

Basic Information about Red-headed Woodpeckers

Answers to Frequently Asked Questions and More



Text and Photography by Siah L St. Clair



The Red-headed Woodpecker Recovery project (RhWR) was organized in 2007 and is a 501(c)(3) tax-exempt non-profit organization.

Investigation and research activities about Red-headed Woodpeckers (RHWOs) at Cedar Creek Ecosystem Science Reserve began in 2008 when Cedar Creek ESR gave a permit to the RhWR to initiate those activities on site. The RhWR has continued investigation and research activities since 2008 both at Cedar Creek ESR and at other locations.

Field observation efforts for included information occurred between 2012 and 2025 in all 12 months of the year, with a combined 2,563 days and 15,438 hours by Siah St. Clair and work partner Jim Howitz. All observations were made during a succession of RHWO study and research projects. Many activities required extensive experience and expertise as well as special permits and permissions.

By conducting these observation activities new natural history behaviors of RHWOs have been documented and will be used to help reduce the decline of this species and other species impacted by the presence of RHWOs.

Unless otherwise noted, the information and photographs provided herein are based solely on observations by Siah L St. Clair, a volunteer of the Red-headed Woodpecker Recovery project.



Basic Information about Red-headed Woodpeckers

Answers to Frequently Asked Questions and More

Observations, Text, and Photography by Siah L St. Clair

Adult Red-headed Woodpeckers (RHWOs) are a strikingly colored woodpecker of medium size with solid black and white colors and an entirely red head and neck. Their population numbers have diminished in Minnesota in the last 60 years, as much as 95%, primarily due to habitat loss and diminishing food supply. RHWOs are ecosystem engineers, creating many nest and roost cavities that are used by at least 36 other vertebrate species. The following information and pictures are from observations by the author, made at Cedar Creek Ecosystem Science Reserve (Cedar Creek ESR) in East Bethel, Minnesota, and at other locations.



Red-bellied Woodpecker



Yellow-bellied Sapsucker



Pileated Woodpecker



Red-headed Woodpecker

The only other woodpecker species in this area with significant amounts of red on their head are the Red-bellied Woodpecker, the Yellow-bellied Sapsucker, and the Pileated Woodpecker. The Red-headed Woodpecker on the right is easy to distinguish from the other three woodpecker species.

What follows are answers to frequently asked questions and other basic information about Red-headed Woodpeckers.

1. Do male and female Red-headed Woodpeckers look alike?



Male and female Red-headed Woodpeckers look the same and cannot be identified separately in the field except by specific behaviors. For example, only males occupy active nests at night. Males primarily excavate nest cavities, drum, and do nest maintenance, but not exclusively. Each picture above shows a mated pair.

2. What do juvenile and fledgling RHWOs look like?



Juvenile RHWOs have a mottled gray head and back to blend in with trees they are seen in. The black markings on the white secondary feathers are distinctive for each individual and can be used to help in identifying specific birds. The left picture above is of a just fledged nestling (<1 hour). The middle pictures are four weeks to two-month-old fledglings. The right picture is an 11-month-old active nesting new adult.

Juvenile RHWOs gradually molt into their adult plumage over 4 to 14 months after fledging. Some will complete the molt much later than others.

3. In what kind of habitat do Red-headed Woodpeckers nest?



Nesting Red-headed Woodpeckers prefer open savanna, floodplain sloughs, open woods, or tree blow-down areas for habitat, with dead and live trees present and a good supply of forageable invertebrates nearby. Of 611 nests observed over 14 years (2012-25) 91.5% were in dead trees or dead branches of live trees (JH). There are three Red-headed Woodpecker nest trees in each of the photos above.

4. What are Red-headed Woodpecker nest cavity requirements, shape, and design?



Red-headed Woodpecker nest cavities require trees with soft heartwood for ease of excavation. The nest cavity is usually pear-shaped with a wide sill at the entrance. A bed of woodchips is regularly replaced as nestlings spray fecal matter in the bottom of the nest and adults remove those chips. New, fresh chips are chiseled from the inside walls, enlarging the cavity.

Tree location and heartwood softness are more important than tree species for a nest tree. Of 611 different nests over 14 years ten different tree species were used (JH).

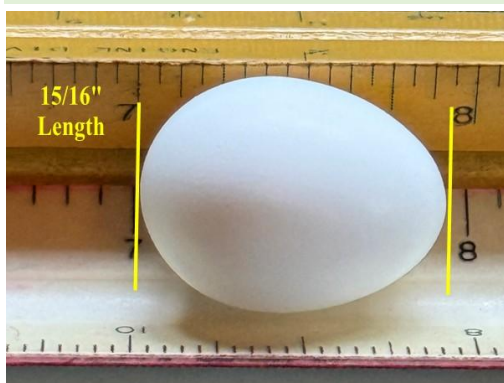
In 70 nests the top of the woodchips was eight to ten inches below the entrance hole sill. Nest hole diameter is 2-2.25 inches.

