

NATURAL HERITAGE HARMONIES



WINTER 2010

A publication of the Natural Heritage Information Project

Vermont Fish & Wildlife Department
Agency of Natural Resources

Conserving Vermont's fish, wildlife, and plants and their habitats for the people of Vermont.

Helping Grassland Birds through the Grassland Reserve Program

by Lilla Lumbr

Grasslands have been part of the natural landscapes of the Northeast since pre-colonial times. The land-clearing and subsequent small-scale agricultural practices that occurred in Vermont during the 19th century created an abundance of grasslands of varying types and sizes. Even when agricultural land was abandoned and reforestation was in progress, Vermont's landscape was a patchwork of large and small grassland and early successional habitats. These habitats undoubtedly supported an array of grassland bird species.



During the past quarter century, grassland bird populations have declined. The decline has been linked to the loss of grassland habitat.

In the eastern grasslands, fire suppression and encroachment of woody vegetation has influenced grassland bird distribution patterns and nesting success. The loss of pastures and hay fields to rowcrops is also a major threat. And, early- and mid-season cutting of agricultural grasslands seriously impacts nesting success of birds using these habitats.

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What is Good Habitat? The Community Level

by Eric Sorenson



The Missisquoi Delta is an example of a forested wetland natural community. Vermont has about 90 natural communities.

ERIC SORENSON

If someone asks you about “good habitat,” what comes to your mind first? Is it the dense hemlock forest where you expect to find deer in the winter? Is it the rich woods in the valley bottom that has the most outrageous display of spring wild flowers? Is it the log-strewn cold stream where you know the biggest brook trout are lurking? Or is it the large blocks of unfragmented forest where many wildlife species move freely? Of course, all of these are good habitats! And the important point about habitat is that each species—plants, animals, fungi, and all the rest—has its specific habitat requirements.

One useful way to think about these habitat requirements, and what is needed to conserve them, is to view habitat from different scales or levels. In the last newsletter we explored habitat at the broadest or landscape scale. This time we will discuss habitat at the community level, the scale at which wetlands,

natural communities, and riparian areas occur. At this level, groups of species are typically closely associated with a particular physical environment.

So, what is good habitat at the community level? I'd like to explore natural communities, riparian habitat, wetlands, and vernal pools.

Natural Communities

A natural community is an interacting assemblage of plants and animals, their physical environment, and the natural processes that affect them. As these assemblages of plants and animals repeat across the landscape wherever similar environmental conditions exist, it is possible to describe these repeating assemblages as natural community types. The Vermont Fish & Wildlife Department recognizes about 90 natural community types. Examples of upland natural communities include Northern

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DIVISION UPDATE

Wildlife Division Embarks on New Organizational Structure

by Scott Darling

The Vermont Fish & Wildlife Department recently implemented a restructuring of its wildlife division to address several specific needs and interests that have been discussed for several years. The division is now organized into two sections – Species Conservation and Management section and Habitat Conservation and Management section. It is expected these changes will:

- Enhance coordination of various wildlife division activities.
- Integrate the management of nongame and game projects by taxonomic groups such as birds or mammals.
- Increase focus on taxonomic groups.

The restructuring integrated the Nongame and Natural Heritage Program into the Species Conservation and Management section. The Nongame and Natural Heritage Program (NNHP) will now be called the Natural Heritage Information Project (NHIP). Although these changes may raise some concerns from the program's traditional partners, the integrity of the NHIC and the important work being done are assured.

There have been no changes to the NNHP staff. The new NHIC will continue to include a zoologist, botanist, database manager, and two ecologists supervised by a

coordinator, Steve Parren. And while this staff remains responsible for the inventory, monitoring, and dissemination of information on rare species in the state, the NHIC staff will continue to be a part of the division's monitoring and management of wildlife in a variety of taxonomic groups.

The Species Conservation and Management section is now organized by taxonomic groups/projects – Mammals, Birds, Reptiles and Amphibians, Invertebrates, and Plants and Natural Communities. These taxonomic projects will enable staff to evaluate how the division allocates its resources, like funding and staffing, within and between the various projects.

The restructuring has provided unique opportunities to increase staff efforts on two taxonomic groups that were under-served in the past – birds and herps (reptiles and amphibians). Specifically, John Buck will now serve as the division's project leader for migratory birds and Doug Blodgett will enhance his duties on the state's rare snake species.

