

Rare Species and Exemplary Natural Communities

The Town of Lyme has many occurrences of rare species and communities documented within its borders. Through numerous studies, there are additional rare species and communities beyond those listed by the Natural Heritage Bureau (NHB), the State agency that houses all reported occurrences. Just during the relatively brief fieldwork time dedicated to this portion of the project, several additional occurrences were recorded throughout Lyme.

Plants that require rich soils such as Maidenhair fern, wild ginseng, blue cohosh, Goldie's fern, dogbane, and many more, are common in Lyme. With its rich soils and diverse habitats, it would be well worth the effort for the Town to consider conducting a comprehensive botanical search in the future. One study that could be built upon is '*Rare, Threatened and Endangered Plants and Animals and Exemplary Natural Communities in the Town of Lyme*,' by Richard G. Jones, April 2002, see References in this report.



Numerous sites of walking fern (*Asplenium rhizophyllum*) were documented in several areas of Lyme during this study.



Rare plant species such as the Stiff Gentian (*Gentiana quinquefolia*) were recorded in Lyme.



Yellow Ladyslippers (*Cypripedium pubescens*) documented in Lyme. (Photo provided by the Lyme Conservation Commission)

Aquatic species are often poorly understood or recognized by many people but play an important role in the ecosystem. Some of the best remaining habitat for some mussel species such as the federally endangered Dwarf Wedge Mussel (*Alasmidonta heterodon*), are found in the Connecticut River, particularly in the northern upper reaches. Though recent studies have not found the Dwarf Wedge Mussel in Lyme (Nedeau, 2006), the species is listed as “Historic” and has been documented in the past. Several other mussel species and snails have been documented in Lyme and it may be possible that a Dwarf Wedge Mussel population exists or could exist in the future.



Aquatic species such as these freshwater snails depend on specialized habitat like the Connecticut River in Lyme. Similar to plants there are numerous species found in NH, some are common and plentiful, others are threatened or endangered, while others are invasive species.

Some NHB listed species within the animal kingdom found in Lyme are the common loon (*Gavia immer*), peregrine falcon (*Falco peregrinus anatum*), and wood turtle (*Glyptemys insculpta*). There are also bobcats (*Felis rufus*) in Lyme, given full protection statewide in New Hampshire.

Lyme residents Richard & Deborah Holmes and John Skelly have documented many species of birds. The information they have gathered over many years is interesting and informative and can be viewed in Appendix IV.



Sometimes the benefits of a pond are forgotten during the winter months when the surface is locked in ice and snow covered, but there still remains an abundance of activity during this time of the year. Beaver, muskrats, mink, river otter, fish, and some aquatic insects do not hibernate and remain active, though unseen, in ponds, streams, and rivers.

Often red fox, gray fox, coyotes and other animals change their travel routes taking advantage of the snow and ice surface. A diversity of wildlife sign can be found along the edge where water, land, and ice meet offering a dynamic blending of habitats only found during the winter months.

Lily Pond in the winter of 2006-2007.
(Photo provided by the Lyme Conservation Commission)

Natural Resource Inventory for Lyme, NH

New Hampshire is home to more than 500 species of vertebrate animals. Many of these animals live in Lyme and the surrounding towns. The number would be considerably larger if a complete list of invertebrates (insects, crustaceans, clams and snails) were included. About 75 percent are nongame wildlife species – not hunted, fished or trapped. Twenty-one species are endangered and thirteen are threatened in the state. The New Hampshire Fish and Game Department maintains a list of Endangered or Threatened animal species in New Hampshire, which is shown on the next page. Minimal information is available relative to their occurrence in Lyme, but their habitats, when identified should be protected.



Peregrine Falcon chicks on Holts Ledge. (Photo courtesy of Lee Hansche via Chris Martin – Audubon Society of New Hampshire)

With its large area of mostly unfragmented forestland and diverse habitat types, and unique bedrock geology, Lyme has potential for containing many rare and endangered plant and wildlife species, beyond those currently recorded.

