

Fla. Field Nat. 8(1): 18, 1980

**Ring-necked Ducks breeding in a north-central Florida lake.**—On the night of 13 June 1979, Scott Sanders and I observed a pair of Ring-necked Ducks (*Aythya collaris*) with a brood of four large young on the northern end of Orange Lake, Alachua County, Florida. This area of the lake, near the mouth of the River Styx, is fringed by a shallow marsh characterized by emergent or floating patches of maidencane (*Panicum hemitomon*), pickerel weed (*Pontederia cordata*), spatterdock (*Nuphar luteum*), cattail (*Typha* sp.), lotus (*Nelumbo lutea*) and sawgrass (*Cladium jamaicense*). The dominant submerged vegetation is hydrilla (*Hydrilla verticillata*).

As we approached the brood with our airboat, the hen commenced a feigning act in an attempt to lure us away from the ducklings but flew when we got closer, while the ducklings, not yet capable of flight, dove into the hydrilla. We turned, spot-lighted the remaining birds, and managed to capture the drake and a duckling. The drake had all of his primaries and did not appear to be in molt, but because his breast muscles were atrophied we assumed that he was a flightless cripple from the previous hunting season.

In their usual breeding range Ring-necks show a preference for nesting on "floating islands" (Mendall 1958, Univ. Maine Bull. 50(16):1-313). Orange Lake has many floating islands thus offering ideal nesting areas for these birds.

Ring-necks are occasionally seen throughout the summer months in Florida, however these sight records are generally assumed to be cripples that were unable to migrate (Sprunt 1954, Florida bird life, New York, Coward McCann). There is one published breeding record for the Ring-necked Duck in Florida. On 8 June 1964, in an area of the St. Johns River near Cocoa, Dennis Hammond noted a pair of Ring-necks and their young (Stevenson 1968, Aud. Field Notes 18: 503), and during the summer of 1967, biologist Tommy Hines (pers. comm.) observed a brood of Ring-necks in the Everglades Recreation Area (Conservation Area II), Broward County.

Ring-necked Ducks probably do not voluntarily summer in Florida as breeders, thus this breeding record seems due to a strong pair-bond between a flightless drake and a hen capable of flight. The pair-bond in the Ring-necked Duck is considered much stronger than in many other species of ducks (Mendall 1958). A strong pair-bond with one member a flightless cripple probably accounts for the extralimital nesting in Florida of this and perhaps other migratory duck species.—THOMAS M. GOODWIN, *Florida Game and Fresh Water Fish Commission, Wildlife Research Laboratory, 4005 S. Main Street, Gainesville, Florida 32601.*

Fla. Field Nat. 8(1): 18-19, 1980

**Osprey nest concentrations in northwest Florida.**—On 5 March and 10 April 1979, aerial surveys were conducted by the Florida Game and Fresh Water Fish Commission to evaluate nesting activity by Ospreys (*Pandion haliaetus*) and Bald Eagles (*Haliaeetus leucocephalus*) along the lower Apalachicola River area.

A concentration of at least 45 active Osprey nests was observed in a remote area of Gulf County, Florida, about 12 miles west of the town of Apalachicola, consisting of about 4000 acres of marsh and swamp forests adjacent to the south edge of Lake Wimico in Township 8 South, Range 9 West. Our observations indicated that nesting began in late February and was reaching a peak around mid-April. Most nests were over standing water in tall, old growth cypress (*Taxodium* sp.) and slash pines (*Pinus elliottii*) growing in or adjacent to freshwater marshes along Depot Creek, Columbus Bayou and Deadman's Slough. No nests were found in the swamps surrounding these drainages, where adjacent habitats were similar, but generally lacked the abundance of tall mature trees occurring in a marsh area.

This concentration of nesting Ospreys is believed to be the largest in northwest Florida (Stephen A. Nesbitt, Henry M. Stevenson, pers. comm.) and the nesting area represents some of the most pristine habitat remaining in Florida. Drainage patterns are relatively undisturbed and access by vehicle or boat is almost impossible at the present time due to the absence of roads or boat trails. Nearby Lake Wimico and Apalachicola Bay with its estuarine marshes serve as foraging areas for the nesting birds.

