

Conservation Notes



New Hampshire Audubon
84 Silk Farm Rd.
Concord, NH 03301
603-224-9909
www.nhaudubon.org

Conservation Department Staff

Carol Foss, *Director of Conservation*,
ext. 331, cfoss@nhaudubon.org

Diane De Luca, *Sr. Biologist*,
ddeluca@nhaudubon.org

Laura Deming, *Wetlands and Riparian Biologist*,
ext. 335, ldeming@nhaudubon.org

Pamela Hunt, *Avian Conservation Biologist*,
ext. 328, phunt@nhaudubon.org

Vanessa Jones, *GIS Specialist/Dept. Management Assistant*, ext. 327, vjones@nhaudubon.org

Chris Martin, *Raptor Biologist*,
ext. 317, cmartin@nhaudubon.org

Becky Suomala, *Sr. Biologist*,
ext. 309, bsuomala@nhaudubon.org

Staff may be reached at 603-224-9909; each person's extension number is listed after title.



One-year old female Peregrine Falcons, including this one in Nashua, occupied 20% of New Hampshire's 20 breeding territories in 2011. See page 5 for more.

Photo by Deanne Fortnam.

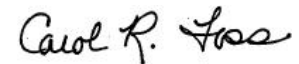
From the Conservation Department Director

I am delighted to share this report on the activities of New Hampshire Audubon's Conservation Department during the past year (April 1, 2011 through March 31, 2012). We had a busy and productive year both in the field and in the office, continuing long-term monitoring efforts, participating in regional conservation partnerships, initiating new field projects, and addressing land use policy issues.

Highlights of the year included pilot field work for our new Phenology Project, the first full field season for Swallow CORE, the conclusion of the five-year New Hampshire Dragonfly Survey, a three-month radio telemetry study of Rusty Blackbirds, and record numbers of territorial Bald Eagle pairs and fledged young. The following pages provide details on these and the many other Department projects.

With your support and the help of our dedicated volunteers, the Conservation Department is hard at work furthering New Hampshire Audubon's mission to protect and enhance New Hampshire's environment for wildlife and for people.

Thank you for being part of New Hampshire's conservation community.



Thank You



A very special thank you to everyone who donated to the Conservation Department, to specific projects, and to NH Audubon's Annual Appeal, which also provides support to Department programs. Your gifts help to make our programs possible.

Conservation Department programs are also supported by funds from NH Audubon's Dr. Margery J. Milne and Dr. Lorus J. Milne Biological Science Research Fund and contracts with partner agencies, organizations, and corporations.

New Hampshire Audubon gratefully acknowledges grants for Conservation projects from the following:

- The Butler Foundation
- The Conservation Biology Fund at NH Charitable Foundation
- The Dorr Foundation
- Merrimack River Bald Eagle Habitat Fund, National Fish and Wildlife Foundation
- Norwin S. and Elizabeth N. Bean Foundation
- Nuttall Ornithological Society's Charles Blake Fund
- Samuel P. Hunt Foundation
- Together Green, a five-year initiative launched by National Audubon and Toyota, for a Planning Grant and an Innovation Grant with Audubon VT
- TransCanada Corporation
- Umbagog National Wildlife Refuge Conservation Fund
- US Fish & Wildlife Service Migratory Bird Group

Funding for wildlife projects received from NH Fish and Game contracts comes primarily from State Wildlife Grants, a federal program that was created by Congress to assist states with their voluntary efforts to protect the more than 12,000 at-risk wildlife species around the United States from becoming endangered.

New Hampshire Dragonfly Survey Completed

by Pam Hunt

The 2011 field season marked the final year for the NH Dragonfly Survey (NHDS), a five-year effort to map the statewide distributions of dragonflies and damselflies. When the dust settled, a total of 18,750 records had been submitted, representing 157 species from almost 1,200 locations in 221 towns. Our search for “odes” took us from the Massachusetts to Canadian borders, and from tidal marshes to the top of Mount Washington. The final report is on the NH Audubon website, and includes an overview of the project, maps for all species, and data on seasonal abundance. This massive data set can now serve as an invaluable baseline against which future changes can be measured, including range expansions or contractions and changes in phenology.

