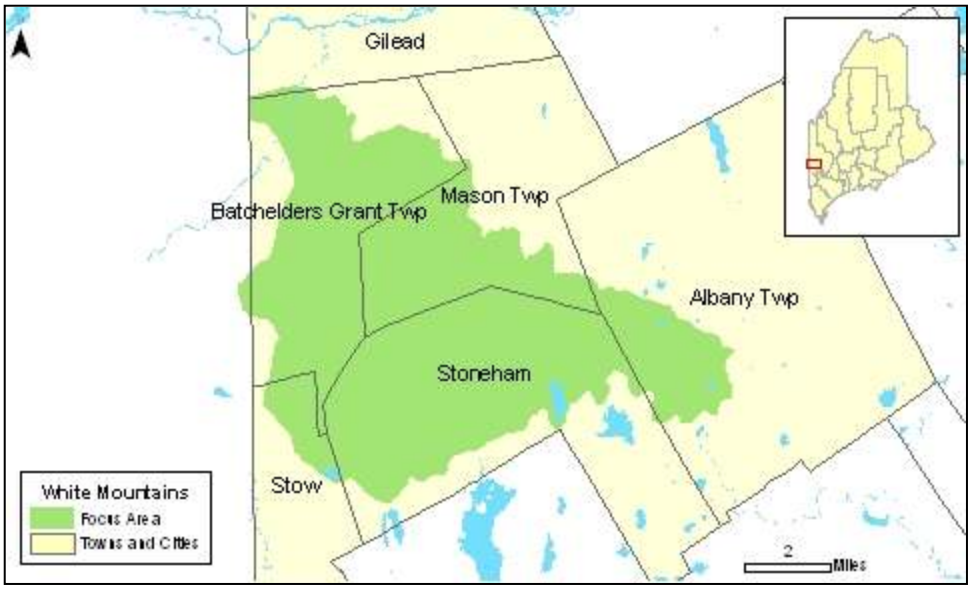
White Mountains Focus Area

Stoneham, Stow, Albany Twp, Batchelder's Grant Twp, Mason Twp, Maine



Description:

The White Mountains Focus Area covers an area of approximately 37,000 acres and is significant for its extensive forested ecosystems at a range of elevations including some high elevation forests. As a result there are several types of rare alpine, subalpine, and forested natural communities within the focus area that make the area stand out in both the region and in the state. The U.S. Forest Service owns much of the land within this focus area, and has designated significant portions as either Wilderness Areas or Restricted Use Areas, the latter of which restricts motorized recreation and timber harvest. Much of the remaining portions of the land are held by private landowners.

Red Pine Woodland similar to that found in the White Mountains Focus Area (photograph by the Maine Natural Areas Program).

Natural Communities and Plants

An unusual array of rare and high quality common natural communities occurs within the focus area. The dominant matrix forest types within the focus area are either northern hardwood forests or coniferous forests depending on the elevation and site characteristics. At mid-elevations, northern hardwood forests such as **Beech-Birch-Maple Forest** predominate whereas at lower elevations where conditions are moist **Spruce-Fir Broom Moss Forests** are more common. Although it is the matrix forest type in Maine, the Beech-Birch-Maple Forest southwest of Speckled Mountain is one of the nicer examples known in the state, with trees over 150 years old. The hardwood forest extends down along the stream valley of Bickford Brook. A band of calcareous bedrock in the eastern half of the focus area has created the rich soil conditions needed for a **Maple-Basswood-Ash Forest**, an uncommon forest type that supports multiple rare plant species including **three bird's orchid** (*Triphora trianthophora*) and **American ginseng** (*Panax quinquefolius*).

At lower drier locations, mixed forests consisting of **Red Oak-Northern Hardwoods-White Pine Forests** are more common. In dry, south-facing slopes or near summits at lower elevations **Oak-Pine Woodland** communities are fairly common in this focus area and at least one **Red Pine Woodland** community has also been documented. Less than a dozen Red Pine Woodlands have been documented in Maine and the example in the White Mountains is one of only a couple that have been found in this region of the state. Red Pine Woodlands are open canopy woodlands dominated primarily by red pine (*Pinus resinosa*). Areas of exposed bedrock are common, and dry site lichens including reindeer moss occur on the bedrock and areas with very thin soils. This community type is frequently a result of past fire, and this site may have fire disturbance origins. This community type may include rare moths such as the oblique zale, pine sphinx, and pine pinion, that utilize hard pines as larval host plants, but surveys would be needed to determine if any of these species occur at this site.

