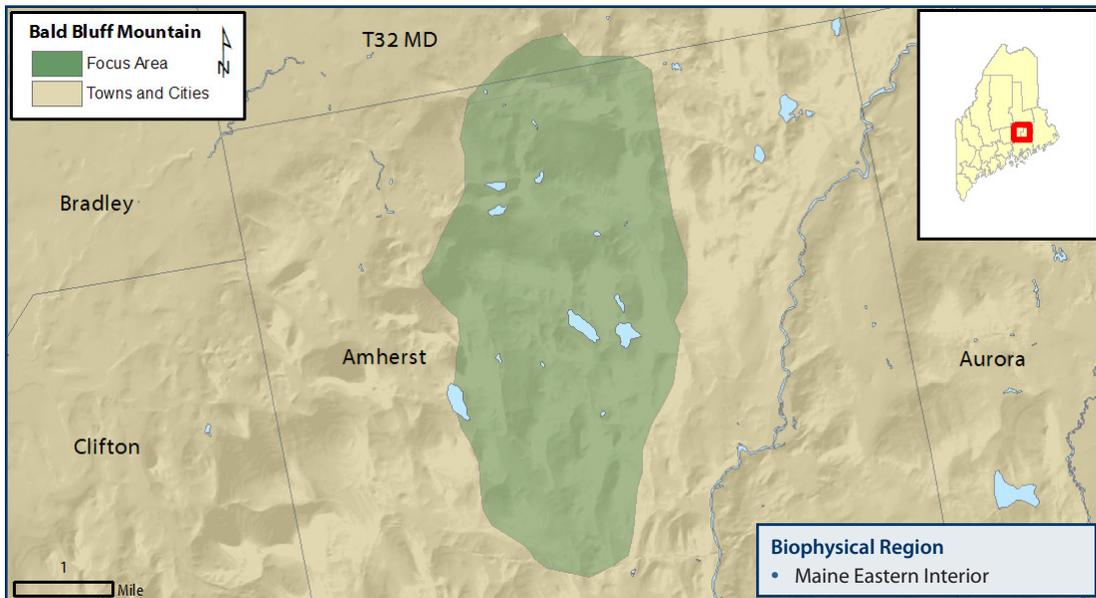
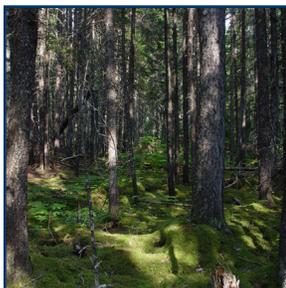


# Bald and Bald Bluff Mountains



## WHY IS THIS AREA SIGNIFICANT?

The summit of Bald Mountain supports one of the largest naturally occurring Red Pine Woodlands in the state, and the upper slopes of Bald Bluff Mountain support a Spruce - Fir Broom-Moss Forest with little to no signs of recent harvesting. Ridgelines and valley drainages connecting these summits support a variety of upland and wetland forests in good condition. The area also supports several remote ponds.

## OPPORTUNITIES FOR CONSERVATION

- » Educate recreational users about the ecological and economic benefits provided by the Focus Area.
- » Encourage best management practices for forestry, vegetation clearing, and soil disturbance activities near significant features.
- » Maintain intact forested buffers along water bodies and wetlands.
- » Maintain natural hydrologic regime by avoiding drainage or impoundment of the wetlands, streams or adjacent water bodies.
- » Work with landowners to encourage sustainable forest management practices on privately owned forest lands.

For more conservation opportunities, visit the Beginning with Habitat Online Toolbox: [www.beginningwithhabitat.org/toolbox/about\\_toolbox.html](http://www.beginningwithhabitat.org/toolbox/about_toolbox.html).

*Photo credits, top to bottom: Maine Natural Areas Program (top 3 photos), Rich Bard, Paul Cyr*

## Rare Animals

Peregrine Falcon

## Rare and Exemplary Natural Communities

Lower-elevation Spruce - Fir Forest  
Red Pine Woodland

## Significant Wildlife Habitats

Inland Wading Bird and Waterfowl Habitat  
Deer Wintering Area

## Public Access Opportunities

- » Amherst Mountains Community Forest, BPL/Town of Amherst



Bald Bluff Mountain Ledges along Half Mile Pond, Rich Bard

## FOCUS AREA OVERVIEW

The approximately 60-acre Red Pine Woodland atop the rocky summit of Bald Mountain extends northward along a narrow ridge. Stunted red pine (*Pinus resinosa*) is dominant, with scattered eastern white pine (*Pinus strobus*) trees and saplings. Tree cover is scattered and sparse (less than 50% cover, basal area of roughly 25 square feet/acre), and timber volume is low. Some of the larger red pines have been cored and found to be aged at approximately 40-50 years old. Black huckleberry (*Gaylussacia baccata*) and low-bush blueberry (*Vaccinium angustifolium*) are the main herb layer components. Other plant species noted are common hairgrass (*Deschampsia flexuosa*), three-toothed cinquefoil (*Sibbaldiopsis tridentata*), poverty oatgrass (*Danthonia spicata*), and the sedge *Carex cumulata* -- all species indicative of barren outcrop communities. Lichens (primarily *Cladina spp.*) cover most of the exposed bedrock. Charcoal was found in the thin soil. Based on a series of tree cores and soil samples, it appears that this stand may have originated (or at least been enhanced by) the fires of 1947. Common nighthawks, a Species of Greatest Conservation Need in Maine, have been known to nest amid the lichen-dominated openings of the red pine woodland.

