

by Paul Hess

Checklist Changes Include New Species

A split of Canada Goose into two species was the most notable news in the 45th Supplement to the American Ornithologists' Union *Check-list of North American Birds* published in July 2004 (*Auk* 121:985–995). In its broad implications for ornithology, game management, and birding, this split overshadowed all other decisions announced by the AOU's Committee on Classification and Nomenclature. Here are the details:

- Cackling Goose (*Branta hutchinsii*) is the new species. It includes five “small-bodied forms” previously treated as subspecies of the Canada Goose: Richardson's (*hutchinsii*), Cackling (*minima*), Aleutian (*leucopareia*), Taverner's (*taverneri*), and the extinct Bering (*asiatica*). Interestingly—some would say oddly—the Cackling standard English name is joined to the Richardson's scientific name.

- Canada Goose (*B. canadensis*) is now limited to seven “large-bodied forms”: Atlantic (*canadensis*), Interior (*interior*), Giant (*maxima*), Moffitt's/Western (*moffitti*), Lesser (*parvipes*), Vancouver (*fulva*), and Dusky (*occidentalis*).

The supplement cited recent genetic studies, as well as previously described differences in voice, nesting habits, habitat, timing of movements, color, and size, as evidence that the populations combined until now in *B. canadensis* actually constitute “at least” two species. “Additional analysis may result in further splitting,” the committee said.

Further, the supplement reported that each of the new species may be more closely related to other members of the *Branta* genus than to each other; for example, a re-

cent study of mitochondrial DNA has shown the Barnacle Goose to be closely related to the small-bodied *hutchinsii* group. In this light, the AOU rearranged the taxonomic sequence (colloquially, the “official checklist order”) of *Branta* species as follows: Brant, Barnacle Goose, Cackling Goose, Canada Goose, Hawaiian Goose.

In the only other taxonomic change announced, the Yellow Wagtail (*Motacilla flava*) is split into two species. The North American population, which breeds in Alaska and northwestern Canada and has occurred casually elsewhere in North America, is newly named the Eastern Yellow Wagtail (*M. tschutschensis*). Multiple genetic analyses have shown significant differentiation between it and other races of *M. flava*. The latter species has not occurred in North America, so the split does not enlarge the AOU list.

The following is a summary of other AOU decisions that affect the ABA Checklist. By stipulation, the AOU



From the birder's perspective, the most notable item in the 45th supplement to the A.O.U. Check-list, published in *The Auk* in July 2004, was the split of the **Cackling Goose** from the Canada Goose. *Reno, Nevada; 17 February 2001.* © Martin Meyers.

classifications and nomenclature are adopted for the ABA list. The updated AOU *Check-list* is online at <www.aou.org/checklist/index.php3>.

New species for North America

Records accepted on the basis of adequate photographic evidence are:

- Great-winged Petrel (*Pterodroma macroptera*): one at Cordell Bank off Marin County, California, 21 July and 24 August 1996; one at Monterey Bay, California, 18 October 1998.
- Greater Sand-Plover (*Charadrius leschenaultii*): one at Bolinas Lagoon, California, 29 January – 8 April 2001.
- Willow Warbler (*Phylloscopus trochilus*): at least one at Gambell, St. Lawrence Island, Alaska, 25–30 August 2002.
- Lesser Whitethroat (*Sylvia curruca*): one at Gambell 8–9 September 2002.
- Spotted Flycatcher (*Muscicapa striata*): one at Gambell 14 September 2002.

Species added to the appendix

Evidence is not considered sufficient to place on the main list the following:

- Rufous-tailed Robin (*Luscinia sibilans*). One believed to be this Asian species was photographed on Attu Island on 4 June 2000, but the identification was not definitive.
- Blue Rock Thrush (*Monticola solitarius*). An adult male of this Eurasian species was photographed in British Columbia 6 June 1997, but the committee questioned its origin.