Natural Resource Inventory for Lyme, NH

NH Natural Heritage Bureau Listing for Lyme



Town Flag	Species or Community Name	Listed?		# reported last 20	
		Federal	State	Town	State
<u>Lyme</u>					
Natural Communities - Terrestrial					
**	Circumneutral rocky ridge	—	-	1	2
***	Montane circumneutral cliff	—	-	2	16
**	Red oak - ironwood - Pennsylvania sedge woodland	—	-	1	10
**	Rich mesic forest	--	-	3	49
Natural Communities - Palustrine					
**	Circumneutral seepage swamp	—	-	1	3
Plants					
**	Beaked Sanicle (<i>Sanicula trifoliata</i>)	—	E	1	13
	Canadian Germander (<i>Teucrium canadense</i> var. <i>virginicum</i>)	—	T	Historical	11
***	Creeping Juniper (<i>Juniperus horizontalis</i>)	—	E	2	2
*	Ebony Sedge (<i>Carex eburnea</i>)	—	E	1	1
	Fringed Gentian (<i>Gentianopsis crinita</i>)	—	T	Historical	25
***	Ginseng (<i>Panax quinquefolius</i>)	--	T	4	59
**	Goldie's Fern (<i>Dryopteris goldiana</i>)	—	T	2	40
**	Hackberry (<i>Celtis occidentalis</i>)	—	T	1	15
	Knotty Pondweed (<i>Potamogeton nodosus</i>)	—	E	Historical	15
**	Large Yellow Lady's Slipper (<i>Cypripedium parviflorum</i> var. <i>pubescens</i>)	—	T	1	17
	Long-fruited Anemone (<i>Anemone cylindrica</i>)	--	E	Historical	11
	Purple Clematis (<i>Clematis occidentalis</i>)	—	T	Historical	2
	Ram's-head Lady's Slipper (<i>Cypripedium arietinum</i>)	—	E	Historical	14
	River Bank Quillwort (<i>Isoetes riparia</i>)	—	E	Historical	13
	Sago Pondweed (<i>Stuckenia pectinata</i>)	—	E	Historical	7
**	Scirpus-like Sedge (<i>Carex scirpoidea</i>)	—	T	2	11
	Sessile-fruited Arrowhead (<i>Sagittaria rigida</i>)	—	T	Historical	7
***	Showy Lady's Slipper (<i>Cypripedium reginae</i>)	—	E	1	7
*	Slender Cliffbrake (<i>Cryptogramma stelleri</i>)	—	T	1	6
*	Smooth Woodsia (<i>Woodsia glabella</i>)	--	E	1	3
***	Snowy Aster (<i>Oligoneuron album</i>)	—	E	2	2
***	Squirrel Corn (<i>Dicentra canadensis</i>)	—	T	1	35
**	Stickseed (<i>Hackelia virginiana</i>)	—	T	1	18
	Thin-leaved Alpine Pondweed (<i>Potamogeton alpinus</i>)	—	E	Historical	8
	Tiny Cowwily (<i>Nuphar microphylla</i>)	—	E	Historical	1
	Vasey's Pondweed (<i>Potamogeton vaseyi</i>)	—	E	Historical	9
***	Walking Fern (<i>Asplenium rhizophyllum</i>)	—	E	1	6
	Water Stargrass (<i>Heteranthera dubia</i>)	—	E	Historical	3
	Yellow Lady's Slipper (<i>Cypripedium parviflorum</i> var. <i>makasin</i>)	—	E	Historical	10
Vertebrates - Birds					
**	Common Loon (<i>Gavia immer</i>)	--	T	1	225
***	Peregrine Falcon (<i>Falco peregrinus anatum</i>)	M	E	1	11
Vertebrates - Reptiles					
**	Wood Turtle (<i>Glyptemys insculpta</i>)	—	-	1	110

Listed?	E = Endangered	T = Threatened	W = Special concern (watch list)	M = Monitored
Flags	**** = Highest importance *** = Extremely high importance ** = Very high importance * = High importance	These flags are based on a combination of (1) how rare the species or community is and (2) how large or healthy its examples are in that town. Please contact the Natural Heritage Bureau at (603) 271-2214 to learn more about approaches to setting priorities.		

