that most prey was initially detected in the immediate vicinity of the perch is consistent with the hypothesis of flushing. The fact that posturing preceded most attempted captures suggests that this was the mechanism of flushing. Our interpretation of this evidence is that the Blue Flycatcher overtly flushes some and perhaps a great deal of its prey by posturing as it forages.

Although the posturing described above has not been specifically associated before with foraging, Willoughby Lowe may have implied it when he noted that Blue Flycatchers hunted along boughs, driving insects until they took flight and were captured and eaten (*in* Bannerman, The birds of tropical West Africa, vol. 4, London, Oliver and Boyd, 1936: 288). Wing and tail fanning also occurs in other African and in Asian flycatchers, and D'Abreu (J. Bombay Nat. Hist. Soc., 35: 217) reports that *Rhipidura aureola* and *R. pectoralis* employ tail fanning to flush insects from mango trunks in India. Among New World birds that forage like the Blue Flycatcher, wing and tail fanning occurs commonly in parulid redstarts (e.g. *Setophaga ruticilla, Myioborus pictus,* and *M. miniatus*), and one wonders whether or not flushing of prey might be an object of their posturing. Such parallelism would not be unexpected.

We are very grateful to the many people who made possible and productive our ornithological research in Africa, particularly those of the East African Virus Research Institute (Entebbe), the U. S. Naval Research Unit in Cairo, and the Smithsonian Institution.—JOHN P. HUBBARD and CLAUDIA L. HUBBARD, *Rockbridge Alum Springs Biological Laboratory, Goshen, Virginia 24439.*

Spring departure of Sandhill Cranes from northern Florida.—While banding and color-marking Sandhill Cranes (*Grus canadensis*) in 1968 on Paynes Prairie near Gainesville, Florida I was able to observe the striking behavior of cranes departing their wintering grounds. The spring departure of Whooping Cranes (*Grus americana*) has been described (Shields and Benham, Auk, 85: 318, 1968), but evidently it has not been described for the Sandhill Crane in detail before.

On 1 March 1968 a 15 mph breeze from the southwest produced an early spring-like day in northern Florida. I was watching a bait site on Paynes Prairie used to capture cranes for banding and color-marking when at 09:50 hours a group of about 150 cranes sprang suddenly into the air calling excitedly and settled back to the prairie after circling widely at low altitude.

At 09:55 hours about 100 of the same group rose again with a clamor even greater than before and began a slow upward spiral, beating their wings strongly and gaining altitude each time the spiral turned into the wind. As the disarranged flock continued upward, smaller groups and single individuals joined them from other parts of the prairie until the flock numbered nearly 200.

At 10:05 hours the flock was still not organized into formation, but some of the birds were attempting to form small "V" groupings within the larger flock. At this time the birds were approximately 1,000 feet above the ground and a few smaller flocks were still gaining altitude to join them. By 10:09 hours all the smaller groups were near the main body of the flock. Suddenly, they all turned to a northward heading and slipped into three long "V" formations. Occasionally the three formations attempted to merge, but the arrangement was unstable and did not comprise a single formation for more than a few seconds. After about 6 minutes of steady northward flight, the three formations turned and spiraled upward several more times before resuming a northerly heading. They seemed to be moving faster after turning north again, possibly as a result of having gained stronger winds at that altitude, which I

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.

This is a contribution of the Federal Aid to Wildlife Restoration Program, Florida Pittman-Robertson Project W-41.—Lovett E. Williams, Jr., *Florida Game and Fresh Water Fish Commission, Wildlife Research Projects, Gainesville, Florida 32601.*

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.*