The restructuring is an act in progress, which will need to be evaluated and adjusted to address unanticipated issues. Ultimately, the test of its effectiveness will be whether the conservation and management of the state's fish and wildlife resources have improved as a result.

Good Habitat *continued from page 1*

Hardwood Forest, Lowland Spruce-Fir Forest, and Temperate Calcareous Cliff, while examples of wetland communities include Northern White Cedar Swamp, Cattail Marsh, and Black Spruce Woodland Bog.

Some natural community types are rare and some are common. Some natural community types, like Northern Hardwood Forest, occur over large areas, while others only occur as very small patches, like Black Gum Swamp. The highest quality examples of natural communities are those that are mature, have few invasive species, and that occur in a landscape with little fragmentation from roads and development. Maintaining high quality examples of natural communities is an important step in conserving the many plant and animal species associated with each community. In addition, understanding the natural communities on a property provides a powerful tool for making sound forest management decisions. Each natural community type has its own set of qualities and constraints and the natural community concept is based on the *potential* vegetation of the site instead of the *existing* vegetation.

Riparian Areas

Riparian areas are the lands adjacent to streams, rivers, and lakes. Although riparian areas are highly variable in terms of community composition, they consistently provide some of the most important ecological functions found in our landscape. They protect water quality, contribute food base, structure, and shoreline stability to the adjacent aquatic ecosystems, support many rare and uncommon natural communities and species, and provide critical habitat and movement corridors for many species of wildlife tied to this water-upland interface. Maintaining natural vegetation in riparian areas is the best way to protect these ecosystem functions. The width of riparian areas needed to protect ecosystem functions varies both with the particular location and with the function. For example, in an active floodplain of a larger river, protecting channel stability and the uncommon Floodplain Forest community would suggest maintaining natural vegetation cover on the entire floodplain. For a riparian area with stable, bedrock shorelines, a relatively narrow vegetated area is needed to protect surface water quality, but 300 feet or more is needed to maintain wildlife corridor

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Good Habitat *continued from page 2*

functions. Riparian areas are especially susceptible to invasion by non-native species and control of these is important to protecting many of the biological functions.

Wetlands

Wetlands are well-known as critical habitat for many species. Wetlands come in many forms, but all provide important ecological functions and have characteristics of abundant water, specially adapted vegetation, and saturated soils that distinguish them from adjacent uplands. Swamps are dominated by trees and shrubs, marshes are dominated by herbaceous plants, and peatlands (bogs and fens) have permanently saturated, deep organic soils. On a primarily upland property, the presence of even a small wetland of an acre or two adds significantly to the biological diversity of the property. It would not be uncommon to find 75 to 100 plant species in some small wetlands—mostly species that don't occur in the surrounding uplands. Many species of wildlife rely on wetlands for all or part of their life cycles, including waterfowl, wading birds, furbearers, black bear, and amphibians. Although most wetlands are protected from development by state regulations, it is also important to consider the ecologically sensitive characteristics of wetlands and their buffers when conducting forest management activities.

Vernal Pools

Vernal pools are critical habitat for many breeding amphibians. These small, ephemeral pools that occur in natural basins within upland forests are most obvious in the early spring when they contain standing water and the loud chorus of calling spring peepers and wood frogs. They typically become dry in mid- to late-summer, but can still be recognized then by the stained leaves marked by seasonal high water, sparse vegetation, and wetland soil characteristics. Vernal pools typically lack trees, but are shaded by trees growing in the surrounding upland forest. Spring peepers, wood frogs, spotted salamanders and other amphibians migrate to vernal

pools in early spring on rainy nights when temperatures remain above freezing. Breeding activity usually lasts a couple of weeks before amphibians return to the upland forests where they spend the remainder of the year. In order to protect vernal pools and their amphibian inhabitants, a 100 foot protective buffer should be maintained in which the forest is left in a natural condition and any forest management up to at least 600 feet from the pool edge should maintain canopy cover, minimize creation of ruts from heavy machinery, and avoid direct mortality of migrating amphibians by not operating during spring migrations. Managing for amphibian habitat beyond the 600 foot zone is also encouraged.



Vernal pools are small ephemeral pools occurring in natural basins within upland forests.