Lower slopes of Bald Mountain support a beech (*Fagus grandi-*

*folia*) and sugar maple (*Acer saccharum*) dominated hardwood forest that show signs of past selective cutting and more recent (January 1998) ice storm damage.

The northern summit of Bald Bluff Mountain harbors an approximately 80 acre Spruce - Fir Broom-Moss Forest with little to no sign of recent harvest. Red spruce (*Picea rubens*) is dominant throughout the summit area with an average tree canopy height of 80 feet and a few super-canopy trees extending over 100 feet. Three red spruce trees cored in this forest with diameters of 26-29 inches yielded ages ranging from 135-205 years.

The open acidic rocky summit on the top of Bald Bluff Mountain is a few acres. Scattered red spruce trees and saplings grow on thin soils and exposed bedrock, with low-growing shrubs such as lowbush blueberry, sheep laurel (*Kalmia angustifolia*), and huckleberry frequent. Three-leaved cinquefoil, a characteristic plant of this habitat, occurs in small patches.

Further to the southeast of the main ridge, a mature northern hardwood forest occurs along an east facing drainage. Sugar maple and beech dominate the overstory, with typical understory and herbaceous species including striped maple, hobble-

bush (*Viburnum lantanoides*), spinulose wood fern (*Dryopteris intermedia*), and mountain sorrel (*Oxalis montana*). There is no sign of recent cutting or ice storm damage, and several maple trees exceed 25 inches in diameter. Based on former Champion stand data, however, this tolerant hardwood stand is relatively small and is bordered by an early- to mid-successional intolerant hardwood forest to the north. It is probably not large enough therefore to be significant at the statewide level.

Much of the mid- and lower slope of the west side of Bald Bluff Mountain supports mixed hardwood stands that have been recently harvested. There is also a sizeable mixed coniferous forest, chiefly dominated by hemlock, that has not been harvested. Beaver activity has killed some of the softwoods in a low-lying drainage.

Other interesting but small natural communities in this area include an approximately 5-acre, post-fire talus forest of paper birch (*Betula papyrifera*) and yellow birch (*Betula alleghaniensis*) and a 2-acre dwarf shrub bog in a bedrock depression.

The unnamed peak just south of Partridge Pond also has scattered red pine, but the red pine is not abundant enough to comprise a red pine woodland community as eastern white pine and red spruce are equally common. The uncommon (but not rare) hillside blueberry (*Vaccinium pallidum*) occurs here as well.

## RARE AND EXEMPLARY NATURAL COMMUNITIES

**Lower-elevation Spruce-Fir Forest (Spruce-Fir-Broom-moss Forest):** These closed canopy (>75% closure) forests are dominated by red spruce (>60% cover), typically with few other tree species in any of the layers. Fir is often a minor canopy component (up to 20% cover), particularly in open gaps or in younger stands. Hemlock is occasionally mixed with the spruce in southern or central Maine. The lower layers are sparse or patchy, consisting mostly of tree regeneration. In the sparse herb layer, dwarf shrubs are virtually absent except for spotty lowbush blueberry; herbaceous species cover well under 10% of the ground surface, and usually consist of scattered plants of Canada mayflower, starflower, and bunchberry. Most of the ground surface is bare conifer litter, although at some sites (particularly Downeast Maine), bryophytes may form patchy to full cover. Broom-mosses are the most frequent and abundant bryoids.

This is the dominant spruce - fir type in Maine and is therefore extensively harvested and managed. In addition, spruce-budworm and past harvesting have played significant roles in the age dynamics of this type; some studies suggest that many current stands are more even-aged than they would be in the absence of past harvesting. Large (>1000 acres) examples free from human disturbance are scarce. Some areas of high ecological quality, in the hundreds of acres, are known but not necessarily designated as areas reserved from cutting. Almost all are within a landscape of managed forest rather than surrounded by land that has been permanently cleared and

### Ecological Services of the Focus Area

- Sequesters carbon.
- Stabilizes soil.
- Supports regional biodiversity by providing habitat for rare plants, animals, and natural communities.

### Economic Contributions of the Focus Area

- Provides scenic views .
- Provides high value forest products that support the regional economy.
- Serves as a valuable recreational resource for local residents.
- Supports valuable brook trout and other cold water fisheries.



Red Pine Woodland, Maine Natural Areas Program

converted to other uses.

