

WOODFORD, J., and W. J. WASSERFALL. 1958. The Point Pelee bird-banding station: 1954-1957. *Bulletin of the Federation of Ontario Naturalists*, **80**: 20-26.

c/o Royal Ontario Museum, 100 Queens Park, Toronto, Canada.

GENERAL NOTES

An Avian Predator Alarm of the American Robin.—Studies in and about Baltimore partly concurrent with those of Jackson in British Columbia (*Auk*, **69**: 466, 1952) support his finding that the high, thin, waxwing-like note of the Robin (*Turdus migratorius*) is an alarm note signalling the presence of an avian predator. I have also a few times seen Wood Thrushes (*Hylocichla mustelina*) give notes indistinguishable from the Robin's under circumstances suggesting that they had the same function. In "The Birds" (Univ. Mich. Press, 1958: 121) the Heinroths state that the European Blackbird (*Turdus merula*) uses "a repeated long, drawn-out 'Seeee'" to signal a flying enemy.

Further, I have once seen a Tufted Titmouse (*Parus bicolor*) give pretty similar notes, also under circumstances suggesting that they were avian predator alarms. Dixon (*Condor*, **51**: 116, 1949) records an apparently identical note of the Plain Titmouse (*Parus inornatus*) as a general fear note. Odum (*Auk*, **59**: 503, 1942) reports similar notes given by the Black-capped Chickadee (*Parus atricapillus*) "when a hawk appears or any large bird flies over or casts a shadow."

Have alarm notes of this nature evolved because they are inaudible to predatory birds? I can find no figures on the hearing range of hawks or Crows (*Corvus brachyrhynchos*), but Edwards (*Auk*, **60**: 240, 1943) found that of another predator, the Great Horned Owl (*Bubo virginianus*), to have an upper limit of about 7,000 cycles, and Brand (*Auk*, **55**: 266, 1938) found the range of Cedar Waxwing (*Bombycilla cedrorum*) song to be about 7,675 to 8,950 cycles.

Robin. In my suburban study areas hawks are seldom seen; here the Robin's note, which I have recorded as *eeee* and *eeeee*, signals the presence of Crows, and until Jackson made his report, dealing with hawks, I had believed it to be specific for Crows. I, too, have found that it is given almost exclusively during the nesting season—seldom, indeed, until first broods begin to leave the nest—and that fledglings, and sometimes other adults, "freeze" throughout the period it is given, which one one occasion that I timed ran to 15 minutes. The note has also sometimes seemed to cause Robins that were foraging on lawns to fly up into trees.

Observations on color-banded birds also confirm Jackson's finding that the note is given by both sexes. I have timed the rate, when it is being given steadily, at 8 to 12 notes a minute. It is given, from either the ground or a perch, when a Crow comes within about 90 yards or less, and whether the Crow is skulking through the trees, feeding on the ground, or simply passing overhead. In many trials at a number of Robin nests, I have been able to provoke the note only very rarely and very briefly by placing a mounted Crow near, or even directly beside, the nest, during the building, laying, incubating and nestling periods. Apparently, then, the alarm is directed primarily at fledglings out of the nest but not yet independent, and warns of an avian predator large enough to carry off a bird that size.

Five times that I have seen Screech Owls (*Otus asio*) being scolded, and twice that I have seen Sparrow Hawks (*Falco sparverius*) being pursued in the air, by Robins, it has been with the loud *peep* calls, not *eeee's*. Neither Blue Jays (*Cyanocitta cristata*) nor Common Grackles (*Quiscalus quiscula*) evoke *eeee's*.

(The Robin also has a shorter and much fainter *eee* note, audible for only a short distance in contrast to the good carrying power of the predator alarm. I hear this second *eee* oftenest in late summer. It is given, just once or twice, when the bird is surprised by the sudden appearance near it of another bird, a beast or a human, or from uneasiness when the beast or human approaches or watches it too closely. It is also frequently given by one Robin upon coming near my feeding shelf and finding another Robin already there.)

