



Important Bird Areas

by Ellen Snyder and Pam Hunt

Summer 2002 was a banner year for the joint Audubon Society of New Hampshire (ASNH) and Fish and Game Department (NHFG) tern restoration project at the Isles of Shoals. Since 1997 biologists have kept hungry and aggressive gulls away from Common, Roseate, and Arctic Tern nests and chicks on Seavey Island. As a result of non-lethal gull control the Common Tern population showed a 37-fold increase from 1998 to 2002 (see *Field Findings*). Roseate and Arctic Terns have even started nesting on the island. Seavey Island, as a result, is an “important area” for these colonial nesting marine birds.

UNH Cooperative Extension, ASNH and NHFG are working in partnership with the state’s avian researchers and birders to identify and conserve “Important Bird Areas”. Joining 103 countries and 45 other states, New Hampshire is launching an Important Bird Area (IBA) program. The IBA program is an international bird and habitat conservation initiative created by BirdLife International <www.birdlife.net>. National Audubon Society oversees the program in the United States. The goals of the program are to identify and conserve areas that are critical to one or more bird species for breeding, feeding, wintering or migration and to avert population declines of common and uncommon birds.

Despite its small size, New Hampshire hosts a diversity of habitat types and more than 250 bird species spend time in the state: some are here

during the breeding season, others are year-round residents, and others come into New Hampshire only in migration or winter. Habitats critical to breeding birds in New Hampshire, in addition to the coastal islands, include beach (Piping Plover and Least Tern), salt marsh (Sharp-tailed Sparrow and Seaside Sparrow), grasslands (Northern Harrier, Grasshopper Sparrow, Eastern Meadowlark, Bobolink, and Upland Sandpiper), pitch pine barrens (Eastern Towhee, Common Nighthawk, and Whip-poor-will), emergent marsh (Pied-billed Grebe, rails, and bitterns), wet meadows (Sedge Wren), lakes (Common Loon, Bald Eagle, Osprey), high elevation spruce-fir forests (Bicknell’s Thrush), and alpine tundra (American Pipit).

Birds wintering in New Hampshire face harsh weather and more challenging foraging options. Bald Eagles depend on large white pine stands situated near open water for protective night roost sites. Great Bay and the Merrimack River are critical areas for wintering eagles. The Great Bay estuary also serves as one of the most significant wintering areas for Black Ducks in the northeast. In addition to serving as important



IMPORTANT BIRD AREA

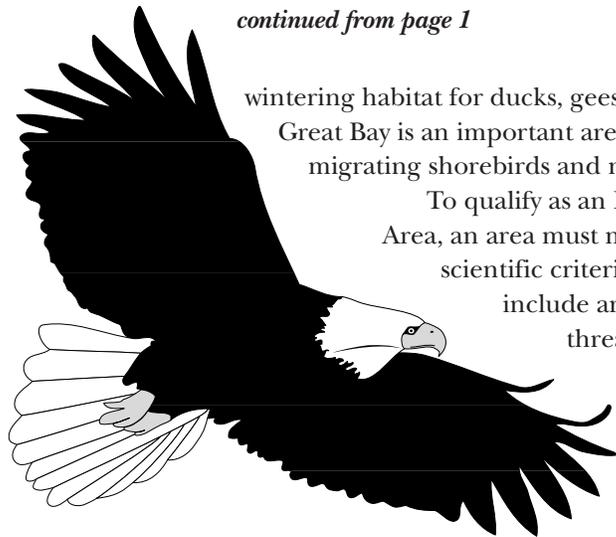
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continued on page 2



Important Bird Areas

continued from page 1



wintering habitat for ducks, geese and eagles, Great Bay is an important area for a diversity of migrating shorebirds and nesting songbirds.

To qualify as an Important Bird Area, an area must meet one or more scientific criteria. Potential IBAs include areas that support threatened or endangered bird species, bird species of high conservation priority, significant concentrations of birds, or representa-

tive, rare, threatened, or unique habitats. Seavey Island and the Great Bay estuary fit nearly every category and could be nominated as IBAs. Data collected by graduate students, researchers, avid birders, wildlife organizations and agencies, naturalists, landowners, and others who have documented bird species presence and abundance are useful in identifying potential IBAs.

The New Hampshire IBA program has developed a Preliminary Nomination Form (available on the Web—see below) that people can submit to recommend an area for review and possible identification as an IBA. Potential IBAs may include private or public land and are typically based on ecological rather than ownership boundaries. Educational information on the significance of a given area for birds will be shared with landowners that may fall within a potential IBA. This includes guidance on voluntary stewardship and conservation options.

Important Bird Area programs across the country are drawing on the resources of a new coalition of Mexican, U.S. and Canadian agencies and organizations called the North American Bird Conservation Initiative (NABCI). Waterfowl, shorebirds, water birds (herons and such), and land birds all have their own “plans” (see the web sites below). These traditionally independent bird initiatives have come together under a shared vision of bird conservation. This concerted effort to conserve all birds was stimulated by continued population declines among an array of bird species, habitat loss and fragmentation, and the

need to leverage and focus resources to conserve critical habitats.

