



BioMap2

Guiding Land Conservation for Biodiversity in Massachusetts

Egremont

This report and associated maps provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:
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BioMap2: Guiding Land Conservation for Biodiversity in Massachusetts

Egremont

Egremont is located in southwestern Berkshire County, where the Western New England Marble Valleys meet the Taconic Mountains (see Figure 1). Nearly one hundred percent of the town's area falls within the Massachusetts portion of the Housatonic River watershed; a very small area in the western part of town – about one half square mile – falls within the watershed of the Roeliff Jansen Kill in the Hudson River basin. The mainstem of the Housatonic River lies to the east, beyond Egremont's boundaries, but the town contains the headwaters and middle reaches of two main tributaries of the Housatonic: the Green River and Hubbard Brook. Both streams flow east from the Taconic Mountains, pass through the lower elevations of Egremont, and enter the Housatonic River mainstem to the south and east of town in Great Barrington and Sheffield. Two large waterbodies, Prospect Lake and Marsh Pond, lie near the base of the Taconic Mountains in north and central Egremont, and the smaller Mill Pond lies further east, along Hubbard Brook near the village of South Egremont.

Human development in Egremont is generally less intensive than it is in nearby towns like Pittsfield and Lee, which have more industrial and commercial operations. Most development is focused in the lowlands, particularly around the villages of North and South Egremont. Land along the floodplains of Hubbard Brook and the Green River contains dense residential development, and a golf course lies on riparian areas along Hubbard Brook in east Egremont. Sparse residential development is spread throughout much of the rest of the valley and in the northern sections of town in parts of the Taconic Mountains near Prospect Lake. Catamount Ski Area is also located along Route 23 in this area. Farmland makes up parts of the lower-lying sections of the town, especially along the margins of residential and commercial areas. Like other towns in the Massachusetts portion of the Housatonic River valley, including Sheffield and Great Barrington, Egremont has a relatively high percentage of agricultural land use – over 15 percent.

The central and eastern lowlands of Egremont, which make up nearly 75 percent of the town's total area, are part of the Western New England Marble Valleys ecoregion. Stretching from northwest Connecticut up through sections of the Hudson River and Lake Champlain watersheds, this is one of the most distinct and biologically rich



Egremont at a Glance

- Total area: 12,083 acres (18.9 square miles)
- Human population in 2009: 1,343 people
- Open space protected in perpetuity: 3,141 acres, or 26% of total area*

BioMap2 Components

Core Habitat

- 8 Aquatic Cores: 494 acres
- 1 Forest Core: 1,161 acres
- 3 Vernal Pool Cores: 120 acres
- 4 Wetland Cores: 220 acres
- 4 Priority or Exemplary Natural Community Types: 72 acres

Species of Conservation Concern**

- 1 insect, 2 amphibians, 2 reptiles, 4 birds, 1 mammal, 18 plants

Critical Natural Landscape

- 8 Upland Buffers of Aquatic Cores: 794 acres
- 4 Upland Buffers of Wetland Cores: 452 acres
- 3 Landscape Blocks: 2,615 acres

*calculated using MassGIS data layer "Protected and Recreational Open Space - Nov. 2010"

**see next page for complete list of species, natural communities, and other biodiversity elements

Species of Conservation Concern, Priority and Exemplary Natural Communities, and Other Elements of Biodiversity in Egremont

Insects

Butterflies

Dion Skipper (*Euphyes dion*), Threatened

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern

Spring Salamander (*Gyrinophilus porphyriticus*), SWAP

Reptiles

Spotted Turtle (*Clemmys guttata*), SWAP

Wood Turtle (*Glyptemys insculpta*), Special Concern

Birds

American Bittern (*Botaurus lentiginosus*), Endangered

Common Moorhen (*Gallinula chloropus*), Special Concern

Least Bittern (*Ixobrychus exilis*), Endangered

Pied-billed Grebe (*Podilymbus podiceps*), Endangered

Mammals

Small-footed Bats (*Myotis leibii*), Special Concern

Plants

Black Maple (*Acer nigrum*), Special Concern

Bur Oak (*Quercus macrocarpa*), Special Concern

Canadian Sanicle (*Sanicula canadensis*), Threatened

Capillary Beak-sedge (*Rhynchospora capillacea*), Endangered

Crooked-stem Aster (*Symphyotrichum prenanthoides*), Threatened

Culver's-root (*Veronicastrum virginicum*), Threatened

Dioecious Sedge (*Carex sterilis*), Threatened

Drooping Speargrass (*Poa saltuensis* ssp. *languida*), Endangered

Fen Cuckoo Flower (*Cardamine pratensis* var. *palustris*), Threatened

Fen Sedge (*Carex tetanica*), Special Concern

Gattinger's Panic-grass (*Panicum philadelphicum* ssp. *gattingeri*), Special Concern

Great Laurel (*Rhododendron maximum*), Threatened

Hairy Agrimony (*Agrimonia pubescens*), Threatened

Handsome Sedge (*Carex formosa*), Threatened

Hill's Pondweed (*Potamogeton hillii*), Special Concern

Labrador Bedstraw (*Galium labradoricum*), Threatened

Slender Cottongrass (*Eriophorum gracile*), Threatened

Yellow Oak (*Quercus muehlenbergii*), Threatened

Natural Communities

Exemplary Natural Communities

Mixed Oak Forest (Secure)

Priority Natural Communities

Calcareous Talus Forest/Woodland (Vulnerable)

Rich, Mesic Forest (Vulnerable)

Ridgetop Pitch Pine – Scrub Oak Community (Imperiled)

Other BioMap2 Components

Aquatic Cores

Forest Cores

Upland Buffers of Aquatic Cores

Upland Buffers of Wetland Cores

Vernal Pool Cores

Wetland Cores

ecoregions both in Massachusetts and throughout New England. The marble valleys support an impressively high percentage of Massachusetts' state-listed species and Priority Natural Communities; some of these are restricted to the ecoregion while others are more widespread. Extensive wetland areas within this ecoregion in Egremont support state-listed species that rely on calcareous wet meadows and fens for survival. The Common Moorhen, a duck-like marshbird, also nests and feeds in these areas. Nearby upland areas have populations of state-listed plants such as Crooked-stem Aster, and others like Drooping Speargrass that grow in rocky, calcareous soils. Drier sections of forest may be inhabited by the state-listed Jefferson Salamander, which lives in upland wooded areas in its adult phase.

