

# Central Parsonsfield



### WHY IS THIS AREA SIGNIFICANT?

The geology and land forms of the Central Parsonsfield Focus Area, including low mountains and rolling forested hills with calcium enriched outcrops and talus slopes, create conditions that support rare and exemplary natural communities as well as numerous rare plants and one rare animal. This Focus Area includes one of the largest contiguous blocks of sustainably managed forest in single ownership in southern Maine as well and provides high value forest products and a wealth of recreational opportunities that contribute to the regional economy.

### OPPORTUNITIES FOR CONSERVATION

- » Work with willing landowners to permanently protect remaining undeveloped areas.
- » Limit forestry, vegetation clearing, and soil disturbance activities near sensitive features.
- » Restrict motorized vehicles in upper elevation areas.
- » Protect sensitive natural features through careful management planning on conserved 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 (photos 1-5)*

### Rare Animals

Juniper Hairstreak

### Rare Plants

Missouri Rockcress	Blunt-lobed Woodsia
Ebony Spleenwort	Early Crowfoot
Dry Land Sedge	Broad Beech Fern
Fogg's Goosefoot	Bottlebrush Grass
Spotted Wintergreen	American Ginseng
Autumn Coral-root	Nodding Pogonia
Creeping Spike-moss	Douglas' Knotweed
Fern-leaved False Foxglove	
Hairy Wood Brome-grass	
Small Whorled Pogonia	

### Rare and Exemplary Natural Communities

Oak-Ash Woodland  
Enriched Northern Hardwood Forest  
Tall Sedge Fen  
Pocket Swamp

### Significant Wildlife Habitats

Deer Wintering Area  
Inland Wading Bird and Waterfowl Habitat

### Public Access Opportunities

- » Leavitt Plantation, MBPL



Ironwood - oak - ash woodland, Maine Natural Areas Program

## FOCUS AREA OVERVIEW

The Central Parsonsfield Focus Area covers approximately 10,000 acres and includes a series of low mountains and rolling forested hills. The geology and land forms of this site create conditions that support rare and exemplary natural communities as well as numerous rare plant species. Most notable are the several good quality examples of the ironwood – oak – ash woodland natural community type. Ironwood – oak – ash woodlands, along with habitat for many of the rare plants, occur on the upper portions of the steep, south facing slopes on several mountains in the Focus Area. The upper sections of these steep slopes have calcium enriched rock outcrops with talus scattered on the slopes below. One rare animal species, the juniper hairstreak butterfly is associated with the ironwood-oak-ash woodland and one of the eastern United States rarest orchids, small whorled pogonia, is found at several locations in the Focus Area. In addition, nearly 400 acres of deer wintering area and more than 300 acres of inland wading bird and waterfowl habitat have been mapped here.

The Central Parsonsfield Focus Area includes one of the largest contiguous blocks of sustainably managed forest in single ownership in southern Maine. This area provides high value forest products and a wealth of recreational opportunities that contribute to the regional economy. The area, known as the

Leavitt Plantation Forest, is protected by conservation easement by the Department of Conservation. Several of the natural communities and concentrations of rare plants, however, have not been conserved at this time.

## RARE AND EXEMPLARY NATURAL COMMUNITIES

**Ironwood – oak – ash woodlands** typically have open canopies that allow an abundance of light to reach the understory and ground layer. Ironwood and red oak are the most common trees with white ash, basswood, sugar maple, white pine, and red cedar all as infrequent associates. Poor growing conditions due to droughty soils and/or possibly past fires have helped to keep the trees in this habitat type spread out and stunted. The herb layer features plant species typical of moderately enriched sites, such as herb Robert, hepatica, and wild licorice. Vegetation may be patchy, developing in pockets among the rocks, or more continuous along upper slopes and ridges. In general, the ironwood - oak - ash woodlands have not been harvested for timber, most likely due of the poor quality of the trees and/or the steepness of slopes where they occur.

**Hemlock - hardwood pocket swamp** natural communities include forested wetlands that can be deciduous or mixed and

occur as small depressions within an upland landscape. Red maple almost always dominates the canopy and occurs with hemlock and/or black gum. Black gum is an uncommon tree in Maine and is a good indicator of this community. Shrubs may be locally dense and include highbush blueberry and winterberry. The herb layer is variable in extent, and often features large clumps of ferns. Pocket swamps typically occur in small isolated basins, sometimes perched on the sides of gentle hills, with a seasonal high water table. The soil may dry out during the summer, or pools of water may remain among the forested hummocks. Often these basins have no surface outlet, or they may drain only at high water. Soils are acidic, usually with a thin peat layer over mineral soil, occasionally with deeper peat. These wetlands may occur as small patches (typically < 3 acres) in otherwise well-drained, forested uplands.