The IBA program creates an opportunity for avid birders, landowners, and conservation organizations to join together to conserve and manage habitats to protect rare species from further declines, to keep common species common, and to restore populations where possible.

For more information about the NH Important Bird Area Program contact:

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A copy of the NH IBA criteria and a preliminary nomination form are available at the UNH Cooperative Extension web site:

<http://ceinfo.unh.edu>
(go to “Forestry and Wildlife Resources”,
then “Bird Areas”)

Additional information on bird conservation is available on the following web sites:

National Audubon Society:
<http://www.audubon.org/bird/iba/index.html>
North American Bird Conservation Initiative:
<http://www.nabci-us.org/>
Partners in Flight:
<http://www.partnersinflight.org/>
North American Waterbird Conservation Plan:
<http://www.nacwcp.org/>
Shorebird Conservation Plan:
<http://shorebirdplan.fws.gov/>
North American Waterfowl Management Plan:
<http://northamerican.fws.gov/NAWMP/nawmphp.htm>



Forest Land Enhancement Program (FLEP)

The 2002 Farm Bill authorized the USDA Forest Service to launch a new forestry program to assist private forest landowners. Called the Forest Land Enhancement Program (FLEP), it replaces two previous conservation incentive programs: the Stewardship Incentive Program (SIP) and the Forestry Incentive Program (FIP).

The goal of the program is to ensure that the private landowners help provide sustainable forest products and safeguard the health of our water, air, wildlife, and other related natural resources.

Through FLEP, the NH Division of Forests and Lands and UNH Cooperative Extension can provide a wide array of educational, technical, and financial programs. Focus areas include: forest stewardship plans; forest stand improvement; water quality and watershed protection; wildlife habitat; forest health; invasive species; and risk reduction.

State Forester, Phil Bryce, and the NH Forest Stewardship Committee have jointly developed the state priority plan for the program. It describes the educational and technical activities and the cost share practices, including expected outcomes and the public value of the program.

Programs that are administered by the Natural Resources Conservation Service (NRCS) were also re-authorized by the 2002 Farm Bill. We are working with NRCS to integrate the services provided to forest landowners.

For more information, look under "Assistance Programs for Forest Landowners" at the following web address: <http://ceinfo.unh.edu/forestry/documents/woodlots.htm>. You may also contact Karen Bennett, UNH Cooperative Extension Forest Resources Specialist, at 862-4861 or karen.bennett@unh.edu, or your local County Extension Forester.



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Forestry and Wildlife Program

The UNH Cooperative Extension Forestry and Wildlife Program has cared for New Hampshire's forests since 1925. Our mission is to educate New Hampshire's citizens about rural and urban environments enhancing their ability to make informed natural resources decisions.

Seagrant, Water & Marine Resources Program

E-mail: water.resources@unh.edu

UNH Cooperative Extension's Seagrant, Water & Marine Resources Program promotes the protection, conservation and wise use of New Hampshire's natural resources through education and outreach.

Community Conservation Assistance Program (CCAP)

CCAP provides communities and conservation groups with assistance for locally initiated conservation projects, with a focus on dovetailing natural resources inventory work with land conservation planning.

The above programs can be contacted at:

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Durham, NH 03824
603-862-1028 FAX 603-862-0107

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2003



Field Findings

Results of current research on New England forests, watersheds, and wildlife habitats

Trained Volunteers Conduct Grassland Bird Surveys

by Matt Tarr, Extension Educator, Forest Resources

In the Spring of 2002, Phil Auger (Extension Educator, Land and Water Conservation) and I received a grant through the NH Conservation License Plate Program to begin a study of critical farmland habitat in Rockingham County. As part of that study, local volunteers were trained to inventory bird species occurring at selected farmland habitats within the county. For the purpose of this study, farmland habitats were defined as crop fields, active hay fields, wet meadows, and old-field habitats containing shrubs. These farmlands are used by many wildlife species and provide required habitat for birds such as Bobolinks, Eastern Meadowlarks, Savannah Sparrows and Blue-winged Warblers. These wildlife species have been declining in NH as a result of habitat loss due to natural plant succession and development.

The goals of our project were to:

- 1) Identify important farmland habitats in Rockingham County.
- 2) Train volunteers to conduct bird surveys and document bird species using each of the study habitats.
- 3) Use the results of those surveys to guide future management of each property by attempting to balance the needs of wildlife with the agricultural use of the property.



Farmland Habitat Bird Surveys

A total of 12 sites in 11 towns were identified using aerial photography and tax maps. Sites ranged in size from 23 to 130 acres. Landowner permission was obtained before any surveys were conducted.

We trained 20 volunteers to conduct bird surveys following protocols established by the Partners-in-Flight Northeast Grassland Bird Working Group. Volunteers participating in the survey included experienced local birders, the owners/managers of properties being surveyed, members of local conservation organizations, and Coverts Volunteers. After training, experienced birders were teamed with beginner birders and teams were assigned a survey site(s) within or near the community in which they lived.

