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 "queeark" 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 "queeark" 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.

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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.

On 19 June, I was observing several Starlings foraging in some uncut grass in downtown Washington, D. C., when suddenly one bird gave a quick spread of the wings, and pecked into the grass immediately thereafter. I could see that the bird had captured something, I believe an insect, which it swallowed. During the following week I observed foraging Starlings carefully in an attempt to see this motion again; in order to note more carefully the details concerned with it. On the 27th on the White House Lawn, I again saw a bird twitch its wings. This time a lone foraging Starling was looking into the grass about its feet when it raised and spread its wings synchronously in one very rapid motion, which I believe to be identical to the first. This bird, too, immediately struck into the grass with its bill, but I was unable to tell positively whether or not an insect had actually been taken.

I am hesitant to call the Starlings' motion "wing-flashing" because this term has been used to describe the controversial behavior motion of the Mockingbird (Sutton, 1946; Bent, 1948: 308; Wampole, 1949; Brackbill, 1951), foraging behavior of several species (Whitaker, 1957), ritualized hostile behavior in North American forest thrushes (Dilger, 1956), and even courtship in a Cuban thush (Vaurie, 1957: 308–310). Therefore, in hopes of avoiding confusion rather than adding to it, the motions of the Starling described above are hereafter referred to as "wing-twitching."

The function of this behavior of the Starling appears to be the same as that commonly ascribed to the wing-flashing of the Mockingbird; that is, the wing throws a sudden shadow over the grass which causes insects to move slightly or to jump and thus betray their presence. However, wing-twitching is morphologically quite different from the wing-flashing of the Mockingbird, which is the only other example of this type of behavior which I have so far observed. The Mockingbird's wings are opened by "hitches" in a jerky series of motions, which are quite slow in comparison with the rapid twitch of the Starling's wings. Morphologically, wing-twitching seems to be distinct also from the known ritualized behavior motions of the Starling (see text and references in Kessel, 1957: 266–269; and Hailman, 1958). The motion does show some similarity to flight-intention movements of this species, although the latter include sleeking the feathers, crouching the body, and flicking the tail—elements which were not present in the wing-twitching motions observed. It is conceivable, though, that the evolutionary origin of wing-twitching is flight intention. If startled insects moved in response to flight intention, then birds which did not fly (but quickly struck at the prey instead) might be selected for, because of greater success in food capture. This motion could then be incorporated into the regular foraging behavior, loosing the other components of flight intention in the feeding context. Thus (over a long period of time), the two behavior movements would be selectively separated. This, of course, is conjecture.

If the Mockingbird's "wing-flashing" turns out to function in foraging, as wing-twitching apparently does in the Starling, then I believe these motions will have to be considered analogous rather than homologous because of the evident differences in morphology described above. It is conceivable that the use of wing motions by ground foraging birds to startle insects has been "invented" independently many times, and therefore any future comparisons between species will have to consider the morphology as well as the context of such motions. Although all the mimic thrushes may use truly homologous motions, it is doubtful if the motions of all the species mentioned by Whitaker (1957) can validly be compared without more information than is presently available.

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Apparent Homosexual Behavior between Brown-headed Cowbird and House Sparrow.—While watching a large mixed flock of Brown-headed Cowbirds (*Molothrus ater*) and House Sparrows (*Passer domesticus*) on October 26, 1958, in the cattle pens near the Oklahoma State University campus, I noticed a very peculiar action in a male cowbird. This bird was on a woven-wire fence about ten feet from where I was sitting. The cowbird had its head bowed with lower mandible touching the breast feathers and wings slightly raised at the shoulder. A male sparrow, which was perched beside the cowbird, mounted the cowbird, grabbed the head feathers in its beak and tried to copulate. The cowbird maintained the same position and the sparrow mounted it twice more, then flew a few feet away and perched on the fence again. The cowbird then flew over and perched beside the same sparrow, again assuming the described posture. The cowbird waited for a short time, and when the sparrow did not mount, it nudged the sparrow with its beak. The sparrow moved about a foot away. The cowbird followed, again assuming the same position. The sparrow mounted and attempted to copulate, then perched beside the cowbird. The cowbird retained the crouched position. When the sparrow did not mount again, the cowbird nudged the sparrow, which mounted again and then flew a few feet away. When the cowbird noticed the sparrow was gone, it followed. This behavior continued for 5-8 minutes until something frightened the flock, causing it to rise into the air and drop to the ground a few feet away. I could not find the pair in the flock again.

It has been observed that fledglings begging for food (crouched position, with raised head and open bill) sometimes release sexual behavior, causing attempts at copulation by males with the fledgling (Rittinghaus, Vogelwelt, **77** (4): 116–118, 1956). The cowbird described above appeared to be in adult male plumage and at no time was it seen to raise its head and open its bill in a begging manner; therefore, I do not believe that begging could have been the releaser of this unusual behavior.—DAUDE N. GRIFFIN, *Department of Zoology, Oklahoma State University, Stillwater, Oklahoma.*

Ed. Note: The bowing posture described above strongly suggests the ordinary incomplete courtship display of the male cowbird. Bowing often occurs in autumn (Friedmann, "The Cowbirds," p. 165, 169–170, 1929), and may even be used as a threat display towards other species, according to Laskey (Wilson Bull., **62**: 159, 1950). The resemblance to the posture of a receptive female may have released