This important nesting habitat has been proposed for inclusion in the boundaries of the Apalachicola Bay National Estuarine Sanctuary, but as of this writing there has been no indication that the land will be purchased. At the present time, large acreages of adjacent swamps are being drained and converted to pine timber production. This Osprey nesting area is an invaluable asset to Florida's wildlife heritage and should be preserved.—NEAL F. EICHHOLZ, *Office of Environmental Services, Florida Game and Fresh Water Fish Commission, Tallahassee, Florida 32301.*

Fla. Field Nat. 8(1): 19-20, 1980

**Dusting by Sandhill Cranes in Florida.**—The following observations on Sandhill Cranes (*Grus canadensis*) were made in an improved pasture on the Hendrie Ranch, 24 km S of Lake Placid, Highlands County, Florida. The morning of 28 February 1979 was warm and sunny when my wife and I watched the cranes from a car 80 m away using 8x30 binoculars. Five cranes were on a spoil bank along a ditch, jabbing at the ground and then pushing their bills among feathers of the back and under the wings. One crane (Crane A) did this in concentrated fashion, not moving about and always jabbing at one spot. The other four cranes applied soil to their plumages only part of the time. At 0920 the five cranes left to join six more, but four returned in 10 min to apply soil to their plumages again.

The spoil bank was covered with grass cropped by cattle. The cranes had worked in 3 places; one a basin-shaped depression of loose sand, seemingly made by cattle and measuring 2 m across, and another a series of three jab holes, 6-8 cm apart made under sparse grass. This area was covered by cement-hard marl, the jab holes going through it to loose soil beneath. A third place, where Crane A had worked in concentrated fashion, was at the side of a mound occupied by red imported fire ants (*Solenopsis invicta*). Perhaps Crane A had found the loose soil worked up by the ants favorable for dusting rather than this being passive anting.

The behavior we observed on 28 February was similar to that described by Nesbitt (1975) for Florida Sandhill Cranes (*G. c. pratensis*). He noted that the soil was dark, reddish brown and contained 3.2 times as much iron as soil from surrounding high ground. His label for the activity was "feather staining" and, in summarizing theories on the feather staining found in Sandhill Cranes, he stresses this interpretation, although mentioning feather maintenance as an alternate interpretation. The soil used by the cranes we observed had no reddish or other unusual color and our interpretation is that they were "dusting" as defined by Simmons (1964).

Short-legged birds such as Bobwhite (*Colinus virginianus*) (Stoddard 1931) dust by squatting flat and kicking loose soil into their feathers. These maneuvers being impossible for long-legged land birds, Sandhill Cranes, like the Common Rhea (*Rhea americana*) (Simmons 1964), achieve the same ends by picking up soil and placing it on their backs. What these ends are are controversial. Simmons (1964) believes that ectoparasites are thereby discouraged and dislodged. This may be particularly important in the breeding season when mallophagan parasites have life cycles synchronized with those of their hosts, as described by Foster (1969) and discussed by Kilham (1975) in relation to dirt-bathing of a Pileated Woodpecker (*Dryocopus pileatus*). Other explanations for dusting include removal of oil and dandruff (Healey and Thomas 1973).

The way feathers of Sandhill Cranes become stained is little understood. It is a complex subject that needs study by observation and experiment. One hypothesis is that feather staining is caused by the iron that is widely prevalent in bogs and marshes due to the action of iron-fixing bacteria (Wetzel 1975) and is the same as that seen in Trumpeter Swans (*Olor buccinator*), well illustrated in photographs by Truslow (1960), and described for a variety of other waterfowl by Kennard (1918) and recently by Krogman (1978) for White-fronted Geese (*Anser albifrons*). None of these birds dust.

An objection to this hypothesis is that the white cranes, including the Whooping Crane (*Grus americana*) that also feed and nest in bogs, do not become stained. Staining, however, is a chemical process, probably between iron in a reduced or active form and some constituent in feathers. The selective pressures that lead some species of cranes to become white, could also have led to a feather chemistry that would insure that they would stay white