

Red-Shouldered Hawks *Buteo lineatus* Nesting on Human-Made Structures in Southwest Ohio

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ABSTRACT

During 1996-1998, two different pairs of Red-shouldered Hawks *Buteo lineatus* nested on human-made structures in southwest Ohio. The first pair nested successfully in the same location on a roof of an occupied building in 1996, 1997 and 1998. A total of 12 chicks fledged from the roof in three years. The daily human activity around the building appeared to have no effect on the productivity of the hawks. The second pair nested unsuccessfully on the deck of a suburban home in 1997 and 1998. In 1997 three eggs were laid but did not hatch; in 1998 a new nest was constructed but no eggs were laid. To my knowledge, there is no previous documentation of Red-shouldered Hawks nesting on such structures.

INTRODUCTION

Many species of raptors have been reported nesting successfully on a wide range of human-made structures including power poles, high-voltage transmission towers, power plants, billboards, coal chutes, railway signal gantry, bridges, irrigation systems, abandoned and occupied buildings (Palmer 1988, Temple 1988, James 1992, Niemuth 1992, Varland & Loughin 1993, Blue 1996, Stout *et al.* 1996). To my knowledge, there is no documentation of Red-shouldered Hawks nesting on human-made structures. I here describe the nesting of two different pairs of Red-shouldered Hawks on occupied dwellings in southwest Ohio.

Red-shouldered Hawk habitat requirements and nest site selections are well-documented. Red-shouldered Hawks nest in mature, large trees in riparian zones or wet woodlands, (Bednarz & Dinsmore 1982, Morris & Lemon 1983, Woodrey 1986, Howell 1997), near water, (Titus & Mosher 1981, Preston *et al.* 1989), and often far from human disturbances (Bednarz & Dinsmore 1982, Johnson 1989, Bosakowski & Smith 1997). The nests described herein are two of 48 nests that were observed in a study of Red-shouldered Hawk nest-site selection in southwest Ohio. Many of the nests in this suburban area were located close to occupied dwellings (mean distance 75.2 +/- 19.6 m, n=48 1997-1998; Dykstra & Hays, unpubl. data).

NEST OBSERVATION

Pair 1

The first pair, both in adult plumage, nested successfully on the roof of a three-story multi-family dwelling, one of many such buildings in a large complex in Hamilton County, Ohio, in the suburban area surrounding the city of Cincinnati (39°11'N, 84°40'W). The building was located 25.3 m from a small wooded area and 16.8 m from a seasonal stream that runs through the woodlot. Within 90 m of the building were a minimum of 10 apparently suitable nest trees having a dbh > 33 cm (33 cm dbh = the smallest nest tree observed in the previously mentioned study). The building had two different roof heights and the nest was located 8.16 m from the ground at the bottom of the lower roof just above the gutters, resting against the siding of the higher-roofed section of the building. The first nest built by the hawks was removed from the roof on 28 February 1996 because of a possible conflict between the tenants and the hawks. By mid-March the hawks had rebuilt the nest and had begun incubation; therefore the landowners decided to allow the nest to remain. The nest was successful and all four nestlings fledged by 31 May 1996. To avoid moisture damage to the asphalt-shingled roof, the landowners removed the nest on 1 July 1996.

A pair of Red-shouldered Hawks, presumably the same pair, began construction of a third nest at precisely the same location on the 31 of January 1997. Incubation began on the 16 of March 1997, and the four chicks were banded on the 29 of April 1997. All four nestlings successfully fledged by 2 June. The third nest, measuring 76 cm in diameter x 30 cm deep, was removed on the 12 of June and was found to weigh 7.2 kg.

In 1998, a new nest was constructed in the same location by February 14th 1998, and incubation began approximately the 15th of March. Four nestlings were banded on May 13, and all had fledged by May 28.

Pair 2

The second nest site was located 6.0 km from the roof site (39°13'N, 84°36'W). The nest was built on a gas grill on the deck of an occupied house. The nest was 17.5 m from a woodlot and 60 m from a permanent stream. As with the roof site, there was a minimum of 10 apparently suitable nest trees having a dbh > 33 cm within 90 m. Construction of the nest began on February 20th, 1997. Incubation started the 8th of April; however, by the 4th of May, both adults had stopped incubating and the nest failed. Although the reason for the failure cannot be known for certain, the fact that the nesting female was in immature plumage and showed little interest during nest building and incubation may indicate the cause. The daily activities of the landowners did not change from February 20th to May 4th. The hawks were still seen and heard in the area after the nest failed. The nest was removed on 15 June 1997.

In late January of 1998, two adult Red-shouldered Hawks began construction of a new nest at the same location on the grill as in 1997. The nest was completed by early March, but no eggs were laid in the nest. The adults were seen in the area through April 1998.

DISCUSSION

Little has been published on suburban/urban nesting Red-shouldered Hawks. Red-shouldered Hawks have nested successfully in suburban areas of California (Bloom & McCrary 1997) and occasionally near homes and roads in Quebec (Morris & Lemon 1983). The close proximity to humans apparently did not impair reproductive rates for Red-shouldered Hawks nesting in suburban California (Bloom & McCrary 1997) and in suburban Hamilton County, Ohio (1.7 young per active nest, nestlings > 3 weeks old, n=48, 1997-1998, Dykstra & Hays, unpubl. data).

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