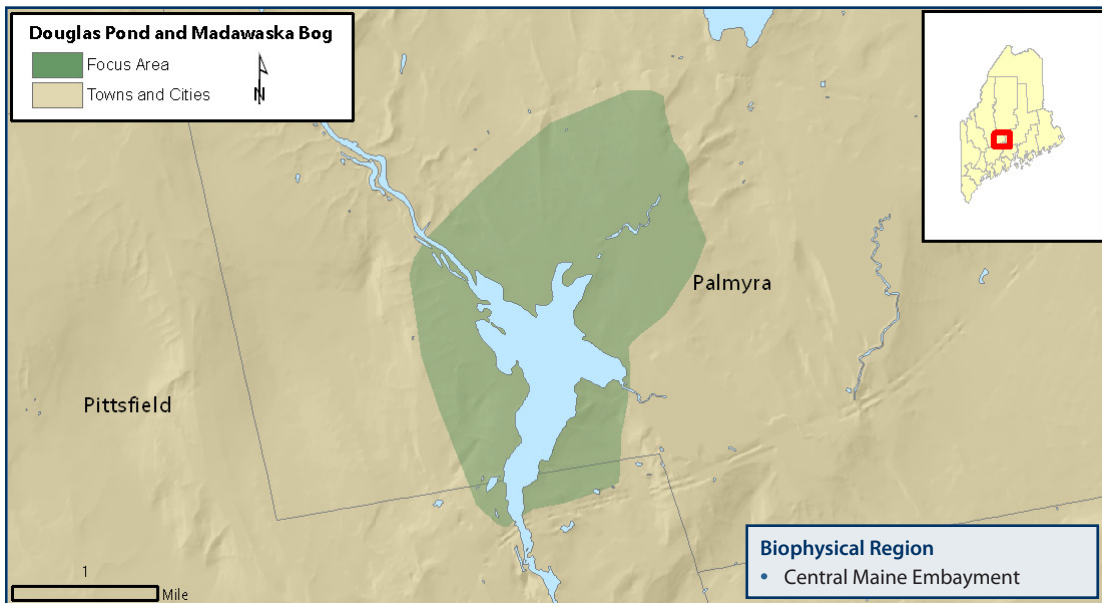
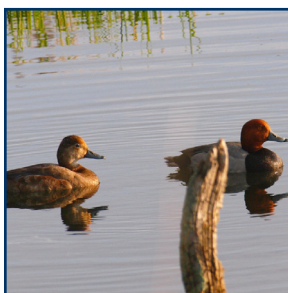
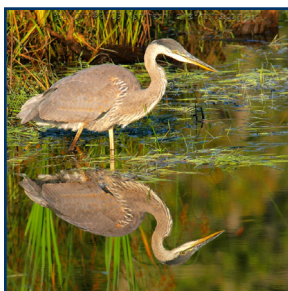
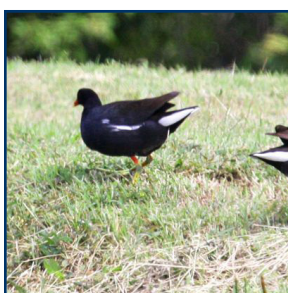
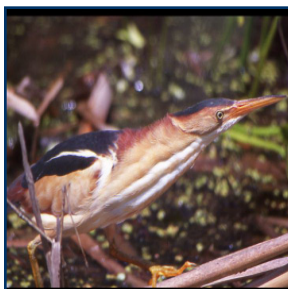


Douglas Pond - Madawaska Bog



WHY IS THIS AREA SIGNIFICANT?

Douglas Pond and Madawaska Bog provide high quality wading bird and waterfowl habitat and support a number of rare species including American coot, bald eagle, black tern, common moorhen, least bittern and tidewater mucket.

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.
- » 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.

