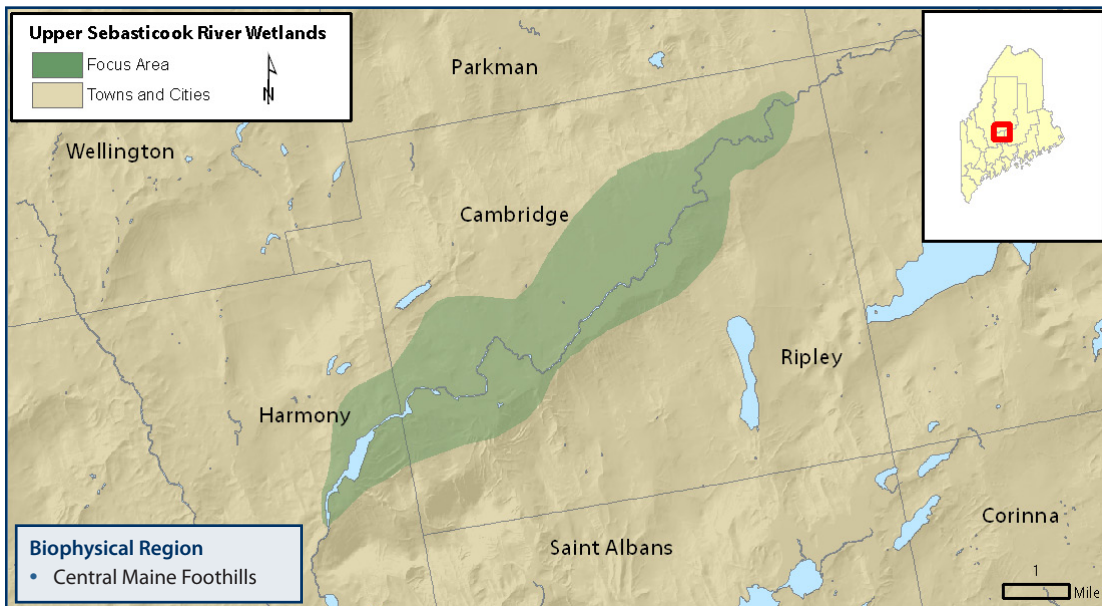
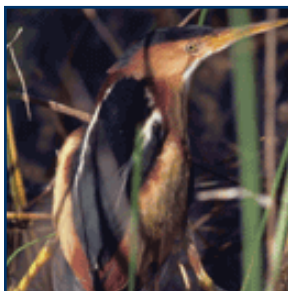


# Upper Sebasticook River Wetlands



## WHY IS THIS AREA SIGNIFICANT?

The Upper Sebasticook River Wetlands Focus Area provides habitat for several rare and unusual animal species, including least terns, black terns, bald eagles and wood turtles. The globally rare Tomah mayfly, known from only a handful of locations worldwide, has been documented here as well, making this area a high conservation priority. An exemplary example of Northern white cedar swamp, 1600 acres of Inland Waterfowl and Wading Bird Habitat and 2600 acres of Deer Wintering Area also contribute to the ecological value of the Upper Sebasticook River Wetlands.

## 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 to protect water quality and provide valuable riparian habitat for wildlife.
- » Monitor and remove invasive plant populations.
- » Work with willing landowners to secure permanent conservation status for unprotected significant features in the focus area.

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).

## Rare Animals

- Bald Eagle
- Black Tern
- Least Bittern
- Wood Turtle
- Tomah Mayfly

## Rare Plants

- None Documented

## Rare and Exemplary Natural Communities

- Northern White Cedar Swamp

## Significant Wildlife Habitats

- Deer Wintering Area
- Inland Waterfowl and Wading Bird Habitat

## Public Access Opportunities

- Main Stem Wildlife Management Area, MDIFW

*Photo credits, top to bottom: Maine Department of Inland Fisheries and Wildlife, Maine Natural Areas Program, Maine Department of Inland Fisheries and Wildlife, Maine Natural Areas Program, unknown.*





*Northern White Cedar Swamp, Maine Natural Areas Program*

## FOCUS AREA OVERVIEW

The Upper Sebasticook River Wetlands Focus Area stretches from the northeast boundary of Cambridge and Ripley south along the Sebasticook River to Mainstem Pond and includes the large areas of wetland associated with the Sebasticook. The wetlands along the Sebasticook River provide habitat for many several rare and unusual animal species. Least terns and black terns have been known to nest in the Mainstream Pond area, which is also a foraging area for resident and transient bald eagles. Wood turtle, an uncommon species in Maine, is known from Ferguson Stream and may be elsewhere nearby. The rarest species here is the globally rare Tomah mayfly, which has been documented as “common” in the sedge meadow community of the Mainstream Pond area. This is the only area in the entire Sebasticook drainage where Tomah Mayfly has been found, despite fairly extensive searches; it is also the most southerly population of the mayfly in the state. Given its global rarity, the presence of this mayfly makes this area a high priority for conservation.

An excellent example of a Northern white cedar swamp has been identified along the river as well. The focus area, however, has not been extensively inventoried for unusual natural communities or plants. Given that this stretch of the river

retains its natural flow regime, the sedge meadow (supporting the Tomah mayfly) and other wetland communities may be of interest and there is the possibility for rare plants to be present here.