This community type may be utilized as nesting habitat by a number of coniferous forest specialist bird species such as the sharp-shinned hawk, yellow-bellied flycatcher, bay-breasted warbler, Cape May warbler, blackpoll warbler, northern parula, blackburnian warbler, boreal chickadee, Swainson's thrush, red crossbill, and white-winged crossbill.

**Red Pine Woodland:** These open canopy woodlands (30-75% closure) are dominated by red pine. Associated canopy species vary among sites and include white pine, red spruce, or paper birch. The shrub layer includes scattered red spruce, red maple, paper birch, or gray birch. The herb layer varies in extent, but usually features heath shrubs and scattered forbs or bracken fern; graminoids are virtually absent. Bryoids are patchy and usually consist of types associated with somewhat dry condi-

tions such as reindeer lichens.

These occur as small patches, usually on upper slopes or hilltops. Maintaining representative examples is best accomplished by retaining adjacent forest cover as buffer. Most sites have fire evidence, and fire may be required for regeneration or persistence of this type.

Common nighthawks and whip-poor-wills may nest in open patches within red pine woodlands. This community type may include rare moths that utilize hard pines as larval host plants such as the oblique zale, southern pine sphinx, and pine pinion.

### CHARACTERISTIC SPECIES

**Peregrine falcons** nest on the steep cliffs along Half Mile Pond. The peregrine falcon is a sleek, streamlined bird of prey said to be the fastest animal on earth. It nests on cliffs and feeds on other birds. Peregrines attack and kill their prey in flight, in high-speed dives that can reach 200 miles per hour. Although once broadly distributed in North America, this species was lost from much of its historic range, including the eastern United States, by the mid 1960s. Increased use of pesticides, especially DDT, after World War II was the primary cause of a drastic decline in peregrine populations worldwide.

In the 1980s, Maine joined other states in a large-scale peregrine falcon reintroduction program. Young, captive-reared birds were gradually released at former nest sites in Maine between 1984 and 1997, and successful breeding began in 1987. 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 in Maine, as its numbers here are still low. Current threats to this species include disturbance to nest sites and loss of habitat, including the wetlands and water bodies near nests where breeding falcons forage. Because the cliffs where peregrines nest are often near high-use recreational areas, careful management is necessary to avoid conflicts during the breeding season.

The Bald Mountain and Bald Bluff Mountain focus area supports several **Deer Wintering Areas** including a relatively large area on the saddle of Trout Pond Mountain. Several smaller Deer Wintering Areas have been documented along lower elevation drainages and south facing slopes and are being managed to provide canopy shelter for wintering deer. High and moderate value **Inland Waterfowl and Wading Bird Habitat** has been mapped around Halfmile Pond, on Indian Camp Brook, and several flowages in these two watersheds.

There are numerous streams and remote ponds in the focus



*Peregrine Falcon, Jonathan Mays*

area, including Indian Camp Ponds, Indian Camp Brook, Partridge and Ducktail Ponds, Halfmile Pond and Haynes Brook, that support high value **brook trout** fisheries as well.

### CONSERVATION CONSIDERATIONS

- » The red pine woodland is among the best examples in the state of this community type. It is a fire-adapted natural community that in the absence of fire may revert to a more mesic white pine - red pine forest. Nonetheless, the ecological effects of harvesting on red pine woodlands and barrens are not known. Given its low volume, thin soils, and ecological uniqueness, this red pine stand may not be desirable from a harvesting standpoint.
- » The remote area between Bald Mountain and Bald Bluff Mountain forms a several thousand acre block of relatively intact, unfragmented forest, with a number of undeveloped pond shores and small wetlands. Blocks of this size and condition are increasingly uncommon in Down East Maine.
- » The Bald Bluff Mountain spruce-fir forest is mature, relatively undisturbed, and fairly large. Other small but good quality natural communities adjacent to it (acidic summit and northern hardwood forest) add to the significance of this area.
- » Improperly sized and installed crossing structures such as culverts can block fish and invertebrate passage through stream channels often resulting in aquatic habitat fragmentation. Future management activity should avoid additional impacts to the site's hydrology.
- » With expected changes in climate over the next century, plant and wildlife species will shift their ranges. Maintaining landscape connections between undeveloped habitats will provide an important safety net for biodiversity as species adjust their ranges to future climate conditions.

**RARE SPECIES AND EXEMPLARY NATURAL COMMUNITIES OF THE FOCUS AREA**

	Common Name	Scientific Name	State Status*	State Rarity Rank	Global Rarity Rank
Animals	Peregrine Falcon	Falco peregrinus	E	S1S2N,S2B	G4
Natural Communities	Lower-elevation Spruce - Fir Forest	Spruce - fir - broom-moss forest		S4	GNR
	Red Pine Woodland	Red pine woodland		S3	G3G5

State Status\*

- 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 Threatened or Endangered.

*\*State status rankings are not assigned to natural communities.*

State Rarity Rank

- S1** Critically imperiled in Maine because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres).
- 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.

Global Rarity Rank

- G1** Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation.
- 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.