

## Wisconsin Natural Resources magazine



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### **The return of the loud redheads**

**It's no mystery: These lively, colorful woodpeckers love a good snag.**

**Richard King and William Mueller**

**A pair of red-headed woodpeckers chisel out a nesting cavity in an old dead tree.**

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When more of Wisconsin's agriculture was based on small, self-sufficient farms, the line between the farmstead and wildlife habitat blurred. Family farms blended into the surrounding landscape, and the people who lived on them naturally blended wildlife into the rural experience. It shaped their lives and seeded the thinking of such pioneering conservationists as Aldo Leopold and Sierra Club founder John Muir.

Pastures were a mainstay on most of the 200,000 small dairy farms that once dotted Wisconsin's landscape. Pastures with small woodlots provided nutrition for dairy cows, fuel for woodstoves and excellent nesting habitat for many grassland birds. Pastures with large dead trees, or snags, were also home to one of Wisconsin's most colorful and tenacious birds, the red-headed woodpecker.

The red-headed woodpecker is a "loud" neighbor in every respect. It is easily

Wisconsin's most colorful and animated woodpecker -- a lively 10-inch package with a bright red head, full white breast, black on the back with broad white patches and a white rump -- that aggressively drives off other species including blue jays, starlings, red-bellied woodpeckers and kingbirds. Its beauty and intense behavior inspired John Muir and drilled its way into his writings. The sheer abundance of red-headed woodpeckers on the Muirs' Marquette County farm in the 1850s is noteworthy because this species continues to decline in Wisconsin and throughout its range. Today it is included on the National Audubon Society's Watch List.

Although the red-headed woodpecker will occupy a variety of habitats, including golf courses, roadsides, and even back yards, its nesting habitat is very specific: Without large, dead, barkless trees there will be no red-headed woodpeckers. Unfortunately, snags tend to have a negative image in the eyes of the public, as dead trees harbor insects and diseases, and may present safety concerns in urban environments if their big limbs snap off and fall on roofs, cars or people. Wildfire control and prevention reduce the number of snags in the landscape, as do "salvage" timber sales following fires, insect and disease outbreaks, and windstorms.

The good news for red-headed woodpeckers and many other wildlife species that depend on snags is that the public perception of snags will change as our collective understanding and appreciation of the vital role they play for wildlife grows. Although snags may not always result in the greatest financial returns for landowners, they are valuable long-term assets. In an essay published in 1939, Aldo Leopold wrote of snags, "The land-wise future farmer and landowner will leave those hollow-limbed veteran trees for the owls and the squirrels."

## **Restoring snag habitat**

In the rolling hills of western Dane County, Tom and Kathie Brock are applying Leopold's land ethic to an abandoned farm. The 145 acres surrounding the Brocks' "Shack" is being restored to prairie and savanna habitat. Old fields have been planted to prairie and undesirable species like buckthorn and honeysuckle have been removed where they crowded sprawling bur oaks. The Brocks donated the large walnut trees that were also crowding bur oaks to a local nonprofit organization, which will use the lumber to make furniture. All of the habitat work on this property has resulted in a boon for wildlife, including the red-headed woodpecker. According to Tom, "We started seeing red-headed woodpeckers when we started habitat restoration efforts on the ridgetop. Now they are year-round residents."

Like Leopold, the Brocks do a lot of the work on their farm by themselves. Unlike Leopold, they have the advantage of several government-sponsored programs to assist them. Most of the old fields on the property have been entered into the Farm Service Agency's Conservation Reserve Program ([www.fsa.usda.gov/dafp/cepd/crp.htm](http://www.fsa.usda.gov/dafp/cepd/crp.htm)), which provides landowners incentives to leave idle highly erodible fields. The Brocks also used the Natural Resources Conservation Service's Wildlife Habitat Incentives Program ([www.nrcs.usda.gov/programs/whip/](http://www.nrcs.usda.gov/programs/whip/)) to clear the buckthorn and honeysuckle crowding the bur oaks that dominate the ridge tops on the property.



**Tom and Kathie Brock, Pleasant Valley Conservancy**

About the time Aldo Leopold was penning *A Sand County Almanac*, the red-headed woodpecker was reaching its highest abundance ever recorded in Wisconsin. Between 1932 and 1950, pioneering ornithologist A. William Schorger made 693 trips between Madison and Freeport, Illinois. Like any good ornithologist, Schorger noted by species the number of road-killed birds seen during each trip, recording 4,939 dead birds. Schorger found 389 red-headed woodpeckers during his study; only the pesky house sparrow was more abundant. More than 40 dead red-headed woodpeckers per year were found at the beginning of the study in the early 1930s. By 1948 this number had dropped to fewer than

eight birds per year. Schorger was alarmed by the “steady and marked decline in the population of this woodpecker” but offered no recommendations for reversing the trend.

A look at red-headed woodpecker populations across Wisconsin paints an even bleaker picture. Data from the annual National Audubon Society’s Christmas Bird Count, which has been held for more than 100 years, shows statewide wintering red-headed woodpecker numbers have dropped eighteen-fold since they peaked in 1946.