Crowberry Bilberry Summit Bald similar to that found in the White Mountains Focus Area (photograph by the Maine Natural Areas Program).

A **Subalpine Heath-Krummholz** community follows a ridgeline on Speckled Mountain on the western side of this focus area**.** This is a rare community in Maine mostly due to lack of suitable growing conditions, and less than ten occurrences of this community have been documented in the state**.** Dwarf shrubs and sparse, stunted fir (*Abies balsamea*) or spruce (*Picea mariana*) trees are the dominant species that tolerate the harsh growing conditions of this community.

Wind-flagged and krummholz-form trees are typical. The open-grown **Crowberry-Bilberry Summit Bald** community is also found on mountain summits, where windswept bare rock is interspersed with thin pockets of soil, which occur in depressions in the bedrock, along with stunted shrubs and other vegetation. With less than ten known occurrences in the state, management and protection of this community are very important. These fragile summit balds are easily damaged by overuse, particularly by motorized vehicles including ATV's and snowmobiles, but they may also be impacted by excessive trampling by hikers.

Many of the forests in this focus area show some degree of nutrient enrichment and this helps account for the presence of several rare plant species that favor rich forests, such as **squirrel corn** (*Dicentra canadensis*), **Goldie's wood-fern** (*Dryopteris goldiana*), **pale jewelweed** (*Impatiens pallida*), and **American ginseng** (Panax *quinqufolius*). Several populations of the rare **three bird's orchid** (*Triphora trianthophora*) occur within the forests of this focus area. Several rare plant species typically associated with dry, open summits also are found within the focus area, these include **mountain sandwort** (*Minuartia groenlandica*), **silverling** (*Paronychia argyrocoma*), and **Douglas' knotweed** (*Polygonum douglasii*). These alpine plants occur in only a handful of scattered high elevation locations across the state and the multiple summits of the White Mountains region represent a significant portion of their actual and potential habitat, and therefore a prime opportunity for their protection.

Wildlife

The large, diverse, and relatively intact forests of this focus area are free of major roadways and therefore provide excellent habitat for a number of wide-ranging mammal species such as moose, bear, and bobcat. These species, because they typically have large home ranges and utilize a variety of habitat types, can be considered as umbrella species. Their presence in this focus area suggests that many other animal species with smaller home ranges are also likely to be found here as well.

In addition, the White Mountains Focus Area provides habitat for several rare species. **Spring salamanders** *(Gyrinophilus porphyriticus)* have been documented in two locations along Evans Brook. Spring salamanders, a species of special concern in Maine, live in or around clear, cool waters that are high in oxygen, such as streams or springs in wooded areas. Adults are found both in water and on land, and they seek refuge in cavities along stream banks, or under rocks. They are highly sensitive to environmental stresses such as temperature change or stream siltation. Deforestation is the leading cause of population declines for the spring salamander.

Two rare bird species that tend to nest on alpine cliffs and ledges, the **golden eagle** (*Aquila chrysaetus*) and the **peregrine falcon** (*Falco peregrinus*), have also been documented to breed in some of the higher elevations in this focus area.

The **golden eagle** is Maine's rarest breeding bird. For many years, only a single pair nested in the state. Golden eagles are traditionally associated with rugged topography and open country. They often nest on cliffs in mountains, but tree-nesting prevails in forested regions. Historically,

shooting, trapping, and poisoning reduced golden eagle numbers. Environmental contaminants, especially DDT, caused reproductive impairment during the post-World War II era. Marginal habitat conditions (lack of food, open space for hunting prey) now limit golden eagles in the East. Counts of migrating golden eagles in the East, however, indicate that the Eastern population is slowly increasing.

Peregrine falcons also nest on cliffs, ledges or overhangs. Like golden eagles, increased use of pesticides after World War II caused drastic declines in peregrine populations. Although once broadly distributed in North America, they were extirpated throughout much of their historic range including the eastern United States. Maine has joined other states in a large-scale peregrine falcon reintroduction program. Young, captive-reared peregrines were slowly released at former nest sites in a process called "hacking." Reintroduced peregrines have been successful in Maine as well as in New Hampshire, Vermont, and New York. With recovery of the species nationwide, the peregrine falcon was taken off the federal endangered species list in 1999, but its breeding population remains listed as endangered on the Maine list, as its numbers here are still low. Peregrine falcons have been documented nesting at three different sites on the eastern and western ends of the focus area within the last 5-6 years.

