

RED-BELLIED WOODPECKER PREDATION ON NESTLING HOUSE WRENS¹

ANDREW J. NEILL AND R. GIVEN HARPER

Ecology Group, Department of Biological Sciences, Illinois State University,
Normal, IL 61761

Key words: Red-bellied Woodpecker; *Melanerpes carolinus*; House Wren; *Troglodytes aedon*; predation; cavity nesting.

On 10 July 1989 in McLean County, Illinois, on the Macknaw study area (Drilling and Thompson 1988), we saw a Red-bellied Woodpecker (*Melanerpes carolinus*) alight at the entrance of a nest box, which contained seven House Wren (*Troglodytes aedon*) nestlings. The woodpecker thrust its head through the 3.2-cm diameter entrance and removed a 6-day-old nestling that weighed about 8 g. Both adult wrens immediately mobbed the woodpecker, which flew up into the forest canopy with the nestling in its bill. We remained in the vicinity of the nest box for 1 hr following the incident but did not again see the woodpecker.

There were five nestlings in the nest box on the following day, and four nestlings in the nest box 7 days later. Both the nest box, which was 1.5 m from the ground, and the greased electrical conduit upon which it was mounted showed no evidence of mammalian predation. It is unlikely that the parents removed the other missing nestlings because adult wrens are unable to remove from their nests dead or dying nestlings that are older than 9 days (Belles-Isles and Picman 1986, pers. observ.). Therefore, it is likely that the woodpecker made subsequent trips to the nest and preyed upon additional nestlings.

Although this was our only observation of woodpecker predation on nestling wrens, we have circumstantial evidence that such predation may regularly occur. In 1988 and 1989 nestling wrens were weighed when they were 9 and 12 days old. Nestlings disappeared from 6.1% (13 of 214) of the nests during this 3-day interval. However, no predation was seen during 253 hr of nest watches performed during the same interval. We also saw adult wrens mob a Red-headed Woodpecker (*M. erythrocephalus*) near a nest box that contained nestlings. It is unlikely that woodpeckers are attempting to usurp House Wrens from nest boxes, because during the past 10 years there has been no evidence of woodpeckers attempting to nest in any of the 910 available nest boxes.

Bent (1964) summarizes the Red-bellied Woodpecker's diet as primarily consisting of insects, berries,

and nuts, and there have been only a few reports of this species feeding on eggs or nestling birds. Brackbill (1969) reported a Red-bellied Woodpecker stealing House Sparrow (*Passer domesticus*) eggs. Red-bellied Woodpecker predation on nestling passerines has been documented in the open-nesting American Redstart (*Setophaga ruticilla*) (Watt 1980) as well as in the secondary cavity-nesting White-breasted Nuthatch (*Sitta carolinensis*) (Dunn 1984) and Carolina Chickadee (*Parus carolinensis*) (Conner 1974). In related species, a Pileated Woodpecker (*Dryocopus pileatus*) was observed consuming a Red-bellied Woodpecker nestling (Loftin 1981), and Nilsson (1984) showed that woodpeckers were major predators of tits (*Parus* spp.), being responsible for 48% of the predation on their nests in boxes. Thus Red-bellied Woodpeckers may prey regularly on cavity-nesting species, such as the House Wren, and may be responsible for the disappearance of nestlings more frequently than is generally realized.

We thank C. F. Thompson, D. Watt, B. Gottfried, and N. E. Drilling for making comments on this manuscript. These observations were made while conducting research supported by NSF grant BSR 8615296 to C. F. Thompson.

LITERATURE CITED

- BELLES-ISLES, J.-C., AND J. PICMAN. 1986. House Wren nest-destroying behavior. *Condor* 88:190-193.
- BENT, A. C. 1964. Life histories of North American woodpeckers. Dover Publications, New York.
- BRACKBILL, H. 1969. Red-bellied Woodpecker taking bird's eggs. *Bird-Banding* 40:323-324.
- CONNER, R. N. 1974. Red-bellied Woodpecker predation on nestling Carolina Chickadees. *Auk* 91:836.
- DRILLING, N. E., AND C. F. THOMPSON. 1988. Natal and breeding dispersal in House Wrens (*Troglodytes aedon*). *Auk* 105:480-491.
- DUNN, M. L. 1984. Red-bellied Woodpecker predation on nestling Nuthatches. *Chat* 48:74-75.
- LOFTIN, R. W. 1981. Pileated Woodpecker takes Red-bellied Woodpecker nestling. *Fl. Field Nat.* 9:41.
- NILSSON, S. G. 1984. The evolution of nest-site selection among hole-nesting birds: the importance of nest predation and competition. *Ornis Scand.* 15:167-175.
- WATT, D. J. 1980. Red-bellied Woodpecker predation on nestling American Redstarts. *Wilson Bull.* 92:249.

¹ Received 2 January 1990. Final acceptance 29 March 1990.