The western and southern perimeters of Egremont fall within the Taconic Mountains ecoregion, with peaks of the Taconic Range reaching higher than 1,800 feet. The bedrock geology of the Taconic Range is composed of a mix of volcanic rock types that lack the high levels of nutrients – particularly calcium – that are found in the rocks underlying the marble valleys. However, while these highland areas are not as rich in biodiversity as the neighboring marble valleys, they do support an important array

of species and natural communities, which are often associated with headwater streams and wetlands where there is little impact from human disturbance. Species like the Spring Salamander reproduce in many of these cold, clean headwater streams.

BIODIVERSITY CONSERVATION TARGETS IN EGREMONT: CORE HABITAT, CRITICAL NATURAL LANDSCAPE, & PRIORITY CONSERVATION AREAS

Overview

In this section, we outline areas in Egremont that warrant special focus of conservation efforts locally, regionally and throughout the state. Components of the Natural Heritage & Endangered Species Program's (NHESP's) statewide BioMap2 project, which incorporates NHESP data and includes findings of studies funded by the Natural Resource Damages Assessment and Restoration Program (NRD) conducted in 2008 and 2009 as part of its Core Habitat and Critical Natural Landscape, were used to delineate and map these areas. The areas range in size from fewer than 10 acres to several thousand acres. Sepa-

Biodiversity Studies in Massachusetts and the Housatonic River Watershed

BioMap2 is a statewide biodiversity conservation plan produced in 2010 by MassWildlife's Natural Heritage & Endangered Species Program and The Nature Conservancy. It is designed to guide strategic biodiversity conservation in Massachusetts over the next decade by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, Priority Natural Communities, and a diversity of ecosystems. BioMap2 is also designed to include the habitats and Species of Conservation Concern identified in the State Wildlife Action Plan (SWAP).

BioMap2 identifies two complementary spatial layers, Core Habitat and Critical Natural Landscape. Core Habitat identifies key areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Protection of Core Habitats will contribute to the conservation of specific elements of biodiversity. Critical Natural Landscape identifies large Landscape Blocks that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world. Areas delineated as Critical Natural Landscape also include buffering upland around wetland, coastal, and aquatic Core Habitats to help ensure their long-term integrity.

In 2008 and 2009, field surveys were carried out to improve knowledge of the region's biodiversity resources in towns in the Housatonic River watershed in western Massachusetts. During these surveys, coordinated by the Natural Heritage and Endangered Species Program (NHESP) with funds from the Natural Resource Damages Assessment and Restoration (NRD) Program, researchers collected important information about state-listed species and Priority Natural Communities of 19 towns in the region. Surveys were conducted by NHESP staff, expert consultants, academic researchers, and graduate students. Information on the surveys' findings was added to the NHESP database, combined with other NHESP data, and incorporated into Core Habitat of BioMap2. BioMap2 data layers, complete with these data and other information, are now available for use in conservation planning at the town, regional, and state levels.

rate areas of Core Habitat, each called a BioMap2 Core (BC), and areas of Critical Natural Landscape (CNL), along with their associated components, are illustrated in Figure 2 and outlined in detail below. BioMap2 components described in this report are those that occur only in Egremont, although a given area of Core Habitat or Critical Natural Landscape listed here may extend outside of the town boundaries of Egremont to and contain additional components.

To facilitate land protection and stewardship, NHESP further prioritized areas in each of the towns in the watershed using habitat size, habitat conditions, and other biodiversity indicators. Priority Conservation Areas (PCAs) were considered to be of high biodiversity value if they contained concentrations of state-listed species or Priority Natural Communities, or large areas of intact habitat. In each town, up to six Town PCAs were selected, each containing part of at least one BioMap2 Core. Three Town PCAs were selected in Egremont. Figure 4 illustrates how BioMap2 Core Habitat and Critical Natural Landscape relate to the distribution of Egremont's Town PCAs.

A larger scale prioritization was also conducted to select Regional PCAs of the highest conservation and stew-

ardship value among all towns in Massachusetts' portion of the Housatonic River watershed. Regional PCAs often cross town boundaries and are quite large, ranging from 373 acres to more than 25,000 acres. Ecological connectivity within these Regional PCAs is important to biodiversity conservation; consequently these large units include select Town PCAs that are of particular biodiversity significance to both the town and the region. In this way, biodiversity can be conserved at two scales: locally within each town and within a broader regional context. Regional PCA 1, one of the smaller Regional PCAs, covers parts of central Egremont and shares the same boundaries as Town PCA 1. It includes areas of wetland and open water along and to the north of Hubbard Brook.

Core Habitat and Critical Natural Landscape Components in Egremont

Areas of Core Habitat in Egremont, called BioMap2 Cores (BCs), are summarized here. Also described are the various components of each BC, which may include Species of Conservation Concern, Exemplary and Priority Natural Communities, or Aquatic, Forest, Vernal Pool, or Wetland Cores. Components of Critical Natural Land-

