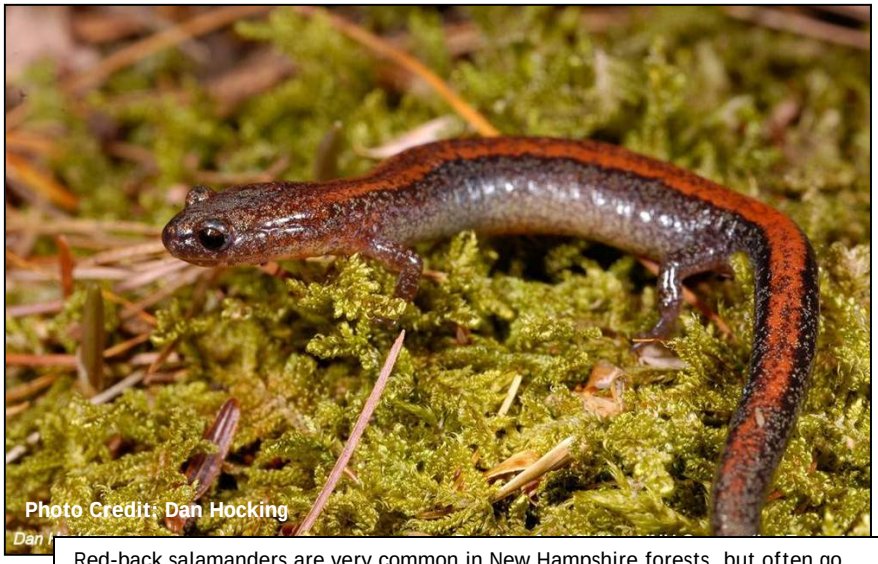
Speaking for Wildlife Programs In the Upper Valley

Malin Clyde, UNH Cooperative Extension

"Did you hear about the bear sighting in town this week?" "Nah. But did you see that family of red fox out by Goose Pond?" Wildlife stories and sightings are a way of life here in New Hampshire. Presentations and field walks that focus on wildlife are always a hit with the public. Now, thanks to a grant from the Wellborn Ecology Fund of the NH Charitable Foundation, community groups in the Upper Valley region of New Hampshire will start seeing an influx of presentations and field trips that focus on wildlife. *Speaking for Wildlife* is a pilot project that trains UNH Cooperative Extension volunteers who live in the Upper Valley to plan walks, deliver talks, and communicate important messages about wildlife and habitat in their communities.



Red-back salamanders are very common in New Hampshire forests, but often go unnoticed. "Speaking for Wildlife" aims to raise awareness about common and uncommon wildlife through a volunteer speaker's program

"Even if our volunteers wanted to give a talk on a wildlife topic that interested them, there was always the problem of equipment," reports wildlife biologist Emma Carcagno of UNH Cooperative Extension. But the new project, which includes projectors and laptops based in Grafton and Sullivan County Extension offices, eliminates this barrier. The project also uses the internet to make updated presentations and materials available to volunteers anywhere, anytime.

UNH Cooperative Extension volunteers got together during the summer of 2009 to brainstorm ideas for the presentations. The result is two talks, one focused on backyard wildlife and commonly seen species, the other focused the history of wildlife in New Hampshire. The latter presentation uses the story of New Hampshire's changing landscape to illustrate the importance of specific habitat types to many of our rarest wildlife.

"One thing the volunteers made clear," reports Sullivan County Extension Forester Chuck Hersey, "They wanted help planning field walks outside, not just talking to groups indoors." As a result, *Speaking for Wildlife* also provides guidance for volunteers to lead wildlife walks on their own properties, town lands, or other specials places in their communities such as conservation lands.

Speaking for Wildlife taps the expertise and enthusiasm of New Hampshire Coverts Project volunteers, a program focused on increasing the amount of public and private land managed for wildlife. So far, about twenty Coverts volunteers are being trained to deliver *Speaking for Wildlife* presentations. In the future, UNH Cooperative Extension, which coordinates the program, would like to see it expand into other regions of the state.

Libraries, conservation groups, school groups, and other community organizations in the Upper Valley of New Hampshire can request a *Speaking for Wildlife* presentation or field walk by contacting UNH Cooperative Extension Forest Resource Educators Chuck Hersey (Sullivan County) at 603-863-9200 or Dave Falkenham (Grafton County) at 603-787-6944. You can also read more about the program on the web at Speaking for Wildlife.

The New Hampshire Dragonfly Survey Passes Midpoint!

Pamela Hunt, Ph.D., NH Audubon

Ringed Boghaunter.