I cannot thank enough the volunteers who made this project possible. They contributed \$150,000 worth of match to the project, compared to \$64,000 in funds from other sources (including \$38,000 from NH Fish and Game). The NHDS data will be put to good use, including a revision of conservation status for New Hampshire species, and as part of a 13-state regional effort to assess conservation priorities and vulnerability at a larger scale.



The Dragonhunter is the largest of New Hampshire's dragonflies, and was the official mascot of the NHDS.
Photo by Pam Hunt.

Whip-poor-will Research

by Pam Hunt

Our study of habitat use by Eastern Whip-poor-wills entered its fourth year in 2011, with continued intensive work at the Mast Yard State Forest and our first intensive year at the Ossipee Pine Barrens. Using auditory triangulation and radio telemetry, we estimated twelve territories at Mast Yard, again concentrated at habitat edges or in recently harvested areas. We even found our first nest, although it unfortunately failed prior to hatch. At Ossipee, there were roughly twelve territories in our core study area, but broader surveys suggest a local population of around 40 males, thus ensuring Ossipee's status as the whip-poor-will capital of the state.

Statewide roadside surveys have now been in place for nine years, and the results are encouraging. Despite a strong regional decline, the numbers of birds detected on New Hampshire routes seems to be increasing, although there are certainly large areas of the state that no longer support the species. After one more year of research at Mast Yard, we will analyze all the data and develop management recommendations that may serve to improve habitat for this species and prevent further losses both in New Hampshire and elsewhere in the Northeast.

Funding for this project is provided by private donations and a contract with the NH Fish and Game Department.

Conservation Staff News

Carol Foss delivered presentations at the Northeast Fish and Wildlife Conference (Rusty Blackbirds) and the New England Wind Energy Education Project Conference and Workshop (Impacts of Land-based Wind Energy Development in New England).

Pamela Hunt gave presentations at a number of national and regional professional meetings: Association of Field Ornithologists (whip-poor-wills), Association of Northeastern Naturalists (whip-poor-wills and dragonflies), Northeast Fish and Wildlife Conference (whip-poor-wills and NH Dragonfly Survey), and North American Benthological Society (dragonflies).

Chris Martin co-authored a technical report, Movement Patterns, Natal Dispersal, and Survival of Peregrine Falcons Banded in New England, with colleagues from Vermont Center for Ecostudies, the US Fish and Wildlife Service, and other regional raptor biologists.

Department GIS Specialist, Vanessa Jones and her husband Scott celebrated the addition to their family of Camden Robert Jones born August 30, 2011, little brother to Porter Drew Jones born in 2010.

Backyard Winter Bird Survey

by Rebecca Suomala

The 2012 Survey results are in and from this annual survey that takes place on the second weekend in February. We now have 25 years of data on our “backyard” birds that provides valuable insights into our year-round residents. We have documented the winter increases in species such as Eastern Bluebirds and American Robins that began in the 1990s (figure to right). The full results are on the Survey web site.

This was the first year we offered on-line data entry and we will be refining that for next year. It necessitates a new database but will mean less data entry time in the long run. The Survey is supported entirely by private donations and we are very grateful for everyone who makes a contribution.

