



IW 34

A County Report of
Connecticut's Endangered, Threatened and Special Concern Species

Litchfield County

Amphibians

Scientific Name	Common Name	Protection Status
<i>Ambystoma jeffersonianum</i>	Jefferson salamander "complex"	SC
<i>Ambystoma laterale</i>	Blue-spotted salamander	E/SC
<i>Gyrinophilus porphyriticus</i>	Northern spring salamander	T
<i>Plethodon glutinosus</i>	Northern slimy salamander	T
<i>Rana pipiens</i>	Northern leopard frog	SC

Birds

Scientific Name	Common Name	Protection Status
<i>Accipiter striatus</i>	Sharp-shinned hawk	E
<i>Aegolius acadicus</i>	Northern saw-whet owl	SC
<i>Ammodramus henslowii</i>	Henslow's sparrow	SC*
<i>Ammodramus savannarum</i>	Grasshopper sparrow	E
<i>Anas discors</i>	Blue-winged teal	T
<i>Asio otus</i>	Long-eared owl	E
<i>Bartramia longicauda</i>	Upland sandpiper	E
<i>Botaurus lentiginosus</i>	American bittern	E
<i>Buteo platypterus</i>	Broad-winged hawk	SC
<i>Caprimulgus vociferus</i>	Whip-poor-will	SC
<i>Circus cyaneus</i>	Northern harrier	E
<i>Cistothorus platensis</i>	Sedge wren	E
<i>Dolichonyx oryzivorus</i>	Bobolink	SC
<i>Empidonax alnorum</i>	Alder flycatcher	SC
<i>Eremophila alpestris</i>	Horned lark	E
<i>Falco sparverius</i>	American kestrel	T
<i>Gallinula chloropus</i>	Common moorhen	E

Litchfield County**Birds**

Scientific Name	Common Name	Protection Status
<i>Gavia immer</i>	Common loon	SC
<i>Haliaeetus leucocephalus</i>	Bald eagle	T
<i>Ixobrychus exilis</i>	Least bittern	T
<i>Melanerpes erythrocephalus</i>	Red-headed woodpecker	E
<i>Parula americana</i>	Northern parula	SC
<i>Passerculus sandwichensis</i>	Savannah sparrow	SC
<i>Podilymbus podiceps</i>	Pied-billed grebe	E
<i>Pooecetes gramineus</i>	Vesper sparrow	E
<i>Progne subis</i>	Purple martin	T
<i>Sturnella magna</i>	Eastern meadowlark	SC
<i>Toxostoma rufum</i>	Brown thrasher	SC
<i>Tyto alba</i>	Barn owl	E
<i>Vermivora chrysoptera</i>	Golden-winged warbler	E

Fish

Scientific Name	Common Name	Protection Status
<i>Catostomus catostomus</i>	Longnose sucker	SC
<i>Lota lota</i>	Burbot	E
<i>Notropis bifrenatus</i>	Bridle shiner	SC

Invertebrates

Scientific Name	Common Name	Protection Status
<i>Acronicta albarufa</i>	Barrens dagger moth	SC*
<i>Agonum darlingtoni</i>	Ground beetle	SC
<i>Agrotis stigmosa</i>	Spotted dart moth	SC
<i>Amblyscirtes vialis</i>	Common roadside skipper	E
<i>Anarta luteola</i>	Noctuid moth	E
<i>Anthopotamus verticis</i>	Tusked spawler	SC
<i>Apamea burgessi</i>	Apamea moth	SC

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Invertebrates

Scientific Name	Common Name	Protection Status
<i>Apodrepanulatrix liberaria</i>	New Jersey tea inchworm	T
<i>Atylotus ohioensis</i>	Tabanid fly	SC
<i>Bembidion quadratum</i>	Ground beetle	SC
<i>Bembidion simplex</i>	Ground beetle	SC
<i>Calephelis borealis</i>	Northern metalmark	E
<i>Callophrys irus</i>	Frosted elfin	T
<i>Catocala herodias gerhardi</i>	Herodias underwing	E
<i>Chaetagnaea cerata</i>	Noctuid moth	SC
<i>Cicindela tranquebarica</i>	Dark bellied tiger beetle	SC
<i>Citheronia regalis</i>	Regal moth	SC*
<i>Eacles imperialis imperialis</i>	Imperial moth	SC*
<i>Erynnis lucilius</i>	Columbine duskywing	E
<i>Erynnis persius persius</i>	Persius duskywing	E
<i>Euphyes bimacula</i>	Two-spotted skipper	T
<i>Euphyes dion</i>	Sedge skipper	SC
<i>Exyra fax</i>	Pitcher plant moth	SC
<i>Fossaria galbana</i>	Lymnaeid snail	SC*
<i>Gomphus adelphus</i>	Mustached clubtail	T
<i>Gomphus descriptus</i>	Harpoon clubtail	T
<i>Gomphus quadricolor</i>	Rapids clubtail	T
<i>Gomphus ventricosus</i>	Sillet clubtail	SC
<i>Grammia speciosa</i>	Bog tiger moth	E
<i>Hemaris gracilis</i>	Slender clearwing	T
<i>Hetaerina americana</i>	American rubyspot	T
<i>Hybomitra frosti</i>	Horse fly	T
<i>Hybomitra longiglossa</i>	Horse fly	E
<i>Hybomitra luridus</i>	Horse fly	SC
<i>Hybomitra typhus</i>	Horse fly	SC

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Invertebrates

Scientific Name	Common Name	Protection Status
<i>Hydraecia immanis</i>	Hop vine borer moth	SC*
<i>Leucorrhinia glacialis</i>	Crimson-ringed whiteface	T
<i>Ligumia nasuta</i>	Eastern pond mussel	SC
<i>Lycaena epixanthe</i>	Bog copper	SC
<i>Lycaena hyllus</i>	Bronze copper	SC
<i>Margaritifera margaritifera</i>	Eastern pearl shell	SC
<i>Meropleon ambifuscum</i>	Newman's brocade	SC
<i>Merycomyia whitneyi</i>	Tabanid fly	SC
<i>Metarranthis apiciaria</i>	Barrens metarranthis moth	E
<i>Papaipema appassionata</i>	Pitcher plant borer	E
<i>Papaipema circumlucens</i>	Hops-stalk borer moth	SC*
<i>Papaipema leucostigma</i>	Columbine borer	T
<i>Papaipema sciata</i>	Culvers root bore moth	SC*
<i>Phyllonorycter ledella</i>	Labrador tea tentiform leafminer	E
<i>Procambarus acutus</i>	Whiteriver crayfish	SC
<i>Psectraglaea carnosa</i>	Pink sallow	T
<i>Sargus fasciatus</i>	Soldier fly	SC
<i>Satyrodes eurydice</i>	Eyed brown	SC
<i>Somatochlora elongata</i>	Ski-tailed emerald	SC
<i>Speranza exornata</i>	Barrens itame	T
<i>Speyeria atlantis</i>	Atlantis fritillary butterfly	T
<i>Tabanus fulvicallos</i>	Horse fly	SC
<i>Valvata tricarinata</i>	Turret snail	SC

Mammals

Scientific Name	Common Name	Protection Status
<i>Lasiurus cinereus</i>	Hoary bat	SC
<i>Synaptomys cooperi</i>	Southern bog lemming	SC

Litchfield County

Plants

Scientific Name	Common Name	Protection Status
<i>Abies balsamea</i>	Balsam fir	E
<i>Acalypha virginica</i>	Virginia copperleaf	SC
<i>Agastache scrophulariifolia</i>	Purple giant hyssop	E
<i>Alopecurus aequalis</i>	Orange foxtail	T
<i>Andromeda polifolia</i> var. <i>glaucophylla</i>	Bog rosemary	T
<i>Anemone canadensis</i>	Canada anemone	T
<i>Angelica venenosa</i>	Hairy angelica	SC*
<i>Antennaria howellii</i> ssp. <i>petaloidea</i>	Field pussytoes	SC*
<i>Aplectrum hyemale</i>	Puttyroot	SC*
<i>Arceuthobium pusillum</i>	Dwarf mistletoe	E
<i>Arethusa bulbosa</i>	Arethusa	SC*
<i>Aristida longespica</i>	Needlegrass	SC
<i>Aristolochia serpentaria</i>	Virginia snakeroot	SC
<i>Asclepias viridiflora</i>	Green milkweed	E
<i>Asplenium montanum</i>	Mountain spleenwort	SC
<i>Asplenium ruta-muraria</i>	Wallrue spleenwort	T
<i>Betula pumila</i>	Swamp birch	SC
<i>Bidens beckii</i>	Water-marigold	T
<i>Blephilia ciliata</i>	Downy wood-mint	SC*
<i>Blephilia hirsuta</i>	Hairy woodmint	SC*
<i>Bouteloua curtipendula</i>	Side-oats grama-grass	E
<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	Reed bentgrass	SC
<i>Calystegia spithamea</i>	Low bindweed	SC*
<i>Cardamine douglassii</i>	Purple cress	SC
<i>Carex aestivalis</i>	Summer sedge	SC
<i>Carex alata</i>	Broadwing sedge	E
<i>Carex alopecoidea</i>	Foxtail sedge	T
<i>Carex aquatilis</i> var. <i>aquatilis</i>	Sedge	SC

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Plants

Scientific Name	Common Name	Protection Status
<i>Carex backii</i>	Sedge	E
<i>Carex bushii</i>	Sedge	SC
<i>Carex buxbaumii</i>	Brown bog sedge	E
<i>Carex castanea</i>	Chestnut-colored sedge	E
<i>Carex crawei</i>	Crawe's sedge	T
<i>Carex crawfordii</i>	Crawford sedge	SC*
<i>Carex cumulata</i>	Clustered sedge	T
<i>Carex davisti</i>	Davis' sedge	T
<i>Carex foenea</i>	Bronze sedge	SC*
<i>Carex formosa</i>	Handsome sedge	SC
<i>Carex hitchcockiana</i>	Hitchcock's sedge	SC
<i>Carex limosa</i>	Sedge	T
<i>Carex magellanica</i>	Sedge	E
<i>Carex molesta</i>	Troublesome sedge	SC
<i>Carex novae-angliae</i>	New England sedge	SC
<i>Carex oligocarpa</i>	Eastern few-fruit sedge	SC
<i>Carex pauciflora</i>	Few-flowered sedge	SC*
<i>Carex prairea</i>	Prairie sedge	SC
<i>Carex pseudocyperus</i>	Cyperus-like sedge	E
<i>Carex schweinitzii</i>	Schweinitz's sedge	E
<i>Carex squarrosa</i>	Sedge	SC
<i>Carex sterilis</i>	Dioecious sedge	SC
<i>Carex trichocarpa</i>	Sedge	SC
<i>Carex tuckermanii</i>	Tuckerman's sedge	SC
<i>Carex viridula</i>	Little green sedge	E
<i>Castilleja coccinea</i>	Indian paintbrush	T
<i>Chamaelirium luteum</i>	Devil's-bit	E

