

Wildlines

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

© CHRIS MARTIN



The Amazing Herps of New Hampshire

Let's say you're out walking this spring near a good-sized pond. There in the water among the cattails, you see some large tadpoles, dark brownish-black and about the size of prunes. You walk a ways farther and come upon a vernal pool in the woods — full, at least for now, of water from the spring thaw. Crouching down, you spy a wriggling mass of much smaller tadpoles, about a third the size of the ones in the pond.

Fast-forward to late spring/early summer. On your walking route, you see the large tadpoles still in the pond, but none in the vernal pool.

What's going on?

This is just the type of question herpetologists try to answer. Herpetology is the study of reptiles and amphibians, and, in New Hampshire, that means trying to figure out what makes 39 different species tick. Two of those species are the bullfrog and the wood frog, and they provide the answer to the above riddle.



© NHFG VICTOR YOUNG PHOTO

Wood frog

Even though they're both frogs, each species develops very differently, depending on different types of waterbodies for breeding. Bullfrogs breed in permanent waterbodies like

HERPS continued on page 2



© 2005

New Hampshire Fish and Game Department

Lee E. Perry
Executive Director

Wildlines

John Kanter, Nongame and Endangered Wildlife Program Coordinator

Allison Briggaman, Editor
Brenda Charpentier, Writer
Victor Young, Graphic Design
Rita Boisvert, Data Manager



Get the Lead Out

New Lead Tackle Ban Protects People and Wildlife

We all know that lead is dangerous to humans. Lead can be inhaled or absorbed through the skin when handled and may cause lead poisoning. Symptoms of lead poisoning in humans can vary depending on the amount and length of exposure as well as the age and health of the individual. Lead poisoning can cause high blood pressure and damage the brain, kidneys, stomach and reproductive organs.

Because of the severe risk to humans, lead is now banned from many common products that people use. It was banned from house paint in 1978 and was phased out of gasoline from 1985-1995. Lead was even removed from food cans and sap buckets used for making maple syrup.

Lead not only affects humans, but wildlife as well. In 2000, New Hampshire became the first state to ban lead sinkers and jigs to protect common loons and other diving birds. The state has recently taken another important step to remove lead from the environment. A new law that expands the ban on lead fishing jigs and sinkers in New Hampshire promises to keep people and wildlife safer from lead poisoning than ever before.

The law, which took effect in January 2005, makes it illegal to use lead sinkers that weigh an ounce or less and jigs that measure less than an inch long on all fresh waters in the state, including ponds, lakes, streams and rivers – not just ponds and lakes as previously. Beginning in January 2006, the sale of these particular lead sinkers and jigs will be banned statewide.

“This [law] will do a much better job of protecting not only loons but also at least 26 other wildlife species that are known to have ingested lead sinkers and jigs and

LEAD continued on page 4

603-271-2461

www.wildlife.state.nh.us



© JIM MARTIN PHOTO

The state-threatened Eastern hognose snake is just one of 39 species of reptiles and amphibians that occur in New Hampshire.

HERPS continued from page 1

ponds, lakes and marshes. They face many predatory fish there, but they're big enough to escape the jaws of many of the smaller ones, like sunfish. Slow to lose their tails and sprout legs, they spend up to two years as tadpoles before developing into deep-croaking adult bullfrogs.

Wood frogs are a whole different story. They breed in vernal pools, which don't have predator fish lurking in them, but which dry up by the end of the summer. Wood frogs are safer, but they don't have much time.

"In a vernal pool situation, tadpoles are basically trying to eat as much as they can, develop and get out of the pool before it dries up," says Michael Marchand, a wetlands biologist with the Nongame and Endangered Wildlife Program. "Wood frogs lay eggs in late March or early April, hatch by May, and are out of the pool by early to mid-summer. Some studies have shown they can actually increase the rate of their development when the pool starts to dry up."