These are just some of the important community level habitats we find in Vermont. Considering and conserving these habitats as part of forest management and land use planning will help to maintain the diverse values of our forests. 🐸

Editor's note: This article is the second in our series exploring what is good quality habitat from different scales or perspectives.

Grassland Reserve Program *continued from page 1*

Today, many grassland birds depend on land managers for creating and maintaining grassland habitat. The Grassland Reserve Program (GRP), offered by the USDA Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA), is designed to conserve grasslands and their associated wildlife benefits by helping landowners restore, protect, and enhance grassland, pastureland, hay land and shrublands. The program provides financial incentives to support working grazing operations, enhance plant and animal biodiversity, and protect grasslands and land containing shrubs and forbs threatened by conversion to cropping, urban development and other activities.

Eligible land includes privately owned grasslands and land containing forbs (including improved pastureland or shrubland) for which grazing is the predominate use. Land located in an area that historically has been dominated by grassland, forbs, or shrubland and that has the potential to serve as wildlife habitat is also eligible. Large hay fields that meet the habitat requirements of grassland birds may also be eligible.

Participants in the GRP voluntarily limit future development and cropping uses of the land, but keep the right to conduct common grazing practices and operations related to producing forage and seeds. A grazing management plan is required. This plan will include any restrictions to haying, mowing or harvesting for seed production during the grassland bird nesting season for species in the local area that are in significant decline.

GRP enrollment options include a rental contract or permanent conservation easement. Certain grassland easements or rental contracts may be eligible for cost-share assistance to re-establish grasslands if the land has been degraded or converted to other uses.

More information about the GRP, other NRCS programs to assist in implementing conservation practices (Environmental Quality Incentive Program) and applications are available at your local county USDA Service Center. Visit USDA NRCS website: www.vt.nrcs.usda.gov to find a local office. 🐸

Wildlife, Plants and Natural Communities News

by Lilla Lumbr

Each year the department is involved in over 70 projects involving nongame species, plants and natural communities. Our work is made possible with help from the State Wildlife Grants program, contributions to the Nongame Wildlife Fund, and hunting and fishing license dollars. When you donate on your state income taxes, make a donation when purchasing hunting or fishing licenses, purchase a conservation license plate, or make a direct donation, you are helping our efforts to conserve and protect Vermont's natural heritage. Here is an update on a few of the projects your contributions help support.

Birds, Butterflies and Bats

It was a banner year for bald eagles, common loons, peregrine falcons and osprey in Vermont. **Bald eagle** nesting activity was observed at six sites in 2009, with four pairs displaying territorial behavior. Three of the nests had eggs, and two pairs successfully fledged at least two chicks. Five of the nesting sites are located in towns along the Connecticut River. The other nesting site is located in the Champlain Valley. The eagles eventually abandoned this site, but we believe they built a nest nearby in New York.

Common loons set another record for nesting pairs with 66, four more than the previous record set in 2007. Fifty-one of the nests were successful, resulting in 83 chicks hatched. Seventy-four, or 89

percent of the chicks survived through August. This also set a new high for chick survival.

Thirty-eight **peregrine falcon** territories were located in Vermont in 2009. Thirty-seven pairs reoccupied the 38 sites used in 2008. A pair did not return to Elephant Mountain in Bristol, and a pair reoccupied Vulture Mountain in Stockbridge, which was last occupied in 2007. Thirty-five of the 38 territorial pairs attempted to nest and 28 nesting pairs (80%) were successful, fledging at least 64 young. The 80 percent success rate was the highest since 2005 and higher than the overall average of 75 percent. The 64 fledglings also set a new record.

The Vermont **osprey** population has made a dramatic recovery since it was first listed as state-endangered in 1972. Ten new nest attempts were observed in 2009, bringing the total to 129. The lower reaches of the Missisquoi and Lamoille Rivers, and the Otter Creek area are the three major breeding population centers in Vermont, accounting for 80 percent of all known osprey nest attempts in the state. Ninety-five nests were successful, similar to the 94 successful nests reported in 2008. The number of chicks fledged is estimated at 200, which is comparable to 2008.

We lost a great champion for Vermont's osprey with the passing of Meeri Zetterstrom in January 2010. Her love of

the osprey on Arrowhead Mountain Lake and her persistence were instrumental in preventing this once endangered raptor from disappearing from Vermont's landscape.

