



Woody" was a female wood turtle that lived over 20 years at the Trees for Tomorrow education facility in Eagle River, Wis.



## Wisconsin wood turtles face a long, tumultuous road

If you feel persecuted because your boss says you're slow, and drivers don't yield when you step into crosswalks, be grateful you're not a Wisconsin wood turtle.

Though people and wood turtles can live to 80 years or more, your odds of reaching the milestone are better. These hard-shelled reptiles are a "threatened" species in Wisconsin, and they face endless challenges wherever they look, crawl or nest.

The wood turtle's foes constantly try to make its life short and miserable. Those threats include poachers and farmers' plows; hateful drivers in cars and trucks; otters, skunks and raccoons; and plain ol' invasive plants and woodland succession.

The Department of Natural Resources listed the wood turtle as "endangered" in 1975, but upgraded its status to "threatened" in 1982. The species is generally found north of a line from Wisconsin's far southwestern corner in Grant County to Green Bay, although it hasn't been documented in Polk, Pepin, Richland, Waushara, Marquette and Green Lake counties.

The wood turtle's upper shell measures about 4 ¾ inches wide and 9 ½ inches long, and its bottom shell is usually yellow with large black blotches. The upper shell's individual sections, or "scutes," grow annual rings that are more obvious than those on other Wisconsin turtles.

If individual wood turtles find a suitable habitat, they'll live there for years, even decades. Cheryl Todea, executive director at Trees for Tomorrow, an education center in Eagle River, said a female wood turtle nicknamed "Woody" roamed TFT's property along the chain of lakes for over 20 years. Biologists estimated the turtle was at least 40 to 50 years old when it died a few years ago.

A wood turtle's struggles often begin when it's an egg inside its mother. Otters and raccoons know what's soft and vulnerable on a turtle shell, and some truckers and motorists purposely Goodyear "gravid" wood turtles as they cross roads and highways. (If you don't know what "gravid" means, just say "pregnant.")

Either way, the eggs aren't necessarily safe once female wood turtles lay and bury them in loamy creek bottoms or gravelly roadside right-of-ways. Rebecca Christoffel, co-director of Turtles for Tomorrow (turtlesfortomorrow.org) in Madison, said it's common for skunks, raccoons or opossums to dig up and eat everything in a wood turtle's nest, which typically holds nine to 11 eggs. Nest raiders apparently sniff out freshly laid eggs by keying on Geosmin chemicals, those earthy odors produced by soil microorganisms

"In many areas we've checked, recruitment is zero because every nest got raided by predators," Christoffel said in late July during the Wisconsin Outdoor Communicators Association's annual conference at Trees for Tomorrow. "It's not unusual to see no new young enter the population.

If a nest escapes notice and the eggs hatch, young wood turtles face a long road to sexual maturity. Female wood turtles won't lay their first eggs until they're 6 to 7 inches long, which takes 12 to 17 years of good luck and suitable habitat. Even then, some get poached and sold on the black market, and others get "rescued" and adopted as pets.

Despite those challenges, the species persists because its long lifespan often gives females many chances to reproduce. Still, it's an endless struggle, with each challenge — road mortality, nest predation and natural succession — overlapping the others.

"Wood turtles prefer open, sandy-soiled bottomlands along fast-flowing creeks and rivers with tannin-stained water," Christoffel said. "Once brush, trees and invasive plants start growing and filling in a bottomlands, wood turtles go elsewhere to nest. The farther they have to search to find good nesting sites, the more vulnerable they become.'

In many cases, the first suitable nesting sites are a farmer's field or hobbyist's garden, where nests often get destroyed by plows or rototillers. Other common nest sites are the sandy gravel of road shoulders. Unfortunately, nest-raiders easily find all these exposed sites. And once a raccoon locates a nest, it courses back and forth, systematically searching for others.

Further, the longer a turtle spends on or near a road, the greater its chances of getting clobbered by passing vehicles. Sometimes they're hit intentionally. A 1996 study in Ontario, Canada, found 2.7% of drivers purposely steered off course to hit turtles or snakes, with male drivers four times more likely than females to target them. Likewise, a 2012 experiment at Clemson University found seven of 267 passing drivers (2.6%) steered to steamroll a rubber replica of a box turtle.