Volunteers conducted bird surveys at each site once in late May/early June and once again in late June/early July, or roughly at the beginning and end of the breeding period of grassland birds. Volunteers noted bird species and the number of each species using each study site.

What Did the Volunteers Uncover?

The following are a few of the results of the farmland bird surveys:

- 1) Grassland birds will continue to breed and feed in actively managed hayfields, as long as some areas are left unmowed until early August. Leaving part of a hayfield unmowed obviously requires a commitment on the part of the landowner, as hay left unmowed until August has little nutritional value to livestock. Volunteers of this study found that the field sections left unmowed can be the wetter areas that are typically mowed later anyway.
- 2) The highest densities of Bobolinks and Eastern Meadowlarks were found in dense, lush hayfields, where management included frequent liming and fertilizing. This was a bit surprising because some of the literature suggests that these birds prefer fields that contain a higher proportion of cover from plants such as goldenrods (as would be found in fields that were mowed only once every few years).
- 3) The highest densities of Savannah Sparrows were found in fields that were managed for a combination of agricultural crops (e.g., corn) and hayfield. Savannah Sparrows are seed and insect eaters that prefer areas with bare soil, short grass and tall grass. Providing areas of tall grass cover in close proximity to agricultural crops may benefit birds such as savannah sparrows.

What's Next?

A second series of bird surveys will be conducted in Rockingham County during the 2003 breeding season. In this next survey, volunteers will collect more detailed information on the breeding status of the birds they observe, in order to get a better handle on the breeding success of birds at each site. Some of the questions we hope to begin answering are:

- 1) What percentage of a managed hayfield needs to be left unmowed to provide breeding habitat for grassland birds?
- 2) Can the habitat bordering fields <10 acres in size be manipulated to encourage grassland birds to breed in these smaller fields.

Goshawk Nesting Habitat in the White Mountains of New Hampshire

by Christine Costello and Mariko Yamasaki, US Forest Service, Northeastern Research Station

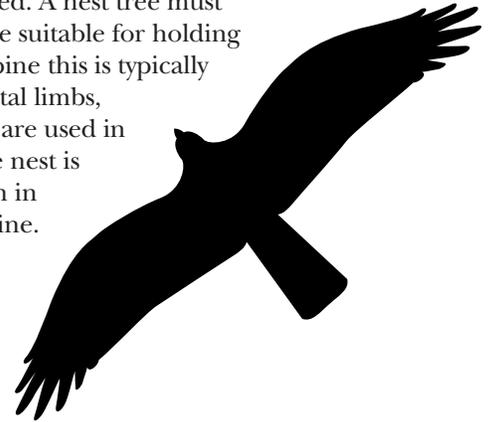
Northern Goshawks are secretive forest-dwelling raptors that occur in a wide variety of mature forest types throughout much of the Northern Hemisphere. They are the largest members of the genus *Accipiter*, a group of short-winged, long-tailed hawks that are morphologically adapted to maneuvering through forests. Other accipiters include the Cooper's and Sharp-shinned Hawks. The goshawk is best known for its piercing red eyes and for its practice of boldly defending its nest from intruders with loud vocalizations and aerial attacks.

Current goshawk habitat management guidelines come from models produced outside of the northeastern region. To address this information gap, biologists from the Northeastern Research Station have been collecting baseline data on goshawk distribution and abundance on the White Mountain National Forest (WMNF) and adjacent lands, as well as data on vegetation and land features of nesting habitat in order to make comparisons between nest sites and random sites.

Preliminary analyses reveal differences in some of the habitat and land features and measured. Goshawks construct nests in large-diameter (averaging 18 inches dbh) dominant or co-dominant trees,

and nest sites contain more sawtimber-sized trees than random sites. In the southern section of the WMNF, nest sites have a high white pine component and this species is often chosen as a nest tree—although various hardwoods (paper birch, yellow birch, red maple) are also used. A nest tree must contain a branching structure suitable for holding a large, bulky nest. In white pine this is typically against the trunk on horizontal limbs, whereas large, primary forks are used in hardwoods. Placement of the nest is close to the base of the crown in both hardwoods and white pine. Nest sites are generally situated on lower, gentle slopes (most below 1500 feet) and are located closer to some type of forest opening (trail, road, group cut) than random sites.

Future cooperative research with the University of New Hampshire will include placing radio transmitters on adult and fledgling goshawks to obtain information on reproductive success, seasonal distribution, and landscape and stand-scale habitat use.



Piping Plovers and Terns in New Hampshire

by Allison Briggaman and Dan Hayward, NH Fish and Game Department

In April 2002, seven pairs of Piping Plovers returned to the New Hampshire seacoast for yet another chance for this federally threatened, state endangered species to add to its population. However, the plovers struggled to successfully fledge one chick by summer's end.

Two pairs of plovers nested at Hampton Beach State Park and five pairs nested at Seabrook Beach. A total of thirteen nests were laid in all. Storm events in May and June caused significant nest failures. The weather also resulted in the loss of three young chicks last year.