Rare Animals

- American Coot
- Bald Eagle
- Black Tern
- Common Moorhen
- Least Bittern
- Tidewater Mucket

Rare Plants

None Documented

Rare and Exemplary Natural Communities

None Documented

Significant Wildlife Habitats

- Inland Wading Bird and Waterfowl Habitat
- Deer Wintering Area

Public Access Opportunities

- » Madawaska Wildlife Management Area, MDIFW

Photo credits, top to bottom: Jeremiah Hayden, Jonathan Mays, Paul Cyr, Steve Walker, Paul Cyr



Madawaska Bog, Jim Connolly

FOCUS AREA OVERVIEW

Douglas Pond is an impounded pond along the Sebasticook River, with large areas of cat-tail marsh around its perimeter. Despite its history of water quality problems and perhaps toxics (having received detritus from the tannery in Hartland in past years), it provides very good Inland Wading Bird and Waterfowl Habitat. Black terns nest here and, in recent years, Douglas Pond has had the largest nesting population in the state. Least bittern, a rare bird in Maine, finds excellent nesting cover in the cat-tail marshes. Other rare wading birds recorded from Douglas Pond include the common moorhen and American coot. Bald eagles have been documented nesting along Douglas Pond and a freshwater mussel, the rare tidewater mucket, has been documented in the southern portion of the Pond. Douglas Pond also supports important fisheries including smallmouth bass, blacknose dace, white sucker and creek chub.

Madawaska Bog, likewise hydrologically altered (and not technically a bog), also serves as black tern nesting habitat. The two populations in this area appear to buffer each other somewhat, contributing to the overall stability of the area as tern habitat. Overall, these nutrient-enriched wetlands are productive bird habitat and undeveloped open space. Madawaska

Bog is managed by the Maine Department of Inland Fisheries and Wildlife as the Madawaska Wildlife Management Area. Madawaska Bog includes chain pickerel, yellow perch, brown bullhead, golden shiner and sunfish fisheries.

RARE AND EXEMPLARY NATURAL COMMUNITIES

None documented at this time.

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 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.

Common moorhen (*Gallinula chloropus*), a threatened species, and **American coot** (*Fulica americana*), a species of Special Concern, are both members of the rail family. They can be found in marsh and pond habitats. Moorhens found in well vegetated areas, while coots are likely to be seen in open water.

Bald eagles (*Haliaeetus leucocephalus*) were nearly extirpated because of widespread use of environmental contaminants that caused eggshell thinning and impaired reproductive success. With bans on the use of these contaminants and habitat protection measures, bald eagles have made a tremendous recovery. In 2009 they were removed from the state Endangered Species list. They remain listed as Special Concern. Bald eagles and their nests are protected by the U.S. Fish and Wildlife Service under the Bald and Golden Eagle Protection Act.

Tidewater mucket (*Leptodea ochracea*) is a freshwater mussel species listed as Threatened in Maine. Freshwater mussels require clean water and certain flow and substrate conditions. They also have a unique life cycle that depends on specific fish species as larval hosts. Maine plays an important role in the conservation of freshwater mussels. With some of the most unspoiled aquatic ecosystems in eastern North America, Maine has some of the most significant remaining populations of several nationally rare freshwater mussel species. Maintaining water quality and undisturbed aquatic habitats is essential to maintaining these species.

The wetlands in this focus area provide important **Inland Waterfowl and Wading Bird Habitat**. These areas provide undisturbed nesting habitat and undisturbed, uncontaminated feeding areas and are essential for maintaining viable waterfowl and wading bird populations.

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.

» Conservation easements, fee ownership, and tree growth

Ecological Services of the Focus Area

- Provides high quality habitat for waterfowl, wading birds, deer, and other wildlife.
- Retains sediments and nutrients
- Is an important component of regional biodiversity

Economic Contributions of the Focus Area

- Provides a scenic viewshed
- Attracts tourism for wildlife observation, paddling, hunting, and angling
- Provides valuable open space for local residents
- Protects water quality

and open space treatments would be additional conservation vehicles.

- » Improperly sized culverts and other stream crossing structures can impede movement of fish and aquatic invertebrates effectively fragmenting local aquatic ecosystems and ultimately leading to local extirpation of some species. Future management should maintain or restore the sites natural 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	American Coot	<i>Fulica americana</i>	SC	S2?B	G5
	Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC	S4B,S4N	G5
	Black Tern	<i>Chlidonias niger</i>	E	S2B	G4
	Common Moorhen	<i>Gallinula chloropus</i>	T	S2?B	G5
	Least Bittern	<i>Ixobrychus exilis</i>	E	S2B	G5
	Tidewater Mucket	<i>Leptodea ochracea</i>	T	S2	G3G4
Plants	None Documented				
Natural Communities	None Documented				

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.