New English names

Names are changed for the following Old World species that are vagrants to or accidental in North America (primarily Alaska), to conform with general usage in the literature covering their normal ranges:

- Mongolian Plover becomes Lesser Sand-Plover (*Charadrius mongolus*).
- Spoonbill Sandpiper becomes Spoon-billed Sandpiper (*Eurynorhynchus pygmeus*).
- Jungle Nightjar becomes Gray Nightjar (*Caprimulgus indicus*).
- Siberian Flycatcher becomes Dark-sided Flycatcher (*Muscicapa sibirica*).
- Gray-spotted Flycatcher becomes Gray-streaked Flycatcher (*Muscicapa griseisticta*).

Grammatical changes in Latin suffixes

Suffixes of these specific names are changed for gender agreement with the generic names to conform with the International Code of Zoological Nomenclature:

- Rock Ptarmigan from *Lagopus mutus* to *L. muta*.
- White-tailed Ptarmigan from *Lagopus leucurus* to *L. leucura*.
- Spotted Sandpiper from *Actitis macularia* to *A. macularius*.
- Ringed Kingfisher from *Ceryle torquata* to *C. torquatus*.
- Common House-Martin from *Delichon urbica* to *D. urbicum*.
- Stonechat from *Saxicola torquata* to *S. torquatus*.
- Worm-eating Warbler from *Helmitheros vermivorus* to *H. vermivorum*.
- Yellow-faced Grassquit from *Tiaris olivacea* to *T. olivaceus*.

Rejected English names

The committee declined to change *Riparia riparia* from Bank Swallow to Sand Martin and to change the common name of *Myioborus* species (Painted Redstart and Slate-throated Redstart in the ABA area) from Redstart to Whitestart.

Waiting in the wings

The committee considered but did not accept seven proposals for splitting and lumping North American taxa. The following actions have been tabled but may be revisited in the future:

- Split of some species in the woodpecker genus *Picoides* into a new genus, *Dryobates*.
- Merger of Black-billed, Yellow-billed, and Eurasian Magpies into a single enlarged *Pica pica*. (Four years ago the AOU split the original *P. pica* into two species, the Black-billed and the Eurasian, while maintaining the Yellow-billed as a separate species.)
- Merger of Bicknell's and Gray-cheeked Thrushes.
- Split of Yellow Warbler into two or more species.
- Split of Seaside Sparrow into two or four species.
- Split of Fox Sparrow into as many as four species.
- Full-species status for Fuertes's Oriole, now considered a subspecies of Orchard Oriole.

Meanwhile, in a newsworthy decision not affecting the ABA list, the AOU changed its mind about a bird filmed and initially identified as a Kermadec Petrel in Pennsylvania in 1959—which would be the only North American record. It had been published as accepted in the seventh edition of the AOU *Check-list* in 1998; however, after further consideration, the committee no longer considers the identification definitive. The species was never placed on the ABA *Checklist*.

Can We Save the Salton Sea?

California's Salton Sink, particularly its centerpiece the Salton Sea, is a rough-cut ecological gem. Ornithologists have assembled and analyzed vast amounts of data about its past and present bird communities, yet many uncertainties remain about what the precise long-term facets of its avifauna will be. Crucial needs for more knowledge and for feasible plans to protect the Sea and its environs are paramount themes in *Ecology and Conservation of Birds of the Salton Sink: An Endangered Ecosystem*, a collection of 16 research papers, reviews, and commentaries published by the Cooper Ornithological Society in 2004. It originated in two symposia, one sponsored by the Western Field Ornithologists in 1997 and one hosted by the Cooper Society in 2000, which were designed to assess what was known about the re-

dangers facing them are extraordinarily complex. Kathy C. Molina and W. David Shuford [author of one of our feature articles, beginning on p. 38, in this issue of *Birding*], the publication's editors, summarized the threats in a grim litany that includes inadequate water supplies, direct habitat destruction, excessive salinity, eutrophication, chemical contamination, disease, introduction of exotic plants and animals, and human disturbance.

