

NOMENCLATURE OF THE BLACK-BELLIED WHISTLING-DUCK

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ABSTRACT.—There are two distinguishable subspecies of the Black-bellied Whistling-Duck, one in South America to eastern Panama and one from western Panama through Central America to the southernmost United States. The type locality of the species is the West Indies, but there is little evidence that birds from that area are anything but vagrants or birds imported from South America. All records of this species in the West Indies are attributable to the subspecies that occurs naturally in South America. The plate and description on which the name of the species is based seem to be of the South American form.

It thus becomes clear that the South American and West Indian populations of Black-bellied Whistling-Duck must bear the name *Dendrocygna autumnalis autumnalis* (Linnaeus) 1758 and that *Dendrocygna discolor* Sclater and Salvin 1873 is a junior synonym. The earliest available name for the birds north of Panama is *D. a. fulgens* Friedmann 1947, of which *D. a. lucida* Friedmann 1947 is a synonym. Received 10 November 1976, accepted 16 April 1977.

THE specific name for the Black-bellied Whistling-Duck, *Dendrocygna autumnalis* (Linnaeus 1758), was based on a plate and description published in 1751 by Edwards, who stated that the bird he saw had come from the West Indies. More than a century later, Sclater and Salvin (1873) described *Dendrocygna discolor*, applying the name to birds of "Venezuela, Guiana, and Brasilia." In later treatments where South American birds were listed as the race *discolor* of the species *D. autumnalis*, the Central and North American populations as well as birds of the West Indies were allotted to the nominate race. This concept of two subspecies, divided by an apparently natural distributional gap in Panama (Wetmore 1965) was long accepted.

Todd and Carriker (1922:140) called attention to variability in the South American population, noting that birds from the Santa Marta region of Colombia were more rufescent on the breast than some specimens from eastern Venezuela. Friedmann (1947) examined a specimen from Puerto Rico and studied Edwards' (1751) plate and description, and concluded that both were similar to birds from western Venezuela, northern Colombia, and eastern Panama, all of which he considered to represent nominate *autumnalis*. Friedmann thus restricted *discolor* to the more eastern and southerly portions of the South American range of the species. At the same time, Friedmann provided two subspecific names for the Central and Northern American Black-bellied Whistling-Ducks, *fulgens* for birds of southern Texas and northeastern Mexico and *lucida* for those in the remainder of Mexico and Central America to western Panama, thus admitting four races of the species.

Hellmayr and Conover (1948:314–315) disagreed with Friedmann's (1947) analysis, reidentifying Friedmann's Puerto Rican specimen and three others from the West Indies (Puerto Rico and St. Vincent) as *discolor* and considering the birds from northwestern South America to be intermediate between South and Central American populations but assigning them to *discolor*. They considered Edwards' plate representative of the North and Central American populations, which thus retained the name *autumnalis*, and rejected both of Friedmann's newly proposed names as being based on variation due to age and freshness of plumage.

Each of the taxonomic concepts set out above attracted followers in the three sub-

sequent decades. Delacour (1954), Rylander and Bolen (1970), Meyer de Schauensee (1964) and others have followed Hellmayr and Conover (1948) in recognizing two races of this species. On the other hand, Friedmann's concept of four subspecies has been accepted in the Mexican check-list (Friedmann, Griscom and Moore 1950) and by Blake (1953), among others. Still a third concept, which might be called "modified Friedmann," has developed, accepting Friedmann's (1947) disposition of the names *discolor* and *autumnalis* but utilizing only the name *fulgens* for the populations north of Panama. This course, suggested by Pitelka (1948), has been followed by the A.O.U. check-list (1957) and by Wetmore (1965). Thus, one presently has good authority for recognizing two, three, or four subspecies of *Dendrocygna autumnalis*.

The problem can be broken down into three questions. First, are there one or two distinguishable populations in South America? Second, are there one or two distinguishable populations in Central and North America? Third, with which (if any) of these populations do birds of the West Indies, and particularly the one figured by Edwards, agree?