When people think of wildlife surveys, they generally conjure up images of early morning bird counts, small mammal trapping, or even monitoring salamander road crossings. Rarely if ever do invertebrates come to mind, and yet these less charismatic species make up the bulk of NH's wildlife diversity. If we are to effectively conserve all of the state's biodiversity, we need to have better information on where all these overlooked species live. Some groups of invertebrates are easier to work with than others, and one that is rapidly gaining in popularity is the insect order Odonata: the dragonflies and damselflies. Thus was born the New Hampshire Dragonfly Survey (NHDS), started in 2007 as a partnership of NHF&G, NH Audubon, and UNH Cooperative Extension. Its main goal is to improve our understanding of the distributions of dragonflies and damselflies in the state, particularly those of potential conservation concern.

The NHDS is a citizen science project, meaning that the bulk of the data are collected by volunteers. After attending a training session in spring or early summer, newly hatched "dragonhunters" are set loose to search their local ponds, marshes, or rivers for these fascinating insects. Over the past three seasons, approximately 150 people have attended training sessions, and several have gone on to submit data. By the close of the 2009 dragonfly season, surveys of some sort had been conducted in over 150 towns, yielding records of all but 18 of the 162 species known from the state. Most of the "missing" species are from the White Mountains and north, where the NHDS has not really penetrated the market, so to speak.

So what have all these volunteers managed to find in the first three years? Topping the list from a rarity standpoint were two new sites for the state-endangered Ringed Boghaunter. This species has only been confirmed breeding at 4-5 locations in the state, although it has been observed – as of 2009 – in nine towns. All are in the southeastern part of the state, where development pressure poses a risk to the sensitive peatlands that boghaunters require. Another group of species of conservation concern includes dragonflies typical of large rivers. Thanks to the efforts of some kayak-equipped volunteers, we now have very good data for the Merrimack and Contoocook Rivers, and have learned that most of the river species are widespread and common. As a result, when the NH list of "Species of Special Concern" was revised in early 2009, only a couple of river dragons needed to be included.

Aiden Deegan with Canada Darner

But there's more to this then finding the rare stuff. A volunteer in the tiny town of Middleton found 66 species there this summer, putting Middleton in the top 10% of towns statewide! Combined with equally obsessed volunteers elsewhere, the southern part of the state is becoming quite well surveyed, and the NHDS has set its sights on the northern portions for the final two years. Grafton and Coos Counties in particular have some catching up to do, so new volunteers from such areas have the potential to put their towns on the map – don't let Middleton get all the glory! And who knows, maybe you'll even find something rare.
For more information on the NH Dragonfly survey, visit http://www.wildlife.state.nh.us/Wildlife/Nongame/dragonflies.html

Betsy Hardwick: Caring for Francestown's Conservation Lands

Frank Mitchell, UNH Cooperative Extension

Photo Credit: Ben Haubrich

Left to right: Betsy Hardwick, Gordon Russell (Russell Foundation) and Jack Curren (former landowner of the property) celebrate the completion of the Shattuck Pond project in Francestown.

Betsy Hardwick is Chair of the Francestown Conservation Commission and a member of the Select Board. For the past eleven years, in addition to managing her family's 30 acre property, she has worked to increase conservation land in her town and involve town residents in those lands through education, events and frequent communication. Much of this work has included enhancing and protecting valuable wildlife habitats. Betsy has lived in Francestown all her life, as have generations of family before her. It's not surprising, then, to hear her say, "I have a very strong connection to the place. I love nature. I'd as soon be in the woods as anywhere."

GETTING INVOLVED

Betsy initially got involved in conservation work somewhat by chance, but took the opportunity to do something about a need she'd identified. "In 1998, I mentioned to a Select Board member that I was interested in volunteering for a town's organization. Shortly after, the Select Board asked me to join the Conservation Commission, which I did. Before this, I had noticed that the town had about 800 acres of conservation land but people in town weren't very aware of the properties. I wanted to change this and worked with others on the Conservation Commission to increase the activity on and awareness of the conservation lands. We did a number of things since then – wrote grants, put up duck boxes in the town forests and planted mast-producing shrubs in old log landings with seedlings from the State Forest Nursery. The Conservation Commission also planted a number of crabapple trees for wildlife and created two fields totaling about 4 acres to benefit species that require such habitat. "We created trails, a parking area, a kiosk and a boardwalk through a black gum swamp and conducted several timber sales. Income from timber harvests goes into the Conservation Fund and has been used for management activities including wildlife habitat improvement projects as well as to conserve additional land."

HOW THEY DO IT

The Francestown Conservation Commission works closely with the private Francestown Land Trust on land conservation, outreach and education. The roles of the groups vary depending on the project. Sometimes the Conservation Commission pays the project costs, with the Land Trust holding conservation easements and raising additional funding to defray town expenses, Other

times the Town accepts an executory interest on an easement allowing them to contribute funds towards a Land Trust project.