This picture is a composite of two pictures.

5. What size, shape, and color are Red-headed Woodpecker eggs?



Four to six eggs are common in RHWO nests, but three or seven eggs were also observed. Egg sizes can vary, as seen in the left picture above, as the top left egg is large and the middle egg is slightly smaller than the other eggs. Pinkish eggs with an air bubble visible are freshly laid while pure white opaque eggs are older.



Above is an average size Red-headed Woodpecker egg. It is 15/16" long and 11/16" wide. Larger and smaller eggs are not uncommon but are infrequent.



Red-headed Woodpecker eggs are incubated for about 12 days. Our observations suggest incubation generally begins a day or two before the last egg is laid. There is an average brood reduction of about 50% from the number of eggs laid to the number of fledglings produced at a nest. This may occur in 100% of nests in some years (JH).

6. What do Red-headed Woodpecker nestlings look like?



In the left picture above there are five new hatchlings and one egg remaining. Notice the long necks on the hatchlings. In the middle picture three new hatchlings beg for food. The white egg “tooth” and other white gape markings give a good target for the adult with food as it looks into the dark nest cavity. In the right picture there are four nestlings that are a week-old, but only three can be seen in the picture.

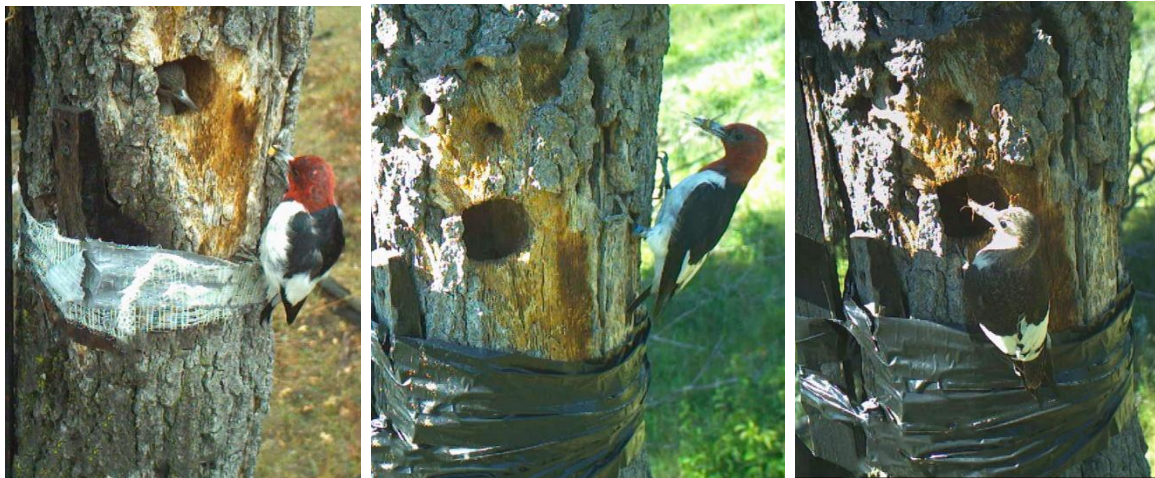


Red-headed Woodpecker nestlings leave the nest (fledge) at around 30 days. In the picture on the left the nestlings are about 26 days old. During the last few days before they fledge, nestlings spend a lot of time looking out of the nest and are very curious about everything they can see.

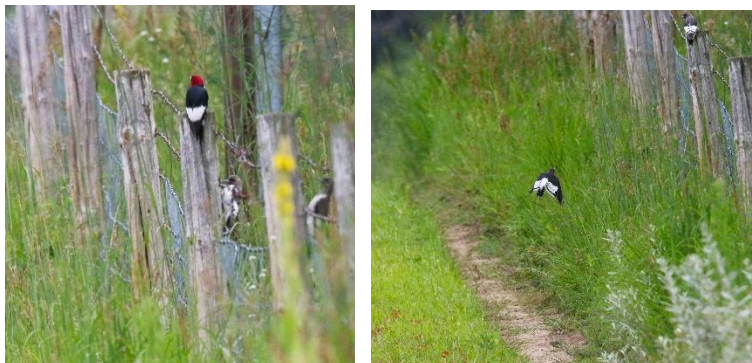
7. How do Red-headed Woodpecker fledglings and adults interact?