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Plants

Scientific Name	Common Name	Protection Status
<i>Coeloglossum viride</i>	Long-bracted green orchid	E
<i>Corallorhiza trifida</i>	Early coral root	SC
<i>Cryptogramma stelleri</i>	Slender cliff-brake	E
<i>Cuphea viscosissima</i>	Blue waxweed	SC*
<i>Cypripedium parviflorum</i>	Yellow lady's-slipper	SC
<i>Cypripedium reginae</i>	Showy lady's-slipper	E
<i>Dalibarda repens</i>	Dew-drop	E
<i>Desmodium cuspidatum</i>	Large-bracted tick-trefoil	E
<i>Desmodium glabellum</i>	Dillenius' tick-trefoil	SC
<i>Desmodium humifusum</i>	Trailing tick-trefoil	E
<i>Dicentra canadensis</i>	Squirrel corn	SC
<i>Dichantherium xanthophysum</i>	Panic grass	SC*
<i>Diplazium pycnocarpon</i>	Narrow-leaved glade fern	E
<i>Draba reptans</i>	Whitflow-grass	SC
<i>Dryopteris campyloptera</i>	Mountain wood-fern	E
<i>Dryopteris goldiana</i>	Goldie's fern	SC
<i>Eleocharis equisetoides</i>	Horse-tail spike-rush	E
<i>Elymus wiegandii</i>	Wiegand's wild rye	SC
<i>Equisetum pratense</i>	Meadow horsetail	E
<i>Equisetum scirpoides</i>	Dwarf scouring rush	E
<i>Eriophorum vaginatum var. spissum</i>	Hare's tail	T
<i>Galium labradoricum</i>	Bog bedstraw	E
<i>Gaultheria hispidula</i>	Creeping snowberry	SC
<i>Gaylussacia dumosa var. bigeloviana</i>	Dwarf huckleberry	T
<i>Gentianella quinquefolia</i>	Stiff gentian	E
<i>Geranium bicknellii</i>	Bicknell's northern crane's-bill	SC*
<i>Helianthemum propinquum</i>	Low frostweed	T
<i>Hepatica nobilis var. acuta</i>	Sharp-lobed hepatica	SC

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Plants

Scientific Name	Common Name	Protection Status
<i>Houstonia longifolia</i>	Longleaf bluet	T
<i>Hydrocotyle umbellata</i>	Water pennywort	E
<i>Hydrophyllum virginianum</i>	Virginia waterleaf	SC
<i>Hypericum ascyron</i>	Great St. John's-wort	SC
<i>Isotria medeoloides</i>	Small whorled pogonia	E
<i>Krigia biflora</i>	Two-flowered cynthia	SC
<i>Liatrix scariosa var. novae-angliae</i>	Blazing-star	SC
<i>Linnaea borealis ssp. americana</i>	Twinflower	E
<i>Linum sulcatum</i>	Yellow flax	E
<i>Lipocarpus micrantha</i>	Dwarf bulrush	T
<i>Lygodium palmatum</i>	Climbing fern	SC
<i>Lythrum alatum</i>	Winged loosestrife	E
<i>Maianthemum trifolium</i>	Three-leaved false Solomon's-seal	T
<i>Malaxis brachypoda</i>	White adder's-mouth	E
<i>Malaxis unifolia</i>	Green adder's-mouth	E
<i>Milium effusum</i>	Tall millet-grass	E
<i>Mitella nuda</i>	Naked miterwort	SC
<i>Moneses uniflora</i>	One-flower wintergreen	E
<i>Myriophyllum alterniflorum</i>	Slender water-milfoil	E
<i>Myriophyllum sibiricum</i>	Northern water-milfoil	T
<i>Nuphar microphylla</i>	Small yellow pond lily	SC
<i>Oligoneuron album</i>	Prairie goldenrod	E
<i>Oligoneuron rigidum</i>	Stiff goldenrod	E
<i>Onosmodium virginianum</i>	Gravel-weed	E
<i>Ophioglossum pusillum</i>	Adder's-tongue	T
<i>Orthilia secunda</i>	One-sided pyrola	SC*
<i>Oxalis violacea</i>	Violet wood-sorrel	SC

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Plants

Scientific Name	Common Name	Protection Status
<i>Packera paupercula</i>	Ragwort	T
<i>Panax quinquefolius</i>	American ginseng	SC
<i>Pellaea glabella</i>	Smooth cliff-brake	E
<i>Petasites frigidus var. palmatus</i>	Sweet coltsfoot	T
<i>Pinus resinosa</i>	Red pine	E
<i>Piptatherum pungens</i>	Slender mountain ricegrass	E
<i>Plantago virginica</i>	Hoary plantain	SC
<i>Platanthera blephariglottis</i>	White-fringed orchid	E
<i>Platanthera dilatata</i>	Tall white bog orchid	SC*
<i>Platanthera flava var. herbiola</i>	Pale green orchid	SC
<i>Platanthera hookeri</i>	Hooker's orchid	SC*
<i>Platanthera orbiculata</i>	Large round-leaf orchid	SC*
<i>Podostemum ceratophyllum</i>	Threadfoot	SC
<i>Polanisia dodecandra</i>	Clammy-weed	SC*
<i>Polygala senega</i>	Seneca snakeroot	E
<i>Populus heterophylla</i>	Swamp cottonwood	T
<i>Potamogeton confervoides</i>	Pondweed	E
<i>Potamogeton friesii</i>	Fries' pondweed	E
<i>Potamogeton hillii</i>	Hill's pondweed	E
<i>Potamogeton ogdenii</i>	Ogden's pondweed	E
<i>Potamogeton strictifolius</i>	Straight-leaved pondweed	E
<i>Potamogeton vaseyi</i>	Vasey's pondweed	T
<i>Potentilla arguta</i>	Tall cinquefoil	SC
<i>Pycnanthemum clinopodioides</i>	Basil mountain-mint	E
<i>Quercus macrocarpa</i>	Bur oak	SC
<i>Ranunculus ambiguus</i>	Water-plantain spearwort	E
<i>Ranunculus longirostris</i>	White water-crowfoot	SC
<i>Ranunculus pensylvanicus</i>	Bristly buttercup	SC*

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Plants

Scientific Name	Common Name	Protection Status
<i>Rhododendron groenlandicum</i>	Labrador tea	T
<i>Rhynchospora capillacea</i>	Capillary beak-rush	E
<i>Rhynchospora macrostachya</i>	Beaked rush	T
<i>Ribes glandulosum</i>	Skunk currant	SC
<i>Ribes rotundifolium</i>	Wild currant	SC
<i>Ribes triste</i>	Swamp red currant	E
<i>Rubus cuneifolius</i>	Sand bramble	SC
<i>Salix pedicellaris</i>	Bog willow	E
<i>Salix serissima</i>	Autumn willow	SC
<i>Scheuchzeria palustris ssp. americana</i>	Pod grass	E
<i>Schizachne purpurascens</i>	Purple oat	SC
<i>Schoenoplectus acutus</i>	Hard-stemmed bulrush	T
<i>Schoenoplectus torreyi</i>	Torrey bulrush	T
<i>Scleria verticillata</i>	Low nutrush	SC*
<i>Scutellaria parvula var. missouriensis</i>	Small skullcap	E
<i>Senna hebecarpa</i>	Wild senna	SC
<i>Sibbaldiopsis tridentata</i>	Three-toothed cinquefoil	T
<i>Silene stellata</i>	Starry champion	T
<i>Solidago rugosa var. sphagnophila</i>	Early wrinkle-leaved goldenrod	SC*
<i>Sparganium fluctuans</i>	Floating bur-reed	E
<i>Sparganium natans</i>	Small bur-reed	E
<i>Sporobolus cryptandrus</i>	Sand dropseed	T
<i>Sporobolus neglectus</i>	Small dropseed	E
<i>Stellaria borealis</i>	Northern stitchwort	SC
<i>Streptopus amplexifolius</i>	White mandarin	T
<i>Taenidia integerrima</i>	Yellow pimpernel	E
<i>Thuja occidentalis</i>	Northern white cedar	T

Litchfield County

Plants

Scientific Name	Common Name	Protection Status
<i>Trichomanes intricatum</i>	Appalachian gametophyte	SC
<i>Trichophorum alpinum</i>	Cotton bulrush	SC*
<i>Trichostema brachiatum</i>	False pennyroyal	E
<i>Triphora trianthophora</i>	Nodding pogonia	E
<i>Trisetum spicatum</i>	Narrow false oats	SC
<i>Trollius laxus</i>	Spreading globe flower	T
<i>Utricularia resupinata</i>	Bladderwort	E
<i>Uvularia grandiflora</i>	Large-flowered bellwort	E
<i>Vaccinium myrtilloides</i>	Velvetleaf blueberry	E
<i>Viola canadensis</i>	Canada violet	SC
<i>Viola nephrophylla</i>	Northern bog violet	SC
<i>Viola renifolia</i>	Kidney-leaf white violet	SC
<i>Viola selkirkii</i>	Great-spurred violet	SC
<i>Waldsteinia fragarioides</i>	Barren strawberry	E
<i>Xyris montana</i>	Northern yellow-eyed grass	T

Reptiles

Scientific Name	Common Name	Protection Status
<i>Crotalus horridus</i>	Timber rattlesnake	E
<i>Eumeces fasciatus</i>	Five-lined skink	T
<i>Glyptemys insculpta</i>	Wood turtle	SC
<i>Glyptemys muhlenbergii</i>	Bog turtle	E
<i>Heterodon platirhinos</i>	Eastern hognose snake	SC
<i>Liochlorophis vernalis</i>	Smooth green snake	SC
<i>Terrapene carolina carolina</i>	Eastern box turtle	SC
<i>Thamnophis sauritus</i>	Eastern ribbon snake	SC

E = Endangered, T = Threatened, SC = Special Concern, * Believed Extirpated

*State of Connecticut
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DEPARTMENT OF ENVIRONMENTAL PROTECTION



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The DEP conducts a variety of research and management programs to protect and restore endangered, threatened and special concern species in Connecticut and serves as the primary source of information on the status of rare plant and animal species throughout the state.

Information on state and federal listed species and natural communities is compiled and made available through the Department's Natural Diversity Data Base (NDDDB). Established in 1983, the NDDDB contains data from biological inventories conducted over the past 100 years. The NDDDB currently contains information on the status of nearly 2000 species of plants and animals, including invertebrates and 45 natural community types.

The DEP's Wildlife, Fisheries and Forestry Divisions conduct research and collect data on state listed species. Biologists, students, volunteers, conservation groups, and landowners, have all contributed valuable data that help us learn more about the biological diversity in our state.

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Connecticut Department of Environmental Protection

AMERICAN BITTERN *Botaurus lentiginosus*

IW 36

ENDANGERED



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Habitat: Freshwater and saltwater wetlands. **Food:** Frogs, salamanders, crayfish, water scorpions, diving beetles, dragonflies, killifish, pickerel, suckers, small eels, garter and water snakes, and occasionally voles.
Weight: 1-2 pounds. **Status:** State endangered.
Length: 28 inches.
Wingspan: 42 inches.
Life Expectancy: Approximately 8 years of age.

Identification: Adult American bitterns are large, somewhat stocky birds with yellow eyes, rich brown upperparts, and a white throat that is offset by black streaks. Dark flight feathers are conspicuous on the wing tips when the birds are in flight. The sexes are similar in appearance. Juvenile bitterns lack neck streaking.

Range: American bitterns occur from Central British Columbia east to Newfoundland, south, locally, to the Gulf Coast and west to southern California. They migrate south, but not to the extent that many other wetland birds do. The species winters in the southeastern and Gulf States and as far south as Central America and Cuba.