Several papers set the stage with historical and biogeographical background both before and since the Sea's birth by massive flooding in 1905–1907. Extensive analyses focus on pelagic and subtropical waterbirds; breeding cormorants, herons, ibises, and larids; hundreds of thousands of wintering waterfowl; 27 regularly breeding, migrating, and wintering shorebird species; landbirds associated with nearby desert riparian habitat; Burrowing Owls in the surrounding Imperial Valley; and waterbird communities in the Colorado River Delta to the south in Mexico. Two articles revisit the horrific die-offs of 150,000 Eared Grebes killed in 1992 by unknown causes

and 10,000 American White Pelicans and Brown Pelicans killed in 1996 by botulism, catastrophes for which important epidemiological questions linger to this day.

There are limitless joys to behold—avian spectacles that are worth working hard to save. “Despite the well-publicized bird mortalities in recent years,” Molina and Shuford wrote, “today's visitor to the Salton Sea can still marvel at the sight of huge masses of pelicans wheeling overhead ... be overwhelmed by thousands of Western Sandpipers probing into the rich organic mud ... or revel in wave after wave of White-faced Ibis undulating across the darkening sky.” Many of us would celebrate the sight of one Yellow-footed Gull just standing still. Or a breathtaking inland surprise like a Laysan Albatross, a Cook's Petrel, or a Buller's Shearwater. Or a panorama of 3.5 million Eared Grebes (yes, that count has been reported), or 30,000

breeding pairs of Cattle Egrets, or 123,000 wintering Northern Pintails, or 129,000 migrating shorebirds.

Can this great mecca for birds and birders be preserved?



The Salton Sea is equal parts environmental disaster and ecological marvel. Millions of birds depend on this artificial and controversial—and critically important—saltwater lake, California's largest. *Salton Sea, California; September 1993.*
© Brian E. Small.

gion's birds and to look toward conserving their critical breeding, migration, and wintering habitats. The challenge is daunting because the diverse habitats and the

“[V]isions of the Sea’s future are murky,” Michael A. Patten and Brenda D. Smith-Patten lamented in their contribution to this monograph. Shuford and Molina were candid about the alternatives: “Whether the Salton Sea proves to be an intractable environmental issue because of greater value placed on other human needs or desires, or a model for conservation success, will depend in part upon whether scientists continue to add needed knowledge via research and, just as importantly, engage environmentalists, bureaucrats, managers, politicians, and the public in devising creative solutions to improving the ecosystem’s health.” Birders have an especially heartfelt interest in the outcome and thus an especially good reason to become engaged. The information in *Ecology and Conservation of Birds of the Salton Sink* is a good place to start.

New Partnership for Raptor Studies

An immense array of North American raptor-migration data—all of it disconnected, much of it sampled irregularly, some of it contradictory—begs for comprehensive, standardized analysis across the continent. The Ferruginous Hawk might be declining at some locations and increasing at others. Are those real differences, or sampling artifacts? The Broad-winged Hawk might be decreasing in the East, but apparent increases have been noticed along the western periphery of its migratory route. Are those true population changes, or shifts in distribution? The American Kestrel might be declining severely throughout the East. Why is its status often unclear in other regions? Recent raptor population studies have raised those and many more questions that lack adequate answers. Everyone agrees that such trends must be verified in extensive samples from many migration sites, analyzed over various time periods, and interpreted on local, regional, and continental scales to determine where and for which species conservation efforts should be directed.

A significant new venture points toward filling such gaps in knowledge. It is a research partnership announced in 2004, which unites the Hawk Migration Association of North America, the Hawk Mountain Sanctuary Association, and HawkWatch International in a project called the Raptor Population Index. The ultimate goal of this ambitious effort is to compile and analyze migration data from a network of more than 100 count-sites across the continent. To fund it, the National Fish



For years, hawkwatches throughout North America have been amassing large amounts of quantitative data on populations of migrating raptors. But are there any large-scale patterns? Continent-wide estimates? Long-term trends? A new, inter-agency raptor-research partnership aims to examine these questions broadly and integratively. *Goshute Mountains Hawkwatch, Nevada; October 2001. © Jerry Liguori.*

and Wildlife Foundation has provided a challenge grant that is being matched by contributions from other foundations, corporations, and individuals.