Despite the weather, eleven chicks hatched between the two sites. Unfortunately predation, including gulls, house cats, dogs, and people, was suspected in the loss of seven of the chicks. In the end, one pair at Hampton Beach State Park was successful in raising one chick.

The Tern Restoration Project on Seavey Island, one of the Isles of Shoals, has shown dramatic success over the past 6 years. The growth of the

tern colony has progressed at a much faster pace than expected. The project began in the spring of 1997. In 1997, 6 pair of Common Terns were attracted to the island using tern decoys and a sound system playing recordings from a large tern colony. These 6 pair were able to fledge 6 chicks. In 1998 there were 45 pair that fledged 75 chicks, in 1999 there were 141 pair that fledged 240 chicks, in 2000, 446 pair fledged approximately 700 chicks, in 2001, 809 pair fledged approximately 1100 chicks and this past summer there approximately 1700 pair fledging approximately 2500 chicks.

During the 2001 season, a single pair of federally endangered Roseate Terns nested and successfully fledged a single chick. 25 pair of Roseate Terns nested during the 2002 season and they fledged approximately 20 chicks. A single pair of Arctic Terns nested in 2002. Unfortunately, their two chicks were predated by gulls.



Can You Make a Difference?

Citizen-science in Bird Monitoring and Research

by Rebecca Suomala, Natural History Services Coordinator, Audubon Society of New Hampshire

Have you ever looked out at your feeders on the day of a bird count only to see no birds anywhere in sight? You wonder if it's worth recording what little you do see, or even if you should participate at all in the survey. Will anyone ever look at the information you send in? You're not alone in asking these questions and more than one volunteer participant has given up in frustration over a dearth of birds on the survey day. As coordinator of New Hampshire's annual Backyard Winter Bird Survey, I see how the data are used and I can say unequivocally that your participation is important, even if you have no birds.

Volunteer help with bird surveys and monitoring projects is often critical to the success of these efforts. These citizen-science based projects are

often broad in scope and require many participants to provide the kind of information that will be useful. Take the annual Backyard Winter Bird Survey (BWBS) conducted by the Audubon Society of New Hampshire (ASNH). In order to survey the entire state at one time, many participants are needed. It would be impos-

sible to do the survey with just a few paid biologists. Volunteers are essential and you don't need to be an expert to help.

The data from the survey are used to monitor long term changes in bird trends. If everyone reported only when they had birds, declines would be difficult to see. That's why it's important to participate even if you don't have any birds'—reporting a lack of birds is just as valuable as reporting many in determining population trends. The most important thing is to participate each year regardless of how many or how few birds you have. This helps provide us with a consistent long term set of data—showing both the ups *and* downs.

What have some of these data shown us? The BWBS shows regular patterns of high and low years for birds like Common Redpolls, American Goldfinches, and Pine Siskins which roam over large regions in search of natural food supplies. There have been increases in species which have extended their range northward, such as the Red-bellied Woodpecker, Northern Cardinal, Tufted Titmouse and others. Recently Black-capped

Chickadee numbers have declined on the BWBS, but we don't know why. It could be just a temporary fluctuation in their population but we can't determine that yet. The answers lie in looking at the numbers over the long term. And it can be a frustratingly long time before there is adequate evidence to dispel debate.

These long term surveys provide the information we need to spot declining trends that are not part of the normal fluctuations in bird populations, especially for small songbirds with large populations spread out over a wide geographic area. The Breeding Bird Survey, Christmas Bird Counts, and feeder surveys are important sources of data on these species. Volunteer participation is critical for gathering the data that are needed to spot declines and begin to ask questions about why. With most of these surveys you don't need to be an expert to participate and you can choose which type of survey fits your time availability.

Volunteers also help monitor specific species in New Hampshire such as Bicknell's Thrush and the Scarlet Tanager as part of a national study undertaken by the Cornell Laboratory of Ornithology's Birds in the Forested Landscape. ASNH volunteers conduct weekly Bald Eagle surveys along the major rivers and lakes in the winter, and spring monitoring of nesting Peregrine Falcons. Training is usually provided for these programs and there is often an opportunity to watch with a more experienced observer as you learn the ropes.

Many birders also contribute their sightings to New Hampshire Bird Records. The reports not only form the basis for the quarterly publication of the same name but they are also computerized and used to determine the distribution of species in the state. Through advances in technology this information is becoming even more widely available to help make conservation decisions.

There are many opportunities to contribute to bird studies through these volunteer projects and you can find more information on the ASNH web site (www.nh.audubon.org) or call the volunteer coordinator at 224-9909. Check also the web site for the Cornell Laboratory of Ornithology (www.birds.cornell.edu). Despite the frustrating times when there is nothing to report, and the many years it sometimes takes before significant trends can be seen, citizen scientists do make a difference by providing valuable information towards bird conservation.