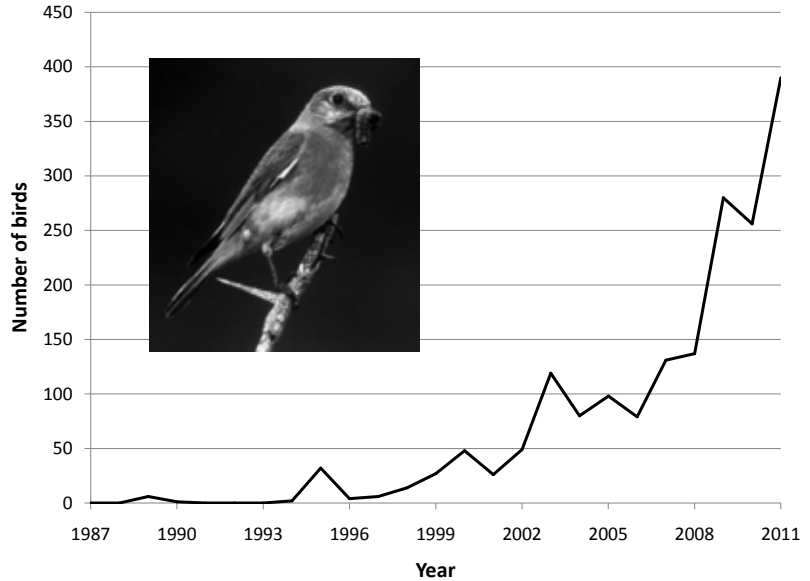
Phenological Monitoring Project

by Laura Deming

Conservation Department biologists launched a new project in 2011 to monitor phenology (the timing of life phases) of plants and animals, such as leafing, blooming, fruiting, migration, emergence, and hatching. Life phases, or “phenophases,” are closely tied to regional climate. The goal of NH Audubon’s Phenological Monitoring Project is to engage citizens in tracking plant and animal phenophases, thereby observing species’ responses to climate change. Data collected will contribute to a national database managed by the USA National Phenology Network, providing researchers throughout North America with critical data for determining the effects of climate change on species and ecosystems.

In our first year, we established a pilot study on the Deering Sanctuary and are preparing training materials for Ponemah Bog. We have gained a tremendous amount of knowledge (and data!), and are now ready to bring volunteers on board. If you are interested in volunteering, or would like more information please contact Laura Deming or Vanessa Jones. This project is supported by private donations and grants from TogetherGreen, The Dorr Foundation and the Norwin S. and Elizabeth N. Bean Foundation.

Numbers of Eastern Bluebirds on NH Audubon's Backyard Winter Bird Survey, 1987-2011



NH Audubon and Lakes Regional Planning Commission Collaborate to Benefit Sandwich

by Carol Foss

NH Audubon’s Conservation Department has been collaborating with the Lakes Regional Planning Commission for several years to produce a “Coordinated Review of Land Use Planning Documents with Respect to Wildlife Habitat, Natural Resources, and Smart Growth Principles” for Lakes Region communities. Our role in this assessment involves three components. We review the Town’s land use planning documents with respect to 18 topics from agricultural lands to wildlife habitat, and provide suggestions and sample language for possible revisions to strengthen natural resource protection. We compare the distribution of important natural resources with the local zoning map, and evaluate how well each zoning district protects these resources. We also use the New Hampshire Wildlife Connectivity Model to identify potential routes for wildlife movement between protected lands within the Town and in the surrounding region. Meetings with the Planning Board provide opportunities to understand local priorities and explore a variety of strategies for addressing local needs. Funded by the Samuel P. Pardoe Foundation, this year’s project addressed the town of Sandwich, and followed previous assessments for Bristol, Franklin, Laconia, and Gilmanton.

Communities interested in further information about these assessments may contact me for more information.

Exciting Bald Eagle Initiatives in New Hampshire and Beyond

by Chris Martin

Bald Eagle 2011 breeding season and 2012 winter surveys

The 2011 New Hampshire Bald Eagle breeding season was by far the state's best ever, with a record high total of 27 territorial pairs from Hinsdale to Pittsburg to New Castle, and 25 fledglings from 16 successful nests. NH Audubon's Conservation Department staff worked with local landowners and with biologists from both New Hampshire and Vermont's wildlife agencies to monitor and manage breeding sites.

NH Audubon staff and volunteers continued to monitor wintering eagles. We coordinated two statewide winter counts during this past year; each with more than 80 volunteers. Highlights included the first Golden Eagle ever tallied during the mid-winter count, and the rescue of a sick/injured eagle during the count. Thanks to all the volunteers for their dedicated commitment to these annual eagle counts!

NH Audubon's Bald Eagle monitoring and management work is supported by a federally-funded contract with the NH Fish and Game Department, by grants from TransCanada Corporation and the National Fish and Wildlife Foundation, and by individual donors.