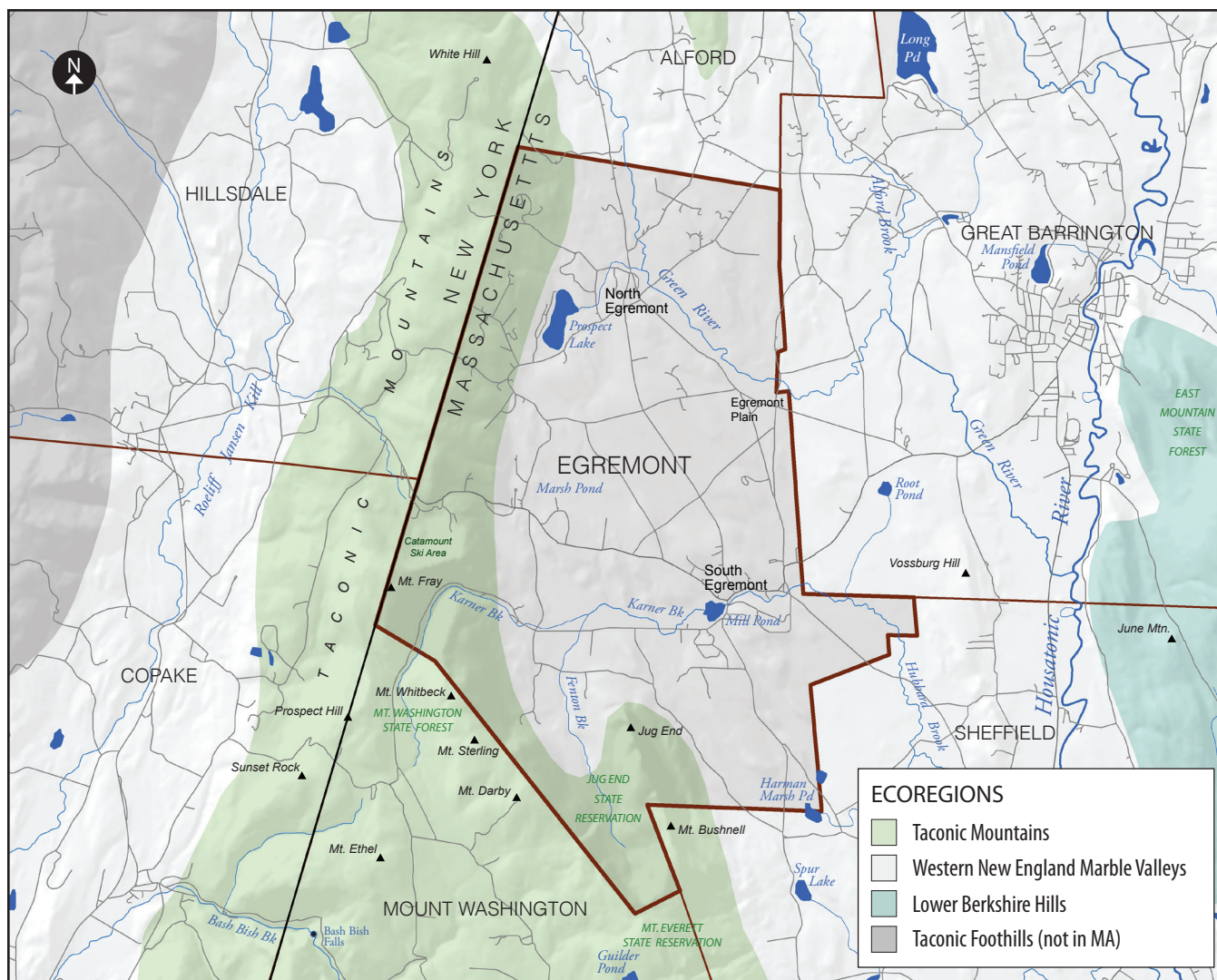


Figure 1. Town boundaries and ecoregions of Egremont, Massachusetts.

scape (CNL) associated with each BC are also provided. These include Upland Buffers of Aquatic Cores, Upland Buffers of Wetland Cores, and Landscape Blocks.

BC1258 and CNL629

BC1258 is surrounded by an Upland Buffer of CNL629. The 30 acres that are part of Egremont are located in the southeast corner of the town, along Hubbard Brook at the boundary between Egremont and Sheffield. This area is defined as an Aquatic Core and includes a marsh that supports a suite of marshbirds. The invasive plant Common Reed (*Phragmites australis*) has been a problem at this site for many years, and may degrade habitat for birds like bitterns and wrens.

Common Moorhen (*Gallinula chloropus*), Special Concern: This is a duck-like marshbird that typically nests in dense cattail beds adjacent to open water in large marshes. It is

widespread and considered secure globally, but is state-listed because it is uncommon in Massachusetts.

American Bittern (*Botaurus lentiginosus*), Endangered: This is a heron-like bird with a mottled brown appearance. It feeds and nests primarily in large cattail, tussock, or shrub marshes. Its coloring and behavior pattern of pointing its bill skyward when threatened, sometimes swaying to mimic movement of grasses in the wind, enable it to be well camouflaged in marsh habitat. It is very sensitive to disturbance.

Least Bittern (*Ixobrychus exilis*), Endangered: This small, wading marshbird is a member of the heron family. It has a long neck and bill, and a black crown. It typically nests in marshes with dense and tall vegetation, such as cattails, and in areas that are interspersed with open water. This species is very sensitive to habitat disturbances such as the encroachment of invasive marsh plants like Purple Loosestrife and *Phragmites*.

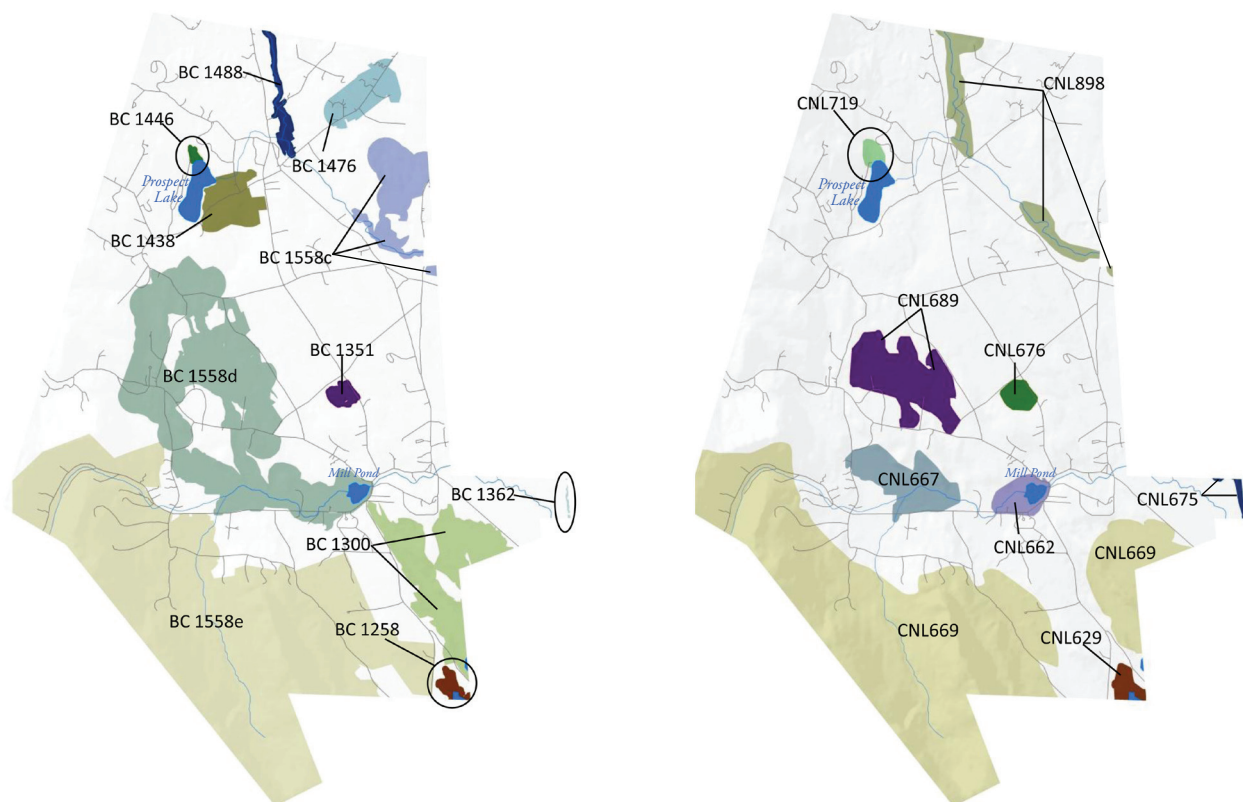


Figure 2. Egremont includes a total of nine BioMap2 Cores (BCs; left), including three separate subsections of BC1558 (see Figure 3), and nine areas of Critical Natural Landscape (CNL; right).

