates all available data, some of which may be contradictory or equivocal. Even the definition of a species continues to be open to debate, although the AOU has come down firmly in favor of the traditional "Biological Species Concept" (BSC), in which the demonstration of reproductive isolation (or the reasonable presumption of it) is the deciding criterion. That said, it soon becomes clear to anyone working with the Seventh Edition that the BSC is more a guideline than a rule. There are a lot of judgement calls.

Each species account begins with the species' scientific name followed by its common name. Birders should note that the AOU is one of the only groups to assign official common names, which is why common names of birds should be capitalized when they appear in writing. It is helpful to have common names taken as seriously as scientific names, and the use of capitalization is a way for writers to indicate the official status of the common names. Other professional societies would be wise to follow suit. In some cases, the AOU has changed scientific names in the Seventh Edition. Birders who know the beloved Black-capped Chickadee as *Parus atricapillus* will now have to know it by its newly recognized generic name, *Poecile*.

Each species account includes a summary of habitat and distribution for the species, as well as any pertinent notes that affect decisions of classification. For example, in the account of Baltimore Oriole there is an extended paragraph listing the various studies (with citations, of course) that swayed the AOU Committee to reconsider the lumping of Baltimore with Bullock's orioles and reassign them to separate-species status. On the other hand, notes that accompany Black-capped Chickadee cite the fact that this species is known to hybridize with Carolina Chickadee (*P. carolinensis*) in parts of the Midwest and southern Appalachians, and that some researchers believe the two to be conspecific. Lump them? Well, no. The AOU Check-List Committee also cites

genetic studies that suggest that the Black-capped Chickadee is more closely related to the Mountain (*P. gambeli*) and Mexican (*P. sclatert*) chickadees than it is to the Carolina, so this, plus the fact that the hybridization is limited, convinced the Committee to maintain separate status for Black-capped and Carolina.

Another formidable task that faced the Check-list Committee was determining the exact order in which to arrange the birds. Most birders are at least vaguely aware of the voluminous research on molecular systematics that has been produced over the past couple of decades, most notably the DNA/DNA hybridization studies of the late Charles Sibley and his colleagues. The Sibley work, if followed literally, would dramatically rearrange the order of bird families, to say nothing of how it would alter their very designations. In this case the AOU Check-list Committee has generally been conservative, retaining much of the traditional classification while acknowledging the worth of the molecular work as well. For example, the loons and grebes are still placed near the beginning of the *Check-list*, following Neotropical tinamous. Owls and nightjars are retained as separate families. But as one reads on, what should follow Ciconiidae, the storks (jabiru and wood), but — Black Vulture! The Check-list Committee has accepted the molecular work (and, to be fair, some anatomical and behavioral data as well) that removes the New World vultures from the Falconiformes and redesignates the Cathartidae as allies of the storks. This question — where to place the New World vultures — is, like many others, still being actively debated (and a note to that effect precedes the vulture species accounts). But the Check-list Committee had to make a decision, and so it did. Neotropical antbirds are split into two families, Thamnophilidae (typical antbirds) and Formicariidae (antthrushes and antpittas). Neotropical birds have such a complex evolution (and such an active one) that the AOU Check-list Committee has been forced to throw in the towel, so to speak, and designate seven genera as *incertae sedis* (translation: "We don't know"). So the next time you go to Central America and see a Thrush-like Schiffornis (*Schiffornis turdinus*), or a Rufous Piha (*Lipaugus unirufus*), or a Speckled Mourner (*Laniocera rufescens*), realize that even the AOU cannot decide if these belong with tyrant flycatchers, manakins, or cotingas. The genes are just too turbulent to tell. For those who still fret over such things, this volatility seems like a pretty good argument in favor of the reality of organic evolution.

Vireos, following the revelations of the DNA work, are moved from their familiar proximity to the wood-warblers to occupy a place between shrikes and crows. This change accepts the DNA data that argue for inclusion of vireos as part of an immense adaptive radiation of corvids that apparently began in Australia and that has resulted in some stunning convergences of form familiar to anyone fortunate enough to visit Australia.

Though most birders could get along comfortably without owning a copy of the *Check-list*, those who harbor a serious interest in the North American avifauna should consider acquiring the Seventh Edition. It's not exactly bedtime reading, nor does it fit handily in one's field pack, but it may not collect all that much dust on the library shelf, either.

The *Check-list* is available from the AOU through Max C. Thompson, Assistant to the Treasurer, AOU, Department of Biology, Southwestern College, 100 College Street, Winfield, KS 67156. Include \$4.00 for postage.

John Kricher is a professor of Biology at Wheaton College and has served on the staff of *Bird Observer*. He is the author of three ecology books in the Peterson Field Guide series as well as *A Neotropical Companion*. He assures us that his copy of the Seventh Edition of the *Check-list* is not yet dusty.

Breeding Thrush Survey, Chocorua, NH

Two to three sturdy volunteers are needed for the weekend of June 19-20, 1999 to help with a Breeding Thrush Survey, now in its seventh year. Please e-mail or call Harriet Hofheinz if interested: HHofheinz@erols.com or 617-868-0294. Being game and having a sense of humor will be helpful.

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