Managers of the partnership described trend analyses by David J.T. Hussell, one of the team’s leaders, as “the backbone of the project’s scientific credentials”. An expert on the use of migration counts to monitor bird populations, Hussell has already made preliminary analyses of data from two hawkwatches in the East (Hawk Mountain in Pennsylvania and Cape May in New Jersey) and two in the West (the Goshute Mountains in Nevada and the Manzano Mountains in New Mexico). Among his initial findings are significant increases in the annual autumn counts of Bald Eagle, Cooper’s Hawk, Merlin, and



It's a well-known principle of conservation biology: Small, isolated populations tend to exhibit low levels of genetic variation. But a recent study of disjunct populations of the imperiled **Black-capped Vireo** does *not* affirm this principle. The reason?—dispersal among populations may be greater than was previously thought. *Kickapoo State Park, Texas; May 1995. © Brian E. Small.*

Peregrine Falcon at both eastern sites since 1976 and in the counts of Broad-winged Hawk and Peregrine Falcon at both western sites since 1990. In contrast, Hussell said, “Recent declines in Northern Harrier, Broad-winged and Red-tailed Hawks at Hawk Mountain, American Kestrel at both eastern sites, and Ferruginous Hawk in the West should be of concern and may indicate a need for conservation action.” With much more analysis at many more sites, the partnership aims to provide wildlife managers and environmental policy-makers with a basis for informed decisions about how best to prioritize raptor-conservation plans.

Black-capped Vireo Genetic Variation

Declining and fragmented populations, even those of such mobile creatures as birds, usually tend over time to lose their genetic diversity. As the losses progress, a small and isolated population becomes ever more tenuous and more likely to disappear. For a number of possible reasons that will require further investigation to confirm, genetic variations within geographically separated populations of the endangered Black-capped Vireo do not show this expected tendency. Victor W. Fazio III,

Donald B. Miles, and Matthew M. White reported in 2004 that they had found surprising variability within four geographically isolated populations of this species in Texas and Oklahoma (*Condor* 106:377-385). The samples were taken at two locations on the Edwards Plateau in Texas, and one each at the Fort Hood Military Reservation in Texas and in the Wichita Mountains Wildlife Refuge in Oklahoma.

The researchers used the technique of gel electrophoresis to examine protein allozymes at 17 gene loci in 48 individuals, and the allele frequencies were analyzed by several different statistical measures of variability. Within each small population, the mean heterozygosity and other measures of genetic diversity were among the highest values ever reported in the family Vire-

onidae. Less surprisingly for disjunct populations, the team found significant genetic differentiation of each Black-capped Vireo population from the others, indicating that gene flow among the separate population areas was limited. Nevertheless, levels of gene exchange among the populations were evidently sufficient to maintain substantial within-group variation. The authors suggested that dispersal by the vireos, perhaps repeated immigrations to a population by juveniles from others, was accomplishing the desirable genetic result.

In view of their findings, Fazio and his colleagues concluded that loss of genetic variation did not appear to be the most immediate management concern for the Black-capped Vireo. They saw preservation of habitat as the paramount concern. The vireo's preferred habitat is shrubby successional growth, which by definition is ephemeral and will require continual efforts to maintain availability. Joseph A. Grzybowski wrote in 1991 in *Birding* (23:216-219) that the most serious threats were conversion of land to agricultural, urban, and suburban uses, over-browsing by goats and sheep, and fire suppression. The investigation by Fazio, Miles, and White pointed toward a likely outcome in the absence of effective habitat management: Successional areas fewer and farther apart will mean fewer encounters among individual Black-capped Vireos from different populations and, in turn, fewer genetic resources than are necessary to assure the survival of the species.