BC1300 and CNL669

BC1300 consists of areas within both Sheffield and Egremont and comprises nearly 1,500 acres in total. It includes lands along Hubbard and Willard Brooks as well as high-land areas and headwater streams to the west. The Egremont portion of BC1300 is largely forested, though some residential development does occur along roads. The forest has underlying calcareous geology and limy wetlands, as well as a diverse range of habitats. These habitats contain moderate populations of several plant species that, in Massachusetts, are found only in these conditions. This area features two Wetland Cores that total nearly 50 acres, as well as a Vernal Pool Core that supports breeding amphibian populations. The Wetland Cores are surrounded by an Upland Buffer of CNL669.

Plants

Bur Oak (*Quercus macrocarpa*), Special Concern: This is a broadly distributed tree species that reaches the eastern limit of its range in western Massachusetts, where it is restricted to wetlands near limestone hills or outcrops.

Canadian Sanicle (*Sanicula canadensis*), Threatened: This perennial herbaceous plant is found in a variety of decidu-

ous forest types. It usually occurs on sloped ground with moist soils, either in stream valleys or along the edges of lakes.

Hairy Agrimony (*Agrimonia pubescens*), Threatened: Hairy Agrimony is a perennial herbaceous plant of forest edges and openings, typically on steep slopes or ledges within nutrient-rich (particularly calcium), rocky woodlands.

Yellow Oak (*Quercus muehlenbergii*), Threatened: This tree is a Midwestern and southern species; it reaches the northeastern extent of its distribution in western Massachusetts, where it is typically found in uplands, specifically on limestone hills known as cobbles.

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: Adult and juvenile Jefferson Salamanders inhabit upland forest during most of the year, where they reside in small-mammal burrows and other sub-surface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and then disperse into upland forests.

BC1351 and CNL676

BC1351 lies near the intersection of Baldwin Hill and Townhouse Hill Roads, in a rather sparsely developed area of central Egremont. It comprises 31 acres and supports state-listed plant species typical of calcium-rich wetlands, and calcareous fens in particular. It also includes an Aquatic Core surrounded by an Upland Buffer of CNL676.

Plants

Dioecious Sedge (*Carex sterilis*), Threatened: This species is a slender, grass-like perennial that is restricted to open calcareous wetlands.

Fen Sedge (*Carex tetanica*), Special Concern: This narrow-leaved perennial is a grass-like sedge that grows in open calcareous meadows and fens. It is a slender plant, between five inches and two feet in height. In Massachusetts, it occurs primarily within calcareous areas of the marble valleys in the western part of the state.

Labrador Bedstraw (*Galium labradoricum*), Threatened: In Massachusetts, this slender perennial herbaceous plant of the madder family (Rubiaceae) is only known to occur in calcareous fens, wet meadows, and swamps in the upper Housatonic River watershed.

BC1362 and CNL675

This BC falls along headwaters of Hubbard Brook near the joint boundary of Sheffield, Great Barrington, and Egremont. It includes 145 acres in total; 3.4 acres fall within far eastern Egremont and include a Wetland Core that is surrounded by an Upland Buffer of CNL675.

BC1438 (no CNL)

This 134-acre BC is located on the east side of Prospect Lake and includes a town property that makes up over half of its area. It contains the stream outlet of Prospect Lake and is largely forested, although it is somewhat fragmented by areas of agricultural and residential development. The forested portion of BC1438 provides important habitat for adult salamanders. One Certified Vernal Pool provides habitat for breeding and young salamanders; identifying, certifying, and protecting any other vernal pools used for breeding here would further help to conserve amphibians.

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: Adult and juvenile Jefferson Salamanders inhabit upland forest during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during early spring to breed in vernal pools and areas of swamps, marshes, or similar wetlands that are free of fish that would prey on eggs and young salamanders. Larvae metamorphose in late summer or early fall, then disperse into upland forests.

BC1446 and CNL719

This BC and CNL are located at the north end of Prospect Lake. The boundaries of BC1446, which is surrounded by an Upland Buffer of CNL719, are defined by an 8.8-acre Aquatic Core. This BC also includes one state-listed plant species.

BC1476 (no CNL)

This 133-acre BC is located along Boice Road in northeast Egremont. Most of it is forested, although some residential areas are cleared. BC1476 also includes agricultural fields, some of which are protected under an Agricultural Preservation Restriction. It includes a population of one state-listed salamander species:

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: Adult and juvenile Jefferson Salamanders inhabit upland forest during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during early spring to breed in vernal pools and areas of swamps, marshes, or similar wetlands that are free of fish (which would otherwise prey on eggs and young salamanders). Larvae develop in late summer or early fall, then disperse into forests.

BC1488 and CNL898

BC1488 comprises nearly 63 acres and lies along the Green River in north-central Egremont and southern Alford. Most of it falls within Egremont (48 acres), and the town and Egremont Land Trust have protected portions of it for conservation. BC1488 includes an Aquatic Core and is surrounded by the Upland Buffer of CNL898. CNL898 also connects to a large Landscape Block that covers much of Ashford and West Stockbridge. A state-listed tree and a state-listed plant occur in BC1488.

Crooked-stem Aster (*Symphyotrichum prenanthoides*), Threatened: This perennial herbaceous plant occurs in open to semi-open conditions along naturally nutrient-rich rivers, streams, and seeps, as well as along open and semi-open roadsides near such habitats.

Black Maple (*Acer nigrum*), Special Concern: This tree may reach heights of 130 feet. It has dark bark and grows best in rich, moist soils.