Over 1600 acres of Inland Waterfowl and Wading Bird Habitat and 2600 acres of Deer Wintering Area have been mapped in this focus area. Inland Waterfowl and Wading Bird Habitat provides essential nesting, feeding and breeding habitat for numerous species of wading birds and waterfowl. Deer Wintering Areas provide protection from wind, cold temperatures and deep snow for deer wintering in Maine. Both Inland Wading Bird and Waterfowl Habitat and Deer Wintering Areas are protected as Significant Wildlife Habitat under the Natural Resources Protection Act.

A portion of the area, including a fairly long stretch of stream frontage, is held by the Dept. of Inland Fisheries and Wildlife as the Main Stream Wildlife Management Area. The remainder is privately owned.

## RARE AND EXEMPLARY NATURAL COMMUNITIES

**Northern White Cedar Swamp:** This type is moderately to

densely forested, often with little light penetrating to the forest floor. Northern white cedar is dominant (up to 95% cover), often forming a fairly uniform stand, but may be interspersed with various amounts of red maple (up to 25% cover), black spruce (up to 40% cover), or, less frequently, larch, yellow birch or balsam fir. The variable shrub and ground layers form a lush mosaic of vegetated hummocks interspersed with moist hollows; alder may be frequent. The herb layer is well developed (>30% cover), with herbs more abundant than dwarf shrubs. Small cedar trees and an array of boreal herbs grow on the fallen logs and hummocks, including yellow lady's-slipper and potentially several rare species. Sphagnum and other mosses blanket the hummocks, hollows, and fallen logs.

Most examples of northern white cedar swamps have been logged at least once in the past. Cedar swamps in northern Maine can be very extensive, running into hundreds of acres, and therefore it is more problematic to maintain examples not subject to human disturbance. In southern Maine, they are often less than 50 acres in size.

This community type may be used as nesting habitat by a number of coniferous forest specialist bird species, including black-backed woodpecker, palm warbler, yellow-bellied flycatcher, gray jay, boreal chickadee, Swainson's thrush, and northern waterthrush. Northern white cedar swamps that have a large number of dead trees provide ideal habitat for the three-toed woodpecker.

### CHARACTERISTIC SPECIES

**Black terns** (*Chlidonias niger*) nest exclusively in large (over 40 acres) shallow freshwater emergent marshes associated with lakes, impoundments, or slow moving streams. They construct their nests on floating mats of dead vegetation or small mudflats and, therefore, fluctuating water levels and nest and chick predation are significant threats to the species. Maintaining stable water levels in impoundments, using floating nest platforms and employing measures to deter predators may help sustain black tern populations.

The state Endangered **least bittern** (*Ixobrychus exilis*) is known to breed in portions of these Upper Sebasticook River wetlands as well. A member of the heron family, the very secretive least bittern inhabits large marshes with dense vegetation. The numbers of these birds have declined due to loss of habitat.

The **Tomah mayfly** (*Siphonisca aerodromia*), found in the sedge meadow associated with Mainstem Pond, is one of the rarest mayflies in the world, found in only a handful of sites in Maine and New York. It inhabits small rivers and streams bordered by extensive areas of seasonally flooded sedge meadow. This is a dynamic habitat, characterized by a short period of flooding from snow and ice melt during April-May, followed by receding water from the floodplain during summer months. The inundated, decomposing sedge provides shelter, bottom surface, and abundant food for an unusually diverse and abun-

### Ecological Services of the Focus Area

- Supports biodiversity by providing several rare species
- Provides habitat connectivity
- Exports nutrients

### Economic Contributions of the Focus Area

- Serves as a valuable recreational resource for local residents
- Conveys floodwaters

dant aquatic invertebrate community.

### CONSERVATION CONSIDERATIONS

- » The most important conservation strategy for aquatic features is maintaining or improving water quality within the watershed. For lands where timber harvest or development continues, buffers should be maintained around all streams, wetlands and ponds. While different species can have different buffering requirements, wider buffers provide better protection for riparian and wetland-dependent species because they not only protect water quality but also provide riparian habitat and corridor functions. Generally, better protection is afforded to wetlands and ponds if vegetation alteration is minimized within 250' of the wetland/upland border. Any timber harvesting within and adjacent to wetlands or adjacent to ponds should be implemented with strict adherence to Shoreland Zoning guidelines and Maine Forest Service Best Management Practices.
- » The integrity of wetlands and aquatic systems including all the processes and life forms they support are dependent on the maintenance of the current hydrology and water quality of these systems. Intensive timber harvesting, vegetation 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. Future management activities should avoid additional impacts to the site's hydrology.
- » 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. Land managers should follow best management practices with respect to forestry activities in and around wetlands, shoreland areas, and 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.

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

	Common Name	Scientific Name	State Status*	State Rarity Rank	Global Rarity Rank
Animals	Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC	S4B,S4N	G5
	Black Tern	<i>Chlidonias niger</i>	E	S2B	G4
	Least Bittern	<i>Ixobrychus exilis</i>	E	S2B	G5
	Wood Turtle	<i>Glyptemys insculpta</i>	SC	S4	G4
	Tomah Mayfly	<i>Siphonisca aerodromia</i>	T	S2	G2G3
Plants	None Documented				
Natural Communities	Northern White Cedar Swamp	Northern white cedar swamp		S4	GNR

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.