New Hampshire's reptiles and amphibians have many such fascinating survival strategies.

Consider, for example, the eastern newt. You might see this olive-drab salamander in ponds, lakes and streams in its adult stage. But before it ever gets that far, it spends several years on land in its juvenile stage. Juvenile eastern newts are orangish-red with darker spots and are called "red eft." These are the critters you might see crossing roads after a spring rain or on top of leaf litter in yards or woods.

"The cool thing about these guys is their skin is somewhat toxic. They'll walk right on top of the leaf litter in the middle of the day. Most amphibians wouldn't do that, because they're too vulnerable to birds

and other predators," Marchand says.

(Please note! Amphibians breathe through their skin, so they shouldn't be handled if you have mosquito spray, lotions or other chemicals on your hands. You should also moisten your hands before handling an amphibian.)

Though red efts are a fairly common sight to anyone who

spends time outdoors, wood turtles are masters at keeping hidden. In winter, they hibernate under water, wedged in an undercut bank or logjam. In the spring, they climb out of the water and spend most of their time on land. They seek out dense vegetation in old fields or transitional areas full of shrubs and brush, where they hunt for slugs and snails.

"Wood turtles blend in well. When they're in a stream, their shells blend in perfectly with the stream bottom, and when they're out of the stream they just don't move. You can walk right by them and never notice them," Marchand said.

Many reptiles and amphibians in New Hampshire use both wetlands and uplands. This varied habitat use increases the challenge in protecting them, since Fish and Game can't just target certain, well-defined areas. The need to protect large swaths of varied habitats is one of the major themes addressed during the Nongame and Endangered Wildlife Program's efforts to coordinate the state's first Comprehensive Wildlife Plan.

This plan will establish a blueprint for wildlife conservation in the state. As part of that goal, biologists have prioritized herp species most in need of protection. Those of highest concern include four turtles: Blandings, spotted, wood and box; five snakes: timber rattlesnake, hognose, smooth green snake, ribbon and black racer; two salamanders: marbled and Jefferson; and three frogs: northern leopard frog, Fowler's toad and mink frog.

Most herps have not yet been studied in New Hampshire, so the Comprehensive Wildlife Plan and its associated federal funding will go a long way toward filling in the gaps in our knowledge.

"We'll be doing a lot of inventory work to clarify the distribution of some of these species and studying some populations more intensively to determine how they're doing and what kind of habitat requirements they may have," Marchand said.

If you'd like to help conserve New Hampshire's herps, please join the Reptiles and Amphibian Reporting Program (RAARP). For information on the program and how to participate, please see "Wildlife Volunteers Wanted" on page 3.



© NHFG VICTOR YOUNG PHOTO

Spotted salamander

Fast Facts:

Eastern ribbon snake

Status: Not listed. Uncommon in most of the state.

Description: Bright yellow stripes on thin, dark body. Looks similar to garter snake, only thinner and with longer tail.

Size: 1.25 to 3 feet in length, with females slightly larger than males.

Habitat: Usually found near water. Further study is needed.

Range: May be found throughout the state, except the far north.

Diet: Mostly frogs, but also salamanders, fish and rodents.

Are they dangerous to humans? No — unless you look and smell like a frog!



© NHFG VICTOR YOUNG PHOTO

Eastern Ribbon Snake
(*Thamnophis sauritus*)

Wildlife Volunteers Wanted

The Nongame and Endangered Wildlife Program is looking for volunteers to help biologists with several wildlife monitoring and restoration projects. Time commitments are flexible, and no experience is necessary. All you need is an interest in wildlife and a willingness to try something new and meet other people who care about protecting our wild resources. Opportunities include:

Karner Blue Butterfly Project –

Volunteers needed to start growing nectar plants and wild lupine, clear brush, transplant habitat plants and collect wild seeds. Habitat work is carried out in Concord at the pine barrens near Concord Municipal Airport. Volunteers are also needed to assist in the captive rearing of Karner blue butterfly larvae.