Reproduction: American bitterns migrate north to breed from mid-April to early May. Unlike other members of the heron family, these birds are not colonial nesters. Male bitterns may be polygamous (more than 1 mate) and often have several females nesting separately within their territory. Females choose the nest site in wetland areas, usually on the ground or raised slightly on a platform of thick vegetation. The female also builds the nest, usually out of reeds, sedges and similar plant material. The nest is 6 to 13 inches high and 12 to 16 inches wide, The 2 to 5 elliptical, olive-buff to buff-brown, slightly glossy eggs are laid at daily intervals.

Incubation begins when the first egg is laid and lasts for 24 to 29 days. The female is responsible for both incubation and tending the young. Young bitterns differ in size. They leave the nest after about two weeks but continue to be tended nearby. Their age of independence and first flight is unknown.

Reason for Decline: The primary reason for the decline in American bittern populations is loss of habitat. The marshes and swamps upon which this species depends have been drained and filled for a variety of human uses including roadways, housing and commercial developments.

History in Connecticut: The American bittern was common in Connecticut during the late 1800s and it was a regular, but not abundant, resident of freshwater wetlands in the early 1900s. It is currently considered a rare migrant and uncommon nester, with only one confirmed Connecticut breeding location reported in the last decade.

Interesting Facts: The American bittern, like many other herons, is solitary and moves slowly and secretively through dense marsh vegetation. Bitterns are most active at dusk and through the night. If alarmed, a bittern will stand motionless with its bill pointed straight up and its body contracted. This habit gave the bird its regional names of sky-gazer, look-up and stake-bird. Bitterns that flush when startled give a nasal "haink" call and beat their wings rapidly as they take flight.

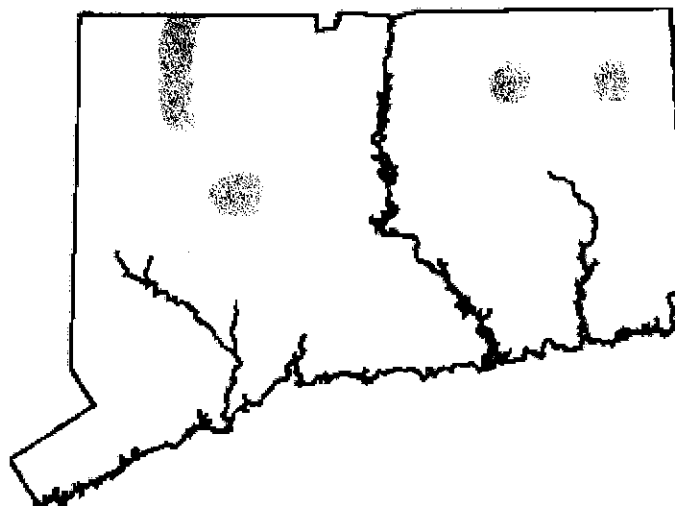
Bitterns call most often in the spring. A loud, guttural "pump-er-wink" is usually heard at dusk and gets its booming quality from a specialized esophagus. This unique call has led to many other common names, including water-belcher, mire drum and thunder pumper.

During the breeding season, the males perform a remarkable courtship walk displaying white fan-like ruffs raised over their back and shoulders.

Protective Legislation: *Federal* - Migratory Bird Treaty Act of 1918. *State* - Connecticut General Statutes Sec. 26-311.

What You Can Do: Support for strong wetland conservation legislation, along with water pollution control efforts, will help protect the habitat of American bitterns.

Connecticut Range



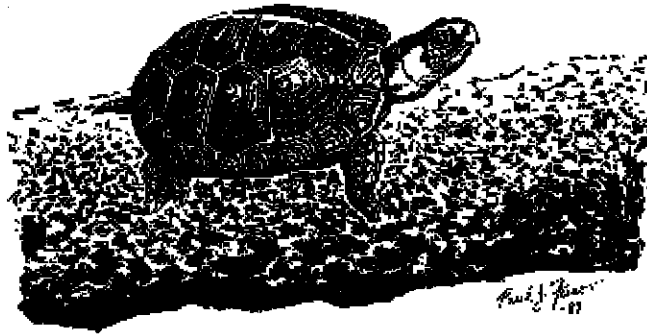


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Connecticut Department of Environmental Protection

BOG TURTLE *Clemmys muhlenbergii*

ENDANGERED



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Habitat: Calcareous (containing calcium carbonate, calcium or lime) wetlands such as open sphagnum bogs, wet meadows and wet pastures.

Weight: Approximately 4 ounces.

Length: 3-3.5 inches.

Life Expectancy: Although specifically unknown, the maximum age is estimated to be around 40 years.

Food: Seeds, berries, insects, slugs, worms, crayfish, frogs, snakes, snails and carrion.

Status: Federally threatened; state endangered.

Identification: The bog turtle is the smallest of the 8 species of turtles found in Connecticut. It has an orange or yellow head patch which is sometimes divided into 2 parts. The large scutes of the dark carapace, or upper shell, have yellow or reddish centers.

Range: Bog turtles currently occur in scattered colonies in western Connecticut, western Massachusetts, and through New York, south to northeast Maryland, southern Virginia, western North Carolina and Georgia.

Reproduction: Bog turtles breed in late April to early June after emerging from hibernation. Nests are usually in tussocks or on sphagnum moss in sunny areas of a bog. The 2 to 5 (usually 2-3) eggs are laid from June to July and are left on their own to develop and hatch. Incubation lasts for 7 to 8 weeks and hatching occurs from July to early September. In Connecticut, eggs may overwinter in the nest and hatch in the spring when there is an abundant food supply. The nests are often preyed on by skunks and raccoons. The young are only 1 inch long at hatching and are often taken by a variety of birds and mammals. Bog turtles reach sexual maturity at 5 to 8 years of age.

Reason for Decline: Intensive development pressure in all portions of the bog turtle's range have caused the draining and filling of many wetlands. Remaining wetlands have been isolated, resulting in the fragmentation of bog turtle populations. These small populations cannot mix with others and only breed within themselves. The result is a loss of genetic variation, which then reduces the population's ability to adapt to a changing environment. Bog turtles are very sensitive to changes in their environment, such as increased nutrification, altered drainage, vegetation changes or pollution.

History in Connecticut: The bog turtle is the rarest turtle in Connecticut. Only small, isolated populations exist in the state and information on them is scant. Populations of bog turtles have been documented in 5 Connecticut towns. Unconfirmed sightings and single specimens have been reported from several other towns between the Housatonic and Connecticut rivers. Collection for the pet trade has further depleted local populations. In 1973, the bog turtle was given protection by CITES, the Convention on International Trade in Endangered Species, and it is currently a candidate to be put on the federal endangered species list. In Connecticut, it is against the law to remove any bog turtle, including eggs, from the wild.

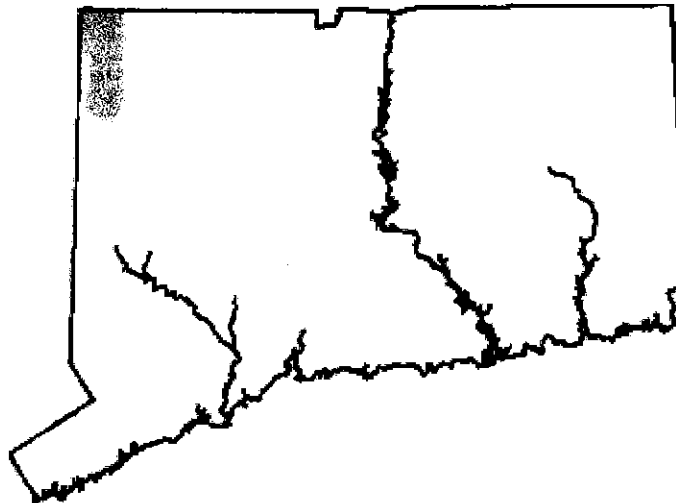
Interesting Facts: During the winter months, bog turtles hibernate underwater in deep areas of bogs in about 6 to 18 inches of mud. Immature turtles do not hibernate in deep mud until they are 2 to 3 years old. The turtles emerge from hibernation in late March to April and may migrate short distances to feeding and breeding sites.

Bog turtles rely on an abundance of grassy or mossy cover and high humidity. Open, sunny areas where the turtles can bask to raise their body temperature are also important. The turtles feed during the daylight hours; however, they are seldom active during the hottest part of the day and are inactive on chilly mornings. Adult turtles are preyed on by raccoons, skunks, foxes and dogs.

Protective Legislation: *Federal* - Endangered Species Act of 1973. *State* - Connecticut General Statutes Sec. 26-311 and Connecticut Regulation 26-66-14a.

What You Can Do: Do not disturb or damage bog habitats. Bog turtles may not be collected from the wild, and they should not be kept as pets. The pet trade has encouraged illegal capture of bog turtles in many areas of the country and can only effectively be stopped by reducing the demand for bog turtles as pets.

Connecticut Range



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Connecticut Department of Environmental Protection

BALD EAGLE

Haliaeetus leucocephalus

State Threatened Species



Background

The bald eagle is best known as the national emblem of the United States of America. It was chosen for this honor in 1782 by the Second Continental Congress because the species is unique to North America. However, the bald eagle went from being common in the early 1700s to extremely rare in the lower 48 states by the 1960s. This precipitous decline was due to loss of habitat and nesting trees, food contamination by pesticides, and illegal shooting. Contamination of food by the organochlorine pesticide DDT is widely accepted as a major reason why populations of eagles, along with many other raptor species, declined in the mid-20th century. DDT accumulated in the food chain and, when contaminated food was ingested by eagles, it caused them to lay eggs with weakened shells that cracked when the birds incubated their eggs. Eagle populations across the country were decimated. General use of DDT was banned in the United States in 1972.

The bald eagle was first declared an endangered species with the passage of the federal Endangered Species Act in 1973. Populations eventually began to recover due to the ban on DDT use, successful reintroduction programs of fostered chicks and fledglings, and habitat and nest protection measures. In 1995, the U.S. Fish and Wildlife Service reclassified the bald eagle from endangered to threatened in the lower 48 states. Populations continued to recover enough that, in 2007, the bald eagle was officially removed from the federal Endangered Species List. However, bald eagles are still protected on the federal level by the Bald Eagle and Golden Eagle Protection Act of 1940 and the Migratory Bird Treaty Act of 1918.

The bald eagle was no longer a nesting species (extirpated) in Connecticut by the 1950s. When Connecticut's first official Endangered, Threatened, and Special Concern Species List was passed

In 1992, the bald eagle was classified as an endangered species. That same year, the state documented its first successful nesting of bald eagles since the 1950s when a pair raised 2 young in Litchfield County. Leg bands revealed that the nesting pair came from a reintroduction project in Massachusetts sponsored by the Massachusetts Division of Fisheries and Wildlife. Five years later, a second pair of bald eagles successfully nested in Connecticut. The nesting population has increased gradually and, in 2010, 18 pairs of bald eagles made nesting attempts in the state. Nesting attempts or territorial pairs have been documented in 6 of the state's 8 counties. Due to the increase in nesting pairs in recent years, the bald eagle's status in Connecticut was reclassified as threatened in 2010.

