Blue Jay attacks cowbird nestling.—At approximately 2:00 PM, 15 July 1963, my family and I were suddenly attracted to the sound of quarreling birds at the asphalt parking lot of the Audubon Nature Center, Greenwich, Connecticut. I turned in time to see an adult Blue Jay (*Cyanocitta cristata*), at a height of about 3 feet, drop a nestling from its bill to the ground, apparently as the result of an attack upon the Blue Jay by an adult Catbird (*Dumetella carolinensis*). After dashing at the Blue Jay, which dropped its prey, the Catbird flew to the hedge bordering the parking lot, remained hidden, but constantly called. The Blue Jay attempted three or four times to pick up the struggling nestling in its bill as we approached, but gave up and flew away.

Upon examination, I found two of the secondaries of the left wing badly torn and projecting up oddly. I easily broke them off. The nestling was a Brown-headed Cowbird (*Molothrus ater*) of the size and activity which I had some years ago found capable of limited flight and able to leave Scarlet Tanager (*Piranga olivacea*) nests. After holding it in my hand so that it could be viewed by my daughters and others interested, where it remained completely calm and with eyes closed, I took it to the hedge bordering the parking lot. By tapping its legs against a small branch, I caused it to perch, but within ten seconds it flew toward the calling Catbird in a descending flight, disappearing into the dense cover about a foot above the ground.

It would seem that the cowbird nestling was, in some way, attractive to the Catbird and may have been from its nest. While Young (1963. *Wilson Bull.*, 75:117) includes the Catbird as a species infrequently parasitized by the cowbird, Friedmann (1929. "The Cowbirds," pp. 193, 194, 253) indicates that the Catbird is a very uncommon victim and is absolutely intolerant of cowbird eggs. It is entirely possible, of course, that the Catbird was merely attracted by the distress calls of the nestling, and that its disquieted continuing calls after the incident were in reaction to the entire situation complicated by human interference. Moreover, the direction of flight of the cowbird young was not only toward the calling Catbird but directly away from me. Whether or not the cowbird nestling was from a Catbird nest, actual accounts of interspecific predatory relationships are sufficiently infrequent to warrant mentioning of this interesting occurrence.—KENNETH W. PRESCOTT, *Academy of Natural Sciences of Philadelphia, 19th and Parkway, Philadelphia, Pennsylvania, 7 August 1963.*

Unusual behavior of a Northern Shrike.—On 1 December 1962, at Ester Dome, 7 miles west of College, Alaska, I observed an adult Northern Shrike (*Lanius excubitor*) abandoning a freshly killed Pine Grosbeak (*Pinicola enucleator*) to attack a Sharp-tailed Grouse (*Pedioecetes phasianellus*). The shrike, when first seen, was pursuing a flying grosbeak, which took refuge in a clump of high-bush cranberry shrubs where other grosbeaks were sitting. After several minutes, one of the grosbeaks flew out and hovered in front of the bush, picking at berries. The shrike immediately left its perch in a nearby tree and attacked the hovering grosbeak, apparently hitting it with the bill or biting it in the head region, knocking the grosbeak to the ground. The shrike picked up the grosbeak in its feet and flew to a birch tree about 75 feet from me and alighted. A group of three Sharp-tailed Grouse, seemingly frightened when I moved, suddenly flushed from the ground about 35 feet from the base of the tree in which the shrike had just alighted. Almost simultaneously with the flight of the grouse, the shrike dropped the dead grosbeak and left its perch in pursuit of the grouse. The shrike flew low to the ground and overtook the grouse. Upon reaching them, it rose above the last one and struck down at its back with feet and bill. I could not observe whether the grouse was actually hit. Two such strikes were made before the birds were lost to view around a clump of trees.

In view of the size difference, the grouse weighing between 600 and 750 grams and the shrike about 62 to 68 grams, it seems unlikely that the shrike was actually attacking so large a bird as a prey item. Cade (1962. *Wilson Bull.*, 74:394) gives 80 to 100 grams as near the maximum-size prey a shrike can handle. Thus, this behavior approaches in character and nature what Moynihan (1955. *Auk*, 72:242) terms "redirection" (a reaction directed toward an object or animal other than the one releasing or directing the reaction). Although Ficken and Dilger (1960. *Animal Behaviour*, 8:240–259) would reserve the term redirection for a reaction to a "subnormal" stimulus initiated by a "normal" stimulus, the actions of the shrike fit the general pattern of the Prairie Falcon (*Falco mexicanus*) cited by Moynihan (loc. cit.).

It is believed that when the shrike was disturbed by my presence, and possibly startled by the unexpected noisy flight of the grouse, it became frustrated and unable to accomplish the usual "innate" sequence of killing, impaling and eating its prey as is, according to Cade (personal communication), characteristic. The shrike seems to have found an outlet for its thwarted feeding behavior by attacking the grouse.

Although this behavior may be somewhat obscure, in precise interpretation, and not categorically fit any existing, applied definition, it seems noteworthy that the shrike, under the observed circumstances, should attack a bird outweighing it by nearly tenfold. Such attacks by shrikes appear to be heretofore unrecorded in the literature.

I wish to thank Dr. Tom Cade for several pertinent comments concerning this note.—CLAYTON M. WHITE, *Biological Sciences Department, University of Alaska, College, Alaska, 26 July 1963.*

Migrant Cape May Warbler apparently carrying nest material.—The gathering and carrying of twigs by a female Cape May Warbler (*Dendroica tigrina*) at Bloomington, Indiana, on 16 May 1961, is of interest because the bird may safely be assumed to have been a migrant. Bloomington is about 400 miles south of the southern edge of the known breeding range of the species (A.O.U., 1957. "Check-list of North American birds"). Although there are numerous records of the performance of acts that are components of nest building by birds unprepared to complete a nest in which eggs will be laid (Armstrong, 1947. "Bird display and behaviour"), such behavior has apparently rarely if ever been recorded of individuals not yet arrived on the nesting ground. Nothing suggested that the acts were in the nature of display or of displacement activity.

The episode occurred at 8:45 AM on a clear day; the temperature was 60 F. Two female Cape May Warblers were moving through two ornamental Norway spruces (*Picea abies*) about 35 feet high. These spruces stood with interlaced branches beside a house located in a sunny clearing at the edge of a mature deciduous woods. Suddenly, one bird, 15 feet above the ground, seized with her bill a loose twig about 6 inches long. She manipulated this twig so that she held it near the middle and then began hopping upward around the periphery of the tree, dropping the object after 20 seconds and at a height of 20 feet. Four minutes later the performance was repeated at a height of 22 feet, apparently by the same bird. She then disappeared from view, and no more Cape May Warblers were seen at the spot.

It is interesting that this species has "rather strict requirements for nesting habitat . . . fairly open coniferous forest with a good percentage of mature spruces or . . . dense spruce forest with a scattering of taller spires above the canopy level" (W. W. H. Gunn, *in* Griscom and Sprunt, 1957. "The Warblers of America," p. 117). Twigs are among the usual nesting materials, but Bent (1953. *U.S. Natl. Mus. Bull.*, 203:215–216) suggests that they are sparingly used. The return to the breeding grounds is in late May or