They have two joint projects in progress currently. In one, the Town will acquire property abutting existing conservation lands. In a second project, the Conservation Commission will acquire land with about a mile of frontage on Rand Brook and the Piscataquog River. This project will protect important river and adjacent habitats that support a number of species of concern listed in the *NH Wildlife Action Plan*, including 29 invertebrate, fish, reptile and bird species, many of which likely occupy this section of river. The Land Trust will hold a conservation easement on both.

HELP WAS ON THE WAY

Betsy and the Francestown Conservation Commission didn't do all this without help. They hired a consulting forester, for example, to oversee forest management planning and actions. They also got assistance from UNH Cooperative Extension through its Wildlife Specialist, Matt Tarr, and from NH Fish & Game biologist Ted Walski. They sought and received financial assistance – grants for wildlife habitat improvements from the federal Wildlife Habitats Incentive Program and from the NH Fish & Game Department. They also were awarded a grant from the NH Trails Bureau for trail creation on town land.

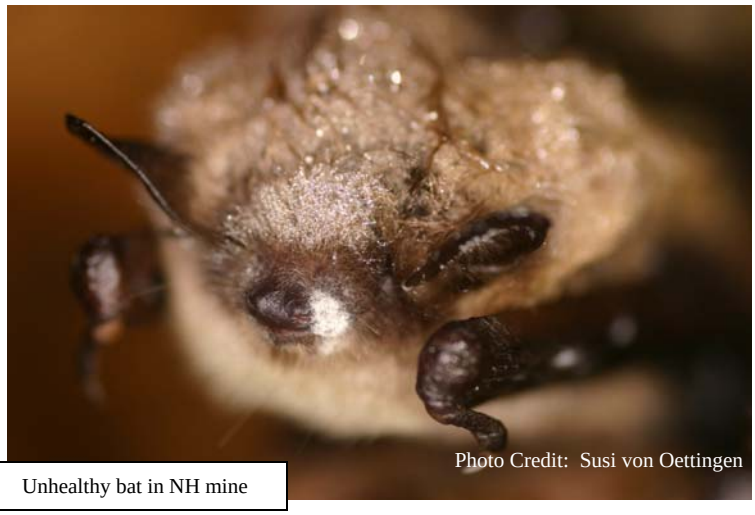
SEEING THE RESULTS OF THEIR LABOR:

Following the habitat work in the town forest, Betsy says, she and others have noticed an increase in the number of species and individual animals using the land. Before, she says, people would report general sparse wildlife presence. Now, wildlife are noticeably abundant, including turkey, bear and even bobcat. Visitors to the town forest now often mention the abundance of wildlife there. Reflecting on the results of her years working on town lands, Betsy says one of the most rewarding parts is "knowing these places I love to go and see wildlife will continue to be there. I can see the results."

A LEARNING EXPERIENCE

Betsy and the Francestown Conservation Commission have learned a lot about how to get things done. She feels that a key element in the success of the Conservation Commission has been strong communication with landowners, town residents and community leaders. "We wrote monthly articles for the town newsletter and communicated in as many ways as we could, including spreading the word at town meeting. I led after school hikes on town and other lands for kids and parents. We sponsored workshops and a speakers program and worked with the library and Francestown Land Trust on these. Now, people use the town lands and support conservation. Without that communication, we couldn't have accomplished what we did." Betsy feels that fostering a strong connection to the land is equally important in building community support for conservation and that the guided hikes and the other outreach activities mentioned above have helped strengthen the connection to the land for many Francestown residents, deepening their commitment to it.

White-nose Syndrome Continues to Harm Bats in NH



Unhealthy bat in NH mine

Healthy long-eared bats in one mine. Others were affected by WNS

Emily Brunkhurst, NH Fish & Game

White-nose syndrome (WNS), a new disease fatal to bats, continues to kill bats at an increasing rate. Early surveys in Virginia and Pennsylvania this fall have found bats already showing the fungus, and vastly fewer bats. These two states were first affected with WNS just last winter, so what does this mean for NH bats?

This summer a heavily studied little brown bat colony in a Peterborough barn was essentially missing. Researcher Dr. Scott Reynolds has been collecting data on population, reproduction and phenology for 16 years at a little brown bat colony in a Peterborough barn. This summer the colony essentially disappeared: few bats returned from hibernation, only a few pups were born and later all disappeared. The future of this colony is uncertain. We also received calls about empty barns in several other NH towns, and empty skies over several ponds.