Efforts to re-establish **spruce grouse** in the Victory Basin Wildlife Management Area and the adjacent Victory State Forest of the Northeast Kingdom continued in 2009 with the release of seventeen more grouse translocated from Quebec (10 adult males in June and 7 adult females in October, 2009).

In 2008, 39 grouse were released, 20 of which were fitted with radio-collars. A breeding season survey conducted in a portion of the release area in May 2009 located four grouse, including two displaying males, one other male, and one territorial female. All birds were carrying radio collars except for the non-displaying male.

Brood surveys also were conducted in July and August 2009. Six chick survey routes were walked through the same general release area. No spruce grouse were detected during these surveys.

Poor brood survival in Quebec during 2009 meant our minimum release goal of 60 birds was not met. We hope to procure more birds from Quebec in the summer of 2010.

The six years of field data gathered by the **Vermont Butterfly Survey (Atlas)** is now being analyzed in order to map species distributions, determine flight seasons, write species accounts, and

identify rare species and areas of high butterfly diversity. Database error checking and voucher (photographs or specimens) verification are approximately 80 percent done. Specimens of a few challenging species, such as azures and crescents, have been sent to national experts for final identification. The database now contains 35,395 records with

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For the Love of Ospreys

Ospreys stopped nesting in Vermont due to eggs too thin shelled to hatch. With DDT banned and lots of effort, we recovered ospreys in Vermont. Agencies, power companies, and people who cared toiled together to make this happen. It didn't happen overnight and it sometimes took some prodding.

No one loved ospreys more than Meeri Zetterstrom and no one prodded more effectively. With persistence, Meeri had the Vermont Fish & Wildlife Department and Central Vermont Public Service (CVPS) working together at Arrowhead Mountain Lake to restore osprey. Earlier this year we lost a dear friend when Meeri died. Her legacy of love and determination lives on in part due to a book, *Grandma Osprey*, written by her friend at CVPS, Steve Costello.

Thank you Meeri. You are missed. Steve Parren



Wildlife and Plants News

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12,430 as vouchers (photographs or specimens).

A complete state list of species can be found at www.vtecostudies.org/VBS/VTstatelist.pdf. The project goal of 30 or more species found per priority block was reached for over 90 percent of the 184 priority survey blocks. The results of this project will provide a baseline of information which can be used in the future to identify population trends and conservation needs.

The department continues to collaborate with the U.S. Fish and Wildlife Service and several other state fish and wildlife agencies to monitor the spread of White-nose Syndrome and to determine the cause of the affliction on hibernating bats.

The syndrome, named after the fungus that can appear on a bat's muzzle, has now spread from New York and Vermont south to Tennessee, affecting bats in ten states.

Unfortunately in Vermont, WNS has continued to spread north, and the department expects to receive more reports of abnormal bat activity from the northern half of the state. Last winter reports were concentrated in southern Vermont, but bat populations there have been devastated over the past two winters.

A cold loving fungus *Geomyces destructans* has been cultured from the affected bats. The fungus is believed to be the most likely cause of the abnormal mortality associated with WNS. However, it has not yet been determined whether the fungus is the cause of the mass mortalities in bats, or if it is a symptom resulting from other factors.

The department is asking for citizen reports of sightings of dead or dying bats, as well as unusual observations of bats flying in the daytime. People are asked to report their observations online by visiting the department's website (www.vtfishandwildlife.com) and clicking on the Sick-acting Bat Citizen Report Form. You also can call 802-786-0055.

Herp Happenings

The 2009 nesting season appeared cooler than usual and because **turtle** eggs are dependent on ground temperature for incubation, Steve Parren, Fish & Wildlife biologist, was a little concerned. If Steve has learned anything over the past several years, it is there is no such thing as a normal nesting year (last year we had issues with high water flooding nests).

Using a reference beach Steve knows well, he only found 67 percent as many softshell nests (16) compared to the 2007 and 2008 average, and evidence of emerged hatchlings was 72 percent (157) of the same two-year average. The biggest difference was he only salvaged 56 percent as many young (51) compared to the 2007 and 2008 average.