BC1558 (multiple CNLs)

BC1558 is one of the largest cores in the region, extending along the lower part of the Massachusetts portion of the mainstem of the Housatonic River in Great Barrington and Sheffield, and including the lower reaches of some of its larger tributaries (Figure 3, next page). The core encompasses the rivers and streams themselves, as

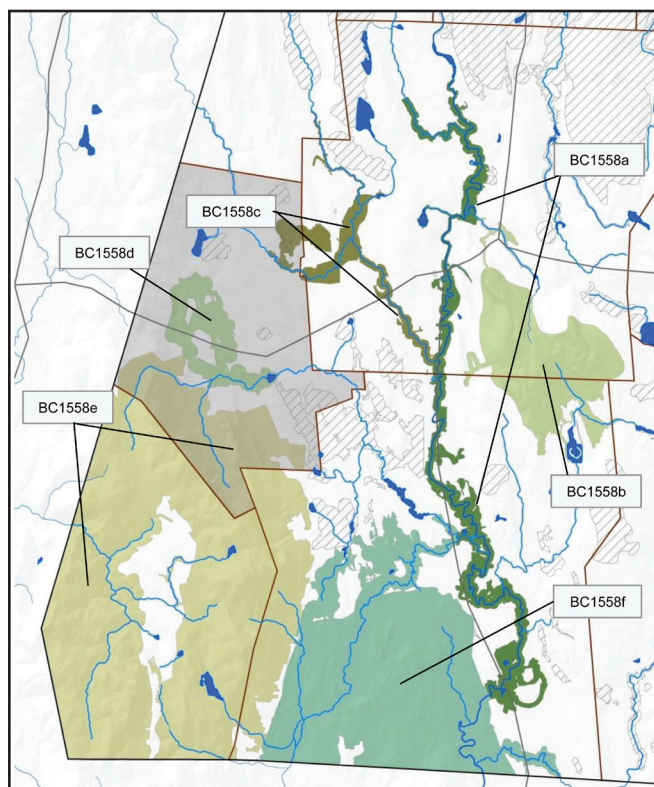


Figure 3. BC1558 is a large BioMap2 Core subdivided into six sub-areas (shown here in color). The interconnections of the sub-areas are very important, but each is somewhat spatially and ecologically distinct. Portions of three sub-areas – BC1558c, BC1558d, and BC1558e – fall partly within the town of Egremont. Other Core Habitat is depicted with grey hatching.

well as nearby uplands and floodplains. It also includes mountainous areas in Jug End State Reservation and Mount Everett State Reservation in south Egremont and the town of Mount Washington, as well as East Mountain in Great Barrington and Sheffield. Some lowland areas in the southwest portion of Sheffield, including floodplains of Schenob Brook and its tributaries, are also part of BC1558. These areas are all included as part of a single core because the particular ecological value of each is enhanced by protection of their interconnections; however seven different areas that are somewhat spatially and ecologically distinct within BC1558 are given letter sub-labels of BC1558a through BC1558f. Parts of three of these areas are in Egremont: these are portions of BC1558c, BC1558d and BC1558e. Each is associated with a different set of CNLs. Other portions of BC1558 lie outside of Egremont: portions of BC1558a and BC1558b are in Great Barrington and Sheffield; parts of BC1558e are in Mount Washington and Sheffield, and BC1558f is just in Sheffield.

BC1558c and CNL898

BC1558c includes the Green River and its surrounding riparian areas and floodplains in Egremont and Great Barrington. Much of this area is protected for conservation. The Egremont portion of this core includes mixed evergreen and deciduous forests, four Certified Vernal Pools, and an Aquatic Core along the Green River. This BC is surrounded in part by an Upland Buffer of CNL898, and is bordered by residences and agricultural fields to the south. Several state-listed species are documented in the Egremont portion of BC1558c:

Plants

Crooked-stem Aster (*Symphyotrichum prenanthoides*), Threatened: This is a perennial herbaceous plant that occurs in open to semi-open forested areas with rich soils along rivers, streams, and seeps, and also along open and semi-open roadsides near such wet environments.

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools or similar wetlands that are free of fish that would prey on eggs and young salamanders. Larvae metamorphose in late summer or early fall and then disperse into upland forests.

Reptiles

Wood Turtle (*Glyptemys insculpta*), Special Concern: Ideal habitat for this species includes streams and rivers with long corridors of undeveloped, connected uplands extending along both sides of the waterways.

BC1558d, CNL662, CNL667, and CNL689

This section of BC1558 includes an extensive wetland area in the lowlands of central Egremont, north of Jug End Reservation. It spans both sides of Route 23 around Marsh Pond in its northern areas, as well as areas around Karner Brook, Mill Pond, and Hubbard Brook in the south, and supports a truly significant diversity of species and habitats. Much of the land on the south side of Route 23 is protected by state and private conservation efforts, while land north of Route 23 around Marsh Pond lacks these protections. BC1558d includes many BioMap2 components, including several Wetland Cores and Vernal Pool Cores, an Aquatic Core, and many state-listed species. Unfortunately, many non-native, invasive species are also present in these areas and need to be managed to maintain the best possible habitat for the native, state-listed species. This section of the core is also associated with Upland Buffers of three CNLs: CNL662, CNL667,

and CNL689. BC1558d includes many state-listed plants, most of which require specialized habitats such as calcium-rich wetlands or ponds. Most are species that also require open, non-forested habitat that is maintained by periodic flooding or other natural disturbance processes that prevent the establishment of trees and other large, woody vegetation. In some areas of BC1558d, agricultural practices like mowing and grazing have maintained such open habitat.

Plants

Capillary Beak-sedge (*Rhynchospora capillacea*), Endangered:

This is a short, grass-like plant with thread-like stems and leaves that grows near groundwater seeps in open, calcareous wetlands.

Culver's-root (*Veronicastrum virginicum*), Threatened: This tall, showy perennial herbaceous plant occurs in mesic to wet, open habitats of calcareous regions. It can reach several meters in height and produces a candelabra-like array of pink and white flowers during mid-summer.

Dioecious Sedge (*Carex sterilis*), Threatened: This species is a slender, grass-like perennial that is restricted to open calcareous wetlands.

Drooping Speargrass (*Poa saltuensis* ssp. *languida*), Endangered: This species inhabits dry, rocky, and fertile soils over base-rich bedrock on slopes and ridgecrests, often within deciduous forests and woodlands.

Fen Cuckoo Flower (*Cardamine pratensis* var. *palustris*), Threatened: This species is a perennial herbaceous plant of calcium-rich seepage swamps.

Fen Sedge (*Carex tetanica*), Special Concern: This narrow-leaved perennial sedge grows in open calcareous fens.

Gattinger's Panic-grass (*Panicum philadelphicum* spp. *gattingeri*), Special Concern: This annual grass occurs in alkaline soils of open habitats such as rocky ledges, sandy shores, and roadsides.

