

that made the small dry oak leaves on which it stood shake also. Almost none of the tremor seemed to be communicated to the body of the bird. Neither in the round, limpid eye nor elsewhere in the bird could I detect any motion or pose indicative of excitement of any cause. After foot-quivering (Dilger, *Auk*, 73: 313, 1956) a few moments, the thrush hopped forward 5 to 8 cm, tossing leaves aside very rapidly and appearing to feed. Then, with a few more hops, it moved to another spot and foot-quivered again. This took place in three different places under the oak and was seen well with 8 x 40 binoculars. In between, the thrush rested on a stick about 8 cm above the ground. The foot-quivering stopped and the bird remained motionless. When a Red-tailed Hawk (*Buteo jamaicensis*) flew by at near tree top level, the thrush disappeared.

These observations appear to add points to those made by Dilger (1956) under different circumstances, namely on thrushes in captivity or in the wild when disturbed by complicating apparatus in the breeding season. In these situations he favored the idea that foot-quivering was a displacement activity. He discusses the possibility that thrushes "might employ these movements to flush insects from the detritus of the forest floor" but states that he had never seen the behavior in wild birds. All of the foot-quivering was characterized by Dilger as of low intensity.

The Hermit Thrush at Sapelo, in contrast, was observed in the nonbreeding season and outside of the breeding range. It was obviously foraging and gave no indication of being disturbed. Its foot-quivering seemed to be of high intensity, sufficient to shake the dry leaves on which it stood. The Red-tailed Hawk that came through the woods at the end of the observation came flying from a distance. Had the Thrush seen it earlier, it seems doubtful if it would have fed in an open place shaking leaves as it did so.

A possible overall interpretation of foot-quivering, combining Dilger's with present findings, is that the behavior evolved as a foraging technique that has developed later, and in secondary fashion, into a displacement activity. Although it is often difficult to watch foraging thrushes of the genus *Catharus* at close range, the problem is an interesting one and additional observations would be helpful.—LAWRENCE KILHAM, *Department of Microbiology, Dartmouth Medical School, Hanover, New Hampshire 03755*. Received 27 May 1976, accepted 5 January 1977.

Longevity Record for the Red-tailed Hawk.—On 17 Oct 1960 we trapped a migrating Red-tailed Hawk (*Buteo jamaicensis calurus*) at the Cedar Grove Ornithological Station, on the western shore of Lake Michigan about 60 km north of Milwaukee, Wisconsin. The bird still had some juvenal remiges, and thus was slightly more than 1 year old at the time. On about 1 March 1976 the bird was struck by a vehicle near Athens, Tennessee. The band number and approximate date of recovery were confirmed in a telephone conversation with Marc Sudheimer, a conservation official who reported the band. Kennard (*Bird-Banding*, 46: 55-73, 1975) gave 13 years, 7 months as the greatest age record for this species. Our record extends this to 16 years, 9 months, assuming a hatch date of June, as did Kennard.

The fifth edition of the A.O.U. "Check-list of North American Birds" (1957) states that *B. j. calurus* winters east to Louisiana and that it is casual in Illinois, southern Ontario, Pennsylvania and New Jersey. Athens is in extreme southeastern Tennessee, and this locality and southeastern Wisconsin would appear to be east of the normal range for the subspecies. However, *B. j. calurus* is considerably more common than "casual" in Wisconsin. We have colored photographs of a number of individuals, and we have deposited several specimens in the museum of the Department of Zoology at the University of Wisconsin. Examples of the subspecies are captured every autumn at Cedar Grove; we ceased documenting their occurrence with photographs many years ago. For example, in the autumn of 1960 we trapped 3 adult and 77 juvenile Red-tailed Hawks; 2 of the adults and 2 of the juveniles were *B. j. calurus* (5% of the total). —HELMUT C. MUELLER, *Department of Zoology and Curriculum in Ecology, University of North Carolina, Chapel Hill, North Carolina 27514*, DANIEL D. BERGER, AND GEORGE ALLEZ, *Cedar Grove Ornithological Station, Route 1, Cedar Grove, Wisconsin 53013*. Received 8 January 1977, accepted 17 January 1977.