6 January 2007

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Natural Resource Inventory for Lyme, NH

Endangered and Threatened Wildlife in New Hampshire

ENDANGERED

Common Name	Scientific Name
MAMMALS	
Canada lynx	<i>Lynx canadensis</i>
Small-footed bat	<i>Myotis leibii</i>
BIRDS	
Pied-billed grebe	<i>Podilymbus podiceps</i>
Bald eagle*	<i>Haliaeetus leucocephalus</i>
Northern harrier	<i>Circus cyaneus</i>
Golden eagle	<i>Aquila chrysaetos</i>
Peregrine falcon	<i>Falco peregrinus</i>
Piping plover*	<i>Charadrius melodus</i>
Upland sandpiper	<i>Bartramia longicauda</i>
Roseate tern*	<i>Sterna dougallii</i>
Common tern	<i>Sterna hirundo</i>
Least tern	<i>Sterna antillarum</i>
Purple martin	<i>Progne subis</i>
Sedge wren	<i>Cistothorus platensis</i>
FISH	
Sunapee trout	<i>Salvelinus alpinus</i>
Shortnose sturgeon*	<i>Acipenser brevirostrum</i>
REPTILES	
Timber rattlesnake	<i>Crotalus horridus</i>
AMPHIBIANS	
Marbled salamander	<i>Ambystoma opacum</i>
INVERTEBRATES	
Dwarf wedge mussel	<i>Alasmodonta heterodon</i>
Brook floater	<i>Alasmodonta varicose</i>
Frosted elfin butterfly	<i>Incisalia irus</i>
Karner blue butterfly*	<i>Lycaeides Melissa samuelis</i>
Persius dusky wing skipper	<i>Erynnis persius persius</i>
Ringed bog hater dragonfly	<i>Williamsonia lintneri</i>

- * = federally Threatened or Endangered

THREATENED

Common Name	Scientific Name
MAMMALS	
Pine marten	<i>Martes Americana</i>
BIRDS	
Common loon	<i>Gavia immer</i>
Osprey	<i>Pandion haliaetus</i>

Natural Resource Inventory for Lyme, NH

Common Name	Scientific Name
Cooper's hawk	<i>Accipiter cooperii</i>
Arctic tern	<i>Sterna paradisaea</i>
Common nighthawk	<i>Chordeiles minor</i>
Three-toed woodpecker	<i>Picoides tridactylus</i>
Grasshopper sparrow	<i>Ammodramus savannarum</i>
REPTILES	
Eastern hognose snake	<i>Heterodon platyhinus</i>
INVERTEBRATES	
Pine pinion moth	<i>Lithophane lepida lepida</i>
Pine barrens Zanclognatha moth	<i>Zanclognatha Martha</i>
Cobblestone tiger beetle	<i>Cicindela marginipennis</i>

To learn more about threatened or endangered species or unique communities, contact the New Hampshire Natural Heritage Bureau office of NH Division of Forest and Lands for plant species (271-3623 website – www.dred.state.nh.us/divisions/forestandlands/bureaus/naturalheritage/index.htm), or the Nongame and Endangered Species Program of the NH Fish and Game Department (271-2461 website – www.wildlife.state.nh.us/Wildlife/nongame_and_endangered_wildlife.htm).



This moist, rich, land containing a diversity of plant species, mostly shaded with rock outcrop, is unique habitat with a high potential for rare or endangered species to exist. Additional findings are being documented to NH Natural Heritage Bureau by Alice Schori and the LCC.