As abundant as red-headed woodpeckers were during Leopold’s tenure in Wisconsin, they may have been more abundant during John Muir’s days. Anecdotal information from his firsthand written accounts indicated plenty of birds. He wrote of summers “watching my favorite red-headed woodpeckers pursuing moths like regular flycatchers...”

## **Seeing all the land can be**

Small abandoned farms provide unlimited opportunities to restore wildlife habitat and your own sense of what the land can become. Once you develop an understanding of that potential, you begin to see things that were always there but previously were obscured. Your drives through rural Wisconsin will change forever. In fallow fields you will see grasslands teeming with nesting songbirds and pheasants. Old pastures will appear as prairie landscapes filled with flowers. And oak woodlots suddenly appear as savannas -- homes for brilliantly colored birds like red-headed woodpeckers.

The lore of the Mekan River’s fabled brown trout fishing originally drew John and Fawn Shillinglaw to the Marquette County area. They eventually purchased 235 acres of an old farm on the county line to camp next to his favorite river. The property provided more than quick access to the Mekan. Isolated grasses and flowers growing throughout the property soon captured their imagination and inspired them to restore some of the prairie and savanna that originally dominated the landscape.

“In the beginning, I wasn’t aware of all the government programs available to landowners. So I just started harvesting seeds from wild plants on one part of my property and establishing them on other portions,” John Shillinglaw said. Their efforts were quickly rewarded as newly established patches of wild lupine were quickly colonized by Karner blue butterflies, a federally endangered species.

Like the Brocks in Dane County, Schillinglaw eventually learned about

government sponsored initiatives such as the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Programs ([partners.fws.gov/](http://partners.fws.gov/)) to restore prairie and savanna habitats. It was Mother Nature, though, who arguably provided the most effective restoration tool for red-headed woodpeckers on the Shillinglaw property. In 2000, a hail storm pelted the area, damaging many aspen trees. Remembering how a pair of red-headed woodpeckers had once nested in a dead oak tree in his backyard in Appleton, Shillinglaw decided to leave the dead aspen trees standing. The hands-off approach was quickly rewarded. "I really hadn't seen red-headed woodpeckers before the big hail storm, but there were several pairs present the next spring," John said.

The value of snags for wildlife has been known for more than a century. Aldo Leopold himself co-authored a journal article on nesting red-headed woodpeckers in 1919. Other cavity-nesting birds, such as nuthatches, chickadees, bluebirds and other woodpecker species readily take to snags. If you spend time around snags, you will quickly see they are hotspots for other wildlife, too. Flying squirrels, porcupines, gray foxes and bobcats use snags, to name just a few. Landowners willing to leave snags on their property can expect to reap rapid rewards when a flush of cavity-dependent species, including those raucous, noisy and very welcome new residents, the red-headed woodpeckers, move back into the neighborhood.

**Richard King is a staff biologist at the Necedah National Wildlife Refuge in Juneau County. William Mueller chairs the Conservation Committee for the Wisconsin Society for Ornithology and chairs the Issues Committee for the Wisconsin Bird Conservation Initiative.**

## What redheads really want

Our independent research studies on the decline and management of the red-headed woodpecker (*Melanerpes erythrocephalus*) came to complementary conclusions. Mueller's research lists the following primary reasons for the decline of the red-headed woodpecker in North America and Wisconsin:

1. Habitat loss and alteration
2. Competition with the European starling
3. Vehicle-caused mortality
4. Loss of American elms to Dutch elm disease

Although the red-headed woodpecker uses other habitat types, oak savanna is one of the most important. Oak savanna once occupied approximately 5.5 million acres in Wisconsin. Only about 500 acres -- less than 1/10th of a percent of the original, pre-settlement quality savanna remain. This loss and altered habitat is directly linked with the red-headed woodpecker's population decline. Mueller studied the loss of habitat

using a GIS (Geographic Information System) and data from annual Breeding Bird Surveys. He found a relationship between loss of open oak woodland and savanna and red-headed woodpecker population losses along bird survey routes in eight regions of Wisconsin.

King studied methods for improving red-headed woodpecker habitat at Necedah National Wildlife Refuge, where he is staff biologist. His work established a straightforward strategy for providing improvements including timber thinning, controlled burns and snag protection. Since these habitat improvements were carried out, more than 70 pairs of red-headed woodpeckers have established nesting territories on the Necedah refuge. The species is now the most common avian species in the restored savanna. King's research discovered that:

1. Red-headed woodpeckers will occupy restored savannas before burning but are most abundant following burns.
2. Red-headed woodpeckers prefer to nest in dead trees or dead limbs on living trees (decadent trees).
3. Red-headed woodpeckers need large trees. Average cavity height is more than 27 feet, and average diameter of cavity trees is more than 17 inches.
4. Dead trees and dead limbs will bring more cavities and more cavities lead to more successful red-headed woodpecker reproduction.
5. On the restored savannas, tree density was 28 trees/acre, and snag density was 13 snags/acre.

King's research suggests there are practical and workable solutions for managing habitat for the red-headed woodpecker, especially if landowners and land managers save snags. Readers interested in seeing red-headed woodpecker management in practice can visit Necedah National Wildlife Refuge in Juneau County, just 20 miles off of I-94 from Tomah or Mauston.