"When turtles nest alongside roads, it's a double-whammy," Christoffel said. "Not only do predators easily find the nests and eggs, but lots of mature females get crushed by cars and trucks. When egg-laying females die, it's hard on the population. Wood turtles evolved to survive heavy predation on eggs and baby turtles, but they cannot withstand heavy losses of adult females. It only takes a few road-kills to hurt wood-turtle populations."

Mark Naniot, director of Wild Instincts, a wildlife rehabilitation facility in Rhinelander, said his team often works on two or three road-hit turtles daily during their nesting period of late May to early July. He said the most his team can usually do is make external repairs to the shell with epoxy and zip ties, and hope the turtle's internal injuries heal on their own.

To combat heavy losses of eggs and mature females, Turtles for Tomorrow staff have experimented by clearing large areas of brush and plants in riverbottoms to create nesting areas. Those experiments typically failed when left unprotected, given how systematically raccoons check a clearing

Success rates increased, however, when staff set up solar-powered electric fences that zap raccoons but allow turtles to crawl under. Turtles for Tomorrow set up 30 of these 16-by-16-foot enclosures across northern Wisconsin, and works with landowners to create similar sites on private lands. These relatively small sites are easier to build, protect and maintain.

Christoffel said Turtles for Tomorrow hopes those efforts will pay off, but it might take decades to document success, given that female woodies need around 15 years to mature.

"We're doing more quantitative nest surveys to measure how much dif-

ference we're making," she said. Patrick Durkin is a free-lance writer who covers outdoors recreation in Wisconsin. Contact him at patrickdurkin56@gmail.com, or at @patrickdurkinoutdoors.com on Facebook and Instagram.



Headland erosion control - Barron County is offering incentives to landowners to plant field "headlands" with grasses to prevent erosion. An example of

## Cover crops, too

## Cash incentives for erosion control

By Tyler Gruetzmacher

The Barron County Soil and Water Conservation Department has two programs geared to improve soil health and reduce erosion. They include "harvestable headlands" and cover crops.

The first program pays to convert "headland" portions of fields to grass hay. Headlands can be the least profitable portion of a field because of the high cost of inputs on areas that don't produce the same as the middle of the

The program pays \$500 per acre to seed these areas to grass and maintain them for five years.

The County Conservation Assistance Program will offer landowners and farmers an incentive payment of \$25 per acre (40-acre maximum) to plant cover crops. The program is intended for people who have limited or no experience with cover crops. The goal: provide soil cover after wheat, corn silage and snap beans.

Harvestable headlands

Headland erosion can be considerable, even in fields that are contourplanted and that show few signs of erosion.

Converting headlands to grass can reduce erosion. Research from Cornell University shows that, on average, headland yields were 14 percent lower for corn grain and 16 percent lower for corn silage.

Soil erosion tends to increase over decades of farming up and down the slope, along with compaction, shade and damage when spraying equipment turns around.

A perennial headland cover crop can be used as forage or left as a grassland habitat area.

Barron County is working with wastewater treatment plants that are unable to meet their discharge levels without considerable investment. The county will pay \$500 per acre for headlands seeded to a hay crop or \$400 per acre when maintained in hay, when the rest of the field is rotated back to corn or soybeans.

Landowners must meet the following guidelines to qualify for funds:

1. The headland must be a resource concern, or showing signs of erosion. 2. The field must have been in row crops of corn, soybeans, or snap

beans in four of the last 10 years. 3. If the field is now in hay and meets the requirement number 2, it can be enrolled in the year the rest of the field is planted to corn.

4. Perennial cover must be on a large enough area to eliminate planting of headlands or end rows. Variables include the width of planting, spraying, and hay equipment, with a maximum of 120 feet.

5. Seeding will be predominantly grass and clover. Alfalfa is not recommended due to traffic consider-6. Payment will be made after the

headland is established in grass, \$500 per acre for new planting or \$400 per acre when left in established hay. 7. Payment will be made to the

landowner. 8. There is one payment for the pro-

9. Headlands must be maintained in vegetative cover for at least five

years. 10. Harvest of the grass is strongly encouraged.

11. If there are more applicants than funds available, they will be ranked based on slope and length.

Benefits include increased field access for crop scouting, harvest and are management zone-specific, and

recreation, field profitability, wildlife recommendations only). habitat and reductions in sediment

This is a pilot program with limited funds.