For the first two weeks new fledglings hide in near-by leafy treetops and the parents bring food to them as in the picture on the left. After around two weeks the fledglings fly to the parents begging for food, as in the pictures on the right. Notice the difference in coloration of the two right fledglings, one is very dark, while the other is very light.



After several weeks of indulging begging fledglings, some parent RHWOs will conduct “training” exercises for their young. On the left, 100 yards from the nest, a male parent refuses to feed the fledgling (in cavity) but places food conspicuously in the bark for the young to retrieve on its own. On the right the adult wedges a live grasshopper into the bark, and then a fledgling is later seen on the tree with a grasshopper in its beak.



On the left an adult is training fledglings to fly down from a fence onto a firebreak trail to catch insects on the ground. After watching the adult, the fledglings take turns learning this new skill, with food as a reward.

8. What do Red-headed Woodpeckers eat?

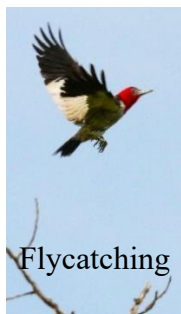


Over 90-95% of food fed to nestlings is insects and other invertebrates. A small percent is fruit and nuts, if and when they become available. Examples are a Red Admiral butterfly on left, a damselfly nymph middle picture, and junberries on right.



During the non-nesting season RHWOs eat invertebrates while they last and shift to a diet of mostly nuts (acorns) in central Minnesota as it gets colder. RHWOs are facultative migrants, meaning they remain when food is available and migrate south when it is not. In parts of Minnesota, they may remain for winter about 50% of the time based on the number of banded birds that stay or leave for winter from 2012 to 2024 (JH). In years when they do migrate, they have been observed migrating in loose groups of 2-12 juveniles and adults along the St. Croix River to areas some distance south.

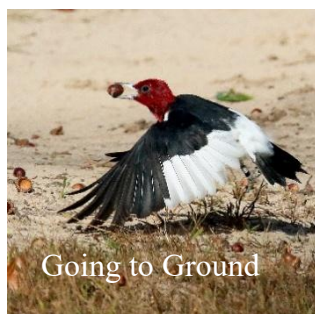
9. Red-headed Woodpecker foraging methods.



Flycatching



Gleaning



Going to Ground

RHWOs do not peck holes into trees for food. They prefer to flycatch, glean from tree bark and leaves, and go to the ground for insects and nuts. Middle picture of a daddy-long-legs.

10. What animals are predators of Red-headed Woodpeckers?

A. Nest and roost predators



Bull Snake



Raccoon



Fisher

B. Adult and fledgling predators



Great Horned Owl



Red-shouldered Hawk



Red-tailed Hawk



Merlin



Cooper's Hawk



Kestrel



Southern Flying Squirrel

I have observed these animals either directly in the field, or on nest cameras I have set up, preying on, or attempting to prey on, RHWOs at Cedar Creek ESR. Flying squirrels kill RHWO nestlings on camera while usurping a nest cavity for their own use.

11. What is the life span of Red-headed Woodpeckers?



This is one of the last pictures taken of the RHWO who was named Bucko by researchers at Cedar Creek ESR in 2012. He was 10 years old in this picture as determined by the bands on his legs. Another RHWO was determined to be 9 years old and another 11.

From these and many other observations it appears that the average life span of most RHWOs is much shorter, and includes just three nesting seasons after they hatch, or about 3.5 to 4 years (JH).

12. What kind of nesting partnerships do Red-headed Woodpeckers have?

Within the nesting cluster of Red-headed Woodpeckers at Cedar Creek ESR in Minnesota, there does not appear to be any regular multi-year partnership pattern regarding nesting individuals. Nest partnerships are diverse and surprising.

Individual RHWOs may average about three active nesting years, some more or less. It is the different ways they interact with a partner (“mate”) that is interesting. A few are “traditional” and may stay mated to the same individual for up to 6 years. Some pairs “divorce,” and each individual will mate with a different RHWO the following year. Some females will have two nests at the same time, each with a different male (polyandry). Since, on average, over multiple years (14), about 35% of adult RHWOs are not present at Cedar Creek ESR the following year, the remaining previously mated individuals must find new mates during the spring months (JH**).



Of 40 color banded pairs that nested together at Cedar Creek ESR for at least two years:

- 1 pair nested together for 6 years
- 1 pair nested together for 5 years
- 4 pairs nested together for 4 years
- 9 pairs nested together for 3 years
- 25 pairs nested together for 2 years

Some RHWO pairs are observed together for only one year, or one might be unbanded, and it is unknown if they are the same pair again. Some RHWOs have been observed with three to four mates over a 4-6 year nesting span (JH).