**Enriched northern hardwood forest** is a closed-canopy forest with sugar maple as the dominant tree species, and with basswood and white ash in lesser amounts. The shrub layer is dominated largely by tree regeneration. The lush herb layer may contain certain indicator species such as maidenhair fern, blue cohosh, and silvery spleenwort fern. This type is typically found on sheltered (concave) hillsides or slope bases where nutrients accumulate, often over calcium-bearing bedrock.

**Tall sedge fen** is a non-forested wetland community type and is made up of expanses of tall grasses and sedges growing on peat soils. Slender sedge typically dominant, and beaked sedge and lake-bank sedge are also characteristic; bluejoint grass is often present in small amounts. The herb layer is continuous, and most shrubs are less than one meter tall except for an occasional alder or meadowsweet. Dwarf shrubs are always less abundant than the herbaceous plants. The moss layer is in inverse proportion to the amount of standing water. This community is generally found on peaty deposits adjacent to open water; sometimes a floating mat.

#### CHARACTERISTIC SPECIES

Many rare plants species including **Missouri rock cress** (*Arabis missouriensis*), **ebony spleenwort** (*Asplenium platyneuron*), **Douglas' knotweed** (*Polygonum douglasii*), **blunt-lobed woodsia** (*Woodsia obtusa*), **early crowfoot** (*Ranunculus fascicularis*), and **fern-leaved false foxglove** (*Aureolaria pedicularia*) are found growing on the upper slopes of these hills. Down slope, where the canopy is closed and the trees are taller, sugar maple, basswood, and ash are common at several sites, and other rare plants such as **bottlebrush grass** (*Elymus hystrix*) and **hairy wood brome-grass** (*Bromus pubescens*) also occur. Most of these species are at the northern edge of their ranges in southern Maine.

One of the eastern United States rarest orchids, **small whorled pogonia** (*Isotria medeoloides*), is also found at several locations in the focus area. Small whorled pogonia, a Federally Endan-

#### Ecological Services of the Focus Area

- Supports diverse plant species and natural communities
- Contributes to regional biodiversity
- Provides wildlife habitat

#### Economic Contributions of the Focus Area

- Supplies forest products
- Provides residents and visitors with recreational opportunities such as hiking, camping, and wildlife watching



Above- Small-whorled pogonia, Maine Natural Areas Program

Below- Juniper hairstreak, Jonathan Mays

gered species, typically occurs in mid-successional mixed woods with sparse shrub and herb layers and thick leaf litter. It often occurs near intermittent streamlets or where a hardpan impedes water percolation into the soil. Orchids attract some specialty gardeners, and populations are vulnerable to unscrupulous or uneducated collectors. Plants usually do not survive transplanting, and removing them harms the natural population and may cause its eventual disappearance. This orchid has not been successfully propagated, and any plants offered for sale have been dug from the wild. Populations are vulnerable to conversion of their habitat to residential or commercial use, which is partly responsible for the species' rarity. Partial removal of the canopy may be beneficial, as long as subsequent undergrowth does not overgrow the plants.

One rare animal species, the **juniper hairstreak butterfly** (*Callophrys gryneus*), is associated with the ironwood - oak - ash woodlands. The state Endangered juniper hairstreak uses red cedar as its larval host. Red cedar is sometimes present in ironwood - oak - ash woodlands. Juniper hairstreak butterflies are very rare in Maine and only known from 2 or 3 locations.

The Central Parsonfield Focus Area also includes two **Deer Wintering Areas**. One of these encompasses a small hill just east of Champion Pond the other includes upper elevation portions of Randall Mountain. In addition, this Focus Area includes several high to moderate value **Inland Wadingbird and Waterfowl Habitats**. These Significant Wildlife Habitat features occur along the headwaters of both Pendexter and Fenderson Brooks, and in a basin northwest of Cedar Mountain. In addition, Pendexter Brook watershed supports a wild **brook trout fishery**.