**Cover Crop Program** 

The county offers incentives to promote cover crops to improve soil health and water quality. The program is aimed at landowners who haven't used cover crops in the past. Cost share guidelines:

• Contract must be signed before planting. (Call Land Services for an appointment.) \$25 per acre with a maximum 40

• Follow seeding dates (below) for most common cover crops (dates are

• Evaluate success of the cover crop based on the crop being green, identifiable, with a root system before winter.

• Multi species mixes are encour-

Recommended planting dates: Feb. 15 – March 15: Frost seeding/ inter-seeding red clover into winter

June 15: Inter-seeding annual ryegrass into corn.

July 1: Planting a minimum of two species from different categories. Summer Cover Crops include snap Multi species are encouraged.

Aug. 1: Clover varieties.

Aug. 15: Radishes.

Sept. 1: Barley, Annual Rye.
Fall Cover Crops include snap beans, corn silage, soybeans and corn grain.

Oct. 1: Winter Wheat. Oct. 15: Cereal Rye.

Landowners may discuss other options, including mixes, with conservation staff. For more, visit: https:// fyi.extension.wisc.edu/covercrop/

Call (715) 637-6315 for more information about both headland and cover crop programs.

Editor's note: Gruetzmacher is Barron County Conservationist and beans, small grains, and sweet corn. works in the Land Services Office at the County Government Center.

## Bonus 'tags' for upcoming whitetail hunts on sale soon

The Wisconsin Department of Natural Resources (DNR) announced that bonus antlerless harvest authorizations will be available for purchase starting at 10 a.m. Monday, Aug. 15, online through the Go Wild license portal and at license sales locations.

Deer population levels vary throughout the state, and antlerless harvest opportunities vary by management zone. This allows for greater harvest opportunities where deer are abundant and a more conservative harvest where deer are fewer in number, the DNR reports.

Bonus antlerless harvest authorizations, formerly known as tags, are available for purchase in all deer management units (DMUs) for the 2022 season.

Bonus authorizations are sold at a rate of one per person per day until sold out or until the 2022 deer hunting season ends. Bonus authorizations are \$12 each for Wisconsin residents, \$20 each for non-residents and \$5 each for youth ages 11 and under.

A list of units with bonus antlerless harvest authorizations available for purchase is available on the DNR website. Each day at 9:45 a.m., an online queuing system will be put in place to manage volume. At 10 a.m., all online users waiting on the Go Wild system will be randomly assigned a number and staged into a virtual queue.

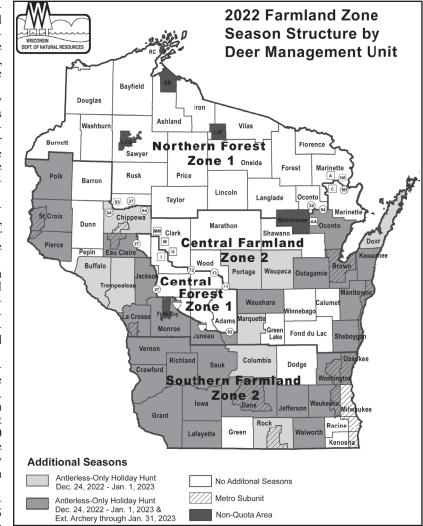
There is no advantage for customers who enter the site before 9:45 a.m. Please note that customers who enter the site after the randomization the fourth day is open to all zones: at 10 a.m. will be added to the end of the virtual queue in the order in which they arrive.

When accessing Go Wild, follow the prompts until you reach your personalized dashboard. To purchase a bonus antlerless harvest authorization, click the "Buy Licenses" button from the dashboard to open the sales catalog. From there, you will find "Bonus Antlerless Harvest Authorization" at the very top of the list.

If you have not had the chance to get your license in advance, you can purchase one after you select the bonus antlerless harvest authorization in Go Wild.

Hunters will need to know the deer management zone and unit in which they intend to hunt. They will also need to determine whether they will hunt on public or private land to make their purchase.

The first three days of bonus sales



Monday, Aug. 15, 10 a.m. - Forest Zones (Northern and Central).

Tuesday, Aug. 16, 10 a.m. - Central Farmland Zone. Wednesday, Aug. 17, 10 a.m.

Southern Farmland Zone.

zones available.

As a reminder, a minimum of one Farmland (Zone 2) antlerless harvest authorization is included with each deer hunting license purchase in units that offer them. Some units will offer more than one antlerless deer harvest Thursday, Aug. 18, 10 a.m. – All authorization with each deer license.



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