

# WILDLINES

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



SPRING  
2019



Timber rattlesnake.

New Hampshire's Wildlife

## FEATURED NATIONALLY

The Nongame and Endangered Wildlife Program has made some exciting appearances in the national media recently. If you haven't watched Animal Planet's series *North Woods Law: New Hampshire*, put this on your to-do list right away. Now in its 5th season, the series follows the exciting adventures of conservation officers and biologists. The show filmed Nongame Program biologists tracking state-endangered timber rattlesnakes through their forested habitat and aired the surgical replacement of a radio transmitter by veterinarian Dr. Jim Paine of Concord. Incredible moments like this bring unprecedented attention to a misunderstood and extremely imperiled New Hampshire species. "It's important to get the word out that rattlesnakes are just another wild animal, and aren't something to be feared," said Biologist Brendan Clifford. That message was heard by nearly one million viewers.

*North Woods Law* showcases the difficulties and triumphs associated with safeguarding New Hampshire's wildlife. Two separate television programs will feature the ongoing efforts to restore New England cottontails to New Hampshire and surrounding states. This complex recovery story will be part of a documentary for *Nature* and on Animal Planet's *The Zoo*, which discusses the remarkable breeding program established by the partnership of zoos and wildlife agencies.

"The public is thirsty for engaging stories that involve both wildlife and the people who work with them," said Nongame Program Coordinator Mike Marchand. "We were excited to share with a national audience our program's effort to maintain diverse and healthy wildlife resources." 🦅



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### WILDLINES

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**BROOK FLOATER  
MUSSEL**

*(Alasmidonta varicosa)*



*Freshwater mussels are living water filters, constantly pumping water to eat and breathe. This state-endangered mussel moves by extending a single foot out of its hard shell, slowly pulling itself along the river bottom.*

**Habitat:** Warmwater rivers and streams of central and southern New Hampshire.

**Threats:** Dams that create barriers and alter the flow of water, pollution and run-off, changes in water temperature, and trampling of mussels from recreation in streams.

**Conservation Actions:**

- Reduce disturbance to streams and protect the surrounding habitat.
- Restore streams and rivers that have been fragmented by dams.
- Locate swimming or fishing areas away from mussel beds.

**Biologists Track Seven State-Endangered**

**BOX TURTLE**

Until recently, just one known population of box turtles has been identified in the town of Hudson. This summer, the Department received reports of three additional box turtles that appeared to be separate from this population in a disconnected part of Hudson and in the town of Lee. Biologists fitted these newly discovered turtles with radio transmitters, tracking them through powerline corridors and dry uplands of mature forests. Altogether, this amounted to seven eastern box turtles that biologists tracked with radio telemetry weekly throughout the 2018 season.

Eastern box turtles were added to New Hampshire's Threatened & Endangered Species List during the most recent revision (2015). Before this, biologists in New Hampshire hadn't identified a population, collecting only scattered observations of single turtles. The excitement ramped up in 2014 when a female box turtle was documented laying eggs, and later at the same site two additional box turtles were discovered. "This site seems to be the northern reach of a population that continues south into Massachusetts," explained biologist Josh Megyesy.

Finding this land turtle has proven to be a tough job. Box turtles are generally small (4 to 7 inches long), and spend periods of the

day buried under leaves, logs, or half-hidden underground. The area of Hudson, Amherst, Londonderry, Pelham, and surrounding towns has the highest number of box turtle reports and is the focus of monitoring efforts. However, reports of individuals from New Ipswich, Peterborough, and Newfields have also turned up box turtles in past years, including one that was tracked for two consecutive seasons. Additional confirmed reports of individuals have come in from scattered towns, and turtles were observed successfully hibernating through winter at two sites. This patchwork of box turtle reports suggests that there are likely several low-density populations scattered within southern New Hampshire.

The underlying mystery at sites where just one turtle is documented is determining from where exactly it originated. There is always the potential that a turtle is a released illegal pet, even from many years ago. (It has been illegal in New Hampshire to possess an eastern box turtle since 1996.) DNA analysis is used to determine whether or not an individual turtle is native and was undetected until now; but without a vast baseline collection to compare with, tracking the turtles has proven to be the most effective tool to learn about the population.



*A total of seven eastern box turtles were fitted with radio transmitters in 2018.*

red

# RTLES

Now officially deemed state-endangered with more than one population found, biologists are providing technical assistance to conservation commissions and utility companies regarding habitat and management needs. Similar to other turtles, eastern box turtles are vulnerable to mortality from vehicles, conversion of habitat, predation of eggs and young, and illegal collection from the wild. As this exciting story unfolds, biologists will continue to monitor all seven box turtles with hopes that more will be found. Report any box turtle sighting immediately to [wildlifesightings.org](http://wildlifesightings.org) or call (603) 271-1125. 🐢



Eastern box turtle  
(*Terrapene carolina carolina*)

## Biologists Seek Frog Survey Volunteers

The Nongame Program is seeking volunteers to help fill gaps in species distribution maps, with a special focus on three rare frogs: northern leopard frogs, mink frogs, and Fowler’s toads. From May to June, these frogs can be most easily detected at night during their breeding season and have identifiable calls that make it easy to determine if the frogs are present or not when conducting a simple survey. Biologists will provide focus-area maps for each species, as well as protocols and data sheets for conducting call surveys.

