

estimated to be about 1,500 feet. They disappeared into the distance at 10:20 hours as I watched with 7× binoculars. I waited another hour, but they did not return.

The next day winter weather returned to the prairie in the form of a cold front and the weather remained unfavorable for further crane migration until 8 March. During that period M. J. Fogarty visited the prairie daily to band snipe and reported that no cranes were seen departing.

The morning of 8 March was again like spring with easterly winds of about 15 miles per hour. Precisely at 10:00 hours Fogarty saw a large flock of cranes rise from the prairie and during the next few minutes observed a series of events that coincided almost exactly with my observations of 1 March. On 13 March at 12:15 hours Fogarty saw another flock of cranes flying northward over his home in the western part of Gainesville about 5 miles north of Paynes Prairie at about 1,500 feet altitude. Other flocks were seen flying northward over Gainesville in the forenoon on 28 February and 8 March 1969. Walkinshaw (Wilson Bull., 72: 361, 1960) lists several observations of cranes flying northward over Gainesville in early March in 1953 through 1955.

The winter crane population on Paynes Prairie probably approached 1,000 during the winter of 1969. One morning in January more than 600 were seen leaving one roost. Only a few dozen are known to nest there.

The Florida Game and Fresh Water Fish Commission color-marked and banded 50 Sandhill Cranes in northern Florida during the winter of 1967-68. Several of them were subsequently seen in Tennessee, Michigan, and Minnesota. Therefore, it seems likely that these observations refer to *G. c. tabida*. This substantiates Walkinshaw's (Wilson Bull., 72: 378, 1960) belief that *G. c. tabida* winters regularly in Florida but it suggests the possibility that the more important wintering grounds may be in northern rather than central or southern Florida.

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Flightlessness in Sandhill Cranes.—Walkinshaw (The Sandhill Cranes, Cranbrook Inst. Sci., Bull. 29: 10, 1949) found no record of flightlessness in Sandhill Cranes (*Grus canadensis*) but suggests "it might occur during early June when adults are with the young and very hard to find."

On 28 May 1966 while conducting research on Sandhill Cranes (*G. c. tabida*) at Malheur National Wildlife Refuge, Oregon, I found a group of 32 birds feeding in an open meadow. When I moved closer, 29 of the birds flew away, some with great difficulty. Two birds were able to fly only short distances, while one individual that had lost all primaries was unable to become airborne. Reexamination of this flock on 11 June showed all members capable of flight.

I encountered another flightless bird while I was examining a nest on 5 June 1966. The female flew off rapidly, but when the male tried to follow her he was unable to fly, although he tried repeatedly. All his primaries were missing.

Flightlessness has been observed in the Manchurian Crane (*G. japonensis*), Common Crane (*G. grus*), Siberian White Crane (*G. leucogeranus*), Sarus Crane (*G. antigone*), White-necked Crane (*G. vipio*), Whooping Crane (*G. americana*), and Stanley Crane (*Anthropoides paradisea*) (Blaauw, A monograph of the cranes, Leiden, E. J. Brill, 1897, see p. vii; Stevenson and Griffith, Condor, 48: 173, 1946). To my knowledge, flightlessness has not been reported previously in the Sandhill Crane.—CARROLL D. LITTLEFIELD, *Department of Fishery and Wildlife Biology, Colorado State University, Fort Collins, Colorado 80521.*