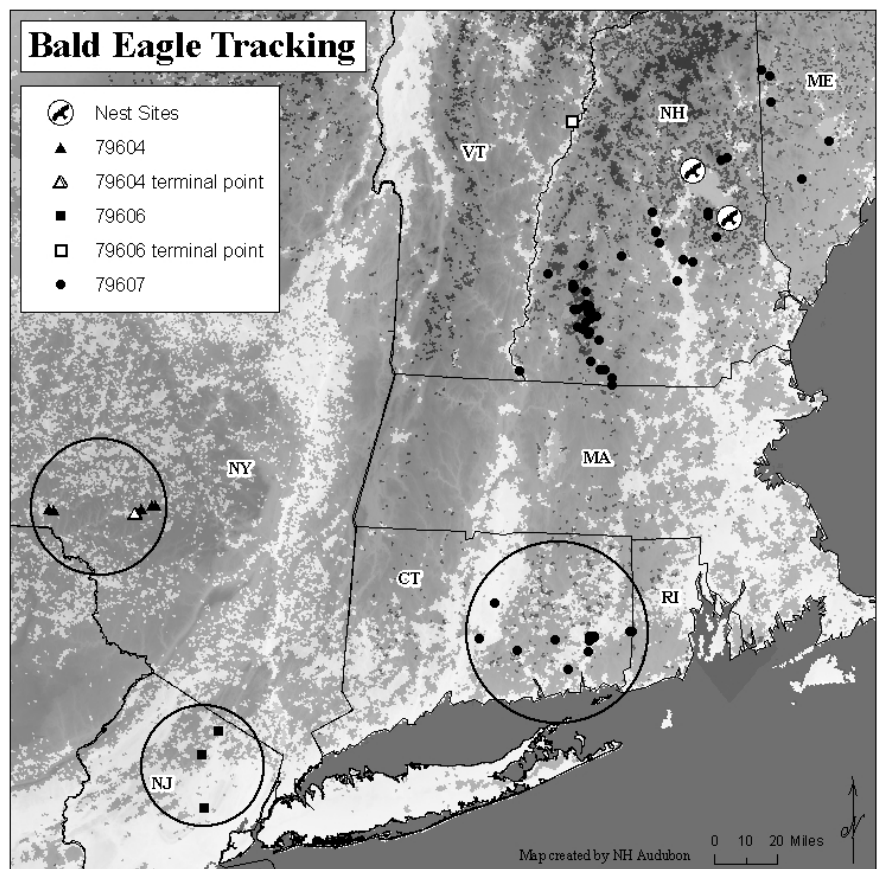
Merrimack River Bald Eagle Habitat Study

We continued to track two satellite-transmitted Bald Eagles that fledged in 2010 from Lakes Region nests. One of these youngsters died from a lung infection in August 2011 near Vermont's Lake Morey. The surviving eagle, nearly two years old in Spring 2012, continues to transmit. Over the past year, it spent considerable time in the Merrimack valley near Franklin (Summer 2011), in the Monadnock Region (Fall 2011, and in southeastern Connecticut (Winter 2012). Funding for this project comes from the Merrimack River Bald Eagle Fund administered by the National Fish and Wildlife Foundation, with guidance from the US Fish and Wildlife Service and the NH Fish and Game Department.

Connecticut River Bald Eagle

Bald Eagle recovery work in the Connecticut River watershed received a tremendous boost recently from TransCanada Corporation. TransCanada, which operates hydroelectric stations and water storage reservoirs along the Connecticut River and tributaries in New England, announced a remarkable three-year commitment through their Community Investment program to fund the Conservation Department's Connecticut River Eagle Restoration and Habitat Protection Project.

This new Bald Eagle recovery initiative has four major focal areas: 1) inventory and monitoring, 2) management, 3) community education and outreach, and 4) habitat protection. We plan to accomplish this work in close collaboration with state wildlife agencies of both New Hampshire and Vermont, with the Silvio O. Conte National Fish and Wildlife Refuge, and with other conservation organizations active in the region. Our ultimate goal is to advance population recovery to the point where Bald Eagles may safely be considered no longer Threatened in New Hampshire and no longer Endangered in Vermont. Stay tuned for future updates on this exciting new project.



Locations of three satellite-transmitted Bald Eagles from two Merrimack River watershed nests. Figure by Vanessa Jones.

New Hampshire Peregrine Falcon 2011 Breeding Season

by Chris Martin

NH Audubon biologists and volunteers documented a total of 20 territorial Peregrine Falcon pairs in 2011, a new state record-high that surpassed 18 pairs found in 2007. A total of 26 young falcons fledged from New Hampshire nests in 2011. We continue to work with land managers and climbing groups to implement seasonal use restrictions that allow Peregrines to raise young without extensive recreational closures.

