

## NOTES

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**An Unusual Nest Site of the Florida Sandhill Crane in  
Southeastern Florida**

BRIAN TOLAND

Florida Game and Fresh Water Fish Commission,  
Office of Environmental Services,  
110 43rd Avenue, S.W., Vero Beach, Florida 32963

Florida Sandhill Cranes (*Grus canadensis pratensis*) rarely nest in an already dry site (Layne 1982; Nesbitt, pers. comm.). The few reported dry ground nests of cranes in Florida occurred in typical, albeit de-watered habitats within appropriate vegetative cover (Sprunt 1963, Layne 1982). These nests were smaller and more simply constructed than the typical bulky nests built by Sandhill Cranes in preferred aquatic sites (Layne 1982; Nesbitt, pers. comm.).

On the morning of 14 March 1990, I investigated a report of a Sandhill Crane nesting on the ninth fairway of the Sebastian Municipal Golf Course in northern Indian River County, Florida. At a distance of 50 m I saw the cranes guarding a single egg lying on the manicured fairway grass devoid of a nest structure (Fig. 1). From only 2 m away I detected the presence of a few scattered sticks, sedges, and feather down placed in a desultory



**Figure 1. Florida Sandhill Crane nest site on Sebastian Municipal Golf Course fairway. Note a single egg lying next to adult crane's feet.**

fashion adjacent to and under the egg (Fig. 2). A second egg was laid on 16 March, but no additional nest material was added. The nest site was about 10 m from the edge of a small pond fringed by cattails (*Typhus sp*) and less than 30 m from the midline of the fairway, with a nearly constant procession of golfers and golf carts.

Based on the average flushing distance for this subspecies in the Treasure Coast Region (Toland, pers. obs.), I normally recommend that buffer zones for Sandhill Cranes nesting in proximity to development be at least 100 m in radius around the nest site. However, this golf course pair was apparently habituated to human activity, for they could not be distracted from their normal activity patterns unless approached to within 25 m. Thus, a 0.6 m high fence was placed ca. 25 m from the nest, creating a buffer zone based specifically on the estimated disturbance distance threshold for this particular pair of cranes.

On the morning of 18 April both eggs hatched after 33 and 35 days of incubation, respectively. The fact that the eggs were incubated considerably longer than the average 29-31 day incubation period (Nesbitt, pers. comm.) suggests the birds may have been disturbed by golfer activities enough to disrupt normal incubation. The two chicks accompanied the adults as they walked around the golf course foraging primarily for northern mole crickets (*Gryllotalpa hexadactyla*). One chick disappeared at about 2 weeks of age and the remaining young was missing at between 4 and 5 weeks of age.

The incidence of dry land nesting by Florida Sandhill Cranes may be influenced by drought (Layne 1982). However, of 15 crane nests that I observed during the spring of 1990 (a severe drought year in south Florida), all but the aforementioned nest were located in typical wetlands. The selection of such an odd and suboptimum nest site as a crowded golf course fairway may be evidence of an inexperienced breeding pair of cranes. The failure to fledge any young is typical of inexperienced pairs that, while producing offspring, rarely are successful in raising young to 80 days of age (Nesbitt, pers. comm.).



Figure 2. Florida Sandhill Crane nest on day of hatching.

This case illustrates the behavioral plasticity of Sandhill Cranes and supports the concept of developing nesting buffer zones derived from the disturbance tolerances of a given nesting pair. However, the protracted incubation period described herein provides evidence that even seemingly habituated Sandhill Cranes can be adversely affected through subtly stressful encounters with humans.

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### The First Successful Nesting of Wood Storks on Arthur R. Marshall Loxahatchee National Wildlife Refuge

MARK D. MAFFEI<sup>1</sup> AND HOWARD L. JELKS<sup>2</sup>

<sup>1</sup>Arthur R. Marshall Loxahatchee National Wildlife Refuge,  
 Rt. 1, Box 278, Boynton Beach, Florida 33437, and

<sup>2</sup>Florida Cooperative Fish and Wildlife Research Unit, University of Florida,  
 117 Newins-Ziegler Hall, Gainesville, Florida 32611

Located in central Palm Beach County, the Arthur R. Marshall Loxahatchee National Wildlife Refuge totals 57,906 ha. The habitat is characterized as northern Everglades habitat consisting primarily of a matrix of wet prairie and slough communities in which thousands of tree islands are located. The tree islands, ranging in size from 0.1 to 50 ha provide suitable substrate for wading bird nesting. In typical water years (i.e., years where water levels are not impacted by drought) as many as 200 islands are used as rookery locations in the Refuge, supporting 15,000 nesting pairs of wading birds. Colonial wading birds which nest on the Refuge include White Ibis (*Eudocimus albus*), Little Blue Herons (*Egretta caerulea*), Great Blue Herons (*Ardea herodias*), Snowy Egrets (*E. thula*), Great Egrets (*Casmerodius albus*), Cattle Egrets (*Bubulcus ibis*), and Tricolored Herons (*E. tricolor*). White Ibis often are the most common of the nesting wading birds, with as many as 12,000 pairs nesting on the Refuge.

In order to monitor wading bird nesting on the Refuge, surveys of colonies are conducted each year by the Refuge staff. Surveys are conducted on the ground using airboats, and aerial surveys are conducted using both fixed- and rotary-winged aircraft. Surveys are conducted beginning in late January, and continue through early July. Typically, Great Blue Herons are the first to nest, with many initiating nesting in January. By mid-March, most species have begun nesting, and White Ibis have been found incubating eggs as late as July. Despite the fact that typically up to 1,000 Wood Storks (*Mycteria americana*) forage within the Refuge from mid-December through early June (Hoffman et al. 1987, 1988, 1989) there are no records of Wood Storks successfully nesting on the Refuge (Kushlan and Frohling 1986). In 1981, about 100 Wood Stork nest platforms were found