***Rare Features Table for the White Mountains Focus Area**:*

Common Name	Scientific Name	Status	S-Rank	G-Rank
Natural Communities				
Northern hardwoods forest	Beech - Birch - Maple Forest	N/A	S4	G3G5
Mid-elevation bald	Crowberry - Bilberry Summit Bald	N/A	S3	G2G3
Hemlock forest	Hemlock Forest	N/A	S4	G4G5
Enriched northern hardwoods forest	Maple - Basswood - Ash Forest	N/A	S3	GNR
Oak-pine woodland	Oak - Pine Woodland	N/A	S4	G3G5
Oak - northern hardwoods forest	Red Oak - Northern Hardwoods - White Pine Forest	N/A	S4	GNR
Red pine woodland	Red Pine Woodland	N/A	S3	G3G5
Spruce-fir krummholz	Spruce - Fir - Birch Krummholz	N/A	S3	GNR
Lower elevation spruce-fir forest	Spruce - Fir - Broom-moss Forest	N/A	S4	GNR
Rocky summit heath	Subalpine Heath - Krummholz	N/A	S4	GNR
Rare Plants				
Wild leek	*Allium tricoccum*	SC	S4	G5
Squirrel corn	*Dicentra canadensis*	T	S1	G5
Goldie's wood-fern	*Dryopteris goldiana*	SC	S2	G4
Pale jewelweed	*Impatiens pallida*	SC	S2	G5
Small whorled pogonia	*Isotria medeoloides*	E	S2	G2
Mountain sandwort	*Minuartia groenlandica*	SC	S3	G5

American ginseng	*Panax quinquefolius*	E	S2	G3G4
Silverling	*Paronychia argyrocoma*	T	S1	G4
Douglas' knotweed	*Polygonum douglasii*	T	S2	G5
Three bird's orchid	*Triphora trianthophora*	T	S1	G3G4
Tall white violet	*Viola canadensis*	E	S1	G5
Rare Animals				
Golden Eagle	*Aquila chrystaetous*	E	S1B,S1N	G5
Peregrine Falcon	*Falco peregrinus*	E(B)	S1S2N,S2B	G4
Spring Salamander	*Gyrinophilus porphyriticus*	SC	S3	G5

Other Features Mapped by MDIFW:
Deer wintering area
Inland waterfowl and wading bird habitat

Protection Status:

The majority of this focus area is in public ownership and is part of the White Mountain National Forest (WMNF). Much of the WMNF has been designated as either a Wilderness Areas or Restricted Use Area, the latter of which restricts motorized recreation and timber harvest.

Conservation Considerations:

- Preserving the natural communities and other sensitive features within the focus area will be best achieved by working to conserve the integrity of the larger natural systems in which these features occur. Conserving the larger systems will help ensure that both common and rare natural features will persist on the landscape in this part of the state.

- Conservation planning for upland features should include setting some areas aside from timber harvests to allow for the development of some unmanaged forests.

- Alpine and subalpine natural communities in this focus area are vulnerable to damage from over use, particularly from motorized vehicles including ATV's and snowmobiles. We strongly suggest prohibiting the use of any motorized vehicles anywhere on the exposed summits of mountains. Use of motorized vehicles may be appropriate for areas on the lower slopes of the mountain but caution should be taken to locate them in a way that does not tempt riders to ride to the summit.

- Care should be taken to avoid locations of rare plants when locating trails summits. The Maine Natural Areas Program should be consulted to ensure that the rare plants are avoided if and when trails are formally designated across mountain summits.

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http://www.mainenaturalareas.org/

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
S3 Rare in Maine (on the order of 20-100 occurrences).
S4 Apparently secure in Maine.
S5 Demonstrably secure in Maine.

Note: **State Ranks** are determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
G3 Globally rare (on the order of 20-100 occurrences).
G4 Apparently secure globally.
G5 Demonstrably secure globally.

Note: **Global Ranks** are determined by The Nature Conservancy.

STATE LEGAL STATUS FOR PLANTS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.