Birding: A Personal View

by Sam Stoddard, Extension Educator, Forest Resources

My grandparents introduced me at a young age to the world of birds. I tagged along on bird walks, club events and helped record birds seen in the backyard. The discovery of a Hoary Redpoll within a flock of Common Redpolls seemed a particular victory in detective work. And, listening to the fascinating call of the Whip-poor-will at bed-time on warm summer nights is a lasting pleasant memory.

When I reached adulthood birding began to really come alive for me. Joining in the hawkwatch at Hawk Mountain, PA, where one raptor per minute flew low over the summit was a pivotal experience. Hunkered down on a cold, windy mountain top with 30 veteran birders with their powerful scopes, my wife and I with our seven power binoculars endeavored to share in the excitement of the fall raptor migration. Most of the birds coming through were Sharp-shinned and Broad-winged Hawks. But, spirits of the whole group reached a fever pitch when someone cried out, "Golden Eagle one glass above the horizon." Yes, there it was, a tiny speck in my binoculars, but it soared closer and entertained us with several spectacular maneuvers as it caught the updrafts and rode the wind, finally hurtling low over our position.

Birding is a continuous series of encounters which never cease to cause wonder and marvel about the lives of birds and their natural history. For me, it is the thrill of the chase—the hunting aspect, employing detective skills, the chance to be outdoors exploring various habitats in all weather conditions, and the satisfaction of collecting—that is, collecting lists of species observed. Listing birds has its own rewards. I maintain a lifelist, an annual list, a backyard list, and various state lists. Every January 1st my annual list begins anew and enthusiasm builds to compile the species of a new year. I look forward to seeing that first robin, Bobolink, the spring warblers, and others. Sightings of rarities are shared with other birders, including the NH Birds Listserv and the NH Rare Birds Committee.

Participation in Project Feeder-watch, annual Christmas Bird Counts, nesting surveys, hawkwatches, and the NH Winter Eagle Survey contributes important data to monitoring and research efforts by several organizations and helps produce information about trends and changes.

Birding brings like-minded people together to share their interest and knowledge. Through local bird club events, bird walks and field trips, birders can learn from others and improve birding skills. All it takes is a pair of binoculars, a field guide, and an interest in learning. Useful resources include workshops, bird festivals, field trips, the internet, and activities of organizations such as Audubon Society of NH or American Birding Association.

Personal Notes on Breeding Bird Surveys

by Phil Auger, Extension Educator, Land and Water Conservation

Breeding bird monitoring was a natural outgrowth of a basic interest in learning all that I can about natural resources. It all started for me when my wife and I purchased a woodlot and a new dog some time ago. The woodlot added on to our existing ownership and the young dog forced me to walk the land at least twice a day. So, on the long list of things to do on the land, I decided to get to know what bird species breed there.

I started the process by asking John Kanter, the Extension Wildlife Specialist at the time, how to set up breeding bird survey plots on the land. Using my knowledge of the land, forest type maps, aerial photographs and topographic maps, 7 breeding bird monitoring plots were pinpointed on the 100 acre parcel. During the first year we tracked bird calls for 3 minutes making note of how close the birds were—within 50 meters, distant or "flyovers". After our first field session we decided that 2 of the plots were so close to others that a significant amount of double counting was taking place so they were dropped and we extended the listening time to 6 minutes, though the first 3 minutes are tracked separately.

The property has now been surveyed 8 times in four different years since 1997. While nothing that is terribly unusual has shown up, there have been a few odd ball occurrences—Blackburnian Warblers and Common Loons, for example. Actually the high points for me are finding out that a few species including Hermit Thrushes and Scarlet Tanagers are doing quite well on the land despite concerns that their numbers may be dwindling in other regions.

The results have also demonstrated some things to avoid and pitfalls of the process. Avoid the following: wind in excess of 10 mph, temperatures at or below 45° and rain. Also, the first two weeks in June are a good for doing woodland breeding bird surveys in southern New Hampshire, but some species will be routinely missed at that time because they are already nesting.

Breeding bird surveys are great but they don't tell the whole story. Nothing beats walking a property consistently from one season to another and making note of bird use through the seasons. In that way you get to know which neotropical migrants stop by on their way to or from the north country, the winter birds that are likely to come down each year and of course experience the year-rounders.



Managing for Birds

by Darrel Covell, Wildlife Specialist, University of New Hampshire Cooperative Extension

If you own and manage land, you may already have goals and objectives. And perhaps specific wildlife are included. Or you have a more general wildlife goal like, “Do the right thing for wildlife.” That’s okay, too. But in this latter case, to decide what actions to take, you will first need to further define which wildlife are your priorities.

Priority Species List for Central NH Property	Present or Has Potential on Property
Bald Eagle	No
Common Loon	No
Great Blue Heron rookery	Yes
Northern Harrier	No
Wood Turtle	Yes
Brown Thrasher	Yes
Field Sparrow	Yes

Example of a priority species table for a particular property.