One interesting aspect of the 2011 season was confirmation of immature (one-year old) females at four breeding territories, three of which (Nashua Coptic Church, Ragged Mtn., Woodchuck Ledge) were newly occupied locations. We had never detected such a high percentage (20%) of one-year olds of either sex among our state's breeding Peregrines. Peregrine Falcon recovery work is supported by a contract with the NH Fish and Game Department and individual donations.

First Detectors Workshop

by Laura Deming

In April, 2011, citizen scientists from around the state gathered at NH Audubon's McLane Center to attend a First Detectors Workshop to learn how to identify and report invasive forest pests. Professional foresters, entomologists and botanists from state agencies and the UNH Cooperative Extension gave a crash course on identifying native trees, invasive plants and invasive insects, such as Asian Longhorned Beetle (ALB) and Emerald Ash Borer (EAB), as well as control and eradication techniques. By the end of the day, participants were well prepared to identify dozens of invasive plant and insect species that have already caused or have the potential to devastate New Hampshire's forests, nursery stock, and urban/suburban shade trees.

The First Detectors Workshop capped a two-year collaboration among NH Audubon, UNH Cooperative Extension, NH Division of Forests and Lands, and NH Dept. of Agriculture to educate New Hampshire citizens about the ALB and the EAB, both wood-boring beetles introduced from Asia. Please keep an eye out for ALB, EAB, and other pest species, report any suspected sightings, and refrain from transporting firewood, which may contain larvae. For more information on ALB, go to the UNH Cooperative Extension website: <http://extension.unh.edu/ALB/>; for information on EAB, go to <http://www.emeraldashborer.info/index.cfm>.



Cliff Swallow nest with three young in New Castle. Photo by Siobhan Basile.

Swallow CORE

by Rebecca Suomala

In 2011, New Hampshire Audubon launched the first full year of the NH Swallow Colony Registry (Swallow CORE), a new project using volunteers to collect current data on swallow nesting sites across the state. The project concentrates on four swallows species that are declining significantly – Purple Martin, Barn, Bank, and Cliff Swallows. We don't know why they are declining or the extent of their decline.

New volunteer Project Assistant, Yvonne Beran, has caught up on processing the 2011 data and we are looking forward to the second year of this fledgling project. We are grateful to the Blake Fund of the Nuttall Ornithological Club and NH Fish and Game for supporting the establishment of this project. See the project web site for more information and please contact me if you'd like to volunteer.

State of the Birds - A Conservation Guide

by Pam Hunt

NH Audubon produced a layperson's guide to the information and conservation strategies outlined in the 2009 State of New Hampshire's Birds report. The Conservation Guide takes the information from the original report and presents it in a non-technical form that is colorful and easy to understand. It includes photos of birds and their habitat, information on how our state's birds are doing, threats to their populations, and conservation strategies for each group of birds. There's a new section with actions that individuals, businesses, and communities can undertake to help our birds.

The State of New Hampshire's Birds – A Conservation Guide is available on the NH Audubon website. Printed copies may be picked up at NH Audubon centers or at chapter meetings, while supplies last. Development of the Conservation Guide was made possible through grants from the Biber Foundation and the Butler Foundation.

Climate Change and the NH Wildlife Action Plan

by Pam Hunt

In 2005, NH Audubon was an important partner in the development of NH Fish and Game's Wildlife Action Plan (WAP), a document intended to guide nongame conservation for the next decade and help keep common species common. As we near the tenth anniversary of the WAP's completion, NH Fish and Game has initiated an update that pertains specifically to climate change and its effects on wildlife and their habitats. This process initially involved a series of habitat-focused meetings where experts discussed the various ways in which climate change could influence habitats, from sea level rise along the coast to increased summer drought in the interior. I took the information from these meetings and drafted "habitat vulnerability assessments" that summarized the most important potential impacts.

Stakeholders then met in four regional meetings to brainstorm the best strategies to safeguard wildlife and habitats from climate change. Key strategies were incorporated into the habitat narratives as part of the final WAP addendum. The climate change addendum was also designed to complement the New Hampshire Climate Action Plan developed by the Department of Environmental Services. It will also serve as something of a head start on the full WAP revision that will begin in 2014. When completed, the Climate Change WAP addendum will be available on the NH Fish and Game website.

