

colonies of Fox Sparrows were found in the vicinity, and Nehls mentioned that "we found all of the fox sparrows up on the hot, dry slopes and not along the streams. . . . The two or three meadows that we checked did not produce any fox sparrows."

It appears that the logging operations there have opened up a new habitat suitable for Fox Sparrows, and that colonization by that species has occurred. Further, colonization has come from two directions and from two separate populations, *megarhyncha* to the south and *fulva* to the east. It is of interest to note that White-crowned Sparrows (*Zonotrichia leucophrys*) have also colonized suitable areas there, but that the source of that species was from the west (Banks, Univ. California Publ. Zool. 70:41, 1964).

Several questions of interest cannot be answered with the material on hand. One wonders when the colonization of this newly opened habitat occurred. In 1941 Alden H. Miller and Ward C. Russell, of the Museum of Vertebrate Zoology, collected along the North Santiam River near the locality I later visited. According to Russell's notes, logging and burning were taking place at that time (see Banks, loc. cit.), although certainly the area affected was much less extensive than 19 years later. They obtained several

specimens of White-crowned Sparrows, but no Fox Sparrows; the latter species was not observed by these two reliable field men, and presumably was not present. Thus, at least along that portion of the North Santiam River, colonization by the race *fulva*, normally found on the other side of the Cascades, apparently took place between 1941 and 1960.

Eight years passed between the collection of the two specimens, of different subspecies, reported here. Has *megarhyncha* extended northward, replacing *fulva*, or do both forms exist in the newly formed habitat? If the latter situation prevails, are there ecological differences, perhaps in the successional stage of regrowth, which permit both to occur? To what extent do they interbreed, or remain separate? Some of these questions may be answerable with study now or in the near future. The question of the fate of this "new" population over the longer term is of no less interest, and should be kept in mind by future investigators.

I thank H. B. Nehls for making his specimen available to me and for permitting me to report on it, and W. C. Russell for providing information from his and Miller's field notes from 1941.

Accepted for publication 3 June 1969.

APPARENT LACK OF THE DOUBLE-SCRATCH IN TWO SPECIES OF *SPIZELLA*

GEORGE A. CLARK, JR.

Biological Sciences Group
University of Connecticut
Storrs, Connecticut 06268

A foraging method called the double-scratch occurs in numerous New World emberizines (see Nice, Trans. Linnaean Soc. New York 6:42, 1943; Harrison, Wilson Bull. 79:22, 1967). The double-scratch involves a hop forward and then a jump backward; in the latter movement both feet drag so as to scrape away the substrate (e.g., leaf litter or snow). A strongly genetic basis for this behavior is indicated by its apparent occurrence in all individuals of those species having the trait. Moreover, as I have noted, individuals of species not showing this behavior (e.g., *Cyanocitta cristata*, *Passer domesticus*, *Richmondia cardinalis*) apparently fail to learn it, despite their occasional opportunities to observe other species using the double-scratch. Recently Harrison has suggested applying the double-scratch as a taxonomic character in classifying emberizines. I here report an apparent exception to the

taxonomic distribution of the double-scratch as summarized by Harrison (op. cit., p. 23).

Nice (op. cit., p. 42) commented that the double-scratch "does not seem to occur in the Field Sparrow" (*Spizella pusilla*). Furthermore, despite a deliberate effort to observe such behavior, I have failed to see the double-scratch used by either Field Sparrows or Chipping Sparrows (*S. passerina*). In contrast, I have repeatedly noted this behavior in wintering Tree Sparrows (*S. arborea*) and have also confirmed the occurrence of the double-scratch for *Pipilo erythrophthalmus*, *Passerculus sandwichensis*, *Junco hyemalis*, *Zonotrichia albicollis*, *Passerella iliaca*, and *Melospiza melodia*. The double-scratch does not appear to characterize *Spizella*, having been reported for only one species of that genus.

If the genus *Spizella* is monophyletic, then presumably the loss or reduction in double-scratch has evolved within the genus, for this trait occurs widely in the emberizines, and there is no evidence that *Spizella* is primitive in the subfamily. Harrison (op. cit.) has suggested a possible correlation between the loss of the double-scratch and the evolution of walking from hopping, but this correlation does not seem to apply to *Spizella*, for Tree, Chipping, and Field Sparrows all typically hop over the substrate.

Accepted for publication 15 September 1969.

PSEUDO-SLEEPING ATTITUDE IN LESSER SCAUP AND RING-NECKED DUCKS

DANIEL W. ANDERSON

Department of Wildlife Ecology
University of Wisconsin
Madison, Wisconsin 53706

Cornwell and Bartonex [Bartonek] (Condor 65:444, 1963) have summarized field observations concerning what they described as pseudo-sleeping in two species of waterfowl (Canvasback, *Aythya valisineria*, and Ruddy Duck, *Oxyura jamaicensis*) and several other bird species. Brackbill (Condor 66:309, 1964) has re-

ported an apparent case of the same phenomenon in a Herring Gull (*Larus argentatus*). The speculation by Cornwell and Bartonex (op. cit.) that this phenomenon exists among other species of anatids prompted me to report an incident I observed on 27 April 1969.

While photographing waterfowl on the northern shore of Lake Mendota near Madison, Wisconsin, I approached a mixed flock (about 15 birds) of Lesser Scaup (*A. affinis*) and Ring-necked Ducks (*A. collaris*). Males and females of both species were present. The weather was cold and windy (about 15°F with northerly, offshore winds). These birds had been feeding in a loose group about 30 ft offshore in a relatively calm zone of water for the previous hour or so. When I was about 50 ft from the birds, I took a partially exposed position behind a beached boat.