#### 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.
  - » Ironwood – oak – ash woodland natural communities and rare plant populations found here will be best maintained by leaving them undisturbed.
  - » The integrity of wetlands are dependent on the maintenance of the hydrology and water quality of these systems.
- Intensive logging, clearing, soil disturbance, new roads, and development on buffering uplands can result in greater runoff, sedimentation, and other non-point sources of pollution. Improperly sized crossing structures such as culverts can impede movement of fish and aquatic invertebrates effectively fragmenting local aquatic ecosystems and ultimately leading to local extirpation of some species.
- » Timber harvesting that excludes buffered sensitive areas should be compatible with the long term persistence of these features.
  - » Close adherence to Best Management Practices for forestry activities near vernal pools (available from Maine Audubon Society at 207-781-6180 ext. 222 or [bwilson@maineaudubon.org](mailto:bwilson@maineaudubon.org)) will ensure the protection of wetland habitats and the amphibian food source they supply.
  - » Intact forest buffers of 250 feet or more should be maintained around known concentrations of rare plants.
  - » No ATV access should be permitted on the summits and upper slopes of the mountains.
  - » 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.
  - » Invasive plants and aquatic organisms have become an increasing problem in Maine and a threat to the state's natural communities. Disturbances to soils and natural vegetation and introductions of non-native species to terrestrial and aquatic habitats can create opportunities for colonization. Landowners and local conservation groups should be made aware of the potential threat of invasive species, of methods to limit establishment, and/or of appropriate techniques for removal. For more information on invasive plants visit: <http://www.maine.gov/doc/nrimc/mnap/features/invasives.htm>.
  - » This area includes Significant Wildlife Habitat for wintering deer and inland waterfowl and wading birds. Land managers should follow best management practices in and around Significant Wildlife Habitat. Vegetation removal, soil disturbance and construction activities may require a permit under the Natural Resources Protection Act. Contact MDIFW for more information.

Focus Areas of Statewide Ecological Significance: **Central Parsonsfield**

RARE SPECIES AND EXEMPLARY NATURAL COMMUNITIES OF THE FOCUS AREA

			State Status*	State Rarity Rank	Global Rarity Rank	
Animals	Common Name	Scientific Name				
	Juniper Hairstreak	<i>Callophrys gryneus</i>	E	S1	G5	
	Missouri Rockcress	<i>Arabis missouriensis</i>	T	S1	G5?Q	
	Ebony Spleenwort	<i>Asplenium platyneuron</i>	SC	S2	G5	
	Fern-leaved False Foxglove	<i>Aureolaria pedicularia</i>	SC	S3	G5	
	Hairy Wood Brome-grass	<i>Bromus pubescens</i>	SC	S2	G5	
	Dry Land Sedge	<i>Carex siccata</i>	SC	S2	G5	
	Fogg's Goosefoot	<i>Chenopodium foggii</i>	SC	S1	G3Q	
	Spotted Wintergreen	<i>Chimaphila maculata</i>	E	S2	G5	
Plants	Autumn Coral-root	<i>Corallorrhiza odontorhiza</i>	E	S1	G5	
	Bottlebrush Grass	<i>Elymus hystrix</i>	SC	S3	G5	
	Small Whorled Pogonia	<i>Isotria medeoloides</i>	E	S2	G2	
	American Ginseng	<i>Panax quinquefolius</i>	E	S3	G3G4	
	Broad Beech Fern	<i>Phegopteris hexagonoptera</i>	SC	S2	G5	
	Douglas' Knotweed	<i>Polygonum douglasii</i>	SC	S2	G5	
	Early Crowfoot	<i>Ranunculus fascicularis</i>	T	S1	G5	
	Creeping Spike-moss	<i>Selaginella apoda</i>	E	S2	G5	
	Nodding Pogonia	<i>Triphora trianthophora</i>	T	S2	G3G4	
	Blunt-lobed Woodsia	<i>Woodsia obtusa</i>	T	S1	G5	
Natural Communities						
	Pocket Swamp	Hemlock - hardwood pocket swamp	S2	G5		
	Oak - Ash Woodland	Ironwood - oak - ash woodland	S3	G3G5		
	Enriched Northern Hardwood Forest	Maple - basswood - ash forest	S3	n/a		
Tall Sedge Fen	Mixed tall sedge fen	S4	G4G5			

## Focus Areas of Statewide Ecological Significance: **Central Parsonsfield**

### 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.