

WILDLINES

New Hampshire Fish and Game's quarterly newsletter of the Nongame and Endangered Wildlife Program



SPRING
2023

REHABILITATION *Providing a Second Chance for Turtles*

The biggest threat to adult turtles in New Hampshire is vehicle strikes when they attempt to cross roadways. Their shell is part of their skeleton, protecting their inner organs, and when punctured it is susceptible to potentially life-threatening infections. A turtle with an injured shell may survive—but requires proper care to aid in its recovery. For many years, wildlife rehabilitator Chris Bogard has expertly treated injured turtles in southern New Hampshire, helping these long-lived creatures return to the wild. Now entering retirement, Bogard has passed on her knowledge to the group NH Turtle Rescue, which is located in Nottingham, NH.

Drew and Dallas Higgins started NH Turtle Rescue after learning of the dire need for rehabilitation services for turtles attempting to recover from car strikes or dog bites. Like many wildlife rehabilitators, their background was not rooted in the veterinary field, but their passion grew for this rewarding work as they volunteered and trained at different facilities. Even though the Higginses were well aware of the need for turtle rehabilitation in the Granite State, the pair still drastically underestimated the number of calls they would receive in 2022. "In our first year as independent, licensed rehabilitators, we took in over 50 specimens," said Dallas. "Laws prevent state-listed species



© DALLAS AND DREW HIGGINS

Wildlife rehabilitator Chris Bogard cleans a spotted turtle's shell during repair.

from being either exported or imported, making the Higginses' work that much more critical," said Nongame Program Turtle Biologist Josh Megyesy.

The Higginses spent time educating people who had kept wild turtles as pets but later realized it was inconvenient to house the animal. Even a turtle that appears healthy and asymptomatic needs to be evaluated for their potential to spread diseases to wild populations before being released. Other complications arise when a turtle is moved from a location, often by people hoping to help the animal to safety. "It's important to mark the exact location where the turtle is discovered," said Dallas.

"People should note landmarks to be as geographically specific as possible to ensure a successful reintroduction to the wild."

"If people are in doubt about a situation involving a turtle or have questions, we are here to talk them through it," said Drew. More than half of New Hampshire's seven native turtle species are of conservation concern. Giving injured turtles a second chance at life has become an essential component of recovery for populations such as the endangered Blanding's turtle, which needs to survive into its teenage years to have a chance at laying eggs for the first time. Follow NH Turtle Rescue on social media and learn more by visiting NHTurtleRescue.org.

Donate online at wildnh.com/nongame



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MARbled SALAMANDER

(Ambystoma opacum)



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Adult marbled salamanders are about 4 inches long, stout, and darkly colored. Females have thick silver-gray bands, while the bands of males tend to be white. Unlike other mole salamanders, marbled salamanders breed in autumn. The female stays with her eggs, numbering from 30–100, until rain comes and signals the eggs to hatch. New Hampshire is at the northern extent of the marbled salamander's range, and they are classified as endangered.

Habitat and Distribution: Vernal pools, floodplain forests, and Appalachian oak-pine forests.

Threats:

- Loss and degradation of vernal pools and the surrounding upland habitat, as well as a lack of safe passageways between populations.
- Mortality and habitat degradation from toxins and contaminants, acid rain, and increased droughts.
- Amphibian diseases such as ranavirus and chytrid.

Conservation Actions:

- Learn to identify New Hampshire's 12 salamanders and report your sightings to <https://nhwildlifesightings.unh.edu>.
- Determine habitat use and dispersal patterns of marbled salamanders in southern NH.
- Researchers can conduct surveys to map the distribution of marbled salamanders in NH and adjacent areas of MA.

Six Ways to HELP REPTILES A

Each year between April and June, there is a greater chance of crossing paths with the state's wildlife as they venture over land. "Unfortunately, many of our amphibians and reptiles will have to cross over or through roads, driveways, yards, and trails as they migrate between overwintering habitat and feeding areas to their breeding and nesting grounds," explained Wildlife Biologist Brendan Clifford. "Wildlife moves with a purpose; they know where they are going. If they are physically moved or their course is altered, they will naturally try to find their way back to the environment they know. This can result in a significant amount of stress to the animal, often increasing the number of hazards they encounter, and can even result in death."

This is especially true of turtles when it's time for them to lay eggs, which peaks in the

first two weeks of June. Residential yards can provide cover and structure for turtles and snakes looking to regulate their temperature or find a seemingly safe place to lay their eggs. While reptiles will continue to move throughout the summer, some amphibians have a "big night" of movement to their breeding wetlands, which is inspired by the first warm rains of the spring.

Understanding some simple wildlife facts will help us all to be better neighbors to wildlife on the move this spring, including the types of actions to take versus those to avoid:

1. Don't touch or disturb wildlife unless they are in immediate danger of being harmed. If you encounter a turtle in the roadway, and it is safe to do so, always move it off the road in the direction it was traveling.



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AND AMPHIBIANS

2. Drive more slowly and use caution on rainy spring nights over 40°F, or if possible, stay in to allow slow-moving amphibians to make their spring journey. If you're helping assist salamanders, frogs, and toads across the road, wear safety reflective gear and use flashlights.