Piping Plover Monitoring – Volunteers monitor adult piping plovers and their chicks between April and August at Seabrook Beach and Hampton Beach State Park. Tasks include recording observations and talking with beachgoers about piping plovers.

RAARP Observers – Volunteers help establish the distribution of reptiles and amphibians in New Hampshire by reporting their sightings on special forms. A volunteer packet is provided with information on identification, reporting procedures and other helpful details.

If you are interested in helping with any of the above projects, please contact Allison Briggaman at (603) 271-0463 or abbriggaman@wildlife.state.nh.us.

DISCOVER *Wild* NEW HAMPSHIRE DAY!

The free, outdoor event offers something for everyone, including:

- Live animal demos
- Duck-box building
- Crafts
- Guided bird walks
- Fly-casting lessons
- Fish-fry sampling
- Dog-training demonstrations
- Over 35 conservation exhibits



© NH&GLZA POINIER PHOTO

Discover Wild New Hampshire Day runs from 10 a.m. to 3 p.m. on Saturday April 30 at Fish and Game Headquarters, 11 Hazen Drive in Concord.

Join the Flock!

The 2005 Annual Fund Campaign

New Hampshire Fish and Game is the guardian of the Granite State's more than 500 species of fish and wildlife. Recently, 105 of these species, including the purple finch, our State Bird, were identified as conservation targets because their future survival in New Hampshire is in question.

The Nongame and Endangered Wildlife Program is working to protect these species and their habitats, but your support is needed. When you receive our annual appeal in early April, please

join the flock of supporters and respond by sending a gift to support nongame and endangered species protection efforts.

The Nongame and Endangered Wildlife Program is pleased to acknowledge the supporters listed below who have already flocked together this year to help protect New Hampshire's wildlife. On behalf of all of the staff, thank you!

John J. Kanter
Nongame and Endangered Wildlife
Program Coordinator

Jacques and Louise Aquillon
Sharon R. Barber
Mortimer P. Barnes
Ms. Elizabeth T. Bates
Igor and Amedine Bella
Bruce B. Beckley
Mr. Francis M. Blodget
Frank and Lorraine Brown
Richard Burgess
Daniel W. Cameron
Lou and Maria Candito
Mrs. Kendall Chase
Lauraette H. Clark
Richard and Ruth Colwell
Dr. David and Cynthia Cooper
Thomas and Nicole Cormen
Buck Corson
Jim Davenport
Deborah Day
Jean Dearborn
Julie R. Durgin
Catherine F. Edmunds
Burns and Ellen Fisher
Cheryl Ann and Paul T. Fitzgerald

Kenneth and Joyce Folsom
Jane M. Frink
Ernest Gaskin
Russell E. Gilbert
Carl L. Goldknopf
Mark Greenaway
Dr. and Mrs. Philip Gregorio
Dr. Robert Haubrich
Robert C. Howland
John and Lynda Hunt
Kenneth A. and Barbara J. Hunter
Leonora Isaak
Kris H. Jacobson
William & Donna Jenisch
Jack S. Jochums
Joseph W. Kabat Jr.
Susan and Michael Kraatz
Dan and Kathy Lambert
Laurel and Sid Letter
Ms. Alicia Mac Vane
Frank and Jo-Anne Marino
Pierae D. Martinet
John A. Mckenna
Andrew and Lori Merrill

Mr. Joseph N. Miele Jr.
Mr. Leonard Morrissey Jr.
Kathryn P. Nelson
Fred and Doris O'Connor
James O'Malley
Larry Phipps
Daniel H. Pierson
Mr. and Mrs.
Walter J. Radermacher
Thoreau Raymond
Peter J. Riemer
Walter and Laura Ryan
John G. Sanborn
Robert Schongalla
Mrs. Arnold R. Schultz
Donald R. Sink
Mr. and Mrs. Erville H. Smith
Vera F. Smith
Scott J. Spangenberg
Mr. Eric L. Speed
Brian E. St. Onge
Arthur and Dawn Stavros
J. R. Stockwell