FIGURE 1. The entire flock of Lesser Scaup and Ring-necked Ducks in a pseudo-sleeping attitude, showing a somewhat loose organization just after the flock ceased its feeding activity.

Birds on the surface began to move closer to one another and within a few seconds assumed what appeared to be the pseudo-sleeping attitude, with bills tucked under their scapulars and eyes open (fig. 1). They began to swim slowly out from shore. As birds bobbed up, they looked around, joined the group, and assumed the same posture. The entire flock maintained the pseudo-sleeping attitude and after about a minute, moved to a position about 40 ft offshore. Most birds more or less faced me. They remained this way for about 5 min, with an occasional bird holding

its head erect, but then again assuming the pseudo-sleeping attitude. When I stood up, a few birds raised their heads and began to move, rapidly swimming away from me to about 30 ft from a strip of ice between them and open water. Then, after facing into the wind, the entire flock flushed into the wind and flew off.

These observations support Cornwell and Bartonek (op. cit.) who suggest that pseudo-sleeping in anatids is a form of displacement activity prompted by mild threat or danger. According to these authors, it occurs on both an inter- and intraspecific basis. The presence of an ice sheet, which prevented the flock from swimming to a greater distance offshore, may have been a key factor in inducing the pseudo-sleeping or "sleep-feigning" attitude under the conditions of mild threat. A possible alternate explanation suggested by Johnsgard (pers. comm.) concerns the effect of the cold weather: when the birds noticed potential danger, they ceased feeding and put their bills under their scapulars to warm them. Observations similar to those I described above in a situation not affected by cold (Cornwell and Bartonek, op. cit.) and my failure to observe pseudo-sleeping in other nonfeeding birds of the same species in the same and other areas of the bay during the same day, favor the first explanation. Whether this form of behavior in anatids can at present be strictly defined as displacement activity seems open to question.

I am grateful to P. A. Johnsgard, J. C. Bartonek, R. A. McCabe, and J. J. Hickey, who commented on these observations.

Accepted for publication 17 November 1969.

ADDITIONAL RECORDS OF BIRDS FROM BRITISH HONDURAS (BELIZE)

JON C. BARLOW,
JAMES A. DICK

Department of Ornithology
Royal Ontario Museum, and

Department of Zoology
University of Toronto
Toronto, Ontario, Canada

AND

ESTHER PENDERGAST

Office of the Chief Archaeologist
Royal Ontario Museum
Toronto, Ontario, Canada

In a recent paper on our collecting activities in British Honduras (Belize) in 1966 the status of 17 species of birds, including some data on the White-winged Dove, *Zenaida asiatica*, was reported (Barlow et al., Ibis 3:399, 1969). The present note clarifies the status of *Zenaida asiatica* and gives distributional or breeding information for the Red-billed Pigeon, *Columba flavirostris*, the Black-billed Cuckoo, *Coccyzus erythrophthalmus*, and the Collared Araçari, *Pteroglossus torquatus*. Between 20 April and 20 May 1969, James A. Dick collected birds in British Honduras (Belize) on behalf of the Royal Ontario Museum. Dick used the Museum's permanent archaeological camp at Rockstone Pond, Belize District, as his main base of operations. The camp is situated in an area of second growth forest, scrub, and slash and burn agricultural practice. The following records are noteworthy.

Red-billed Pigeon. *Columba flavirostris*. Esther Pendergast obtained a subadult male (ROM 104086)

at Rockstone Pond on 8 February 1969. Between that date and 25 June, she regularly saw two or three of these birds in the vicinity of her camp. She then obtained an adult male (ROM 104341) on 13 May 1969 at Rockstone Pond. It had a left testis measuring 14×6 mm. Dick obtained an adult male (ROM 104087) on 12 May 1969, also at Rockstone Pond. This individual weighed 300 g, had heavy fat and a left testis measuring 15×6 mm. Russell (Ornithol. Monogr. no. 1:70, 1964) reports only one specimen and a sight record for the country, from Corozal, Corozal District, which is about 45 mi. N of Rockstone Pond.

White-winged Dove. *Zenaida asiatica*. This species was first observed in British Honduras by Esther Pendergast in March 1967, and the first two specimens of this dove were taken by her at Rockstone Pond in March 1968 (Barlow et al., op. cit. p. 401). Since only one of these was preserved as a study skin, determination of subspecies was not possible. Dick obtained the following white-wings in 1969 at Rockstone Pond: a male (ROM 104053), testis 14×8 mm, 25 April, wing (chord) = 151.7 mm, tail = 104.5 mm, exposed culmen = 19.3 mm, weight = 162 g; a male (ROM 104054), testis = 15×5 mm, 24 April, wing (chord) = 154.8 mm, tail = 106.3 mm, exposed culmen = 19.7 mm, weight = 155 g; a female (ROM 104055), ovary = 11×6 mm—largest ovum = 15×15 mm, 11×11 mm, 25 April, wing (chord) = 152.2 mm, tail = 106.4 mm, exposed culmen = 18.8 mm, weight = 156 g; and a female (ROM 104056), 26 April, 5 mi. W Rockstone Pond, ovary = 17×6 mm—largest ovum = 3×3 mm, wing (chord) = 150.2 mm, tail = 105.7 mm, exposed culmen = 18.9 mm, weight = 14.6 g. These measurements correspond to those of *Z. a. peninsulae*, a race recently described by Saunders