

Wilson Bull., 108(2), 1996, pp. 372–374

Taxonomic status of the Cuban form of the Red-winged Blackbird.—The Cuban Red-winged Blackbird was described as a species, *Agelaius assimilis*, by Gundlach in Lembeye in 1850 (Ridgway 1902, Blake 1968). It was treated as a species by Ridgway (1902) who noted that it differed from the widespread Red-winged Blackbird (*A. phoeniceus*) because (1) the female plumage was uniformly black, unlike any subspecies of *A. phoeniceus* and (2) the male was smaller than almost any form of *A. phoeniceus*. Hellmayr (1937), however, treated it as a subspecies of the Red-winged Blackbird with only the following explanation: “*A. p. assimilis* is nothing but a small race of the American Red-wing with a very dark female.” Subsequent authors (e.g., Barbour 1943, Bond 1956, Blake 1968, Orians 1985, Sibley and Monroe 1990) have followed Hellmayr’s taxonomy, although Mayr and Short (1970) considered *assimilis* a sibling species. Recent fieldwork by Whittingham et al. (1992) has shown that the form *assimilis* differs from other populations of *A. phoeniceus* in voice and social behavior. This new evidence, combined with the similar plumage of male and female *assimilis*, leads us to conclude that this taxon is best treated at the species level. Below we summarize the evidence.

Plumage dichromatism.—Although the Red-winged Blackbird shows much geographic variation in size over its large range (e.g., Power 1969, 1970; Dickerman 1974), the basic plumage pattern of the female, brown and heavily streaked, is consistent throughout its range, except in *gubernator*. This includes populations closest to Cuba, *A. p. bryanti* of the Bahamas and *A. p. richmondi* of the tropical lowlands of Middle America. In the subspecies of the Mexican plateau, *A. p. gubernator*, female streaking is greatly reduced and limited to the throat, the remaining plumage is very dark brown (but not as black as *assimilis*). In the Californian subspecies, *A. p. californicus* and *A. p. mailliardorum*, streaking is also reduced in females and the plumage is dark brown, although not to the degree that it is in *gubernator*. Although not stated explicitly, the tendency of these populations to vary in female plumage color in the direction of *assimilis* almost certainly influenced Hellmayr’s and others’ decisions to regard the latter as only an end-point of the variation in female plumage of *A. phoeniceus*.

In our opinion, however, the female plumage of *assimilis* differs qualitatively from being merely an unstreaked, dark extreme in plumage variation because the plumage is uniformly coal-black, like the males and not brown, as in even the darkest forms currently treated as subspecies of *A. phoeniceus*. Furthermore, the evidence for maintaining *gubernator* as a subspecies of *A. phoeniceus* is weak (see Hardy and Dickerman 1965). Finally, in the Tricolored Blackbird (*A. tricolor*), the female has a relatively less-streaked plumage that differs from that of the male less than do male and female plumages of sympatrically breeding *A. phoeniceus*. The sexual dichromatism of *assimilis* is even less than that of *A. tricolor*. Therefore, differences in female plumage in *Agelaius* are associated with differences in taxa designated as separate species.

The plumages of nestlings and second year males also differ between *A. phoeniceus* and *A. assimilis*. In *A. assimilis*, nestling plumage is entirely dull black and some nestlings have reddish-brown lesser wing coverts (presumably males; Kirkconnell pers. obs.). In contrast, the nestling plumage of *A. phoeniceus* is entirely streaked brown (Pyle et al. 1987). Second year (SY) male *A. assimilis* are entirely black except for the orange epaulets which are mottled with black (Kirkconnell pers. obs.). In contrast, the plumage of SY males of *A. phoeniceus* is blackish with heavy white or buff streaking (Pyle et al. 1987).

Vocalizations.—Whittingham et al. (1992) compared the vocalizations of Red-winged Blackbirds in North America and Cuba. Sonographic analyses showed that male *phoeniceus* and *assimilis* songs were similar in structure; however, male *assimilis* songs were shorter

and had a greater frequency range (see Fig. 1 in Whittingham et al. 1992). In contrast, songs of female *phoeniceus* differed dramatically from those of female *assimilis*. The latter were nearly identical to male *assimilis* songs (see Fig. 1 in Whittingham et al. 1992). In contrast, *phoeniceus* females sing two song types (Beletsky 1983), each a series of individual notes that differ distinctly from songs of male *phoeniceus* or of either sex in *assimilis*. The vocal behavior of *phoeniceus* and *assimilis* also differs dramatically; *assimilis* males and females often sing their songs in a duet (Whittingham et al. 1992), whereas *phoeniceus* males and females sing only solo songs.

Mating system.—Duetting is generally associated with prolonged monogamous pair bonds (Farabaugh 1982), which suggests that the mating systems of *phoeniceus* and *assimilis* also differ. Further, studies of color-marked birds show that male and female *assimilis* are observed only in pairs whether on their breeding territories or while foraging away from their territories (Kirkconnell, pers. obs.). These observations further support the idea of a monogamous mating system in *assimilis*. In contrast, *phoeniceus* is polygynous throughout its range (reviewed in Whittingham and Robertson 1994). In some cases, males may have as many as 15 females breeding on their territory at one time (Beletsky and Orians 1990).

