

RED-BELLIED WOODPECKER (*MELANERPES*
CAROLINUS) USURPING NEST OF DOWNY
WOODPECKER (*PICOIDES PUBESCENS*)

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Woodpeckers frequently interact with other birds wanting to use the holes they have excavated, including other woodpecker species. Bent (1964) noted that Red-headed Woodpeckers (*Melanerpes erythrocephalus*) are particularly prone to engage in such interactions. However, Red-bellied woodpeckers appear to be somewhat less aggressive. Jackson (1976) observed a Red-headed Woodpecker chase away a Red-bellied Woodpecker one-hundred feet (30.5 m) from its nest, whereas a male Red-bellied took no action when a Red-headed came within a few feet from its nest. In interactions with either Red-headed Woodpeckers or European Starlings (*Sturnus vulgaris*), Ingold (1989) found Red-bellied Woodpeckers to be inferior competitors; starlings frequently take over the nest cavities.

Despite their comparatively submissive nature, Red-bellied Woodpeckers have demonstrated aggression toward and even preyed upon other hole-nesting birds. Baker and Payne (1993) watched a Red-bellied Woodpecker remove two nestling European Starlings from a nest hole, drop them from the top of a tree, and then commandeer the nest. Red-bellied Woodpeckers have also preyed upon nestlings of White-breasted Nuthatches (*Sitta carolinensis*) (Dunn 1984), Carolina Chickadees (*Parus carolinensis*)

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(Conner 1974), House Wrens (*Troglodytes aedon*) (Neill and Harper 1990), House Sparrows (*Passer domesticus*) (Brackbill 1969), American Redstarts (*Setophaga ruticilla*) (Watt 1980) and, perhaps, Brown-headed Nuthatches (*Sitta pusilla*) (Dunn 1984).

In early April 1996, a pair of Red-bellied Woodpeckers spent several days excavating nest and roosting holes in a 25-foot (7.6 m) maple (*Acer sp.*) tree in my backyard (Montgomery Co.). A pair of Downy Woodpeckers was nesting in an 85-foot (26 m) hackberry (*Celtis laevigata*) tree in the front yard, approximately 250 feet (76 m) away from the maple. The nest hole was approximately 24 feet (7.5 m) from the ground, half way up a 40-inch (1 m) long branch approximately 45 degrees horizontal. The branch was approximately 18 inches (0.5 m) in circumference at the base and 14 inches (0.3 m) in circumference at the nest hole. By late April, the Downy Woodpeckers were feeding young in their nest cavity, and the Red-bellied Woodpeckers were looking for a new nest site, as their holes had been usurped by European Starlings. On 5 May, I heard the female Downy Woodpecker calling loudly and looked to see her dive-bombing a Red-bellied Woodpecker, which was at the base of the branch in which the downies were nesting. After approximately three minutes, the male Downy Woodpecker joined his mate, and the two spent two minutes harassing one of the Red-bellied Woodpeckers. The Red-bellied Woodpecker would fly off, but then return.

When I returned approximately two hours later, both of the Downy Woodpeckers were calling loudly, and they flew at a Red-bellied Woodpecker for approximately five minutes.

On 8 May, I did not see the Downy Woodpeckers, but I heard their young begging for food. I noted that the Red-bellied Woodpeckers had begun excavation in the tree at the base of the branch in which the Downy Woodpeckers had their nest. In July, when I climbed the tree to take various measurements, the unfinished nest was 2.25 inches (5.7 cm) in diameter and 4 inches (10.16 cm) deep.

On 12 May, there was no sign of any of the Downy Woodpeckers in the hackberry, and the Red-bellied Woodpecker was in the Downies' nest. Between 12 May and 14 May, the Red-bellied Woodpeckers expanded the size of the nest. On 14 May, I heard pecking from inside the branch, then saw the female Red-bellied Woodpecker's head jutting out the nest hole. On the morning of 18 May, the pair copulated near the nest. In July, the nest cavity was approximately 12 inches (0.3 m) high and 3.75 inches (9.5 cm) wide at the level of the nest hole.

By early June, the Red-bellied Woodpeckers were feeding young. On 28 June, I observed two young Red-bellied Woodpeckers that were able to fly.

Downy Woodpeckers typically nest 3-50 feet (0.9-15.2 m) above ground in either a live or a dead tree. The nest hole is a perfect circle approximately 1.25 inches (3.2 cm) in diameter, and the cavity is from 8-10 inches (20.3-25.4 cm) in height and up to 3 inches (7.6 cm) across (Harrison

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1975). Red-bellied Woodpeckers nest from 5-70 feet (1.5-21.3 m) high and their cavities are approximately 12 inches (30.5 cm) deep and 5 inches (12.8 cm) wide at the widest point with an entrance hole between 1.75 and 2.25 inches (4.4 to 5.7 cm) in diameter (Harrison 1975 and Harrison 1978).

Although the height of the Downy Woodpecker nest was appropriate for Red-bellied Woodpeckers, the site was too small to allow them to make a nest cavity of the regular size. Even to make the nest cavity 3.75 inches (9.6 cm) wide, they had to leave nest cavity walls no more than 0.5 inch (1.3 cm) thick. Short (1979) speculated that small woodpeckers excavate holes in small stubs and other sites that are barely large enough for them precisely to minimize the likelihood of a larger woodpecker expropriating the nest. Obviously, the tactic is not completely effective.

Ingold (1989) found that Red-bellied Woodpeckers that vied for nest sites with starlings raised fewer young than those that did not have to compete. By taking over an existing nest cavity and expanding it, the Red-bellied Woodpeckers I observed may have overcome the deleterious effects of their competition with starlings. They saved the time it would have taken to excavate a new cavity, so they were able to start nesting early enough to maximize their chance of breeding and to raise two young.

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