Wood Thrush. I have seen color-banded Wood Thrushes of both sexes give *eeee* notes like the Robin's predator alarms, from both the ground and perches. As stated above, I could never tell what evoked these notes, but one male frequently glanced upward while uttering them, and two incidents showed their alarm character: once a male Wood Thrush stopped singing while they were being given, and once an incubating female looked about alertly during a series of them. Whether they were being given by a Wood Thrush or a Robin on those occasions I do not know.

Tufted Titmouse. Once a color-banded female titmouse on my feeding shelf "froze" in a position looking a bit upward, and at irregular intervals gave clear, thin, moderately loud *see, see-see* and *see-see-see's*. Then, after something more than a minute, she dashed away without taking a seed. Along with that bird, a male titmouse, a pair of White-breasted Nuthatches (*Sitta carolinensis*) and two Blue Jays had been coming to the feeder on each other's heels for many minutes, but now the place was deserted for five minutes.—Hervey Brackbill, 2620 Poplar Drive, Baltimore 7, Maryland.

Drumming by Female Hairy Woodpeckers.—There are few published reports of drumming by female woodpeckers in this country. Brackbill (1953, *Bird-Banding* 24: 18) states that female Downy Woodpeckers, *Dendrocopus pubescens*, drum as well as the males, thus settling the disagreement in Bent's *Life History* (1939, *Bull. U.S. Nat. Mus.* 174: 54, 61.) In the same note, Brackbill records drumming by female Flickers (*Colaptes auratus*) and Red-headed Woodpeckers (*Melanerpes erythrocephalus*), but does not mention the Hairy (*Dendrocopus villosus*). Likewise, in the separate accounts of thirteen *D. villosus* subspecies, Bent (*op. cit.*: 13-44) describes drumming many times without indication that female Hairys participate. Furthermore, in an examination of literature published since Bent, no reference to female drumming in the Hairy could be found.

During the spring of 1957, with the kind help of Dr. William H. Drury and Carl W. Helms, the author color-banded five Hairy Woodpeckers for preliminary behavior observations in the field, at the Hathaway School of Conservation Education at Lincoln, Massachusetts. During that spring one banded and one un-banded female Hairy were seen drumming, and drumming was also witnessed in female Downy Woodpeckers and Flickers, thus supporting Brackbill's observations. Dr. Lawrence Kilham, who is now conducting extensive research on the behavior of Eastern North American woodpeckers, tells me (*pers. comm.*) that his notes are full of observations of drumming by females of these and other species. Apparently drumming by the female of the species is a common but overlooked behavior trait in most, if not all, of our woodpeckers.—Jack P. Hailman, 4401 Gladwyne Drive, Bethesda, Maryland.

RECENT LITERATURE

BANDING

(See also numbers 12, 13, 14, 15, 71)

1. **Bird-banding.** (Ringmärkning.) Viking Olsson. 1958. *Vår Fågelvärld*, 17: 103-109. With more and more people banding birds in Sweden, carelessness in handling birds is increasing correspondingly. This timely resumé of some do's and don't's for the field-bander might well prevent the loss of many valuable contributions to our knowledge of birds through mishandling and ineptitude. When banding in a sea-bird colony, climb to the highest point of the land so that the young birds can see you! Their first reaction will be to "freeze" against the ground thus preventing needless exposure and scattering. Do not lift the bird unnecessarily, but band it as it lies on the ground or in the nest! Cover or turn their heads away from the bander in order to minimize the possibility of awakening the nest-leaving reaction in nestlings! Only one of them needs to jump out for the nest-clinging reaction in all the others to be inhibited. Above all, never risk the life or the welfare of a bird for the sake of a record!—Louise de K. Lawrence.

2. **The Czechoslovakian Ornithological Society's Bird-Banding Report for the years 1943 to 1946.** (IX. Beringungsbericht der Tschechoslowakischen Ornithologischen Gesellschaft über die Jahre 1943 bis 1946.) O. Kadlec and D. Basova. 1957. Published by the Krajske Museum, Jihlava, Czechoslovakia,