Mittersill Bicknell's Thrush Surveys

by Laura Deming

In 2011 we conducted the third year of Bicknell's Thrush surveys on the Mittersill section of Cannon Mountain. Bicknell's Thrush has suffered dramatic population declines over the past several decades, prompting researchers to designate it as a Nearctic-Neotropical migrant of highest conservation concern in the Northeast, a globally "Vulnerable" species by the International Union for the Conservation of Nature, and a Regional Forester Sensitive Species on the White Mountain National Forest (WMNF).

When the WMNF sold the old Mittersill ski area to the State in 2009, concern for Bicknell's Thrush resulted in an agreement (involving the US Forest Service, NH Fish and Game Department, NH Division of Forests and Lands and NH Audubon), requiring the State to maintain the original narrow ski trails, to restrict ski lift construction to the non-breeding season, and to pay NH Audubon to conduct annual surveys for Bicknell's Thrush and note any management impacts to Bicknell's Thrush breeding habitat. Surveys have confirmed the presence of Bicknell's Thrush on the Mittersill Tract each year since 2009, with birds detected along the entire transect. Limited trail maintenance and recent replacement of the chairlift have not altered the forest habitat adjacent to the trails, and were completed outside the breeding season (May-July). The Mittersill management agreement provides an encouraging success story of how management of ski areas and other high elevation developments can be accomplished in a manner that is compatible with protection of fragile ecosystems and rare species.

Project Nighthawk

by Rebecca Suomala

In 2007 Project Nighthawk first began experimenting with gravel patches on rooftops as possible Common Nighthawk nest sites. Volunteers have continued to monitor nighthawk nest patches and nesting nighthawks. The patches have yet to be used for nesting but the 2011 field season produced some unexpected discoveries, including a new natural nesting location in Concord and a confirmed nest in Ossipee. We have known that the Ossipee area has the only remaining natural nesting population in the state, but we were still surprised to find five males in just one area. The trials and tribulations of nest monitoring were evident this year, with nest failures, nest predation, access restrictions, and difficulty locating this camouflaged nocturnal species!

We were grateful for the support of the Benjamin Couch Trust in 2011 and to all the donors and volunteers who help make this project possible. For a full summary, check the Project's web site or contact me.



Conducting Bicknell's Thrush surveys on the Mittersill in 2011. Photo by Laura Deming.

Rusty Blackbird Telemetry Expands

by Carol Foss

We found 29 active Rusty Blackbird territories in northern New Hampshire during the 2011 breeding season. Field staff documented 17 pairs that successfully fledged young and five that failed. Collaborating researchers Patricia Newell and Sam Edmonds banded 44 adults and 78 young-of-the-year. After a successful pilot in 2010, this year we attached radio transmitters designed to function for several months to eight adult males, three adult females, and eleven young. Field technicians Eian Prohl and Liz Dancer documented 132 locations of these transmitted birds from June into mid-August, and recovered transmitters from the predated remains of several individuals. We also deployed a recording receiver in one study area, which documented the comings and goings of 12 individuals within its reception area. A survey flight over the region in mid-July, which located three individuals we had been unable to follow on the ground, was made possible by LightHawk, a volunteer-based organization of pilots who donate flights to conservation groups.

Rusty Blackbird research is funded by The Conservation Biology Fund at NH Charitable Foundation, Umbagog National Wildlife Refuge Conservation Fund, US Fish and Wildlife Service Migratory Bird Group, and individual donors.

Carbon Credits

by Carol Foss

We are collaborating with Audubon Vermont and the Society for Protection of NH Forests to develop and provide information for forest landowners about emerging markets in carbon credits. Northern New England's forests provide multiple ecological and economic benefits, from wildlife habitat to timber resources. The forested landscape also has significant capacity for absorbing carbon from the atmosphere.

New England's private landowners hold more than 80% of the region's forested landscape and their decisions will shape its future. The sale of carbon credits can provide a new income stream that supports continued forest ownership, maintains wildlife habitat, and benefits the climate. This project, funded by a \$30,000 TogetherGreen Innovation Grant, will help landowners with large forest holdings to understand the potential for economic and environmental benefits through the sale of carbon credits. A collaboration between National Audubon Society and Toyota, TogetherGreen grants support projects using innovative approaches and technologies to engage new and diverse audiences in conservation and tackle pressing conservation problems.



Rusty Blackbird carrying food for its young in northern New Hampshire.
Photo by Elizabeth Dancer.