One way to better define “doing the right thing for wildlife” would be managing your property for those wildlife species whose populations are not doing so well. In biologist lingo, these are called “priority species” or “species of management concern.” We have lists of these species that are rare, have declining numbers or are threatened by loss of habitat. A

land manager can take these “priority species” lists, determine which ones are in the area or have potential on the property, and develop habitat to meet those species’ needs.

Managing for Priority Wildlife

Let’s consider a particular property in central New Hampshire. To figure out what priority species are in the state, you would start by consulting a reference like NH Fish and Game’s *Identifying and Protecting New Hampshire’s Significant Wildlife Habitat*. This book contains an appendix of wildlife species tracked by the New Hampshire Natural Heritage Inventory. These are species that are listed as threatened or endangered in the state, known from only a few locations, exhibit declining trends or show a change in distribution in the state. In addition to the species list, the book provides an excellent overview of broader habitat features of our landscape that are deemed significant to wildlife.

Other groups have painstakingly developed prioritized lists of species of management concern. For example, *Partners in Flight*, a multi-agency, multi-organization group concerned about birds, has regional and state lists of priority birds. (See <www.partnersinflight.org> for regional lists or visit <www.ceinfo.unh.edu/forestry/documents/NHIBA.htm> and click on “criteria” for state lists).

Once you’ve reviewed those species lists and identified those that may be in your area, you can assess their habitat needs. Then do a reality check!

Before cooking up a whole new habitat recipe that you’ve never made before, check to see that you have (or can realistically get) the ingredients you need to benefit the species you’ve identified. I may want to manage for Northern Harriers, but if I have no extensive open marshes and little potential for large, open fields and meadows, then don’t bother.

So, based on my priority species table, I have two water-dependent species (Great Blue Heron and Wood Turtle) and two old field type species (Brown Thrasher and Field Sparrow). I assess my land and find that my small wetland doesn’t currently and will not likely support a rookery—nesting colony—for herons. However, the slow-moving stream with its sandy bottom and adjacent alder thickets appears to be the right habitat for Wood Turtles. I also have a 2-acre old field in which I’ve seen Brown Thrashers and Field Sparrows.

Looking at the bigger picture, my old field is not far from the stream and may provide foraging habitat for the Wood Turtle. Also, there are other old field fragments on neighboring properties scattered about down the road. It looks like we have the potential to maintain our population of thrashers and Field Sparrows. One part of my management plan will include maintaining the old field by brush-hogging every 4-6 years. Additionally, I will share my observations with neighbors and let them know about the wildlife that value their old field habitats. I could offer to brush hog their field once in a while. I will also minimize impacts to the stream area to prevent siltation of that sandy bottom where we have Wood Turtle potential.

Species-Specific Management

Ruffed Grouse. American Woodcock. Wild Turkey. These are species for which many landowners are specifically interested in managing. While these are all game species, “species-specific management” can apply to non-game species as well. Consider the intensive work of biologists to maintain and restore the Karner Blue Butterfly. Although the program may be designed specifically to recover the population of this endangered butterfly, management is couched in pine barrens restoration, which benefits a suite of uncommon species.

The same applies to management for the game species. Your intent may be to manage for a single species, but the effect is to manage for all species associated with the habitat you are creating. Fortunately for biologists, whether your focus is game or non-game, many of the species of manage-

Nature Trails Become Tourism Focus

by Judy Silverberg, New Hampshire Fish and Game Department

ment concern use the same habitats as species like Ruffed Grouse and American Woodcock. In fact, the woodcock is high on the list of species about which we are concerned. Managing for woodcock and grouse improves conditions for other priority species associated with old fields and early-successional (regenerating) forests. Species like Field Sparrow and Brown Thrasher mentioned above, as well as Chestnut-sided Warbler, New England cottontail, Golden-winged Warbler, Mourning Warbler, Eastern Towhee, and others can benefit.

Woodcock rely on a mixture of habitats in some combination: open fields, alder swamps, regenerating forests and old fields. Open fields provide excellent singing grounds needed by male woodcock to perform their characteristic dusk and dawn mating ritual. In absence of open fields, even a half-acre forest opening can meet this need. Males will “peent” and display on the ground, then flutter in an upward, ever-increasing spiral to a few hundred feet before dropping speedily with a chirping sound. These fields and adjacent regenerating and second-growth forests are where females make their ground nests. Fields are also used as nocturnal roosts during the summer.

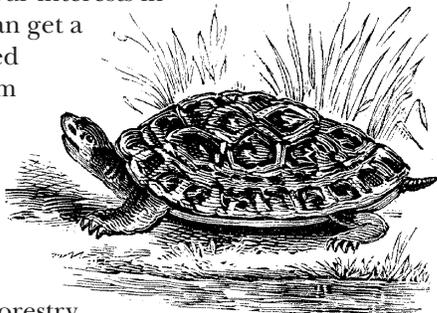
Alder thickets and other moist, rich, dense coverts are the woodcock’s smorgasbord! Earthworms—their primary food—and other invertebrates abound in these habitats, and the dense cover protects them from predation. But once the alder start to fall over, their value to woodcock diminishes greatly. Patch-, strip- and clear-cutting are techniques used to regenerate the necessary cover.