Wintering eagles come to Connecticut looking for open water in which to feed when the land and waters in Maine and Canada are frozen. If harsh weather in Connecticut causes any open water to freeze over as well, the eagles continue to migrate farther south. Up to 100 eagles winter in Connecticut, from December to early March, along major rivers and at large reservoirs. The number of wintering eagles has been increasing slowly, depending on the severity of each winter. With the increase in nesting and wintering eagles in Connecticut, there is still a challenge to reconcile human recreation and shoreline development, which decrease suitable habitat, with the specific needs of this state threatened species.

Range

The bald eagle nests from Alaska and Newfoundland south to Baja California, the Gulf Coast and Florida. The greatest concentrations of wintering bald eagles are found from November to March in the western and midwestern United States. Smaller concentrations of wintering eagles are also found in New England during this same time period.

Description

Adult bald eagles have a snow-white head and tail, and a brownish-black body. The bill, eyes, and feet are yellow. Immature eagles are uniformly grayish-brown. The distinctive adult plumage is attained at 4 to 5 years of age. Bald eagles are about 34 to 43 inches long, can weigh 8 to 14 pounds, and have a wingspan of 6 to 8 feet. The sexes are similar in appearance, although the females are larger. Bald eagles have a life expectancy of 25 to 30 years, and longer in captivity.

Young bald eagles are often confused with golden eagles; however, they are grayer than the darker golden eagle, and the bill is much heavier.

Habitat and Diet

Natural year-round habitat of bald eagles includes lakes, marshes, rivers, or seacoasts, where there are tall trees nearby for nesting and roosting and plenty of fish for eating.

Although bald eagles feed primarily on fish, they also are opportunistic predators and scavengers that will eat anything that can be caught easily or scavenged, such as waterfowl, small and large mammals, and livestock carrion. In addition, they have a reputation of being thieves, robbing other raptors or gulls of their catch.

Eagles kill prey by grasping it with their strong feet and sharp talons. They can carry their prey in flight but are unable to carry much more than 4 pounds. An eagle's beak is used solely for tearing flesh.

Life History

Bald eagles reach sexual maturity at 4 to 6 years of age. The breeding season in Connecticut begins in January, and most pairs lay their eggs in February and March. Bald eagles return to the same nesting areas year after year and often breed with the same mate. If something happens to either the male or female, the surviving bird will find a new mate. The nest, which sometimes measures 7 to 8 feet across, is a flat-topped mass of sticks, with a lining of fine vegetation such as rushes, mosses, or grasses. It is built in trees, 10 to 150 feet above ground. There are usually

1 to 3 (average 2) dull, white eggs in a clutch. Both the male and female incubate the eggs and feed the young. The eggs are incubated for about 35 days, and the chicks usually fledge (reach flying stage) in 12 weeks.

Interesting Facts

The flight speed of a bald eagle ranges between 36 and 44 miles per hour.

At night, wintering eagles often congregate at communal roost trees; in some cases, they travel 12 or more miles from a feeding area to a roost site. Roosts are often used for several years. Many roosts are protected from the wind by vegetation or terrain, providing a favorable thermal environment. Use of these protected sites helps minimize energy stress. In addition, communal roosting may aid the birds in their search for food.

Despite their large size, eagles are easily disturbed by unpredictable human activity, making delineated protection zones necessary around areas of high eagle use, particularly nest sites and winter roosts. Disturbance at nest sites may cause the birds to abandon their nest, even if there are eggs or young in the nest. Because winter is a stressful time for eagles, it is important that preferred winter feeding areas be protected. If the birds are frequently disturbed from feeding and forced to travel to a different area for food, their lives may be threatened. Adult eagles are more easily disturbed than juveniles.

How You Can Help

Winter is a difficult time for any wildlife species, including bald eagles. Food is harder to find and cold temperatures cause energy stress. If you see one or more eagles feeding or roosting, leave them alone and observe them from a distance.

It is also important to stay away from nesting areas to avoid disturbing the birds. Several Connecticut bald eagle nests are located on private property where there is no public access. Respect posted areas and do not trespass on private property to view eagles.

The Wildlife Division participates in a midwinter eagle survey in January for the United States Geological Survey; volunteers are always welcome to help in this effort.



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(rev. 10/10)*

Connecticut Department of Environmental Protection

TIMBER RATTLESNAKE

Crotalus horridus

ENDANGERED



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Habitat: Deciduous forests (often second growth) in rugged terrain with steep ledges, rock slides and a nearby water supply.

Size: Adults average 38-43 inches in length.

Life Expectancy: 30 years in captivity.

Food: Primarily mice, other small mammals, like voles, shrews, chipmunks and squirrels, and occasionally birds.

Status: State endangered.

Identification: The timber rattlesnake and the copperhead are the only venomous snakes found in Connecticut. Rattlesnakes can usually be identified by the distinctive rattle at the tip of the tail. Other distinguishing characteristics include vertical eye pupils, a flattened, unmarked, triangular head about twice the size of the neck, and undivided scales on the underside between the vent and the tip of the tail.

The timber rattlesnake is a heavy-bodied snake that occurs in 2 color variations in Connecticut. The yellow variation has black or brown crossbands on a yellow, brown or gray background. The crossbands, which may be V-shaped, break up toward the head to form a row of dark spots down the back and each side. The dark variation has a heavy speckling of black or very dark brown that hides much of the lighter pigment. Both sexes are similar, although the males have longer tails (not rattles).

Range: Timber rattlesnakes range from southern New Hampshire, west through the Champlain Valley, south through the Appalachian and Blue Ridge Mountains, into northeastern Texas and north along the Mississippi River to Wisconsin.

Reproduction: Timber rattlesnakes breed in either the spring or fall and give birth to an average of 9 young in August to late September. The young snakes are born live in a membranous sac which they open with a sharp egg tooth. The 8 to 10-inch long young are equipped with a single, tiny rattle segment (button), venom and fangs; they receive no maternal care. Timber rattlesnakes reach sexual maturity between 7 to 10 years of age. Females breed every third or fourth year.

Reason for Decline: Indiscriminate killing, illegal collection and loss of habitat due to human development have resulted in the severe decline of timber rattlesnake populations. The species has been eliminated from many parts of its historic range. Disturbance by humans and lack of

suitable den sites appear to be the major limiting factors for rattlesnakes in Connecticut.

History in Connecticut: The timber rattlesnake was probably very widespread in colonial times, as evidenced by the many land features named "rattlesnake." In the past, some Connecticut towns had bounties on rattlesnakes, and many of the dens were repeatedly decimated. Once documented in over 20 towns in Connecticut, this snake is now limited to isolated populations in 10 towns.

Interesting Facts: As a member of the "pit viper" family, the timber rattlesnake has facial pits located on each side of its head between the eye and nostril. These pits are sensitive to radiant heat and help the snake detect warm-blooded prey in the darkness. Non-venomous snakes do not have these heat-sensitive pits.

Snakes have poor eyesight; their vision is limited to detecting motion at short distances. Their sense of smell is highly developed. Snakes flick their modified forked tongue in the air, collecting scent particles. They have no ears but can detect vibrations in the ground to determine the size of passing animals, the animals' direction and distance from the snake. The rattle is an important warning device. Black rat snakes, milk snakes and others mimic a rattling noise by vibrating their tail in dry leaves.

Rattlesnakes have 2 hollow fangs, which are connected to a venom gland and located in the front of the mouth. They are shed periodically and replaced. The primary purpose of venom is to immobilize prey and to aid in digestion. Venom in snakes is not a defensive adaptation. Defensive bites may carry only a fraction of the venom injected in prey.

During the winter months, groups of timber rattlesnakes hibernate together underground in dens in rocky ledges. Many other species of snakes may hibernate in the same den. In mid-April, the rattlesnakes emerge from their dens to bask on the ledges during the day. In May and June, the snakes begin to migrate in a pattern which, by fall, will bring them back to the den. Breeding can occur only in the spring and fall when the males and receptive females are in the same area. The snakes probably travel between 1.3 and 2.5 miles from the den during this seasonal cycle.

In Connecticut, rattlesnake bites are rare. If a bite occurs, medical attention should be sought as soon as possible. The victim should remain calm; an increased heart rate will speed up the spread of venom. The traditional snake bite treatment of a tourniquet and sucking out of the venom is not recommended.

Timber rattlesnakes are secretive by nature. They usually detect approaching humans and move away to hide. If a sleeping rattlesnake is encountered, it may recoil into a defensive posture and rattle. When this situation occurs, the best solution is to back away slowly. Snake vision is designed to detect motion; quick movements may further agitate the snake.

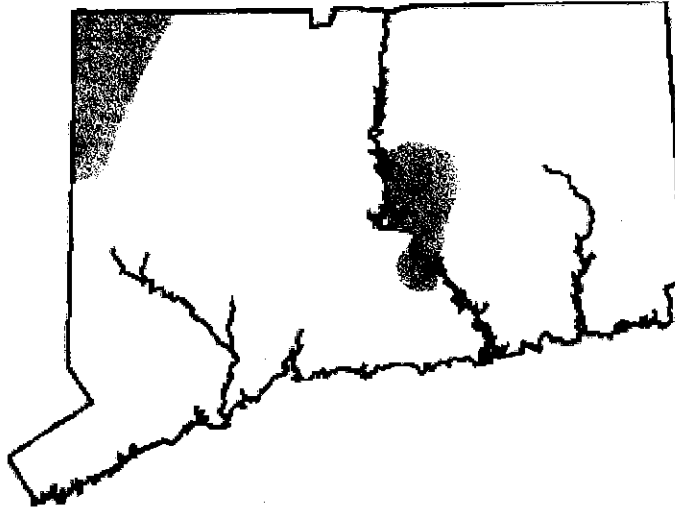
Protective Legislation: State - Connecticut General Statutes Sec. 26-311.

What You Can Do: In areas of the state where timber rattlesnakes still exist, intensive land development can place humans in the species' migratory path. Use of yards by snakes can be discouraged by removing hiding places. Keep grass cut short and remove brush piles and stone walls. Be careful where pets are allowed to roam. Usually, human presence is sufficient enough to drive off a snake. If a snake persists, assistance is available. Contact the Wildlife Division at 642-7239 or DEP Communications at 566-3333 to find out about volunteers in your area who are qualified to handle venomous snakes. Do not attempt to remove timber rattlesnakes on your own; they can be aggressive when handled.

