

A NEW GENUS FOR THE YELLOW-SHOULDERED GROSBEAK

J. V. REMSEN, JR.

*Museum of Natural Science, Louisiana State University, Baton Rouge,
Louisiana 70803, USA*

ABSTRACT.—Recent molecular data have shown that the genus *Caryothraustes* (Cardinalinae) as currently recognized is paraphyletic because one of its member species, *humeralis*, is not the closest relative of the other two species in the genus. Therefore, a new genus is created for this species, the Yellow-shouldered Grosbeak, formerly known as *Caryothraustes humeralis*.

RESUMEN.—Recientes datos moleculares han mostrado que el género *Caryothraustes* (Cardinalinae) como es reconocido actualmente, es parafilético, porque una de sus especies integrantes, *humeralis*, no tiene la relación más próxima con las otras dos especies del género. Por lo tanto, se crea un nuevo género para la especie conocida antiguamente como "*Caryothraustes*" *humeralis*.

Molecular genetics (Tamplin et al. 1993; Demastes and Rensen 1994) have confirmed hypotheses based on morphology and natural history (Hellmayr 1938; Hellack and Schnell 1977; Rensen and Traylor 1989) that the Yellow-shouldered Grosbeak ("*Caryothraustes*" *humeralis*) is not the closest relative of the other two species in the genus *Caryothraustes* (*C. canadensis* and *C. poliogaster*). Thus, its inclusion in *Caryothraustes* would make that genus paraphyletic. To indicate the uncertain affinities of *humeralis* and to remove it from genera for which there is no evidence of sister relationship, I here establish a new genus for it.

The species *humeralis* has been placed in three genera. It was described by Lawrence as a member of the genus *Pitylus* Cuvier. That genus, however, was subsequently restricted (e.g., Ridgway 1901) to just two species, *P. grossus* and *P. fuliginosus*. Demastes and Rensen (1994) showed that recognition of the genus *Pitylus* caused the genus *Saltator* to be paraphyletic, and they recommended placing *Pitylus* in the synonymy of *Saltator*, a recommendation followed by the American Ornithologists' Union (1995) Check-list Committee. Ridgway (1901) treated *humeralis* as a member of the genus *Caryothraustes* Reichenbach. Chapman (1926) treated *humeralis* as a member of the genus *Saltator* Vieillot, but did so reluctantly, stating: "In its rounded, decurved culmen and more pointed wings, it appears to differ generically from *Saltator* though apparently nearer that genus than to *Pitylus*." Hellmayr (1938) reluctantly placed *humeralis* in *Caryothraustes*, and it has been treated as a member of that genus since then (e.g., Paynter 1970; Sibley and Monroe 1990). Demastes and Rensen (1994) found that *humeralis* was not a sister taxon either to *Pitylus* or to *Saltator sensu strictu*.

In plumage color and pattern, *humeralis* shares characters with members of both *Caryothraustes* and *Saltator*, and these shared features were clearly responsible, historically, for the placement of *humeralis* in these two genera. Therefore, naming a new monotypic genus based on plumage characters could be avoided by merging *Caryothraustes* into *Saltator*. However, available molecular data (Demastes and Rensen 1994) show that to combine *Saltator* and *Caryothraustes* and also to avoid a paraphyletic genus would require the merger into one genus of all other cardinaline genera analyzed so far (*Cyanocompsa*, *Cardinalis*, *Pheucticus*, and *Spiza*). Such a genus would be unusually, perhaps uniquely, heterogeneous in birds. Furthermore, many other genera of cardinalines have yet to be analyzed genetically, and so their retention as separate genera or placement in this broad genus (for which *Saltator* Vieillot is the oldest name) would be based on inferences from phenotypic data. Finally, the genus *Saltator* itself is probably paraphyletic (Hellack and Schnell 1977). Therefore, I prefer to keep *humeralis* distinct at the generic level.

Because the type species for *Caryothraustes* is *C. canadensis*, no other generic name is available for *humeralis*. I propose the following:

Parkerthraustes, new genus

Type species.—*Pitylus humeralis* Lawrence, 1867.