Plan Ahead for the Wildlife You Want

Develop a management plan. This will describe your goals, what your vision is, what specific objectives you hope to accomplish, a plan of action to get you there, and a way to measure your success. Foresters and other natural resource professionals are very good at developing such plans with your interests in

mind. You can get a list of licensed foresters from your local UNH Cooperative Extension county office or by calling the Forestry

Information Center at 1-800-444-8978.



More than 66 million residents nationally participated in wildlife viewing, according to the *2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation* released by the US Fish and Wildlife Service. As one of the nation’s fastest-growing recreational activities, wildlife watching, including bird watching, is becoming a mainstream activity. Birding/nature trails have sprung up in Texas, Florida, Minnesota, Nebraska and Vermont and most recently in the Connecticut River Valley. These trails allow travelers to see birds and wildlife in their natural habitat while also providing opportunities to communicate important conservation messages and promote nature activities.

Birding trails typically consist of highway signs with individual sites numbered and referenced on maps. Accompanying text includes descriptions of wildlife and habitats that may be found at each site, interesting local history and contact and reservation information for local amenities.

Nature-based tourism is a fast-growing segment of the tourism industry. Birding and nature trails often serve as marketing platforms for communities to attract “nature tourists.” In many areas, they have become an integral part of the local economies of surrounding towns. As thematic itineraries, trails are a means of experiencing a matrix of opportunities. Nature tourists are not passive observers. They want to be involved in the tourism experience. Nature tourists travel to experience natural phenomena, learn about nature, be physically active and meet people with similar interests. They are attracted to mountains, oceansides, wilderness, undisturbed nature, birds, trees, wildflowers, lakes, streams, wildlife, parks and rural areas—all features readily available in New Hampshire.

The first effort to establish a birding trail in New Hampshire occurred in the Upper Connecticut River Valley. The project, spearheaded by Bill Shepard, produced a map that highlights a few of the special places in the Connecticut River Valley exemplifying the wide variety of habitats and wildlife. The current map includes 46 sites in New Hampshire and Vermont. A second map will cover the northern part of the watershed, from Haverhill to the Canadian border. As a non-profit conservation-education initiative, it is designed to help people get out and enjoy the land. The hope is that with increased involvement in and appreciation for natural landscapes, the public will be inspired to conserve and protect these and other special places. Maps for the current trail are available from the George D. Aiken Resource Conservation and Development Council, c/o Josh Handord, 22 North Main Street, Randolph, VT 05060. Donations are greatly appreciated.

In addition to the New Hampshire and Vermont portions of the watershed, a larger effort is being launched to develop a trail that would encompass the entire Connecticut River watershed. This trail would become a piece of the Great American Trail System that is envisioned to connect various points throughout the United States.

Trails are much more than routes from Point A to Point B. Increasingly, trails are destinations, providing places for people to recreate and potential for economic development for local communities. Their greatest value may be that trails provide a place to communicate the conservation message and help people learn about our natural environment.

Conservation Planning for New Hampshire's Wildlife

by Ellen J. Snyder, Extension Specialist in Biodiversity, and Coordinator of the NH Living Legacy Project.

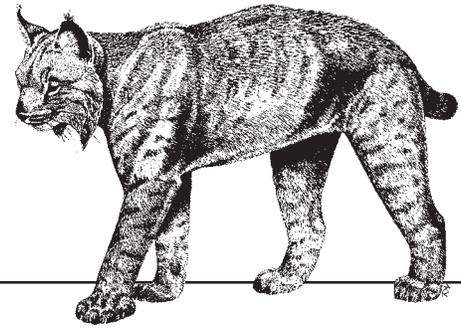
The New Hampshire Fish and Game Department (NHFG) is embarking on a three-year Comprehensive Wildlife Conservation Planning initiative using new federal funding. Congress appropriated money to each state to develop a conservation strategy for the wildlife species in greatest need of conservation. The Nongame and Endangered Wildlife Program is leading the initiative to develop the first statewide wildlife conservation plan.

A set of principles is guiding each state in its development of a comprehensive plan. The guiding principles stress broad public-private partnerships, shared responsibility, efficiency and effectiveness, dynamic strategies, and effective communication. Fortunately NHFG is already engaged in a comprehensive approach to conservation with the Living Legacy Project (LLP). The LLP, a public-private partnership, endorses a well-coordinated, comprehensive system of lands dedicated to protecting the full spectrum of biological diversity. The LLP is poised to greatly advance our knowledge and to significantly improve the availability and utility of wildlife data for conservation.

The LLP identified a suite of wildlife species and critical wildlife habitat in greatest need of conservation. This provides a foundation for gathering all known information about these species, mapping core habitats for species at risk, identifying monitoring and research needs, and developing tools that aid landowners in protecting and managing critical areas for wildlife.