A large group of biologists from northeastern states, the Fish and Wildlife Service, USGS and universities is working feverishly to deal with this problem. They've recently been joined by southeastern and midwestern biologists, wanting to get prepared as the disease moves into their states. The federal agencies have supplied whatever funding they could, but it is not enough. Neither is the federal funding available through the state wildlife grants, Bat Conservation International or the National Speleological Society. On October 30, Congress included $1.9 million specifically for WNS, and that will support studies such as treating the fungus, learning about the immune response of bats to the disease, learning more about transmission and decontamination and how to control or stop the spread. The job is huge and the threat enormous. For one endangered species, the Virginia big-eared bat, the threat is so high that the Smithsonian's National Zoo is bringing a few bats into captivity to learn if they can survive and later hopefully breed, in special cages. As one state biologist said, "if the Smithsonian with all their expertise cannot get these bats to survive in captivity, they are doomed."

In NH, we are working with a team of researchers on a treatment trial. There are a couple of substances that in the lab kill the fungus but do not appear to harm the bats themselves. To see if this really works, we need to try it out in nature. Our hibernacula, all in mines, are ideal. There are no other species endemic to our mines, so we are not risking another rare species by treating the fungus. Our state-endangered eastern small-footed bat does not use the mines best suited for treatment. The mines are low ceilinged, so we can catch and treat the bats. The owners of these mines are very concerned about the bats and happy to allow us to do this research. Mines in other states will also be used.

You can help by NOT going into mines this winter, so as not to disturb any bats that might be hibernating there. It may be that small mines with only a handful of bats provide refuge from the disease. It is these bats which will be critical in bringing back the species. Bats only have 1-2 pups a year, so their recovery will be very slow. You can also help by protecting any summer colonies you have on your property, donating to the cause, and telling your friends and neighbors about this terrible disease. They might not like bats, but they'll like the increased insect populations even less!

For more information about white-nose syndrome, visit our website at http://wildlife.state.nh.us/Wildlife/Nongame/bats.html. There you will find a link to the US Fish and Wildlife Service websites. Download the White-nose Syndrome is Killing Our Bats information sheet for more links.

Appalachian Oak-Pine Forests – Critical Wildlife Habitats

Malin Ely Clyde, UNH Cooperative Extension

At a recent town council meeting in Durham, town officials debated the merits of a land protection project under consideration. "It's typical forestland," someone remarked. But was it? If you took a walk on the 100-acre acre parcel, near downtown, you'd find it flat and dry, with a sparse understory and patches of both young and old trees. You would see mostly red oak and pine trees, but shagbark hickories would probably stand out, with their large strips of flaking bark and their graceful compound leaves. You might also notice small sprigs of sassafras on the forest floor, with their unique mitten-shaped leaves and delicious smell. These are clues suggesting that this forest, though "typical" for Durham, is pretty special in the state of New Hampshire.

Appalachian oak-pine forests, of which the Durham parcel is a good example, are identified as critical habitats in the NH Wildlife Action Plan. They are uncommon in most of the state, occurring only in the southeast corner of the state and in a narrow band along the Connecticut River Valley. Often they grow on dry, rocky ridges or in the warmer, drier conditions found at low elevations.

Shagbark Hickory

What sets the aforementioned Durham parcel apart from typical pine or oak forests found throughout New Hampshire? The clue is the presence of tree species typical of southern (Appalachian) states. Look for black, scarlet, chestnut and white oaks, and shagbark and pignut hickories. Black birch, aspen, pitch pine, sassafras, and yellow birch may also be present, along with blueberries, and Pennsylvania sedge in the understory.

Appalachian oak-pine forests, with their abundance of nut-bearing oaks and hickories, provide a rich food source for wildlife such as ruffed grouse, turkey, black bear, squirrels, mice and chipmunks. In turn, raptors such as northern goshawk feed on small mammals and find nesting and perching sites in white pines in the tree canopy. Near water, white pines provide key nest and perch sites for bald eagles, great blue herons, and osprey. This is the preferred habitat for the whip-poor-will, a nocturnal bird that makes an unmistakable "*whip-poor-will*" call, and is identified as a species of conservation concern in the Wildlife Action Plan. Found in dry, open oak forests with sparse understory vegetation, these highly-camouflaged birds lay their eggs in leaf litter on the forest floor.

Intense development pressure in southeastern New Hampshire means there are few large areas of Appalachian oak-pine forest left in the state. Some of best examples of this habitat are found in Pawtuckaway State Park and on Beaver Brook Association lands in Hollis. In these forests, look for dying trees with large cavities, patches of young trees, and plenty of dead wood on the forest floor. These habitat features diversify the forest and provide feeding and nesting sites for many species.

If you own a stand of Appalachian oak-pine forest, or have remnants of this forest type in your town, UNH Cooperative Extension has published a Habitat Stewardship Brochure to help landowners care for this critical habitat type. Landowners and towns can also contact the County Extension Educator in Forest Resources to help identify whether your land contains Appalachian oak-pine habitat.