New Hampshire Osprey Management

by Chris Martin

Biologists from NH Audubon and the NH Fish and Game Department have been shifting focus from counting Osprey pairs to management of this expanding population. While we were able to determine that 40 of 64 breeding pairs in the state were successful in producing at least 74 fledglings, we actually spent a great deal of 2011 collaborating on projects with the Squam Lakes Natural Science Center (SLNSC), Public Service of New Hampshire (PSNH), the White Mountain National Forest (WMNF), and others.

In the Lakes Region, we began a multi-year partnership with SLNSC called Project OspreyTrack. Solar-powered satellite transmitters placed on adult male and fledgling Ospreys will help us understand where breeding males forage during nesting season, and the route their fledglings take to South America, where they spend much of the first two years of their lives. In the Monadnock Region, we assisted PSNH in a transmission line upgrade project that required the design of a unique Osprey platform and the rebuilding of one of very few Osprey nests in southwestern part of the state. Finally, in the North Country, we advised the US Forest Service on possible campsite disturbance issues potentially impacting their only active Osprey nest in the WMNF in New Hampshire. Osprey management activities are supported primarily through a contract with the NH Fish and Game Department, but this funding is being phased out in 2012. Please consider donating to this on-going work.

Environmental Policy

by Carol Foss

Conservation Department staff prepared and coordinated NH Audubon's testimony for the 2012 legislative session. NH Audubon supported bills that would extend the ban on lead fishing tackle to additional types that are killing Common Loons, define stormwater for the purposes of preventing water pollution, and authorize a certification program for municipal culvert installers. We opposed bills that would reduce shoreland permitting fees, repeal the Regional Greenhouse Gas Initiative, eliminate various dedicated funds that support environmental protection efforts, prohibit conservation easements on public lands, direct land use change tax revenues to general funds, eliminate regional planning commissions, and require property-owner permission for the installation of smart meter devices. Copies of these bills and our testimony are on the NH Audubon website.

At the federal level, Department staff provided comments on the US Fish & Wildlife Service Draft Land-based Wind Energy Guidelines and Draft Eagle Conservation Plan Guidance, the Northern Pass EIS scoping process, and the US Forest Service Forest System Land Management Planning Rule for National Forests. We also participated in development of the FY13 Policy Agenda for Conserving New England's Forests, and coordinated NH Audubon participation in various coalition efforts, including support of the Land and Water Conservation Fund and EPA regulation of toxic lead shot.

NH Audubon policy work is supported by private donations.

NH Audubon Provides Natural Resource Municipal Services

by Vanessa Jones

NH Audubon worked with the Town of Webster's Conservation Commission to update the Town's conservation information in the form of Geographic Information System-based maps of important natural resource features. The four maps created include:

- Water Resources,
- Wildlife Habitat and Forest Cover,
- Soils, Forest and Farm Resources,
- Natural Services Network.

Data used to create these maps came primarily from existing sources with some updates from the Conservation Commission. Future work may include mapping the Town's vernal pools and adding these to the Wildlife Habitat / Forest Cover map.

New Hampshire Bird Records and NH eBird

by Rebecca Suomala

We are excited to announce the establishment of the New Hampshire Bird Records Endowment Fund. The fund was established by two generous donors to "support the collection, organization, quality control, distribution, dissemination, publication, promotions, preservation and storage of New Hampshire bird sighting information." The initial focus is on supporting all facets of *New Hampshire Bird Records*, from the publication to the data. For more information on the fund, please contact me.

We received a grant from the Samuel P. Hunt Foundation to begin uploading older *New Hampshire Bird Records* bird sighting data into eBird, a publicly accessible on-line reporting system for bird sightings. From 1986 through August of 2009 all bird sighting data was entered into a DOS-based program at New Hampshire Audubon. There are nearly 189,000 records from that time period and their addition to eBird will make this data available to eBird users and anyone else with on-line access.



VOLUNTEERS

Volunteers contribute invaluable time and talent to Conservation Department, working on all aspects of our many projects, from field surveys to office assistance. Their support is essential to what we do. We cannot list all of their names here but we are very grateful for their dedication and generous support.

Team of NH Dragonfly Survey volunteers atop Mt. Washington prior to a survey at Lakes of the Clouds. Photo by Pam Hunt.