Diagnosis.—The evidence for creation of a new genus for *humeralis* is largely molecular and

morphometric; see Tamplin et al. (1993) and Demastes and Remsen (1994) for details. Traditional descriptions of genera, however, are based on external phenotypic characters that in themselves may have little phylogenetic significance. Therefore, a diagnosis of the genus based on these characters is somewhat artificial. Nevertheless, I provide the following means for distinguishing *Parkerthraustes* from other genera. *Parkerthraustes* is the only genus of thick-billed, hook-billed, sexually dimorphic passerine in the New World that has a mottled malar streak and throat. It may be distinguished from *Caryothraustes* as follows: (1) yellow coloration in ventral plumage restricted to undertail coverts, with traces on lower flanks and thighs (versus conspicuous yellow or greenish yellow on breast or belly in *Caryothraustes*); (2) chin and throat irregularly mottled with black (male) or gray (female) (versus solid black in *Caryothraustes*); (3) malar feathers mottled black and off-white (male) or gray and off-white (female) (versus solid black in *Caryothraustes*); (4) auriculars black (male) or gray (female) (versus yellow or greenish-yellow in *Caryothraustes*); (5) crown and nape gray (versus greenish-yellow in *Caryothraustes*); (6) forehead gray (versus black in *Caryothraustes*); and (7) *Parkerthraustes* is sexually dichromatic, whereas *Caryothraustes* is not. *Parkerthraustes* can be distinguished from any species in the genus *Saltator* (including *Pitylus*) by (1) undertail coverts: yellow in *Parkerthraustes* versus not yellow in *Saltator*; and (2) tail shape: outer three rectrices in *Parkerthraustes* the same length or slightly longer than the inner two, thus giving the tail a slightly notched shape, versus rectrix 5 shorter than rectrices 4 and 3, giving the tail a more rounded shape in *Saltator*. In *S. rufiventris*, an aberrant *Saltator* in other respects (Hellack and Schnell 1977), the differences between rectrices 5, 4, and 3 are minimal, approaching the condition in *Parkerthraustes*. Also, the mottled center of the chin and throat in *Parkerthraustes* is not found in any species of *Saltator*, although *S. atriceps* and *S. similis* show some approach in this character.

Etymology.—I am pleased to name this genus in honor of my friend and colleague, the late Theodore A. Parker III. Long ago, Ted pointed out to me the distinctive nature of this species and how different it was behaviorally from true *Caryothraustes*. Its generic separation symbolizes one of Ted's favorite themes, namely the importance of detailed natural history observations and the clues that they provide for elucidating the systematic relationships of birds. This and other themes that Ted promoted greatly influenced a generation of Neotropical field ornithologists (Remsen and Schulenberg 1997).

Relationships.—A phenetic analysis of data on allele frequencies indicated that *Parkerthraustes* was closer to the cardinaline grosbeaks than to the saltators, whereas a cladistic analysis of the same data set produced the opposite result (Demastes and Remsen 1994). Without a well-corroborated phylogeny of the cardinalines, I hesitate to speculate on where *Parkerthraustes* fits in the phylogeny of this group. Therefore, I recommend that *Parkerthraustes* be placed incertae sedis at the end of the linear sequence of cardinaline genera.

ACKNOWLEDGMENTS

Richard C. Banks, M. Ralph Browning, Gary R. Graves, and Robert W. Storer made valuable comments on the manuscript.

LITERATURE CITED

- AMERICAN ORNITHOLOGISTS' UNION. 1995. Fortieth supplement to the American Ornithologists' Union Check-list of North American Birds. *Auk* 112:819-830.
- CHAPMAN, F. M. 1926. The distribution of bird-life in Ecuador. *Bull. Am. Mus. Nat. Hist.* 55:1-784.
- DEMASTES, J. W., AND J. V. REMSEN, JR. 1994. The genus *Caryothraustes* (Cardinalinae) is not monophyletic. *Wilson Bull.* 106:733-738.
- HELLACK, J. J., AND G. D. SCHNELL. 1977. Phenetic analysis of the subfamily Cardinalinae using external and skeletal characteristics. *Wilson Bull.* 89:130-148.
- HELLMAYR, C. E. 1938. Catalogue of birds of the Americas. Part XI. *Field Mus. Natur. Hist. (Zool. Ser.)* 8: 1-662.
- PAYNTER, R. A., JR. 1970. Subfamily Cardinalinae. Pp. 216-245 in *Check-List of Birds of the World* (R. A. Paynter, Jr., Ed.). Museum of Comparative Zoology, Cambridge, Massachusetts.
- REMSSEN, J. V., JR., AND T. S. SCHULENBERG. 1997. The pervasive influence of Ted Parker on Neotropical field ornithology. Pp. 7-18 in *Studies in Neotropical Ornithology Honoring Ted Parker* (J. V. Remsen, Jr., Ed.), *Ornith. Monogr.* No. 48.
- REMSSEN, J. V., JR., AND M. A. TRAYLOR, JR. 1989. *An Annotated List of the Birds of Bolivia*. Buteo Books, Vermillion, South Dakota.
- RIDGWAY, R. 1901. The birds of North and Middle America. Part 1. Family Fringillidae—the finches. *Bull. U.S. Nat. Mus.* 50:1-715.
- TAMPLIN, J. W., J. W. DEMASTES, AND J. V. REMSEN, JR. 1993. Biochemical and morphometric relationships among some members of the Cardinalinae. *Wilson Bull.* 105:93-113.