South American birds.—I see no essential difference among birds from various parts of South America in the collection of the National Museum of Natural History (USNM). In none of them is the neck concolorous with the back, as it is in Central and North American birds. In all of them the reddish of the back of the neck is separated from the chestnut of the back by a collar or cape of gray or of paler brown. Both the brown and gray collars occur in birds from Paraguay and those from Colombia and eastern Panama, and, as Hellmayr and Conover (1948) suggest, this variation may be related to age or plumage condition. The make of the skin, particularly the degree to which the neck is telescoped or stretched, may account for part of the variability. Birds from Colombia and Panama tend to have browner capes than those from Brazil and Paraguay, although individuals from the two geographic extremes can be matched almost exactly in this respect. Two Venezuelan specimens have the purest gray capes.

The comparison is essentially the same ventrally. In all South American birds examined there is a rather broad intervention of gray or grayish brown between the rufous of the breast and the black of the abdomen. This area is more frequently brownish gray in birds from Colombia and Panama, but again extremes from those countries can be matched by individuals from Brazil and Paraguay. Ventral coloration in general seems to be subject to staining that masks or modifies the true color.

Although there is considerable variation in the series of 25 South American (including eastern Panama) birds examined, it seems not to be geographically oriented, nor is it comparable to the degree of difference between South America populations and those of Central and North America. I conclude that there is but one recognizable South American form of this whistling-duck, agreeing with Hellmayr and Conover (1948).

Central and North American birds.—I can distinguish no significant geographic variation in dorsal color in a series of 15 birds of the Central and North American population, available specimens of which range from Texas to Costa Rica. In all birds the lower neck is concolorous with the back, with none of the interrupting gray and grayish brown found in the South American birds. The rather small amount of variation in the shade of rufous of the back is not geographically correlated.

There is more color variation ventrally than dorsally in these birds, but again I detect no geographic correlation. In some individuals there is a narrow band of

grayish- or yellowish-brown between the rufous or chestnut breast and the black abdomen, but this is never as extensive as in South American birds. This narrow band of lighter color occurs only on those birds with paler breasts, supporting the suggestions of Hellmayr and Conover (1948) and Pitelka (1948) that Friedmann's (1947) separation of *lucida* from *fulgens* was based on characters related to age or plumage condition. I conclude that the Central and North American population cannot be divided racially, again agreeing with Hellmayr and Conover (1948).

Birds from the West Indies.—Friedmann (1947) and Hellmayr and Conover (1948) agreed that a specimen from Añasco, Puerto Rico, is similar to South American rather than Central American birds, although they differed in their nomenclatural interpretation of this identification because of differing concepts of variation in South America. I agree with them in assigning that bird to the South American subspecies as defined here. Hellmayr and Conover (1948) also assigned another Puerto Rican specimen and two from St. Vincent to the South American form. Bond (1952) reported other West Indian specimens as being of the South American form, and indeed all specimen material of *D. autumnalis* from the West Indies has been so identified.

Identity and origin of the type.—Friedmann (1947) identified the bird in Edwards' (1751) plate, upon which the Linnaean name is based, as the South American form because of the separation of the red breast from the black belly by an area of "dusky ash colour" mentioned in Edwards' text and which is apparent to some extent in the plate. In this character I agree with Friedmann (1947) that the figured bird resembles South American birds. (The plate in the 1803 edition of Edwards' work, published by Will Gardner, London, is of no value in identifying the race of the subject bird.) The 1751 plate does not show, nor does Edwards' text mention, a grayish or grayish brown cape separating the reddish of the neck from the red back. In the continuity of color from the neck to the back the bird in the plate resembles Central American birds.

Hellmayr and Conover (1948) remarked that although some specimens from the population of northwestern South America "could be said to agree with Edwards' description and plate, so do others" from the Central and North American population. They noted that in the latter birds "at the junction with the black belly the under parts are buffy grayish, this color gradually shading into the dull reddish of the upper breast. We take these specimens to be young birds not yet in full plumage." The northern birds in USNM that possess this narrow light band at that junction do not have fully black thighs, probably another sign of their immaturity. By contrast, the South American birds do retain the ashy breast patch after they have acquired black thighs. The blackness of the thighs is a character mentioned and figured by Edwards (1751) and specifically noted by Hellmayr and Conover (1948) and Friedmann (1947).