3. Never harm a snake. Like all wild animals, they prefer to stay hidden as they search for food and cover, and they won't chase humans. Snakes are beneficial because they help to control residential pests such as insects and mice.

4. Allow turtles to complete their journey. It is normal for turtles to be on land, sometimes making very long migrations from wetlands to nesting areas. If they are continually disturbed during this time, it may take them longer to find a place to nest. This can create a stressful situation, making the animal more vulnerable to dehydration and predation. It may take hours for a turtle to nest, and the best way to help is to simply leave it alone.

5. Don't cover turtle nests. Placing objects or screens over nests may inadvertently alter the developmental time of the eggs or trap hatchlings trying to emerge. The best action is no action, except for keeping your yard free of garbage that may attract predators, such as skunks, raccoons, and foxes.

6. Let wildlife be wild. It is strongly encouraged, and often required by law, to leave all wildlife in the wild. Whenever an animal is taken from the wild, its function in the environment is also removed. Additionally, there is the concern of accidentally introducing diseases to

wild populations. The best option is to appreciate the animal with your eyes and camera only, and leave it be. 🦉

Spotted salamanders often fall victim to road mortality during migratory seasons.



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A GLIMPSE OF LIGHT IN THE (BAT) TUNNEL

There is some hope for little brown bats following the decimation of their populations by white nose syndrome (WNS). A success story followed a visit by NH Fish and Game biologists to a barn in Peterborough where a maternity colony once hosted some 2,000 bats before WNS reduced the population to fewer than 100 individuals. After a decade, biologists found evidence of healthy bats with pups—an encouraging sign for the future. “Safe places for bats to raise their young are a critical component of their recovery,” said NHFG Wildlife Biologist Sandra Houghton.

For many years throughout the region, bats have been banded with numbers to help researchers track individuals and learn about their populations. In 2011, a researcher banded members of a maternity colony that included three female little brown bats, which all tested positive for the fungus that



A cluster of little brown bats hibernate in a mine.

causes WNS. These three bats were recently recaptured alive, appeared healthy, and were lactating, indicating that they had successfully reproduced. They were exposed to the potentially fatal fungus, but have continued

to live for ten years so far. Amid the startling declines, this was an encouraging discovery indeed.

Surveys of hibernating bats during the winter are another method used to evaluate bat populations. Some of New Hampshire's bats hibernate in mines, which are dark, deep, and sometimes partially filled with water. Bat researchers use headlamps and protective gear to locate bats by sight to provide data about how many and what species of bats are overwintering in the state. This winter the team discovered tricolored bats at a mine hibernaculum where they were last documented in 2009!

“After the devastation of WNS, any potential recovery is going to be slow and uncertain,” said Houghton. Her monitoring, along with other regional research, will continue to inform conservation actions for bats into the future. 🦉

APRIL

- The star-nosed mole is actively hunting aquatic prey. It uses strong forearms to dig tunnels through snow and dive under pond ice.

MAY

- Look carefully in swamps and marshes for the green heron, returning to New Hampshire this time of year from Florida and Central America.



JUNE

- Sunny days are perfect for spotting ribbon snakes at the edges of shallow waterbodies this month. They may be waiting for their favorite prey such as frogs and salamanders. They will occasionally consume mice, minnows, and spiders.



Be a part of conservation this summer by volunteering with the Nongame and Endangered Wildlife Program. Current opportunities include:

- Become a piping plover monitor in the towns of Seabrook and Hampton (e-mail Brendan.Clifford@wildlife.nh.gov for more information).
- Participate in the Butterfly Monitoring Network (see wildnh.com/surveys/butterfly-monitoring-survey.html).
- Report your wildlife observations at <https://nhwildlifesightings.unh.edu>.



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Update

RECOVERING AMERICA'S WILDLIFE ACT

The New Hampshire Fish and Game Nongame and Endangered Wildlife Program has been carefully and hopefully watching the progress of the Recovering America's Wildlife Act (RAWA) as it moved through federal reviews and approvals in Congress in 2022. RAWA is the most significant wildlife




legislation in fifty years, aimed at addressing threats to fish, wildlife, and their habitats. It made tremendous progress last year, getting approval from the US House of Representatives and the Senate Environment and Public Works Committee. Unfortunately, time ran out on the 117th Congress before the full Senate was able to vote on the bill.

Passage of this bill would support state wildlife agencies, enabling them to continue and expand their work at the forefront of conservation, combating the loss of threatened and endangered species, while

proactively conserving more common species. The bill included an estimated \$11 million to support New Hampshire's work annually.

All four New Hampshire members of the US congressional delegation were co-sponsors of the bill. Those involved in negotiations reported that the actual policy outlined within the bill wasn't

largely disputed, but the specific details of the funding offset were not resolved. To be considered for passage, RAWA will need to be resubmitted to the 118th U.S. Congress. With bipartisan support, it is hoped that these efforts have moved the country one step closer to finding a solution to providing permanent, dedicated funding for wildlife conservation. 

CORRECTION: Our Winter Wildlines (2023) misstated that Nongame Program Donor Bill Peabody served with the U.S. Marine Corps.; he served in the U.S. Coast Guard.