Handsome Sedge (*Carex Formosa*), Threatened: This slender, grass-like perennial sedge grows in clumps at the transition zone between wetlands and uplands, and requires alkaline soil that is moist but not fully saturated.

Hill's Pondweed (*Potamogeton hillii*), Special Concern: This submersed aquatic plant grows best in the muddy substrates of cold, shallow, slow-moving, and clean alkaline waterbodies.

Slender Cottongrass (*Eriophorum gracile*), Threatened: This peatland plant is a colony-forming, perennial sedge that requires open habitats and can tolerate a wide range of water chemistry conditions.

Insects

Dion Skipper (*Euphyes dion*), Threatened: This butterfly inhabits sedge wetlands, including calcareous fens, riparian marshes, wet meadows, and shrub swamps, where

its larvae feed on various sedges (*Carex* species). Adults nectar in nearby upland fields, on the flowers of plants such as Common Milkweed (*Asclepias syriaca*).

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special

Concern: Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and areas of swamps, marshes, or similar wetlands that are free of fish that would prey on eggs and young salamanders. Larvae metamorphose in late summer or early fall and then disperse into upland forests.

Reptiles

Spotted Turtle (*Clemmys guttata*), SWAP: This small, dark-colored turtle with yellow spots on its carapace inhabits wetlands year-round and nests in nearby uplands during spring.

Birds

American Bittern (*Botaurus lentiginosus*), Endangered: This mottled brown heron-like bird feeds and nests primarily in large cattail, tussock or shrub marshes, and is very sensitive to disturbance. Its coloring and unique behavior of pointing its bill skyward when threatened, sometimes swaying to mimic movement of grasses in the wind, allow it to be well-camouflaged in marsh habitat.

Common Moorhen (*Gallinula chloropus*), Special Concern: This duck-like marshbird typically nests in dense cattail beds adjacent to open water in large marshes. It is widespread and considered secure globally, but is state-listed because it is uncommon in Massachusetts.

Pied-billed Grebe (*Podilymbus podiceps*), Endangered: These birds live and nest in wetlands that have abundant cattails, reeds, and other vegetation that provides nesting materials and cover. They usually inhabit areas bordering open water, wintering along open lakes and rivers.

BC1558e and CNL669

This portion of BC1558 incorporates a large part of southern Egremont, mountainous areas in western Sheffield, and much of the town of Mount Washington. Headwater streams of Fenton and Karner Brooks in Mount Washington and southern Egremont are part of BC1558e; they flow east from the Taconic Mountains before turning south to join the Housatonic River. Nearly all of BC1558e is part of the Taconic Mountains ecoregion, and includes a large Forest Core and two Vernal Pool Cores, all embedded in a Landscape Block of CNL669. The following plant, salamander, and bat species, as well as Exemplary and Priority Natural Communities, are all part of BC1558e:

Plants

Hairy Agrimony (*Agrimonia pubescens*), Threatened: This is a perennial herbaceous plant of forest edges and openings, often found on steep slopes or ledges within nutrient-rich, rocky woodlands – particularly those rich in calcium.

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander breeds in vernal pools and fish-free areas of open water of marshes. The young spend their early lives in vernal pools, safe from predation, and adults spend most of their time in upland forests.

Spring Salamander (*Gyrinophilus porphyriticus*), SWAP: Adults of this salamander inhabit clean, cold, high-gradient brooks and headwater seeps in forest habitat. Larvae are entirely aquatic and largely nocturnal, spending daylight hours buried below the streambed or hidden under stones. Adults are semi-aquatic and spend most of their time under cover objects along the margins of brooks, springs, and seeps, but they also venture into upland forest during rainy weather.

Mammals

Small-footed Bat (*Myotis leibii*), Special Concern: This small bat has golden-tinted, almost yellowish fur, short pinkish forearms, and a black face and ears. The limestone cave used by the population in BC1558e has historically supported more hibernating bats than any other cave in Massachusetts. Unfortunately, like many other bat populations, this one has recently been devastated by the fungus known as White-Nose Syndrome, and it is not clear what the future holds for the species.

Exemplary Natural Communities

Mixed Oak Forest (Secure): This Exemplary Natural Community is a broadly defined type that is typically dominated by oak trees, though other constituent species may vary. It sometimes progresses through gradual changes in species composition into other more narrowly-defined communities. It often occurs in areas that burn regularly, including exposed slopes with dry soils. This example of Mixed Oak Forest is in good condition and occurs within a very large area that is naturally vegetated and has no roads.

Priority Natural Communities

Calcareous Talus Forest/Woodland (Vulnerable): This Priority Natural Community type develops on loose, rocky slopes below calcareous cliffs or rock outcrops. Boulders are typically present, and the soil between them is usually moist and loamy. Trees are often best established on lower slopes. This large example is in very good condition, with high species diversity, minimal human disturbance, and few exotic invasive species. It is also surrounded by a large, relatively intact buffer of forestland.

Rich, Mesic Forest (Vulnerable): This Priority Natural Community type occurs within a matrix of northern hardwood forest. It is dominated by sugar maple trees and supports diverse herbaceous plants that thrive in its moist and nutrient-rich environment, including many spring wildflowers. This very small example of Rich, Mesic Forest in BC1558e is in good condition and is maturing, but it also contains several exotic invasive species, which may threaten its future integrity.