Mink frogs are mostly found in vegetated ponds and wetlands in Coos County and northern Grafton County. Northern leopard frogs can be found statewide, but are most commonly associated with river floodplains and oxbows. Fowler’s toads are found only in the southern part of the state and prefer wetlands near sandy soils. We hope that if you live near any of these areas you will consider helping get these frogs on the map. If you are interested in conducting focused species call surveys, contact Biologist

Melissa Doperalski at [melissa.doperalski@wildlife.nh.gov](mailto:melissa.doperalski@wildlife.nh.gov) or at (603) 271-1738 by May 15, 2019.

Volunteers are also encouraged to conduct call surveys for our more common species, such as wood frogs, spring peepers, gray tree frogs, and others. Like all amphibians, frogs are dependent upon water for at least part of their life cycle. Many can be found in vernal pools and spring is the best time of year to investigate them.

When exploring New Hampshire’s wet habitats, it’s important to minimize the use of bug spray – even if its ingredients are advertised as natural. Recent research has uncovered that picaridin, a common mosquito repellent, can be lethal to salamander larvae when it gets into these delicate natural areas. We can help protect these ecosystems by treading lightly and reporting wildlife. Vernal pools and wildlife can be reported to [nhwildlifesightings.unh.edu](http://nhwildlifesightings.unh.edu). For general frog call survey information and profiles on each frog species, visit [wildnh.com/surveys/frog.html](http://wildnh.com/surveys/frog.html).



Northern leopard frog



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## APRIL

- Bats are awakening for the season, and it's a great time to put up a bat house on your property. Find a sunny place to hang it, preferably near a rooftop or on a tall post at least 15 feet off of the ground.

## MAY

- The flowers of winterberry (*Ilex verticillata*) begin blooming. The flowers smell sweet and attract pollinators such as bees and butterflies.

## JUNE

- Give loons plenty of space on lakes and ponds - by the end of the month, loon chicks will hatch and will begin practicing swimming and diving right away.

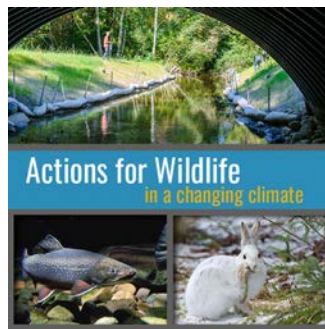


## Nongame Program Leads Climate Change Workshop

Taking action to create communities that are prepared to deal with the impacts of climate change was the theme of December's "Actions for Wildlife in a Changing Climate" workshop in Laconia. Participants came away with a number of practical actions they could take in their communities or in their work. This successful event engaged over 100 enthusiastic participants from all ten New Hampshire counties. Land trusts, conservation commissions, other municipal boards, landowners, and others can all help plan for changes right now by protecting land that connects habitats, working to keep waterways clean and naturally flowing, and raising public awareness.

"Although the focus of this workshop was wildlife, the actions identified, such as upgrading undersized culverts under roadways, will benefit communities through improved infrastructure, reduced emergency costs associated with storm events, and

increased human safety," said Nongame Program Supervisor Mike Marchand. Presentations ranged from prioritizing



land protection projects for wildlife in the face of a changing climate to considering wildlife in renewable energy project siting. Amanda Stone of University of New Hampshire's Cooperative Extension and Lisa Wise of the New Hampshire Sea Grant Extension discussed ways to engage community

members in planning for climate change. Some ideas included conservation commission field walks, community workshops, photography contests, and habitat restoration projects - all of which can incorporate discussion about changing habitats and impacts to local wildlife. This workshop was sponsored by Taking Action for Wildlife, the NH Fish and Game Department, UNH Cooperative Extension, and the NH Association of Conservation Commissions. To learn more, visit [takingactionforwildlife.org](http://takingactionforwildlife.org).



This winter, the New England Environmental Education Alliance awarded the Maria Pirie Environmental Education Award to Amoskeag Fishways for their phenomenal Urban Wildlife Education Program, produced in partnership with the Nongame and Endangered Wildlife Program with "Moose Plate" funding. The Award is given annually to a program that exhibits innovation and creativity, promotes sustainability, and results in action by program participants. For some students, these wildlife programs provide the first introduction to using maps and learning about wildlife habitat. Each program is developed and implemented by the dedicated staff at Amoskeag Fishways, altogether reaching over 30,000 New Hampshire students to date.