Timber rattlesnakes are protected by Connecticut's threatened and endangered species legislation http://www.ct.gov/dep/cwp/view.asp?a=2723&q=326068&depNav_GID=1655&pp=12&n=1 2/6/2011

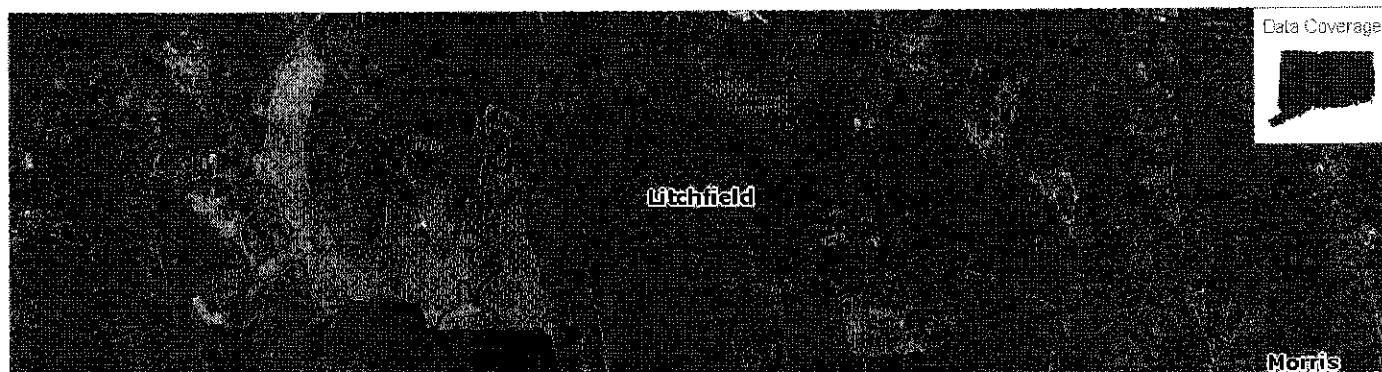
and cannot be killed. If you observe anyone killing a rattlesnake, report the violation to the state TIP (Turn in Poachers) Program at 1-800-842-HELP. The Wildlife Division appreciates your help in conserving this important species and welcomes sighting reports and other information you may have.

Connecticut Range



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Connecticut Critical Habitats



Description

Connecticut Critical Habitats depicts the classification and distribution of twenty-five rare and specialized wildlife habitats in the state. It represents a compilation of ecological information collected over many years by state agencies, conservation organizations and many individuals. Examples of critical habitats include Acidic Atlantic White Cedar Swamps, Sand Barrens, Dry Subacidic Forests and Intertidal Marshes. Connecticut Critical Habitats is the result of a project, which took place from 2007-2009, to create habitat maps to be used in land use planning and natural resource protection. Critical habitats range in size from areas less than 1 acre to areas that are 10's of acres in extent. Connecticut Critical Habitats is best represented when viewed with high resolution imagery at scales between 1:2,000 and 1:12,000.

Connecticut's landscape ranges from the coast of Long Island Sound to the mountain ridges and marble valleys in the northwestern hills, separated by the broad Central Valley and the Metacomet Ridge. The state's varied climate, geology, soil types, topography, and watersheds support a wide range of vegetative communities that provide diverse habitats for its wildlife. Many of Connecticut's wildlife species are considered to be of conservation significance due to their rarity and/or association with specialized habitats. The 25 non-aquatic habitat types mapped here were chosen from the "key habitats of greatest conservation need" identified in the Connecticut Comprehensive Wildlife Conservation Strategy (CWCS). These habitat types have a long history of conservation interest and have been documented and studied as being among the most rare, unique, and threatened, habitats in the state.

Purpose

Connecticut Critical Habitats provides the identification and distribution of a subset of important wildlife habitats identified in the Connecticut Comprehensive Wildlife Conservation Strategy. Connecticut Critical Habitats can be used in conjunction with other environmental and natural resource information to provide a more thorough understanding of the physical characteristics of each habitat. The spatial relationships between

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these areas and data such as land ownership and past, present and projected land use can be analyzed. The Connecticut Critical Habitats information can serve to highlight ecologically significant areas and to target areas of species diversity for land conservation and protection. Biologists may use this data to target further research on associated plant and animal species.









The need for this type of data at the state level is underscored in the Comprehensive Wildlife Conservation Strategy and in the “Connecticut Green Plan, Guiding Land Acquisition and Protection 2007 – 2012”. The Connecticut Department of Environmental Protection’s Green Plan places high importance and assigns acquisition priority to ecological communities that maintain biological integrity and diversity in Connecticut.









Governor M. Jodi Rell’s Executive Order 15 on Responsible Growth, which provided the majority of the funding for the Connecticut Critical Mapping project, identifies a broader use for regional planning agencies, municipalities, nongovernmental organizations and other public interests. This data will assist stakeholders “...to better identify sensitive ecological areas and unique features, guide acquisition and preservation efforts, support local build-out maps and assessments...”

Legend Description


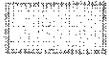
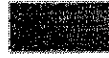
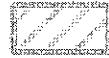


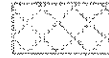
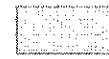
The legend is a composite of three fields (Group_Legend, CommType and Label) in the attribute table that can be used to organize and categorize the critical habitats. The Group_legend field is used to categorize and simplify the legend. Community types may contain multiple subtypes, as listed in the descriptions below. These subtypes are too numerous to include in a comprehensive legend. When a user sees adjoining polygons of the same community type, those polygons would have different community subtypes, which can be viewed in the attributes.


<i>Symbol</i>	<i>Description</i>	<i>Label</i>
ESTUARINE - includes salt, brackish and freshwater tidal marshes. Also included are intertidal beaches and shores and their associated sand dunes.		
	Beachshore – Subtype Salt. Windswept and wave washed sandy beaches and their associated sand dunes.	B
	Intertidal Marsh - Regularly and irregularly flooded marshes influenced by water with varying salinity. Subtypes - Freshwater marsh has salinity less than 0.5 ppt., and includes tidal woodlands. Brackish marsh has a salinity range of 0.5 to 18 ppt. Salt marsh has a salinity range greater than 18 ppt.	IM
PALUSTRINE FORESTED - includes swamps that are seasonally and/or permanently flooded by freshwater. Forest habitats are characterized by a dominance of trees with overlapping crowns forming between 60-100% canopy cover.		

<i>Symbol</i>	<i>Description</i>	<i>Label</i>
	Acidic Atlantic White Cedar Swamp - Evergreen forested and /or shrub swamps dominated by Atlantic white cedar with stagnant or slow-moving water; in topographically defined basins; on decomposed peats and mucks. Subtypes include cedar, cedar/hardwood, cedar/great laurel, and other /unique.	AAWCS
	Acidic Red/Black Spruce Basin Swamp - Evergreen forested and /or shrub swamps dominated by red and/or black spruce with stagnant or slow-moving water; in topographically defined basins; on decomposed peats and mucks.	AcR/BSS
	Circumneutral Northern White Cedar Swamp - Evergreen forested and /or shrub swamps dominated by Northern white cedar with base-rich stagnant or slow-moving water; in topographically defined basins; on decomposed peats and mucks.	CirNWCS
	Floodplain Forest - Mesic forests and associated open, alluvial wetlands influenced by seasonal inundation, with flood deposited sandy or nutrient-rich silty soils. Subtypes high floodplain, low floodplain forest, alluvial swamp, undifferentiated, and other/unique are included in the Palustrine Forested category.	FF
PALUSTRINE NON-FORESTED - includes marshes, bogs and fens that are seasonally and/or permanently flooded by freshwater. Also included are riverine beach strands that are exposed during low-flow conditions along the banks of major rivers. Non-forested habitats are characterized by a dominance of shrubs and herbaceous plants, with or without scattered trees.		
	Beachshore – Subtype Riverine. Windswept and wave washed sandy beaches and their associated sand dunes.	B
	Circumneutral Spring Fen - Naturally open wetlands occupying high pH groundwater discharge sites; peat accumulation minimal. Subtypes include sedge, shrub thicket, phragmites, woodland, and other/unique.	CirSF
	Floodplain Forest – Subtype Alluvial Marsh. Open alluvial wetlands influenced by seasonal inundation, with flood deposited sandy or nutrient-rich silty soils.	FF
	Freshwater Aquatic – Subtype "Coastal Plain Pond." Primarily "sandy substrate" ponds that experience a seasonal fluctuation in water level.	FA

<i>Symbol</i>	<i>Description</i>	<i>Label</i>
	Medium Fen - Natural peatlands occupying topographically defined basins; often flooded by acidic surface water; on deep, poorly decomposed peats; dominated by sedges and/or shrubs. Subtypes include sedge, shrub thicket, and other/unique.	MF
	Poor Fen - Natural peatlands (bogs) occupying topographically defined basins; influenced by acidic ground water; on deep, poorly decomposed peats; dominated primarily by ericaceous shrubs. Subtypes include dwarf shrub, shrub thicket, saturated woodland, and other/unique.	PF
	Rich Fen - Natural peatlands occupying topographically defined basins; influenced by base-rich waters; on deep, poorly decomposed peats; restricted to the western marble valleys. Subtypes include sedge, shrub thicket, dwarf shrub, woodland, phragmites, and other/unique.	RF
	Sea Level Fen - Herbaceous fens occurring on salt marsh-upland transitions; influenced by groundwater discharge; on saturated mineral soils; dominated by sedges and sphagnum mosses.	SFL
TERRESTRIAL FORESTED - includes upland forests and woodlands that are not influenced by surface or groundwater flooding. Forest habitats are characterized by a dominance of trees with overlapping crowns forming between 60-100% canopy cover.		
	Coastal Woodland/Shrubland - Dry to moist open woodlands on or near the coast; often stunted by wind or salt deposition from coastal storms. Subtypes include shrubland, woodland, woodland/shrubland and other/unique.	CWS
	Dry Acidic Forest - Poorly growing deciduous forests often dominated by oaks with various mixtures of pine often with dwarf ericaceous shrubs. The only sites mapped were those occurring on stratified sand and gravel.	DAF
	Dry Circumneutral Forest - Dry, rich forests often dominated by oaks and sugar maple, generally with a diverse herbaceous layer, on marble bedrock. Subtypes include cedar woodlands and maple/ yellow oak.	DCF
	Dry Subacidic Forest - Slow-growing forests, primarily on or near the summit of basalt or other mafic rocks; often dominated by white ash, hickories and hophornbeam, with few shrubs and an open grassy ground cover. Subtypes include ash/hickory woodland and other/unique.	DSF

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<i>Symbol</i>	<i>Description</i>	<i>Label</i>
	Old Growth Forest- Second growth forests that have not undergone human disturbance during their developmental cycle. Subtypes include white pine, white pine/spruce, hemlock, and other/unique.	OGF
	Subacidic Cold Talus Forest/Woodland - Dry to moist open woodlands or forests on coarse colluvial deposits of primarily basalt and other mafic rocks; with soil and humus in pockets between the rocks, cold air drainage maintains "northern" plant associations.	SubCTFW
TERRESTRIAL NON-FORESTED - includes upland shrublands and herbaceous and/or sparsely vegetated areas that are not influenced by surface or groundwater flooding. Non-forested habitats are characterized by a dominance of shrubs and herbaceous plants, with or without scattered trees.		
	Acidic Rocky Summit Outcrop - Dry to xeric exposed summits, ledges, and other outcrops with a vegetation of small trees, low shrubs, grasses and herbs. (gneiss, schist, granite, sandstone). Subtypes include grassy glade/bald, pitch pine, scrub oak, and other/unique.	AcRSO
	Alluvial Grassland/Outcrop - Flood-scoured, rocky ledges and other outcrops with a vegetation of small trees, low shrubs, grasses and herbs. Subtypes include grassland, outcrop, and other/unique.	AllG/O
	Circumneutral Rocky Summit Outcrop - Dry to xeric exposed summits, ledges, and other outcrops (marble) with a vegetation of small trees, low shrubs, grasses and herbs; on marble bedrock. Subtypes include grassy glade/bald, cedar woodland, Scrub oak and other/unique.	CirRSO
	Coastal Bluffs and Headlands - Dry seaside cliffs, bluffs and other open headlands, exposed to winds and salt spray. Subtypes include pitch pine/post oak, cedar bluff, outcrop, and other/unique.	CBH
	Coastal Grassland - Open grasslands dominated by warm season species in close proximity to Long Island Sound, exposed to wind and salt spray.	CG
	Sand Barren - Dry sandy deposits with woody or grassy vegetation maintained by fire. Subtypes include sparsely vegetated sand, sandplain grassland, pitch pine scrub, riverine dredge spoils, and other/unique.	SB

<i>Symbol</i>	<i>Description</i>	<i>Label</i>
	Subacidic Rocky Summit Outcrop - Dry to xeric exposed summits, ledges, and other outcrops (primarily basalt and other mafic rocks) with a vegetation of low shrubs, grasses and herbs. Subtypes include grassy glades/balds, cedar woodlands, scrub oak, and other/unique.	SubRSO

Use Limitations

Connecticut Critical Habitats is not a comprehensive map of all critical habitat types in Connecticut. It represents a subset of the key habitats of greatest conservation need identified in Connecticut's Comprehensive Wildlife Conservation Strategy. The following CWCS key habitat types are not included in this dataset: most coniferous forests, freshwater marshes, sparsely vegetated inland wetlands, most freshwater and estuarine aquatic habitats with the exception of coastal plain ponds, offshore islands, and intensively managed habitats.