Overall it was an okay year, and predators did not have a big impact. Once again the staff at ECHO Lake Aquarium and Science Center is caring for hatchling turtles over the winter. This head starting effort should allow for higher survival, and hatchlings will be released in June.

A young **eastern hog-nosed snake** (*Heterodon platirhinos*) was found in Vernon in September 2009. The snake, measuring about 8 inches long, was the first of its kind to be documented in Vermont. A quick search of the surrounding area revealed no additional hog-nosed snakes, but portions of the habitat seemed right and the location made sense for a southern species. Other southern species, like the Fowler's toad, have been documented in Vernon and nowhere else in Vermont.

Further investigation revealed a hog-nosed snake population about 15 miles south of Vernon along the Connecticut River in Massachusetts. How this young snake ended up in a driveway in Vernon is still in question. It may have been inadvertently transported by humans, or it may be small populations of this species have existed or do exist in scattered locations in the state but have not been located or documented. At this time, the Eastern hog-nosed snake will

Meet the Eastern Hog-nose Snake



The Eastern Hog-nosed Snake is a harmless species that prefers dry sandy soils and open or brushy edge habitat with lots of sun. They reach about 3 1/2 feet in length as adults but are noticeably wide-bodied. They may flare like a cobra when caught or cornered, and then roll over and play dead. Turn them right side up again and they will roll back over onto their backs.

Their coloration varies greatly and dark snakes are sometimes found, but they usually have a pattern of alternating rows of square blotches (no stripes) with black rings on the tail. The underside of the tail is solid pink and contrasts with a much darker belly. The flat up-turned nose is the best field mark. Hog-nosed snakes lay eggs and specialize in eating toads, but will eat other amphibians. The closest known populations exist in the Merrimack River Valley of New Hampshire, the Montague area of Massachusetts and the Glens Falls area of New York.

If you live in the low borderlands of southern Vermont, please keep a look out for this short, stocky snake that plays dead and has a flat upturned nose. If you see or have seen this snake in Vermont, please contact the Vermont Reptile and Amphibian Atlas (www.VTHerpAtlas.org or call 802-352-4734).

remain a hypothetical species in Vermont until others are found.

Chorus frog surveys continued in the spring of 2009 in Grand Isle and Franklin counties. As has been the case for many years, no chorus frogs were detected. The last known observation in Vermont was in 1999. Of note, a recent North American genetic study indicates that the Vermont species is likely *Pseudacris maculata*, the boreal chorus frog. Up until now, most populations in the Northeast were considered to be the western chorus frog, *P. triseriata*.

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Wildlife and Plants News

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This could have regional conservation implications in the future, as Northeast populations of the boreal chorus frog are geographically separated from western populations.

Beetles and Dragonflies

Recent surveys at several known **cobblestone tiger beetle** sites have given us a better impression of their status around the state. This rocky beach-dwelling predator, about the length of your thumbnail, is known to inhabit the shores of the Connecticut, White, West, and Winooski Rivers. The bad news that one small population on the Winooski has apparently been lost due to habitat degradation is tempered by the discovery of two new, more extensive sites on that river. However, this beetle has not been seen in several years at one large site on the Connecticut, where it once patrolled the beaches for ants and other prey. At most other recently visited sites, the cobblestone tiger beetle seems to be doing well.

Recovery plans have been drafted for the cobblestone and the hairy-necked tiger beetles. These documents, now in review, will help guide conservation actions aimed toward ensuring the future of these species in Vermont.

Statewide surveys have been completed to identify **dragonflies** and **damselies** that live in peatland habitats (wetlands such as bogs) and large rivers. Information from this project has greatly increased our knowledge of both common and rare members of the odonate family. Twenty-seven species of greatest conservation need (SGCN) were targeted in these habitats, of which 20 were observed. Three additional SGCN were encountered during the course of field work. One new species for the state, *Enallagma durum*, or big bluet, was also observed. Efforts included at least 54 sites on 23 rivers and 28 peatland sites. Overall, the project has resulted in the discovery of new sites for many of Vermont's Odonata SGCN. This project has allowed us, for the first time, to assign status ranks to all of Vermont's

dragonflies and damselies, which number over 140 species.