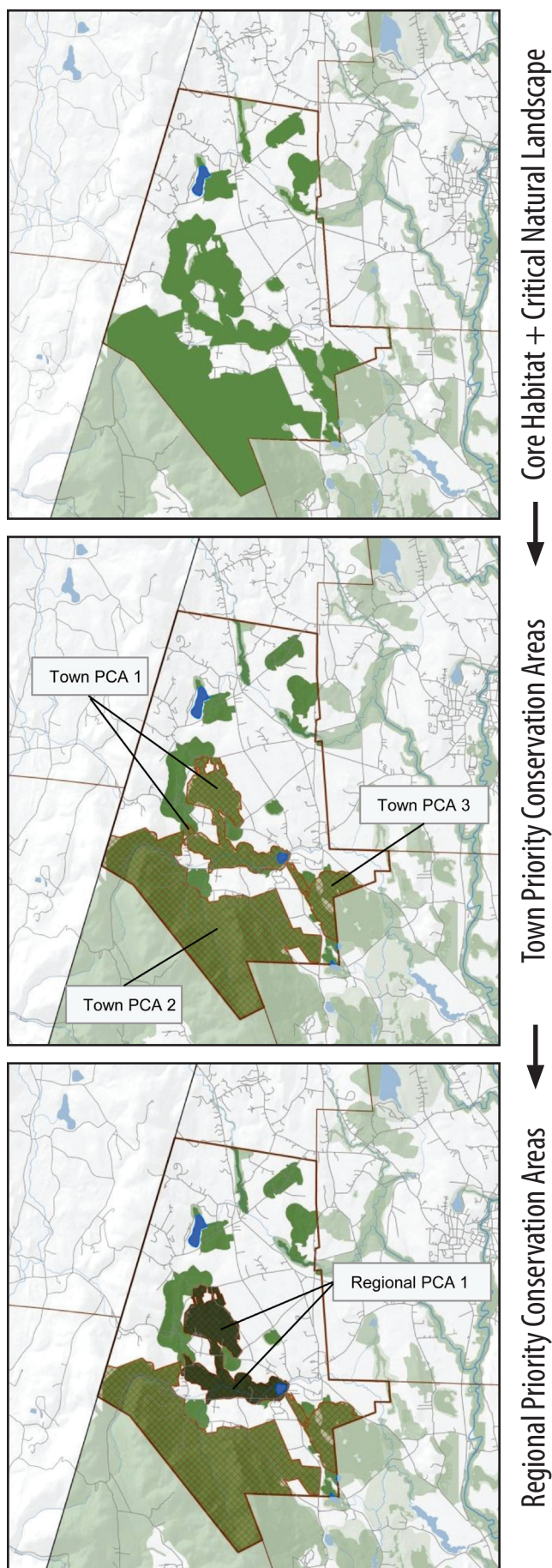
Ridgetop Pitch Pine – Scrub Oak Community (Imperiled): This Priority Natural Community type occurs on acidic bedrock along mountain ridges, often in a mosaic with other rocky summit communities. It is dependent on fire to maintain its natural structures and ecosystem functions, and many of its component species are tolerant of extremely severe growing conditions. This example in BC1558e is small, but regeneration is evident and it has the potential to occupy more area if natural fires take place along the ridgeline. It is well buffered within a naturally-vegetated landscape.

Priority Conservation Areas in Egremont

Egremont contains four designated Priority Conservation Areas (PCAs). Three are considered Town PCAs; one is also a Regional PCA.

Town PCA 1/Regional PCA 1: This PCA is both a Regional and Town PCA, and is located in the central part of town, where it covers approximately 845 acres. It includes parts of BC1558d. The area encompasses a Wetland Core north of Hillsdale Road and supports 19 state-listed plants and animals. It also includes Aquatic Cores to the south, along Hubbard Brook and its tributaries. This area is home to the Pied-billed Grebe (*Podilymbus podiceps*), the only remaining species of the genus *Podilymbus*, as well as other uncommon marshbirds. The state-listed plants Culver's-root (*Veronicastrum virginicum*) and Gattinger's Panic-grass (*Panicum philadelphicum* ssp. *gattingeri*) are also found here.

Town PCA 2: This is Egremont's largest Town PCA. It encompasses over 2,700 acres in the southern part of town and is defined by a large Forest Core embedded within a Landscape Block. The area is composed mostly of large tracts of forest, including the Mount Everett State Reservation and Mount Washington State Forest. Five state-listed plants and animals occur here, including Hairy Agrimony (*Agrimonia pubescens*) and the Jefferson Salamander (*Ambystoma jeffersonianum*). This PCA also includes three different Priority Natural Communities (Calcareous Talus Forest/Woodland; Rich, Mesic Forest; and Ridgetop



Pitch Pine – Scrub Oak Community) and one Exemplary Natural Community called Mixed Oak Forest. These communities are all found along the ridges west of Route 41. Vernal Pool Cores are part of Town PCA 2 as well.

Town PCA 3: Egremont's third Town PCA is the smallest of the three (362 acres), and is located in the southeast corner of the town, just west of Hubbard Brook and Sheffield-Egremont Road. This area is part of a large Landscape Block that extends southeast into Sheffield and contains several important biodiversity elements. These include the Jefferson Salamander (*Ambystoma jeffersonianum*) and four state-listed plants: Hairy Agrimony (*Agrimonia pubescens*), Canadian Sanicle (*Sanicula canadensis*), Yellow Oak (*Quercus muehlenbergii*), and Bur Oak (*Quercus macrocarpa*). Town PCA 3 also includes two Wetland Cores and one Vernal Pool Core.

Figure 4. Core Habitat (dark green), Critical Natural Landscape (light green), Town Priority Conservation Areas (PCAs; reddish-brown grid), and Regional Priority Conservation Areas (black) in Egremont. Town PCAs make up 3,944 acres, or 32.6 percent of the town's total area. Regional PCA 1 comprises 845 acres, or 7 percent of the town's total area.

Glossary

Aquatic Cores (in BioMap2, a component of Core Habitat) include intact river corridors within which important physical and ecological processes of the river or stream occur, delineated using integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern. To identify those areas integrally connected to each river and stream, each river segment was buffered 30 meters. All wetlands wholly or partially contained within this buffer were then included, and the combination of the river channel, the adjacent buffer, and the connected wetlands make up this riverine Core Habitat.

BioMap2 Cores (BCs) (called Core Habitats in BioMap2) identify key areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Protection of Core Habitats will contribute to the conservation of specific elements of biodiversity.

Certified Vernal Pools are temporary ponds or other fishless wetlands that meet certain biological and physical criteria to be classified as essential breeding habitat for a number of amphibian and invertebrate species, such as Wood Frog, Spotted Salamander, Blue-spotted Salamander, Jefferson Salamander, Marbled Salamander, and Intricate Fairy Shrimp. The certification of vernal pool habitat in The Commonwealth is administered by the Natural Heritage & Endangered Species Program. A number of regulations incorporate protections for certified vernal pools (please see http://www.mass.gov/dfwele/dfw/nhesp/vernal_pools/pdf/vpcert.pdf for more information).

Critical Natural Landscape (CNL) (part of BioMap2) identifies large natural landscape areas that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world. Areas delineated as Critical Natural Landscape also include buffering upland around wetland, coastal, and aquatic Core Habitats to help ensure their long-term integrity.

Cobbles are small hills or rocky knolls made of marble and quartzite. The alkaline soils derived from the calcareous rocks support a distinct and diverse flora. Examples include Bartholomew's Cobble in southern Sheffield and Tyringham Cobble in Tyringham.