Only one other character mentioned by Edwards (1751) has a potential for indicating which population was represented by the bird he saw; this is the color of the lesser upper wing coverts. Edwards states: ". . . next above the White is a Plat of bright Orange-Colour . . ." The figure shows an exaggeratedly large and bright orange wing patch. In none of the birds available are these coverts so prominent or distinctively colored. They are, however, slightly brighter and contrast more with the back color in South American than in Central or North American birds.

Considering that Edwards was not attempting to illustrate subspecific differences when he prepared his plate, it is not surprising that any identification of the bird at

that level must be somewhat speculative. On the basis of the combination of the ashy gray breast patch and black thighs, and because of the relative distinctiveness of the "orange" wing patch, and despite the lack of a grayish cape, I conclude that the bird figured is more similar to those of South America than to Central or North American birds. This finding agrees with the view of Friedmann (1947).

Some additional evidence may be brought to bear on the identity of the bird Edwards saw, relative to its origin in the West Indies. Friedmann (1947) suggested that "It is quite possible that the bird described by Edwards did not really come from there at all." However, Edwards figured many birds and mammals from the West Indies in his natural history series, and comments scattered through the 1751 volume suggest that there was a rather brisk importation of wildlife from the West Indies to Europe at that time. Bond (1950) suggested that the bird may have come from Jamaica, citing in support March's (1864) report that this species was imported into Jamaica from the Spanish Main, that is, the north coast of South America.

Gosse (1847) reported that although the species *D. autumnalis* was much less common in Jamaica than *D. arborea*, it was found there in some seasons, as an autumnal visitant from the Spanish Main. Gosse saw some that had been imported to Jamaica. March (1864) reported that *autumnalis* was sometimes met with in some of the eastern parishes of Jamaica, but he never saw any other than birds imported into Kingston from the Spanish Main. Both these accounts predate the naming of the South American birds, so no subspecific inference should be drawn from the use of the name *autumnalis* rather than *discolor*. Cory (1889) called *D. autumnalis* accidental in Jamaica and did not mention either *autumnalis* or *discolor* on any other island.

A number of old records for Puerto Rico give varying accounts of status and numbers of *D. autumnalis*. Taylor (1864) considered the species abundant and a breeding bird. Wetmore (1916) reported it as formerly abundant but becoming rare. Struthers (1923) reported collecting eggs and young. Danforth (1926) stated that it was not uncommon in autumn but rarely nested. However, Wetmore (1927), noting that his own earlier report was in error, cited all the above records in the synonymy of *Dendrocygna arborea*, and did not mention *D. autumnalis* as a Puerto Rican species. More recent accounts of Puerto Rican birds (Bond 1961, Leopold 1963) regard *D. autumnalis* as a vagrant or accidental species there, although Biaggi (1970) uncritically accepts the older published records.

Bond (1950, 1952) considered the South American form casual in West Indian islands north of Trinidad, and did not mention records of the northern race. More recently Bond (1961) discussed "The South American race (*D. a. discolor*) which is found in the West Indies . . ." and stated that this form was "apparently vagrant from South America." There is little evidence that Black-bellied Whistling-Ducks ever occurred in large numbers in the West Indies, or that they ever occurred there except as stragglers or imports from South America. There is no evidence that birds of the Central and North American race ever occurred there.

The South American and West Indian populations of Black-bellied Whistling-Duck must thus bear the name *Dendrocygna autumnalis autumnalis* (Linnaeus) 1758. *Dendrocygna discolor* Sclater and Salvin 1873 is a junior synonym. The earliest available name for the birds north of Panama is *D. a. fulgens* Friedmann 1947, of which *D. a. lucida* Friedmann 1947 is a synonym.

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