

Annual Report of Reproduction for Red-shouldered Hawks Central and Northeast Wisconsin 2024

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Two young about 31 days old, NE WI

Photo by Mike Wendt

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Wisconsin winter 2024 was the warmest winter on record. High temperatures during February and early March were 10-20 degrees above average. Many Red-shoulders laid eggs 2-5 days earlier than their average date of April 6.

Peninsula State Park was not searched for Red-shouldered Hawk nests this season. Central Wisconsin includes a nest from the Wautoma Area.

TABLE 1
RED-SHOULDERED HAWK REPRODUCTION 2024 compared to 2023

	Nicolet National Forest		Northeast Wisconsin		Central Wisconsin		TOTAL	
	2023	2024	2023	2024	2023	2024	2023	2024
# OF RS SITES CHECKED	75	72	14	17	22	24	111	113
# OCCUPIED SITES	36	40	10	10	18	17	64	67
# OF ACTIVE NESTS FOUND	25	21	8	6	12	10	45	37
# OF NESTS SUCCESSFUL	8	15	6	4	8	7	22	26
% OF NESTS SUCCESSFUL	32%	71%	75%	67%	67%	70%	49%	70%
# OF YOUNG at banding time	11	33	14	12	24	15	49	60
YG/ACTIVE NEST	.44	1.57	1.75	2.0	2.0	1.50	1.08	1.62
YG/SUCCESSFUL NEST (BROOD SIZE)		1.38	2.20	2.33	3.0	3.0	2.14	2.23
								2.31

Table 1 shows Red-shoulder reproduction data for 2024 compared to 2023. Young/active nest is the best measure of hawk reproduction.

We found fewer active nests this year. In only three other seasons in the past 25 years did we find so few nests (2017-37 nests, 2011-32 nests, 2008- 25 nests). At 11 sites, we found nests that had been fixed, greens added, even a few had one down on the edge, but apparently no eggs were laid in these nests. About 60% of the sites checked were occupied. However, this year produced the highest number of young per active nest (1.62) in the past 25 years. Large brood size was widespread in all areas of our study; three nests had four young, seven nests had three young, 11 nests had two young and five nests had one young. Many chicks had a few ear parasites (Myiasis) but fewer than last year and no wing feather damage unlike last year on NNF.

NNF had three times higher reproduction this year than last year. No fisher-killed adult RS were found at nest sites this year. Perhaps fisher, Great Horned Owls, and raccoons had plenty to eat and did not prey on RS eggs and nestlings. The very abundant acorn crop from last year might have produced more small mammal prey, not only as food for RS but also alternative

prey items for fisher and Great Horned Owls and acorns might have provided food for raccoons. Fourteen nest trees (12 in NNF, 2 in NE WI) had sheet metal predator guards installed to protect eggs and young from predators like fisher and raccoons.

NNF also had scattered leaf defoliation apparently caused by spongy moth caterpillars (formerly known as Gypsy Moths). Defoliation was similar this year to last year.

During the 2024 breeding season, we reported the highest overall RS reproduction in the past 25 years (1.62 YG/ACTIVE Nest). We saw the lowest overall annual reproductive success for Wisconsin (.51) in 2018. Obviously Red-shouldered Hawk reproduction can fluctuate greatly from year to year or from place to place within the same year. A comparison of the past 10 years of RS nest productivity shows a wide range of reproductive success and the value and need for annually monitoring nests. We feel the RS population in WI is stable but at low numbers and should remain a state threatened species.

No one-year-old (juvenile) female nesting hawks were found at any site in 2024. An average of 5.3% of the breeding females are believed to be juveniles overall for RS in North America (Jacobs and Jacobs 2002). Juvenile female RS nest later in the season and usually have fewer young than adult females (per. obs.). A lack of juvenile breeders might mean that there is a sufficient number of adult female RS in the breeding population.

Two breeding adult Red-shouldered Hawks were captured at their nest sites and fitted with solar powered recording transmitters (trackers) to determine nesting ranges, migration times, routes and wintering sites.

All banding, marking, telemetry, and sampling is being conducted under federally authorized Bird Banding Permits issued by the U.S. Geological Survey's Bird Banding Lab and state permits issued by the Wisconsin Department of Natural Resources.

Survey Language and Data Rights Clauses

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Details for some areas searched for RS Nests.

Nicolet National Forest - A 10-page report on 21 nests, 72 sites checked, will be submitted to the Forest Service in 45 days.

Peninsula State Park - not searched for RS nests in 2024.

Brown County Reforestation Camp – Last year's nest was not active at site #2. They moved about 200 yds ENE to a new tree—this nest failed.

One other nest was found on Ref. Camp and produced three young. The old nest from 2023 on the corner of road IR was not used. There appears to be two or three pairs nesting off Ref. Camp property; one west of Camp, one NE of Camp and one NW of Camp. Greg Kelm has not heard/seen any fledged young near his house on the northwest border with the Camp. RS from all these sites use Ref. Camp for hunting and appear to defend territory on the Camp.

Oconto County Forest - Machickanee - seven sites were searched, no active nests were found.

GPS locations are in degrees and decimal of degrees, five sites are detailed below:

Machickanee- E. Tower Dr. South N44.83136 W088.06221 RS present in area but no active nest found. Not in last years nest.

Machickanee- Timberline Central/East Ski Trail N44.84488 W088.09776 not active.

Machickanee- Dogwood, no recent nests.

Machickanee- Garrity Rd N44.81417 W088.14117 The old nest from four years ago is gone. No response to caller.

Machickanee- Timberline West, old nest from 2021 gone. No response to caller.

White Lake N45.02788 W088.25810 These hawks nested on private land immediately east of county land. This nest failed.

Woodland Dunes – Last year's nest was again active producing four young.

N44.14330 W087.60280

LITERATURE CITED

John P. Jacobs, and Eugene A. Jacobs. 2002. Conservation Assessment for Red-shouldered Hawks (*Buteo lineatus*) National Forests of North Central States. On line publication by the U.S. Dept. of Agriculture-Forest Service.