The adult RHW in the picture on the left has the name Wolfe. He had been mated to Bridget for 3 years at the time of this picture (a still from a video). Wolfe is shown here attending a new fledgling about 100 yards from the natal nest.

As soon as the nestlings had fledged, Wolfe's mate, Bridget, went missing. But Bridget was soon found. She had started and laid eggs in a second nest of this summer with a different mate, Bandit, about 100 yards northwest. She and her new mate raised two fledglings.

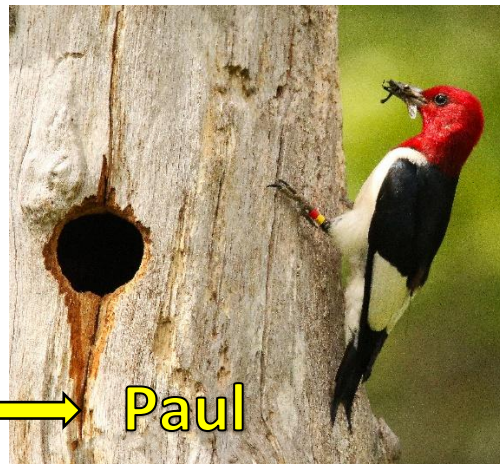
And then, the following spring, Wolfe and Bridget were mated again with nest success.



Walter



Hazel



Paul

The above pictures show an uncommon nesting process (polyandry) to increase the number of young produced by a female Red-headed Woodpecker. The female RHW Hazel is in the center picture, identified by color bands on her legs. On the left is her nest mate, Walter, at nest one, and on the right is her second nest mate, Paul, at nest number two.

These nests occurred simultaneously. Hazel helped Paul with incubation, but he was on his own with raising their nestlings. Hazel was helping Walter feed their nestlings. For female Red-headed Woodpeckers polyandry is a way to increase the chances of their genes making it into the gene pool.

13. How many fledglings are produced by Red-headed Woodpeckers?



One pair of Red-headed Woodpeckers produced 26 fledglings over 6 years using 10 different nests (two nests some summers) at Cedar Creek ESR. This pair averaged 4.3 fledglings per year.

But the average fledgling production for all RHWs is lower, about 2.3 fledglings per year for all successful RHW pairs with nests observed at Cedar Creek ESR from 2012 to 2025. An average of about 27% of RHW nest attempts failed during the above years, due to predation, usurpation, nest tree failure in storms, and for other unknown reasons (JH*).

14. What is the longevity of Red-headed Woodpecker nest trees?



Since the majority of trees that RHWOs nest in are dead with heart rot, they generally do not remain standing for a long time.

Jerry Bahls, the founder of the RhWR, did a study of the life span of RHWO nest trees from 2008 to 2014 (146 with nest cavities 60 feet high or lower) and found that about half of the nest trees fell in 5-8 years after the nest was established. (Info used with permission)

The author kept track of nest tree longevity after nest cameras were placed on active RHWO nests over 6 continuous years between 2019 and 2025. These nest cavities were 20 feet or lower except for one which was 30 feet high. Of 28 nest trees with cameras 25% (seven) are still standing and 75% have fallen. The four most recently installed nest camera trees are still standing (four of the seven) as of this writing in late 2025.

Of the trees that have fallen (21) the average time before falling was two years (9 trees). The shortest time before falling was 6 months or less (4 trees), the longest time before falling was 4 years (3 trees).



Red-headed Woodpeckers are considered a species of greatest conservation need in Minnesota. As more is learned about their life cycle needs, better efforts can be made to restore areas, large and small, for their recovery.

All the photos and information presented in this article are the work of the author and were produced through observation efforts over 13 years, 2013 through 2025 unless otherwise noted.

While I was taking pictures and observing, a work partner in all these efforts, Jim Howitz, was keeping meticulous records of everything he (or we) observed. Jim shared some of his numbers for this article, which are noted with a (JH) at the end of a paragraph where his info is used.

The information about how RHWOs migrate (page 7) was learned through a personal communication with Ben Douglas about observations made at the 2024 Carpenter Nature Center fall migration bird counts.

*Jim Howitz and a few other Red-headed Woodpecker Recovery volunteers with him have been counting the number of fledglings at each nest from 2012 to 2025. A total of 445 nests succeeded in fledging at least one nestling from a total of 611 nests, or 73%. The inverse, 27%, resulted in failed nests. These are averages, with the yearly successful and failed nest percents often different than these 14-year averages.

** This 35% is based on a **cumulative** 670 color-banded adults being present one year between 2012 and 2025, and 435 being present the following year (JH). Individual color banded adults were counted each year (or not) over 14 years to create these cumulative numbers.