Natural Communities and Plants

The department's Wildlife Action Plan (2005) establishes priority conservation strategies to protect Vermont's rare and common species and habitat into the future. The **Habitat Block and Wildlife Corridor GIS Project** is a statewide computer modeling project that will help identify and prioritize for conservation large blocks of contiguous habitat and associated corridors between these blocks. This State Wildlife Grant funded "habitat block project" uses existing GIS data to identify unfragmented habitat blocks and ranks the significance of these blocks based on many factors, including size, presence of rare species or significant natural communities, abundance of

"This project has allowed us, for the first time, to assign status ranks to all of Vermont's dragonflies and damselies, which number over 140 species."

wetlands and ponds, and the degree of habitat connectivity to other blocks.

The project identifies likely areas for wildlife road crossings based on the adjacent land use and land cover, road traffic, and other factors. It also includes a tool that identifies the most likely corridor for wildlife movement between any two selected habitat blocks selected in the state.

The department will use this GIS product for conservation planning and make it available to the public. Many thanks to Jon Osborne of the Vermont Land Trust for his great GIS work on this project.

Inventorying of Vermont's **oak-pine forests** has begun with remote mapping and low elevation flights. These diverse forests of warm climates include Dry Oak-Hickory-Hophornbeam Forest, Dry Oak Woodland, Pitch Pine-Oak-Heath Rocky Summit, and many others. In Vermont they occur primarily in the Champlain Valley, Taconic Mountains, and Connecticut River valley. Collectively, these forests represent a small area of Vermont but contain a high

level of biological diversity and represent extremely important wildlife habitat. Inventorying these forests will focus on large forest blocks that are dominated by oak-pine forests. One or two more field seasons are planned for this State Wildlife Grant funded project.

The **vernal pool mapping** project will identify and map the locations of vernal pools in Vermont using aerial photo interpretation. Trained volunteers then field-verify the precise locations and attributes of a sub-set of these potential vernal pools. The first year of the project, completed in 2009, mapped over 800 pools in northern Vermont (Northwest, Lamoille, and Northeast Kingdom planning districts). Four well-attended volunteer training workshops were hosted throughout the region, educating nearly 150 community members about vernal pool ecology and project protocols. Over the next two years, mapping and verification will continue throughout central (Phase II) and southern (Phase III) Vermont. A statewide GIS layer of potential and verified vernal pools will be developed, as well as a database consisting of biological and physical attributes of all verified pools.

Botanist Bob Popp, with the help of the Scientific Advisory Group on Flora and the Department of Environmental Conservation Lakes and Ponds Sections, completed a revised **Rare and Uncommon Vascular Plant List for Vermont**. This is the first major update since 2000. The ranks of over 250 plant species, subspecies and varieties were reviewed or assigned for the first time, and many were renamed or reclassified to reflect our current knowledge. Some of the changes include 70 species were added to the Rare and Uncommon Plant List, 64 species, subspecies or hybrids were ranked as being more common than before, 46 were ranked as being less common than before, and two species were determined to no longer occur in the wild in Vermont

To see the complete list, type: **rare and uncommon vascular plants** in the search box of the department's website (www.vtfishandwildlife.com). 🐾

Our Partners in 2009

The Vermont Fish & Wildlife Department's Natural Heritage Information Project works cooperatively with many individuals, groups, companies, organizations, and agencies.

Agencies:

Green Mountain National Forest	U.S.D.A. Wildlife Services
Missisquoi National Wildlife Refuge	U.S.D.A. Natural Resource Conservation Service
New York Department of Environmental Conservation	U.S.G.S., VT Cooperative Fish and Wildlife Research Unit
Québec Ministère des Ressources naturelles, et de la Faune	Vermont Agency of Transportation
Silvio O. Conte National Fish and Wildlife Refuge	Vermont Department of Environmental Conservation
U.S. Environmental Protection Agency	Vermont Department of Forests, Parks and Recreation
U.S. Fish & Wildlife Service (Lake Champlain Office and N.H. Endangered Species Office)	

Organizations:

Audubon Vermont	SmartGrowth Vermont
Camp Dudley at Kinyia	Stowe Electric
Central Vermont Public Service	The Nature Conservancy of VT
ECHO – Leahy Center of Lake Champlain	TNC-Eastern Region Conservation Science
Friends of Northern Lake Champlain	Town Forest Project
Green Mountain Audubon Society	TransCanada - NE Hydro Region
Green Mountain Power	University of Vermont
Hinesburg Land Trust	Vermont Caver's Association
Invasive Exotic Plant Committee	Vermont Center for Ecostudies
Keeping Track, Inc.	Vermont Coverts
Lake Champlain Basin Program	Vermont Electric Coop
Lake Champlain Committee	Vermont Electric Power Company
Lake Champlain Land Trust	Vermont Endangered Species Committee (ESC)
Lewis Creek Watershed Association	Vermont Entomological Society
Linking Lands Alliance	Vermont ESC Scientific Advisory Groups
National Wildlife Federation	Vermont Family Forest
NatureServe	Vermont Institute of Natural Science
New England Plant Conservation Program Volunteers	Vermont Land Trust
New England Wild Flower Society	Vermont Natural Resources Council
New Hampshire Audubon	Vermont Youth Conservation Corps
N. A. Pollinator Protection Campaign	Winooski Valley Park District
North Branch Nature Center	
Outreach for Earth Stewardship	
Pleasant View Cemetery Association	
Public Service of New Hampshire	

Contractors, Collaborators & Volunteers:

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Volunteers and Partners Matter

by Steve Parren

Conservation is tough work. Desired results can be a long time coming, challenges are many, and resources are often scant. What to do? Reach out to others who also care about the natural world. I have been privileged to work on projects that demonstrate the power of volunteers and partner organizations working together for a common goal. With the help of landowners, lake associations, watershed groups, state and federal agencies, nongovernmental organizations, power companies, and many volunteers, we have done great things.

Osprey, loon, and peregrine falcon have all been taken off Vermont's Endangered Species List due to these collaborations. Volunteers of all ages clean lake beaches in preparation of the next season of turtle nesting. Hatchling turtles are cared for over the winter at a science center. Citizens brave cold, rainy nights to safely ferry salamanders and frogs across roads to breeding pools. Trained volunteers monitor occurrences of rare plants. Many helped jump start bald eagle recovery by caring for captive eaglets slated for release in the Champlain Valley. Hundreds gathered important information for bird and butterfly atlas projects. Reptile and amphibian reports from individuals statewide expand our understanding. A few committed volunteers tend turtle traps or monitor snake dens. Many devote time and expertise to the Vermont Endangered Species Committee and its Scientific Advisory Groups. One individual took the lead on a technical evaluation of bird conservation ranks in Vermont. Volunteers and partners were essential to completion of Vermont's Wildlife Action Plan. They continue to contribute through implementation of portions of the plan.

This was not an exhaustive list of the many contributions volunteers and partner organizations make to conservation. I expect the scope of these contributions to expand and grow. All of you do important work and the natural world needs all of our efforts. Thanks for stepping up.

In gratitude, Steve Parren 🐦

A Note to Our Readers:

As you may have noticed, the 2009 summer issue of Natural Heritage Harmonies was not published. Budget cuts forced the hard decision not to print the issue.

We think it's important to keep our subscribers and supporters informed about what is happening with Vermont's wildlife, plants and natural communities, and the work we do. So, we will be publishing the summer issues of Natural Heritage Harmonies as E-Newsletters.

If you would like to receive the electronic issue of Natural Heritage Harmonies please sign up at:

www.vtfishandwildlife.com/Harmonies_signup.cfm

Thank you.





Natural Heritage Information Project

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Donating to the Nongame Wildlife Fund is a Smart Investment.

Your tax-deductible contribution pays big dividends by helping us:

- Conserve wildlife before they become more rare and more costly to protect.
- Protect clean water and air—making both wildlife and people healthier.
- Conserve wildlife and the places they live for our children and grandchildren.

It's Easy to Donate:

1. **Line 29A on the Vermont tax return**
2. **Section 4 on hunting/fishing license application**
3. **Conservation License Plate**
4. **Direct donations – use the form below or go to our website: www.vtfishandwildlife.com/support_nongame.cfm**

I'm sending \$ _____ to help Vermont's wildlife. *This is a tax-deductible contribution.*

Your Name: _____

Address: _____

City: _____

State/Zip: _____

Send this form, along with your donation, payable to the **Nongame Wildlife Fund**, to:
Nongame Wildlife Fund,
Vermont Fish & Wildlife Department,
103 South Main Street, 10 South, Waterbury, VT 05671-0501

