

Paul Hess • Natrona Heights, Pennsylvania • phess@salsgiver.com

## Speaking of Sparrows

“The systematic arrangement of the fringilline birds [the New World sparrows and relatives] of the United States is more difficult than that of any other group, owing to the large number of species closely related to each other and [that exhibit] endless though minute variations in structure and form...The means at my command are manifestly insufficient for the satisfactory solution of a problem which has puzzled the best ornithologists of the day, with all possible resources at their command in the way of specimens and books.”

So wrote Spencer Fullerton Baird in his *Birds of North America: The Descriptions of Species Based Chiefly on the Collections in the Museum of the Smithsonian Institution* (1860).

Baird’s lament has echoed down taxonomic hallways ever since. Many distinguished ornithologists have labored to do the right thing in classifying sparrows, finches, and buntings—birds variously ascribed over the years to Baird’s “fringilline” array. Ornithologists’ “right things” have differed greatly. First, we must accept that the broad definition of “sparrow” is problematic. The New World sparrows, distinct from the Old World sparrows in the family Passeridae (represented in the ABA Area by the exotic House and Eurasian Tree sparrows), are currently placed in the family Emberizidae. But that placement has shifted over the years; see timeline, pp. 26–27.

Baird, working from museum specimens, could judge only by measurements, shapes, proportions, colors, and patterns. He divided the birds we call sparrows into two lopsided subfamilies within the vast family Fringillidae. Apart from bill, wing,

and tail characters, this is all he was able to say: One subfamily, the Spizellinae, comprised “all the plain colored sparrow-like species marked with longitudinal stripes”; another subfamily, the Passerellinae (containing only the Fox Sparrow), were “sparrow-like species with triangular spots beneath.” Anything further was beyond his technical reach.

Later and more sophisticated analyses based on morphology have not produced taxonomic consensus, either. DNA-based judgments during the past quarter century have extended the taxonomic flux, as we know well from decades of reclassifications in the American Ornithologists’ Union (AOU) *Check-list of North American Birds* and, by stipulation, in the *ABA Checklist*. Complicating matters, some species called “sparrow,” “finch,” “bunting,” and “grosbeak” are spread across different families.

Two recent publications open a new chapter in this complicated taxonomic history. We will have much to learn from discussions that include other ornithologists and eventual decisions by the AOU classification committees.

The first publication considered here is an expansive 2013 study in *Systematic Biology* by F. Keith Barker, Kevin J. Burns, John Klicka, Scott M. Lanyon, and Irby J. Lovette, who freshly analyze evolutionary divergence within a large assemblage of the New World songbirds called the nine-primaried oscines (tinyurl.com/9-primaried-oscines). The authors’ mitochondrial DNA samples include 204 taxa representing every genus in the families Calcariidae (longspurs, plus Snow and McKay’s buntings), Parulidae (wood-warblers), Thraupidae (tanagers, seedeaters, grassquits, and some cardinals), Emberizidae (New World sparrows), Cardinalidae (cardinals, some buntings and grosbeaks, and a few tanagers), and Icteridae (blackbirds and meadowlarks). Nuclear DNA samples were analyzed from all but eight genera.

The proposed phylogeny divides the genera into 16 families. Five are retained as those long-recognized “core lineages” listed above—although the authors recommend reassignments of many species among the families. The new results also maintain the recently recognized family Calcariidae of longspurs and Snow and McKay’s buntings.

One of the proposed reclassifications would banish the Yel-

A surprising result of recent genetic research indicates that the **American Tree Sparrow** is a “sister” species to the Fox Sparrow—meaning that the two are more closely related to each other than they are to any other species. *Antelope Island State Park, Davis County, Utah; January 2013. Photo by © Mia McPherson.*