Critically Imperiled natural communities typically have five or fewer documented sites or have very few remain-

ing acres in the state. Natural Community types ranked as Critically Imperiled are in the Priority Natural Communities category.

Disturbance, in an ecological sense, is an event that disrupts the normal structure and function of an ecosystem. Disturbances often produce bare soil and openings in forests where rapidly growing, sun-loving species, including invasive exotic species, can grow. Human activities have accelerated the number and types of disturbances in many ecosystems.

Ecoregions are areas of relatively homogeneous ecological systems, including vegetation, soils, climate, geology, and patterns of human uses.

Endangered species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts. Endangered is a category of state-listed species defined in the Massachusetts Endangered Species Act (M.G.L. c.131A) and listed in its regulations (321 CMR 10.00).

Exemplary Natural Communities are the best examples documented of relatively common (Secure) types of natural communities.

Forest Cores (in BioMap2, a component of Core Habitat) identify the best examples of large, intact forests that are least impacted by roads and development, providing critical "forest interior" habitat for numerous woodland species.

Fragmented Landscape, in ecological and conservation terms, refers to the idea that a large spatial area (the landscape) that in the past might have had connected habitats (for example, unbroken forest, continuous river, or undisturbed grasslands) have become interspersed with artifacts of human development that alter habitat and ecological processes – or that the human influence has come to dominate the land leaving patches, or fragments, of natural habitat surrounded by development.

Imperiled communities typically have 6-20 sites or few remaining acres in the state. Natural Community types ranked as Imperiled are included in the Priority Natural Communities category.

Landscape Blocks (component of BioMap2 Critical Natural Landscape), the primary component of Critical Natural Landscape, are large areas of intact and predominately natural vegetation, consisting of contiguous forests, wetland, rivers, lakes, and ponds, as well as coastal habitats such as

barrier beaches and salt marshes. Pastures and power-line right-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species.

Landscape Context refers to taking the broadest view of the ability of ecosystems or species populations to maintain themselves where they are by considering the siting within the larger area. For example, a wooded area within a city park has a very different, urban context than a wooded area on a farm.

MESA (Massachusetts Endangered Species Act) (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00) provide regulatory protection of rare species and their habitats. MESA protects rare species and their habitats by prohibiting the “Take” of any plant or animal species listed as Endangered, Threatened, or Special Concern by the MA Division of Fisheries & Wildlife.

Natural Communities are assemblages of species that occur together in space and time. These groups of plants and animals are found in recurring patterns that are classified and described by their dominant biological and physical features.

Nymphs, sometimes informally referred to as larvae, are the young, immature form of dragonflies and some other invertebrates. Dragonfly nymphs are aquatic. On maturing, they change into the flying terrestrial adults that are seen along rivers and lakes, and nearby uplands.

Priority Natural Communities include types of natural communities with limited distribution, or relatively few occurrences, and/or low acreages in Massachusetts.

Protected in Perpetuity refers to land owned as conservation land by a public entity in Massachusetts whose lands come under the authority of Massachusetts Constitution Article 97, or federal land owned by a federal conservation agency, or by a non-profit dedicated to land conservation; or for which the conservation values have been protected by legal restrictions on the deed or by a conservation easement (conservation restriction).

Secure types of natural communities typically have over 100 sites or abundant acreage across the state; excellent examples are identified as Core Habitat to ensure continued protection and are referred to as Exemplary Natural Communities.

Special Concern species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts. Special Concern is a category of state-listed species defined in the

Massachusetts Endangered Species Act (M.G.L. c.131A) and listed in its regulations (321 CMR 10.00).

Species of Conservation Concern (in BioMap2, a component of Core Habitat) include those species that meet the criteria for listing under the Massachusetts Endangered Species Act, as well as a number of species that do not meet these criteria for listing, but are considered to be of conservation concern within Massachusetts, such as inclusion in the State Wildlife Action Plan (SWAP).

State-listed Species are species listed under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its regulations (321 CMR 10.00). – that is, Endangered, Threatened, or Special Concern species.

SWAP (State Wildlife Action Plan), approved in 2006, the Massachusetts Division of Fisheries and Wildlife’s State Wildlife Conservation Strategy, most often referred to as the State Wildlife Action Plan (SWAP), is a comprehensive document to help guide wildlife conservation decision making for Massachusetts’ wildlife for many years.

SWAP Species were identified as being those in greatest need of conservation in the Massachusetts Division of Fisheries and Wildlife’s State Wildlife Conservation Strategy, most often referred to as the State Wildlife Action Plan (SWAP).

Threatened species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range. Threatened is a category of state-listed species defined in the Massachusetts Endangered Species Act (M.G.L. c.131A) and listed in its regulations (321 CMR 10.00).

Upland Buffers of Aquatic Cores (component of BioMap2’s Critical Natural Landscape) identify protective upland areas adjacent to all Aquatic Cores. A variable width buffer, that extends deeper into surrounding unfragmented habitats than into developed areas, was used to include the most intact areas around Aquatic Cores. The conservation of wetland buffers will support habitats and functionality of each aquatic area, and also include adjacent uplands that are important for many species that move between habitat types.

Upland Buffer of Wetland Cores (component of BioMap2’s Critical Natural Landscape) identify protective upland areas adjacent to all Wetland Cores. A variable-width buffer, that extends deeper into surrounding unfragmented habitats than into developed areas, was used to include the most intact areas around the Wetland Cores. The conservation of wetland buffers will support habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

Variant of a natural community refers to a named subtype of a more broadly defined type of community. In Massachusetts the term is not a formal designation, but rather is intended as an aid for understanding community relationships.

Vernal Pools, also known as ephemeral pools, autumnal pools, and temporary woodland ponds, typically fill with water in the autumn or winter due to rainfall and rising groundwater and remain ponded through the spring and into summer. They usually dry completely by the middle or end of summer each year. Vernal pools are unique wildlife habitats best known for the amphibians and invertebrate animals that use them to breed.

Vernal Pool Cores (BioMap2, component of Core Habitat) identify, based on a GIS model, the highest quality most interconnected clusters of Potential Vernal Pools (a dataset of likely vernal pools identified from interpretation of aerial photographs) and the habitat between them.

Vulnerable communities typically have 21-100 sites or limited acreage across the state. Natural Community types ranked as Vulnerable are in the Priority Natural Communities category.

Wetland Cores (BioMap2, component of Core Habitat) identify, based on a GIS model, the least disturbed wetlands within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated development. These wetlands are most likely to support critical wetland functions (i.e. natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the



Natural Heritage &
Endangered Species Fund

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at: www.nhesp.org.