

the bird observed in northwestern Missouri or west-central Illinois. The juvenile crane was last seen on the Mingo Refuge on December 17. Although game biologists, refuge managers, and game agents were alerted in the lower Mississippi and Central flyways, this crane was still unreported a month later.

Thus at least two Whooping Cranes, one an adult and the other a juvenile, appeared in or near Illinois in the fall of 1958, after an absence of nearly 70 years. The most recent records of this crane in Illinois, according to Allen ('The Whooping Crane,' Research Rep. No. 3, Natl. Audubon Soc., 1952), were of a specimen taken in Champaign County on March 27, 1871, and two specimens taken in April of 1891 in Jo Davies County. In Missouri there are later records; the last cited by Allen (*loc. cit.*) were in 1913. Early records indicate that these cranes were not uncommon migrants in the Mississippi Valley in the early 1800's.

From the standpoint of orientation in migration it would be important to discover the factor or factors responsible for the displacement of two Whooping Cranes some five hundred miles to the east of their normal flight line through western Nebraska. Moreover, the adult crane in its probable flight from northwest Missouri to west-central Illinois moved in the opposite direction from that which would have returned it to its regular migration route. Nevertheless, this crane apparently became aware of its eastern displacement during its three week stay in Illinois, for it evidently migrated southwestward to Eagle Lake, Texas, and thence farther southwestward to the Aransas Refuge.—HARLOW B. MILLS AND FRANK C. BELLROSE, *Illinois Natural History Survey, Urbana, Illinois.*

Mutual Tapping of the Red-headed Woodpecker.—Tapping is a distinctive mode of communication common to a variety of woodpeckers. Excellent descriptions of tapping by various European woodpeckers have been published (Pynnönen, 1939; Sielmann, 1958; Blume, 1958). Mutual tapping has hitherto been described only of the Red-bellied Woodpecker (*Centurus carolinus*) (Kilham, 1958). Similar mutual tapping by the Red-headed Woodpecker (*Melanerpes erythrocephalus*) is here described of a single pair observed at the Archbold Biological Station, Lake Placid, Highlands County, Florida, during a stay from April 27 to May 3, 1958.

Mutual tapping at dawn.—I walked toward the roost hole of the male, which was 10 feet up in a short stub entirely in the open, at daybreak on May 1. The male Red-headed Woodpecker put his head out of his roost hole at 5:20 A.M. He remained within the entrance for the next 10 minutes, calling "queeark" every 2-4 seconds with exception of a few longer pauses. The female flew by my head at 5:30 A.M. Her mate stopped calling as soon as he saw her approaching, dropped from sight into his hole and was tapping inside by the time she had arrived at the entrance. The pair now joined in mutual tapping. She gave one burst of 5 taps, then moved a few inches along the outside and tapped as before. The male continued tapping in a rather exhaustive fashion for several minutes, still hidden within the hole, while his mate calmly preened herself at the top of the stub. I witnessed this ceremony on 3 consecutive mornings. On the morning of May 2 the male called "queeark" 47 times in 5 minutes before his mate arrived. An interesting aspect of this ceremony at daybreak was that I had witnessed an almost identical pattern of behavior among pairs of Red-bellied Woodpeckers, as described elsewhere (Kilham, 1958). Both species tap at the same countable rate of 2 to 3 taps per second, usually in bursts of 5 to 15 taps each. The vocalization "queeark" of the Red-headed Woodpecker is, I believe, equivalent to the "kwirr" of the Red-bellied Woodpecker, these vocalizations for either species representing the breeding call of the male.

In continuing observations I noticed that the pair of Red-headed Woodpeckers might return every 15 to 30 minutes for more mutual tapping at the male's roost hole during the several hours after dawn. On May 1, for example, the male was on a pine tree when he called "queeak" 6 times, flew to his hole 30 yards away, popped inside and began tapping. His mate arrived a moment later. She tapped 5 times, then perched quietly while he continued to tap out of sight. The initiative of the male, evident in such episodes, was further apparent in the excavation of a new nest hole.

Mutual tapping and the selection of a nest site.—In spite of their tapping at dawn, the pair of Red-headed Woodpeckers did not appear to be satisfied with the male's roost as a nesting site. The hole was obviously old. I was not surprised to find the male starting a fresh excavation on April 28, at a spot 20 feet up in a dead pine. He spent much time working here for several days. I was watching on April 30 when he and his mate flew to the excavation from a distance. He tapped as they alit, but she did not join. Events which occurred later on the same day suggested that her lack of enthusiasm may have prompted him to try another site. Thus by afternoon he had started a new excavation higher up and on the opposite side of the same dead pine. He was working here on the following morning. When he paused to call "queeak" 3 or 4 times, his mate responded immediately by flying to him. I heard scratchy "kree" noises as the male tapped alone. The female returned 5 minutes later and this time I heard mutual tapping, although she was screened from view by the trunk of the pine. Her interest, however, was now becoming apparent. She replaced him at the work of excavating and on the following day I had a full view of the pair tapping together at their new location.

Conclusions.—The mutual tapping described is of interest for several reasons. It apparently serves 1) to strengthen the pair bond, and 2) to inform the male as to whether his choice of an excavation site is acceptable to his mate. As mutual tapping, not described for other species of woodpecker, is common to *Melanerpes* and to *Centurus*, it suggests that these genera are closely related.

LITERATURE CITED

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"Wing-twitching" and Insect Capture by the Starling.—In June, 1958, I twice observed a peculiar "wing-flashing" motion used by foraging European Starlings (*Sturnus vulgaris*). Sutton (1946) has described wing movements by several species of birds which apparently are associated with feeding, although he expresses doubt as to the true function of the motion in the Mockingbird (*Mimus polyglottos*). Subsequently, several observers (Wampole, 1949; Brackbill, 1951) studied the Mockingbird's motion and they considered it to be used in feeding. Recently, Whitaker (1957) has reviewed the occurrence of this trait in species other than the Mockingbird, but she does not mention any "wing-flashing" motions reported to be used by the Starling. The observations below are presented to describe this behavior trait in the Starling, and to suggest the motivation of this motion and, possibly, of "wing-flashing" motions in general.