

Changes in Species Designations of North American Birds

Updating Your Field Guides and Life Lists

By Scott Hickman and Dale Birkenholz

Avian taxonomists attempt to accurately classify birds into proper species, genera, families, and orders. Morphological (physical) characteristics, including similarities or differences in feathers, skeletal structures, musculature, syrinx (voice box), as well as in behavioral patterns and songs, and even external parasites, have traditionally been used as the bases for placing birds into various classifications. For example, if a North American bird has all four toes joined within a web (is totipalmate), a hooked bill, a partly feathered tarsus (elongated section of the ankle), and a long, deeply forked tail, it is in the family *Fregatidae*, or frigatebirds (Pettingill 1970).

This seems pretty straight-forward. Based on characteristics such as these, one would think that by now there should be virtually no changes in birds' species names. However, the development of technologies that allow more direct measurements of genetic similarities (e.g. starch gel electrophoresis of tissue proteins, Sibley and Ahlquist 1972; mitochondrial DNA analysis, Cicero and Johnson 1995; DNA-DNA hybridization, Sheldon 1987), and disagreements among specialists as to what even constitutes a species (for a review of biological vs. phylogenetic vs. evolutionary species concepts see Zink and McKittrick 1995), have caused taxonomists to reassess the

species designations of many birds. These reassignments frequently result in the lumping together of what used to be thought of as separate species into one, or the splitting of what used to be thought of as one species into two or more.

Keeping up with these changes can be challenging, even for professional ornithologists. For birders, it can be frustrating, particularly when our life lists are shortened by the lumping together of species. Life lists took a beating in the 1970s when the trend was lumping (Welty 1982). However, the more recent trend has been list-friendly splitting.

The American Ornithologists' Union Committee on Classification and Nomenclature is recognized by the scientific community as being responsible for determining the taxonomic status of North American birds. In 1983 this group published the sixth edition of *The Check-list of North American Birds*, an 877-page text listing the scientific classification, habitat, and distribution of every bird documented as occurring within Central America, North America, the adjacent islands, and Hawaii. This standard taxonomic reference has now been updated by six supplements, numbered 35-40 (supplements 1-34 pertained to the first five editions of the checklist).

The species names contained within the second edition of *National Geographic Society's "Field Guide to the Birds of North America"* and the third edition of Roger Tory Peterson's *"A Field Guide to West-*



When this photo was taken at the Chicago Botanic Garden, Cook Co. in June 1992, it was officially known as a Green-backed Heron. Now, due to recent changes, it is a Green Heron. Photo by Annalee Fjellberg.