For the chosen habitat types, sites were mapped according to their known distribution. For some habitats the distribution may not be complete since no state-wide exhaustive surveys have been conducted. When the Connecticut Critical Mapping project was completed, some sites remained generally mapped as point locations in the Critical Habitat Additional Sites. This supplemental information can be used in conjunction with the Connecticut Critical Habitats to display a more complete distribution of critical habitats.

Some of the information used to define the critical habitat boundaries was based on features appearing on, or otherwise derived from, a variety of aerial photographs (orthophotography) and collateral information such as geological and soils maps. Most critical habitat sites were not field visited and publically available oblique imagery such as the Bing Maps web mapping service was used as a surrogate for field investigation. Caution is advised when using this information without field verifying the habitat delineation and characterization for accuracy. Since many of these areas occur on private property, visiting these sites will require permission from the landowner for access.

Displaying Connecticut Critical Habitats at map scales larger and more detailed than 1:2,000 scale may result in minor locational differences and inaccuracies. Beachshores and sand barrens are among the habitats that experience episodic ecological processes, such as erosion and succession, and will likely exhibit distributional and vegetation changes over time. Differences in these habitat areas will be apparent to the user if the sites are viewed with imagery other than the original data source. Critical habitat boundaries indicate a transition between habitat types that on the ground may be more ambiguous than implied. Community type and subtype definitions are simplified descriptions of the most common elements found in each habitat, but other combinations and exceptions may exist.

Related Information

[Connecticut Department of Environmental Protection, Natural Diversity Data Base](#)

Document last revised February 2010

Metzler, Kenneth J. and Juliana P. Barrett. *The Vegetation of Connecticut - A Preliminary Classification*. 2006. State Geological and Natural History Survey of Connecticut. Report of Investigations #12. Hartford

Data Collection Date

Data was collected, reviewed and compiled from 2007 to 2009. Refer to the Publication Date information in the Connecticut Critical Habitat [GIS Metadata](#) for the most recent time period these data are currently available for. For site boundaries derived from aerial photographs, the data reflect ground conditions of the source data found in the DATA_SOURC field.

Status

This information may be updated as needed to include additional critical habitat areas as they are verified, mapped, and/or as made available.

Map Scale

Connecticut Critical Habitats is best represented when viewed with high-resolution imagery at scales between 1:2,000 and 1:12,000.

Contact

For more on Critical Habitat mapping, contact Karen Zyko CT DEP, Wildlife Division, (860) 424-3011.

Additional Documentation

[Connecticut Critical Habitats - CT ECO Basic Data Guide](#)

[GIS Metadata](#)— Contains technical documentation describing these data and the data sources, process steps, and standards used to collect, digitize, and store this information in a geographic information system (GIS).

[Connecticut's Comprehensive Wildlife Conservation Strategy](#)

[CT DEP Green Plan](#)

[Governor M. Jodi Rell's Executive Order No. 15](#)

Originators

[CT Department of Environmental Protection](#), Bureau of Natural Resources, Kenneth Metzler, Ecologist

Document last revised February 2010

GIS Data Download

Connecticut Critical Habitat data is downloadable from [DEP GIS Data](#) .

1W38

AFFIDAVIT OF MARY LU SINCLAIR

State of Connecticut]
] ss. *Canaan*
County of Litchfield]

MARY LU SINCLAIR being duly sworn deposes and says:

1. My name is Mary Lu Sinclair. I live at 201 Under Mountain Road, Falls Village (Town of Canaan), Connecticut, a short distance from the proposed cell tower site under Docket 409. My husband is Chairman of the Town Inland Wetlands and Conservation Commission appearing as a party in Docket 409.

2. In September 2003 while my brother Bob Pike was visiting me, we sighted a timber rattlesnake sunning crosswise on the lower portion of Canaan Mountain Road. On the occasion of this sighting my brother took a photograph, a copy of which is attached as "Exhibit A." Concerned about possible approaching cars, we guided it to safety off the road. I certify that this is an accurate copy of the image my brother took in my presence in September 2003.

3. I am concerned that these special species will be affected by the RF emissions from the proposed tower due to the proximity to known habitats.

4. We raised our family in Falls Village because of family roots here and because of the rural unspoiled beauty and natural habitat as well as the historical quality of the landscape and its 18th and 19th century structures, including the South Canaan Meeting House directly under the proposed cell tower. The Town is recognized as having a rich architectural history (see walking tour produced by the Historical Society, attached as "Exhibit B"). The Falls Village/Canaan Historical Society, of which I am a member, works carefully to maintain this historic quality.

5. I ask that the Connecticut Siting Council accept my affidavit and the attached exhibit into evidence for consideration under Docket 409, as it is material evidence of the known presence of protected species near the site of the proposed tower. And I offer to make myself available at the Council's convenience if the Council should have any questions.

Sworn to before me

This 7th day of February, 2011

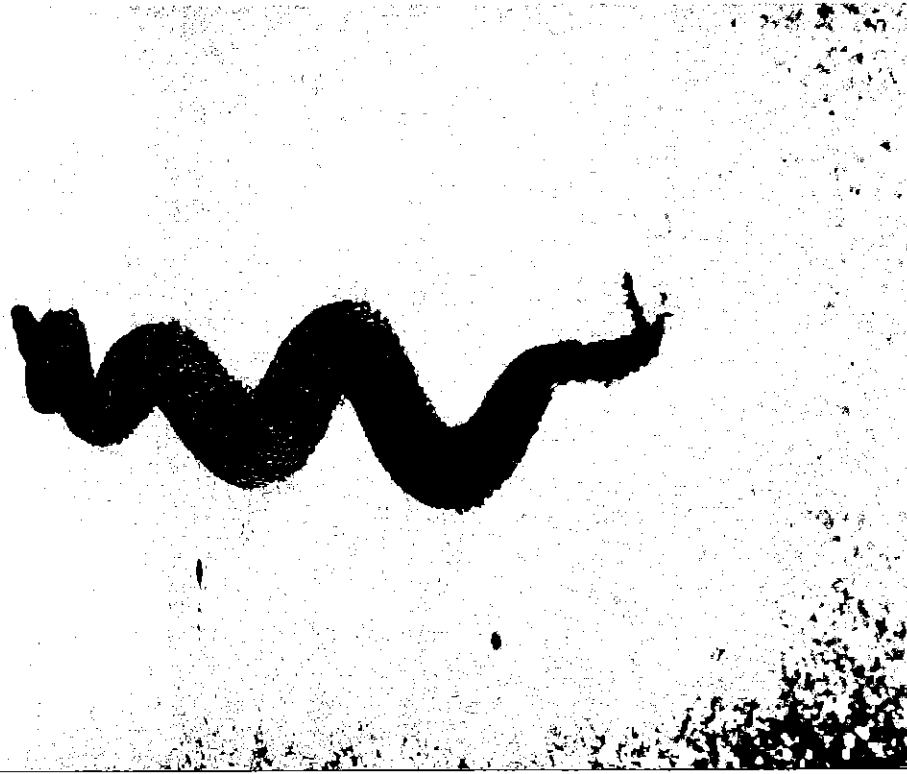
Mary M. Palmer
Notary Public

Mary Lu Sinclair
Mary Lu Sinclair

MARY M. PALMER
Notary Public
My Commission Expires April 30, 2011

TIMBER RATTLE SNAKE
CANAN Mtn RP (JUST ON DOWNSIDE OF
BRIDGE)

SEPTEMBER 2003



TAKEN BY BOB PIKE

1W39

WFSB.com

Rattlesnake Spotted Slithering In Sharon

Related To Story

Snake Measuring 4 Feet Spotted By Viewer

POSTED: 7:33 am EDT September 1, 2010
UPDATED: 8:15 am EDT September 1, 2010



SHARON, Conn. -- A rare rattlesnake sighting was recently made in Sharon on Tuesday.

A Channel 3 viewer spotted the venomous timber rattlesnake slithering across Caulkins Town Road in the state's northwest hills.

• **Images:** Timber Rattlesnake Spotted In Sharon

The man approached the snake, but moments later a car ran over it.

The viewer said the snake eventually died.

Rattlesnakes are found in northwest Litchfield County as well as in central Connecticut and parts of southern Hartford County and northern Middlesex County.

The snake spotted in Sharon was about 4 feet long. A full-grown rattlesnake can grow up to 5 feet.

The timber rattlesnake and the copperhead snake are the only venomous snakes found in the state.

E-mail news tips to Eyewitness News, or dial: 866-289-0333.

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THE LITCHFIELD HILLS
GREENPRINT



1/19/2010

Connecticut Siting Council
Ten Franklin Square
New Britain CT 06051

To the members of the Connecticut Siting Council:

I write as Director of the Litchfield Hills Greenprint Collaborative in reference to Docket 409 - New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 8 Barnes Road, Canaan (Falls Village), Connecticut.

The Litchfield Hills Greenprint Collaborative is a partnership of 22 land trusts and community leaders sponsored by the Housatonic Valley Association and committed to strengthening local conservation efforts and protecting more land of regional significance across Northwest Connecticut.

We are greatly concerned that the proposed cellular tower under consideration at the Cobble Hill location will materially impair the regionally significant and locally-valued conservation attributes of this area, and that the application by Cingular Wireless does not adequately account for these negative impacts. Our objections on these grounds are detailed and documented more fully, below, and I am willing to make myself available to answer questions at any time in connection with this matter.

The development of Cobble Hill for the construction of a cellular tower is incompatible with state policy:

Connecticut's statewide Conservation and Development Policies Plan (2005-2010) identifies the Cobble Hill location as a Conservation Area. The definitional criteria for this designation state that it is Connecticut's policy for such Conservation Areas to "plan and manage, for the long-term public benefit, the lands contributing to the State's need for food, fiber, water and other resources, open space, recreation and environmental quality and ensure that changes in use are compatible with identified preservation values." According to the Office of Policy and Management; "A full review under the Connecticut Environmental Policy Act (CEPA) may be necessitated if the proposed development is of a greater dimension or intensity than the past use; Thereby requiring a thorough analysis of all potential impacts and mitigation measures, as well as, consideration of alternative sites within the region." This Statewide policy should govern the actions of the Siting Council and an alternative site be selected that is not within a state prioritized conservation area.