Maureen Timmins
Paul W. Tuminowski
John Wakefield
John and Meg Warner
John F. and Priscilla M. Watson
Pat Wignes
Carol Young
John A. Zanchi
Stephen Barba/The Balsam Corporation
Nathan Faulkner and Julia Burdick/ The Burdick Faulkner Charitable Fund
Wayne A. & Johanna G. Derby/Northern Land Services
David Houghton/N.H. Audubon
Catherine Kenny/Nashaway Chapter of ASNH
Kevin Osgood/Sterling Golf Management, Inc.
Peter Stettenheim/
The Stettenheim Foundation
Anonymous (8)



©PHOTOCOURTESY OF THE LOON PRESERVATION COMMITTEE

subsequently died of lead poisoning,” said Harry Vogel, Executive Director of the Loon Preservation Committee’s Loon Center in Moultonborough.

Vogel says diving and dabbling ducks are particularly

When ingested, lead sinkers can kill a loon in a matter of weeks.

vulnerable to picking up lead left in the environment, as are eagles, which may eat contaminated fish and waterfowl. The loon, however, remains the poster child for lead poisoning among wildlife.

Loons and other birds have a unique digestive system. They ingest small pebbles or stones (called “grit”) that are stored in a

specialized organ – the gizzard. When birds feed, food passes through the gizzard, and the grit helps birds to break down hard-to-digest foods such as fish bones.

Loons and other wildlife cannot distinguish between pebbles and small lead sinkers and may mistakenly ingest lead sinkers. Once ingested, the lead is absorbed into the bloodstream, leading to lead poisoning and eventually death.

“Lead poisoning is by far the main single source of known adult loon mortality in New Hampshire. It has consistently accounted for more than 50 percent of all the loons recovered,” Vogel said.

Changing to nonlead alternatives does not mean anglers have to give up their favorite fishing gear, according to Mark Beauchesne, Fish and Game’s “Let’s Go Fishing” program coordinator.

“There are replacements for everything out there,” Beauchesne said. “Some of the alternatives are advantageous for the angler. Tungsten has a smaller profile for the same amount of weight, brass and steel offer vibration and sound where lead never did, tin and tungsten are malleable, bismuth is heavier.”

If a look through your tackle box turns up some lead jigs or sinkers, please dispose of them safely at one of the following locations:

- N.H. Fish and Game offices (Concord, Durham, Keene, Lancaster and New Hampton):
- State fish hatcheries (call (603) 271-3211 for locations):
- The Loon Center on Lee’s Mills Road in Moultonboro (visit www.loon.org):
- Household hazardous waste collections held throughout the state. Call the NH Department of Environmental Services at (603) 271-2047 or visit www.state.nh.us/des/bhw.



A free brochure called “Let’s Get the Lead Out” is available for download from the Fish and Game website at www.wildlife.state.nh.us or by calling (603) 271-3211.



SPRJNG Wildlife Almanac

APRIL

- State-endangered common terns start arriving at the Isles of Shoals, where they’ll soon lay eggs on the rocky ground.
- Two to five kits are born to pine marten mothers.

MAY

- Tuck some dog or cat fur into tree crevices, then watch birds grab beakfuls to use in their nests.
- Watch for owlets perched on tree branches.

JUNE

- Loons lay 1-2 eggs, which hatch toward the end of the month. The downy chicks can swim right after they hatch, but they also ride on their parents’ backs for warmth and safety.
- State-endangered Eastern small-footed bats give birth to young in nursery colonies.

PRSRST STD
U.S. POSTAGE
PAID
CONCORD, NH
PERMIT #1478

New Hampshire
Fish and Game Department
11 Hazen Drive
Concord, NH 03301