The comprehensive plan will instruct land trust, communities, and agencies on the location of New Hampshire's most critical habitats and on strategies for conservation. The plan will help focus the efforts of the Land and Community Heritage Investment Program (LCHIP), Forest Legacy Committee, Town Open Space Committees, and landowners toward critical habitat areas in need of permanent conservation. In addition, the plan will enable NHFG to establish a baseline for tracking progress in conserving wildlife and their habitats over time and to evaluate the impacts of development, road projects, and other land uses on wildlife.

The new federal funding creates an exciting opportunity to work collectively on wildlife conservation in New Hampshire. As Coordinator of the LLP, I have been asked to play a lead role in coordinating the State's comprehensive wildlife planning process along with Fish and Game staff, a testament to NHFG's commitment to partnerships.



A partial list of the wildlife species and habitats of greatest conservation concern identified by the Living Legacy Project.

Critical Wildlife Habitat	Species of Conservation Concern
Merrimack River sand plains	Karner blue butterfly Eastern hognose snake Fowler's toad
Pitch pine barrens	Common Nighthawk Whip-poor-will frosted elfin butterfly Persius dusky wing
Mature spruce-fir	Three-toed Woodpecker Spruce Grouse (pine) marten
Emergent marsh	Pied-billed Grebe Least Bittern Blanding's turtle spotted turtle
Vernal pool	marbled salamander
Riparian	wood turtle dwarf wedge mussel brook floater Bald Eagle
Sand dune/beach	Piping Plover Least Tern
Grasslands	Grasshopper Sparrow Purple Martin Northern Harrier
Large habitat blocks (>500acres)	lynx bobcat Cooper's Hawk Northern Goshawk



From the Resources Library

by Karen Bennett, Extension Specialist, Forest Resources

UNH Cooperative Extension Forestry Information Center

The following publications are available from the Forestry Information Center. Unless noted, all publications are free. For charge publications, make check payable to UNH Cooperative Extension and remit to Forestry Information Center, Room 211 Nesmith Hall, 131 Main St, Durham, NH 03825. To request copies, call 1-800-444-8978 or email forest.info@unh.edu.

Birding on the Internet is a thorough listing of internet sites put together by Sam Stoddard (UNH Cooperative Extension) and Dave Govatski (USDA-Forest Service). This listing is available as hard copy or through email request.

The USDA-Forest Service published a one-page, fully illustrated pest alert, *Emerald Ash Borer*, and asks that we keep on the lookout for this exotic beetle from Asia. It was discovered in Michigan. Evidence suggests it has been there for five years.

New Hampshire Energy Facts, 2002 by the Governor's Office of Energy and Community Services provides insight into how much and what types of energy we use.

2003 Workshop Proceedings: Using Fire to Control Invasive Plants summarizes research that answers the question, "What's new and what works in the northeast?"

Other Library Resources

Saving Special Places: Community Funding for Land Conservation, a guidebook by Brian Hart (Society for the Protection of NH Forests) and Dorothy Tripp Taylor (Center for Land Conservation Assistance), focuses on helping community activists secure local funding for land protection. Includes case studies, sample warrant articles, newsletters, media releases, and more. Cost is \$15.00, including mailing. Contact Dijit Taylor at (603) 717-7045 for more information.

The Illusion of Preservation: A Global Environmental Argument for the Local Production of Natural Resources by Mary M. Berlik, David B. Kittredge, and David R. Foster (Harvard Forest Paper No. 26) makes the case that the American public's interest in reducing forest management in this country shifts resource consumption to other parts of the world, creating the illusion of preservation. Using Massachusetts as a case study, it argues that similar regions are environmentally desirable places to manage forests intensively. To receive a copy, phone Barbara Flye, Librarian at the Harvard Forest (978) 724-3302 or <<http://harvardforest.fas.harvard.edu/publication/pdf/illusion.pdf>>.



Habitats

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Upcoming Events

Check the event calendar on the UNH Cooperative Extension Forestry and Wildlife Program web site at <<http://ceinfo.unh.edu/forest.htm>>.

Thurs., June 26, 7 - 9 p.m.

Achieving Smart Growth in NH. Community Resource Room, Concord, NH. If you would like to learn more about the "Achieving Smart Growth in NH" project, plan to attend this workshop. Check out the website at <www.state.nh.us/osp>. SPONSOR: Central NH Regional Planning Commission. FREE. Contact Denise at 271-2155.

Fri., July 11, 9 a.m. - 3 p.m.

Getting to Know: The Eastern Wild Turkey. Pinkham Notch Visitors Center, Pinkham Notch, NH. Where did all the turkey's come from? Find out why turkeys are surviving well beyond their historic northern NH range, and what habitat management can be done to support a healthy turkey population. SPONSOR: Appalachian Mountain Club. CREDITS: 3 CEU's NH Licensed Foresters. FEE: \$36 AMC members/\$40 non-members. Contact: 466-2727.

Thurs., August 14, 7:30 p.m.

Logging History. Weeks State Park, Lancaster, NH. SPONSORS: White Mtn. Interpretive Assn., Weeks State Park Assn., UNH Coop. Ext. FREE. Contact: 788-4004.