Federal and State Recognition of Conservation Significance:

- Federal designations:** The Cobble Hill site is located within the federally designated **Upper Housatonic River Heritage Area, The Highlands Conservation Act Connecticut Highlands Region, and the Federal Forest Legacy Program Western Connecticut Legacy Area.** More specifically, Cobble Hill is within an area designated on page 44 of the USFS *Highlands Regional Study Pennsylvania and Connecticut 2010 Update* as a locally valued and regionally important special place. The Highlands Study ranks Cobble Hill itself as of moderate conservation value regionally on its maps of forest and recreational/cultural/values. The South Canaan Congregational Church, located immediately to the west and below the Tower site on Cobble Hill, is recognized on the National Register of Historic Places and its **scenic attributes would be profoundly impacted by the proposed tower when approached from the south and west on Rte 7 with Cobble Hill immediately to the right and above the steeple of the South Church.**

State designations: As previously mentioned; Connecticut's statewide Conservation and Development Policies Plan (2005-2010) identifies the Cobble Hill location as a Conservation Area and development of communications infrastructure at this site is counter to that designation.

Connecticut's Natural Diversity Database (NDDDB) Dec 2010 identifies no less than 14 known locations of state listed endangered, threatened or special concern species or significant natural communities that completely surround and intersect with the Cobble Hill site. These species and natural communities are located downslope of the tower site. A thorough inventory of rare species and natural communities should be conducted at the Cobble Hill Site and in surrounding wetlands to determine their vulnerability to altered surface water hydrology, siltation and pollution associated with the construction and maintenance of communications infrastructure at this site.

As recognized in the applicant's viewshed analysis report, Rte 7 in Canaan is a **State Designated Scenic Rd.** from the intersection with Rte 128 to the North Canaan Line (but see below for critique of the viewshed analysis report).

The University of Connecticut's Center for Land Use and Research (CLEAR) analysis of forest fragmentation recognizes an area of core forest >500 acres on Cobble Hill. Development of a cellular tower at this location will dramatically reduce the amount of unfragmented forest at this site due to the fragmenting impacts of clearing associated with the service road and tower construction.

The Soil Geographic Survey database for Connecticut, informed by data from the USDA Natural Resources Conservation Services (NRCS), identifies soils classified as (75C) Hollis-Chatfield-Rock Outcrop Complex (3-15% slopes and (76F) Rock-Outcrop-Hollis Complex 45-60% slopes at the Cobble Hill Site. The Connecticut State Soil Survey page 189 states that, "erosion is a moderate to severe hazard during construction" for 75C classified soils and very severe for 76F classified soils. Furthermore, it notes that shallow depth to bedrock can lead to groundwater pollution and slope and frost action can affect new road construction. The construction of a service road to the communications infrastructure will require mitigation of these factors, yet even if steps are taken which would permit the construction of an all-weather road to the tower site, its **impacts on surface water hydrology and forest fragmentation cannot be adequately mitigated.**

Viewshed Analysis:

The viewshed analysis provided by the applicant is incomplete and inadequate. A 2 mile radius for this analysis is profoundly inadequate and fails to account for sightlines and topography that make the tower site clearly visible from much further away. To give but one example, the Appalachian Trail lies less than 3 miles to the west of the tower site but is not considered by the applicant. A 150' tower located at an elevation nearly 1,200' above sea level would certainly be visible from locations less than 3 miles away in Salisbury. **A viewshed analysis for this application should extent as far as the topography permits and not a seemingly arbitrary 2 miles.**

Open Space Impacts: There is significantly more permanently protected open space within the 2 mile radius than is shown by the applicant that needs to be considered in analysis of viewshed impacts. The Litchfield Hills Greenprint maintains the most complete record of permanently protected open space in Northwest Connecticut, and is happy to provide additional records of parcels under permanent protected through ownership or easement. These areas include parcels contiguous to those shown in the application north of the Hollebeck River in Robbin's Swamp and connecting to Housatonic State Forest south of Rte 128. Robbin's Swamp is the largest inland wetland of its kind in Connecticut and has long been the focus of conservation activity by the state and conservation non-profits.

In Summary:

- Development of communications infrastructure at Cobble Hill is incompatible with state policy and its designation in the Connecticut's statewide Conservation and Development Policies Plan as a "Conservation Area."
- Federal and State policies and formal designation recognize the conservation value of Cobble Hill and the surrounding area, especially as intact core forest and for its recreational, cultural and historic value.
- Connecticut's Natural Diversity Database recognizes at least 14 known locations of state listed endangered, threatened or special concern species or significant natural communities that completely surround and intersect with the Cobble Hill site and could be impacted by erosion and surface water hydrology alteration construction of a service road and communications infrastructure.
- The visual impact analysis conducted by the applicant is inadequate and fails to account for additional protected open space within an insufficient 2 mile radius.

On behalf of the Litchfield Hills Greenprint Collaborative, I respectfully urge the Siting Council not to approve the application for a new cellular tower on Cobble Hill and to find an alternative site that does not have this degree of impact and is consistent with the CT Conservation and Development Policies Plan.

Sincerely,



Tim Abbott
Greenprint Director

CC: Ellery Sinclair

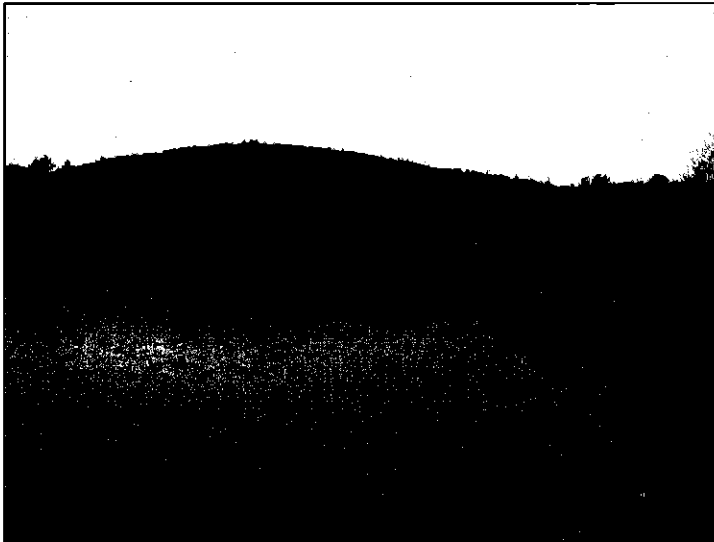
The Case for Regional Conservation In the Litchfield Hills



THE LITCHFIELD HILLS GREENPRINT

The very things that make Connecticut's Litchfield Hills such a special place require regional conservation strategies to protect. The prime farmland, large forests, clean fresh water and rural quality of life that residents and communities

here enjoy have been lost across much of Connecticut. These resources extend beyond town boundaries, and what happens in one place can affect other communities. Only by working together, informed by a regional understanding of conservation priorities, can we hope to meet the conservation challenges we face. The Litchfield Hills Greenprint Collaborative provides an unprecedented opportunity for us to protect regionally significant lands above and beyond what individual land trusts can accomplish on their own.



There is an excellent array of land trusts and conservation organizations working across Northwest Connecticut. Yet despite their best efforts, we are losing some of our most cherished places and vital natural resources faster than we are saving them. Farms are vanishing into subdivisions. New development is carving up our natural areas. Public conservation dollars have shrunk to a trickle. We can no longer depend solely on the

generosity land owners for gifts of land or easements to protect what makes our region so special. We simply must not let this irreplaceable heritage slip through our fingers.

While each of our conservation organizations must continue its preservation work at the local level, *we should collectively increase both the pace and quality of land conservation across our region.* The Litchfield Hills Greenprint Collaborative offers a clear and compelling vision for how we can meet this conservation challenge together.

The Litchfield Hills Greenprint

The Litchfield Hills Greenprint Collaborative is a locally-driven partnership established among our region's conservation organizations and conservation-minded individuals. Members of the Greenprint Collaborative share a vision of saving at least 50% of our remaining farmland, forest and water supply lands across our region. They agree to work together in partnerships based on mutual respect, collaborative action, and the highest professional standards. The Greenprint is governed by a Leadership Board



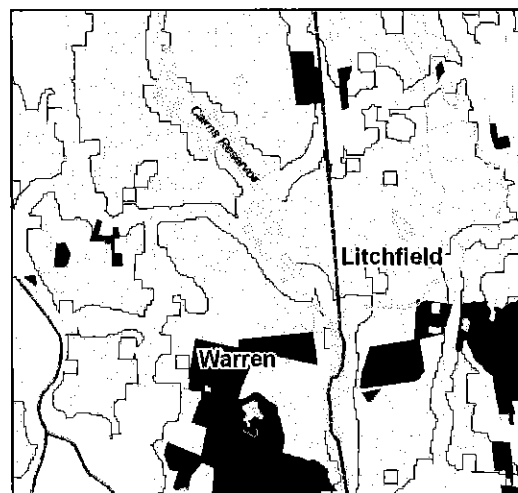
drawn from the Greenprint Collaborative and local conservation leaders. The Housatonic Valley Association (HVA) provides staffing, administrative support, and its 501 (c) (3) charitable designation for the Greenprint.

Collaborative members pay annual dues, either as individuals or organizations, and in return have preferred access to:

- Sophisticated mapping and analysis
- A brain trust of conservation leaders sharing their time, talent and resources to solve problems and help accomplish each other's regionally significant land protection projects.
- A network of affordable professional services - including attorneys, appraisers, land and stewardship managers, engineers, accountants and other professionals – to help protect and manage properties according to best practices.
- A pool of private capital in the form of grants and low interest loans for projects deemed of regional importance.
- Help with securing state and federal land protection funds to ensure that this region receives its full share of public conservation funding.
- Effective limited development partnerships with conservation-minded developers, realtors and buyers.
- A strong voice for legislative support for conservation priorities in our region.

How the Greenprint Collaborative Saves Land

The service area of the Greenprint Collaborative consists of the 26 towns of Litchfield County and Sherman in Fairfield County. Members of the Collaborative nominate conservation projects of regional importance for Greenprint assistance. Greenprint staff screen the projects using the assessment form developed by the Collaborative, and bring vetted projects and recommendations to the Leadership Board for review. The Leadership Board finalizes preferred projects and approves recommended actions. The Leadership Board deploys Greenprint resources to help complete these projects, which may include:



- tapping a dedicated pool of private capital;
- convening a “SWAT” team of land protection professionals to assist in doing the deal;
- nominating projects for appropriate government funding;
- referral to appropriate external conservation development entities;
- Securing an appropriate holder of conservation interest for the transaction in consultation with the nominating organization.

Greenprint staff ensures that preferred projects have clear and appropriate lead and support organizations to move toward completion, and that the needs and interests of partners are understood.