Validity of A. assimilis subniger.—Bangs and Zappey (1905) recognized the population on the Isle of Pines (now Isle of Youth) as *A. assimilis*. Bangs (1913) later described the population as *A. subniger* based on its coloration being very dark brown and “. . . the bill has a tendency to be rather longer and with a slightly rounded, less flattened culmen.” However, the validity of these characters was questioned because the specimens Bangs examined were mostly immature (Todd 1916). Todd (1916) stated “. . . all but one of the male specimens are clearly in the immature stage. . . the culmen is slightly flatter, it is true, in the Cuban specimens, but I believe that even this difference would disappear in a large series; at any rate, it is certainly too trifling a difference upon which to base the recognition of even a subspecies.” Garrido (1970), in his revision, agreed with Todd’s comments and considered the taxon *subniger* a synonym of *assimilis*.

In summary, the sexes are similar in phenotype and vocalizations in *assimilis*, whereas these characteristics differ dramatically between the sexes in *phoeniceus*. Furthermore, the plumage of nestlings and SY males as well as the mating system differs between *assimilis* and *phoeniceus*. We believe that the evidence strongly favors treatment of the taxon endemic to Cuba as a species, *Agelaius assimilis*.

Acknowledgments.—We thank J. V. Remsen Jr. and L. A. Whittingham for comments on the manuscript. (Ed. note: L. A. Whittingham helped immensely to expedite publication of this paper.)

LITERATURE CITED

- BANGS, O. 1913. New Birds from Cuba and the Isle of Pines. Proc. New England Zool. Club 4:92.
- AND W. R. ZAPPEY. 1905. Birds of the Isle of Pines. Am. Nat. 39:179–215.
- BARBOUR, T. 1943. Cuban Ornithology. Memoirs of the Nuttall Ornithological Club, Cambridge, Massachusetts. No. 9, p. 123.
- BELETSKY, L. D. 1983. Aggressive and pair-bond maintenance songs of female Red-winged Blackbirds (*Agelaius phoeniceus*). Z. Tierpsychol. 62:47–54.
- AND G. H. ORIAN. 1990. Male parental care in a population of Red-winged Blackbirds, 1983–1988. Can. J. Zool. 68:606–609.
- BLAKE, E. R. 1968. Family Icteridae. Pp. 138–202 in Checklist of birds of the world, vol. XIV (R. A. Paynter Jr., ed.) Museum of Comparative Zoology, Cambridge, Massachusetts.

- BOND, J. 1956. Checklist of birds of the West Indies. Acad. Nat. Sci. Phil., Philadelphia, Pennsylvania.
- DICKERMAN, R. W. 1974. Review of Red-winged Blackbirds (*Agelaius phoeniceus*) of eastern, west-central, and southern Mexico and Central America. Amerc. Mus. Novitates 2538:1-8.
- FARABAUGH, S. 1982. The ecological and social significance of duetting. Pp. 85-124. in Acoustic communication in birds (D. E. Kroodsma. and E. H. Miller, eds.). Academic Press, New York, New York.
- GARRIDO, O. H. 1970. Variacion del genero *Agelaius* (Aves: Icteridae) en Cuba. Poeyana 68:1-18.
- HARDY, J. W. AND R. W. DICKERMAN. 1965. Relationships between the two forms of the Red-winged Blackbird in Mexico. Living Bird 4:107-130.
- HELLMAYR, C. E. 1937. Catalogue of birds of the Americas and adjacent islands. Field Mus. Nat. Hist. Zool. Series Vol. XIII, Chicago, Illinois.
- MAYR, E. AND L. L. SHORT. 1970. Species taxa of North American birds. Cambridge, Massachusetts.
- ORIAN, G. H. 1985. Blackbirds of the Americas. Univ. of Washington Press, Seattle, Washington.
- POWER, D. M. 1969. Evolutionary implications of wing and size variation in the Red-winged Blackbird in relation to certain geographic and climatic factors: a multiple regression analysis. Syst. Zool. 18:363-373.
- . 1970. Geographic variation of Red-winged Blackbirds in central North America. Univ. Kansas Publ. Mus. Natur. Hist. 90:1-83.
- PYLE, P., S. N. G. HOWELL, R. P. YUNICK, AND D. F. DESANTE. 1987. Identification guide to North American passerines. Slate Creek Press, Bolinas, Calif.
- RIDGWAY, R. 1902. The birds of North and Middle America. Part II. Washington, D.C.
- SIBLEY, C. G. AND B. L. MONROE, JR. 1990. A world checklist of birds. Yale Univ. Press, New Haven, Connecticut.
- TODD, W. E. C. 1916. The Birds of the Isle of Pines. Ann. Carnegie Museum, Vol. 10.
- WHITTINGHAM, L. A., A. KIRKCONNELL, AND L. M. RATCLIFFE. 1992. Differences in song and sexual dimorphism between Cuban and North America Red-winged Blackbirds (*Agelaius phoeniceus*). Auk 109:928-933.
- AND R. J. ROBERTSON. 1994. Food availability, parental care and male mating success in Red-winged Blackbirds (*Agelaius phoeniceus*). J. Anim. Ecol. 63:139-150.

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Wilson Bull., 108(2), 1996, pp. 374-377

Nest adoption by Monk Parakeets.—Monk Parakeets (*Myiopsitta monachus*) are unusual, being the only non-cavity nesting psittacines. Rather than using tree holes, burrows, or crevices as other parrots typically do, they build large domed nests of twigs (Forshaw 1989). Their nests often include several compartments, each with a separate entrance, and several nests may be built in the same tree or in neighboring trees. Monk Parakeets are non-migratory and use their nests year-round for roosting as well as for breeding. Nests typically are built in trees, as well as on a variety of man-made structures (windmill towers, utility