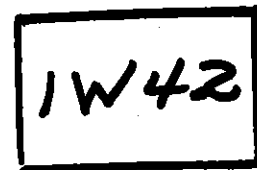


The Litchfield Hills Greenprint Collaborative

P.O. Box 28, 150 Kent Rd. (Rte 7), Cornwall Bridge, CT 06754
Ph) 860-672-6678 Fax) 860-672-0162 tim.abbott@hvatoday.org

Charter Members: Aton Forest (Norfolk, Colebrook); Colebrook Land Conservancy; Cornwall Conservation Trust; Goshen Land Trust; Housatonic Valley Association; Kent Land Trust; New Hartford Land Trust; Norfolk Land Trust; Salisbury Land Trust; Steep Rock Association; The Trust for Public Land; Warren Land Trust; Weantinoge Heritage Land Trust; White Memorial Foundation (Litchfield, Morris).

Español



Hollenbeck Preserve

Why You Should Visit

The site provides habitat for several rare plant and animal species, as well as a significant part of the Hollenbeck River's watershed. This river runs through Robbins Swamp, one of the most important conservation areas in the state, and eventually feeds the Housatonic River. The Hollenbeck Preserve also provides habitat for some of Connecticut's declining grassland bird species.

Location

Falls Village

Hours

Dawn to dusk

Size

182 acres

Conditions

A flat—but often wet—trail through the fields leads directly to the Hollenbeck River.

How to Prepare for Your Visit

Please see our "[Preserve Visitation Guidelines](#)" page.

Directions

From Eastern or Western Connecticut:

- Take Interstate 84 to Route 8 north in Waterbury.
- Proceed north to exit 44 in Torrington for Route 4 west.
- Drive 6.4 miles on Route 4 to Route 63 in Goshen. Turn right (north) on 63.
- Drive north on Route 63 for 11.3 miles to intersection with Route 7 in South Canaan.
- Turn left (south) on Route 7.
- Drive 0.5 mile and turn right onto Page Road. The preserve is 0.1 mile on the right.

From the Northwest/Lakeville area:

- Take Route 112 east to Route 7.
- Go left onto Route 7 north.
- Turn left onto Page Road.
- The preserve is 0.1 mile on the right.

From the South/New Milford area:

- Take Route 7 north, check odometer at intersection with Route 112 in Salisbury.
- Drive 2.5 miles and turn left onto Page Road.
- The preserve is 0.1 mile on the right.

What to See: Plants

The property contains a swamp wooded with a mix of red maple, black ash, white pine and hemlock trees to the north and west and open fields to the south and east. Look for wildflowers in the spring.

What to See: Animals

In the summer, look for grassland birds such as bobolink and meadowlarks in the fields near the trail.

Why the Conservancy Selected This Site

The chapter purchased this scenic and biologically rich property in 1995 in a bargain sale.



What the Conservancy Has Done/Is Doing

The Conservancy maintains the preserve's fields, providing habitat for grassland birds.

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Español



Northwest Highlands

Rugged forests, sparkling streams and globally rare plants and animals



In the rolling foothills of Connecticut's northwestern corner, some of our state's last untouched natural areas remain. A unique geography of limestone forests, ridges and wetlands runs from the Massachusetts border down to the center of Connecticut. This vast chain of intact forests and waterways teems with more than 150 rare and endangered species, a spectacular concentration of plants and animals rivaled no where else in the state.

The Northwest Highlands feature rugged uplands like Canaan Mountain, an eight mile range rising steeply to a series of summits, one as high as 1,962 feet. Rocky ledges, diverse vegetation and dense woodlands mark this natural area including 2,000 acres of forest that have been protected from indiscriminate logging for the past 50 years. Today, almost 7,000 acres are protected on Canaan Mountain.

Adjacent to Canaan Mountain is the [Hollenbeck River](#) and its watershed, which includes Robbins Swamp, Connecticut's largest inland wetland. Robbins Swamp represents one of the region's most significant natural areas: the region's second largest calcareous wetland. Formed from limestone karsts—jagged broken rock formed from an ancient seabed—the bedrock of these open wetlands makes them alkaline, unlike most New England wetlands, which are acidic. Nearby Wangum Lake Brook, which drains into the Hollenbeck River, is also part of this calcareous wetland complex.

The unique geology of Canaan Mountain and Robbins Swamp gives rise to a rich collection of plants, animals and natural communities, some of which are found nowhere else on Earth. The endangered timber rattlesnake and northern metalmark butterfly are found here as well as three rare bird species and 23 rare species of plants, including a variety of trees, flowering plants, grasses and sedges.

For five decades, The Nature Conservancy has been active here establishing its first preserve in the state at Beckley Bog in Norfolk in 1957. Today, the Conservancy is addressing threats including inappropriate development and invasive species. Through science-based conservation, land acquisition and cooperative projects with local landowners and partners, we're working to preserve this important mosaic of lands and waters and actively manage the Northwest Highlands to protect rare species and natural communities.

Nature knows no boundaries, and in recognition of this fact, we're collaborating with our colleagues in the Conservancy's Massachusetts-based [Berkshire-Taconic Landscape Program](#) (BTL). The BTL program helps coordinate the Conservancy's efforts to protect the spectacular wildlife and rich lands and waters where Connecticut,



Get Involved



You can learn more and explore new places when you [join the Conservancy's online community](#) and build your own *personalized* nature page.



Go Deeper

Places to Visit

[Berkshire Taconic Landscape](#)
[Cathedral Pines Preserve](#)
[Hollenbeck Preserve](#)
[Iron Mountain Preserve](#)
[Sunny Valley Preserve](#)

Massachusetts and New York converge.

(Top to bottom, left to right): © Alden Warner (Lakeville Reservoir, View Northwest); © Anne Day (Timber rattlesnake in Connecticut); © Alden Warner (Winterberry, Milton).

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Endangered Species

Midwest Region

1W 44

Midwest Endangered Species

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Critical Habitat - *What is it?*

[PDF Version](#)

When
a



Ash Meadows National Wildlife Refuge in Nevada provides critical habitat for eight threatened or endangered species.

Photo by USFWS; Mike Bender,



species is proposed for listing as endangered or threatened under the Endangered Species Act (Act), we must consider whether there are areas of habitat we believe are essential to the species' conservation. Those areas may be proposed for designation as "critical habitat." The determination and designation of critical habitat is one of the most controversial and confusing aspects of the Act. Here are answers to some of the most frequently asked questions about critical habitat.

What is critical habitat?

Critical habitat is a term defined and used in the Act. It is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery. An area is designated as "critical habitat" after we publish a proposed Federal regulation in the *Federal Register* and then we receive and consider public comments on the proposal. The final boundaries of the critical habitat area are also published in the *Federal Register*.

What is the purpose of designating critical

habitat?

Federal agencies are required to consult with us on actions they carry out, fund, or authorize to ensure that their actions will not destroy or adversely modify critical habitat. In this way, a critical habitat designation protects areas that are necessary for the conservation of the species.

A critical habitat designation generally has no effect on situations that do not involve a Federal agency—for example, a private landowner undertaking a project that involves no Federal funding or permit.

Do listed species in critical habitat areas receive more protection?

An area designated as critical habitat is not a refuge or sanctuary for the species. Listed species and their habitat are protected by the Act whether or not they are in an area designated as critical habitat. To understand the additional protection that critical habitat provides to an area, it is first necessary to understand the protection afforded to any endangered or threatened species, even if critical habitat is not designated for it.

- The Act forbids the import, export, or interstate or foreign sale of endangered and threatened animals and plants without a special permit. It also makes "take" illegal -- forbidding the killing, harming, harassing, pursuing, or removing the species from the wild.
- The Act requires that Federal agencies conduct their activities in such a way as to conserve species.
- The Act also requires that Federal agencies must consult with us to conserve listed species on their lands and to ensure that any activity they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. This is known as consultation.

In consultation for those species with critical habitat, Federal agencies are required to ensure that their activities do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level

Myths & Realities

If critical habitat is designated, does that mean no further development can occur?

No. A critical habitat designation does not necessarily restrict further development. It is a reminder to Federal agencies that they must make special efforts to

of protection is similar to that already provided to species by the "jeopardy standard." However, areas that are currently unoccupied by the species, but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

Must Federal agencies consult with us outside critical habitat areas?

Yes, even when there is no critical habitat designation, Federal agencies must consult with us to ensure any action they carry out, fund, or authorize is not likely to jeopardize the continued existence of a listed species.

What is the impact of a critical habitat designation on economic development?

Most activities that require a Federal agency to consult with us can proceed. If modification of the project is necessary, it is likely that those changes would have been needed anyway, in order to avoid jeopardy. However, in areas where the species is not currently present, there may be some project modifications that would not have occurred without the critical habitat designation.

How do we determine what areas to designate as critical habitat?

Biologists consider physical and biological features needed for life processes and successful reproduction of the species. These include:

- space for individual and population growth and for normal behavior;
- cover or shelter;
- food, water, air, light, minerals, or other nutritional or physiological requirements;
- sites for breeding and rearing offspring; and

protect the important characteristics of these areas.

Does a critical habitat designation affect all activities that occur within the designated area?

No. Only activities that involve a Federal permit, license, or funding, and are likely to destroy or adversely modify the area of critical habitat will be affected. If this is the case, we will work with the Federal agency and, where appropriate, private or other landowners to amend their project to allow it to proceed without adversely affecting the critical habitat. Thus, most Federal projects are likely to go forward, but some will be modified to minimize harm to critical habitat.

- habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

The areas shown on critical habitat maps are often large. Are all the areas within the mapped boundaries considered critical habitat?

No. Our rules normally exclude by text developed areas such as buildings, roads, airports, parking lots, piers, and other such facilities. Additionally, projects will only require consultation if they affect areas that contain the primary constituent elements required by the species. Primary constituent elements are those physical and biological features of a landscape that a species needs to survive and reproduce.

Why are large areas shown on critical habitat maps if the entire area is not actually considered critical habitat?

In such cases, precisely mapping critical habitat boundaries is impractical or impossible, because the required descriptions for these precise boundaries would be too unwieldy.

Does the Act require an economic analysis as part of designating critical habitat?

Yes. We must take into consideration the potential economic impact, as well as any other benefits or impacts, of specifying any particular area as critical habitat. We may exclude any area from critical habitat if we determine that the benefits of excluding it outweigh the benefits of specifying the area as part of critical habitat, unless we determine that the failure to designate the area as critical habitat will result in the extinction of the species.

Does an economic analysis have any effect on the decision to list a species as threatened or endangered?

No, under the Act, a decision to list a species is made solely on the basis of scientific data and analysis.

How many species have critical habitat designations?

As of May 5, 2009, critical habitat has been designated for 523 of the 1,317 U.S. species listed as threatened or endangered.

Why haven't we designated critical habitat for more species?

After a Congressional moratorium on listing new species ended in 1996, we faced a huge backlog of species needing to be proposed for listing as threatened or endangered. For this reason, we have assigned a relatively low priority to designating critical habitat because we believe that a more effective use of our limited staff and funding has been to place imperiled species on the List of Endangered and Threatened Species.

Additionally, the critical habitat designation usually affords little extra protection to most species, and in some cases it can result in harm to the species. This harm may be due to negative public sentiment to the designation, to inaccuracies in the initial area designated, and to the fact that there is often a misconception among other Federal agencies that if an area is outside of the designated critical habitat area, then it is of no value to the species.

*U.S. Fish & Wildlife Service
Endangered Species Program
703/358-2105
<http://www.fws.gov/endangered/>
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