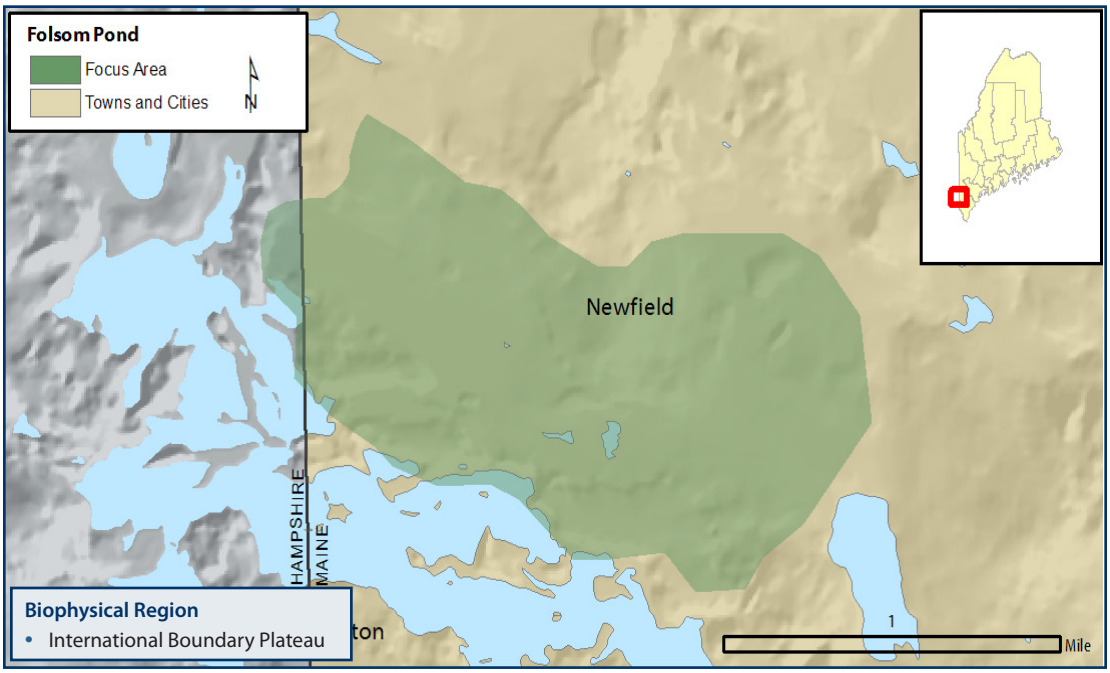
Beginning with HABITAT

Focus Areas of Statewide Ecological Significance

Folsom Pond



WHY IS THIS AREA SIGNIFICANT?

The Folsom Pond Focus Area is dynamic in its diversity of plant and animal species due to its juxtaposition of common and rare wetland habitat types and the surrounding dry upland forests. The interconnected wetland habitats support pitch pine bog, a rare natural community, and mixed tall sedge fen, an exemplary natural community type, as well as several rare moth species and Inland Wadingbird and Waterfowl Habitat.

OPPORTUNITIES FOR CONSERVATION

» Work with willing landowners to secure permanent conservation status for unprotected significant features in the Focus Area.
» Maintain enhanced riparian buffers and protect upland habitats adjacent to significant wetlands.
» Encourage best management practices for forestry, vegetation clearing, and soil disturbance activities near significant features.
» Maintain natural hydrology by avoiding drainage or impoundment of the wetlands, streams and water bodies.
» Monitor and remove invasive plant populations.
» Limit use of pesticides, especially aerial spraying.

For more conservation opportunities, visit the Beginning with Habitat Online Toolbox: www.beginningwithhabitat.org/toolbox/about_toolbox.html.

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Rare Animals
Similar Underwing
Barren Chaetaglaea
Broad Sallow

Rare and Exemplary Natural Communities
Tall Sedge Fen
Pitch Pine Bog

Significant Wildlife Habitats
Inland Wading Bird and Waterfowl Habitat

Pitch Pine Bog, Maine Natural Areas Program

FOCUS AREA OVERVIEW

The Folsom Pond Focus Area is a series of interconnected wetland habitats including open marsh, shrub swamp, forested swamp, and forested bog, along with all the surrounding upland forest. The wetlands within this 854 acre area occur along a mile and a half stream corridor that flows from the east eventually draining into Balch Pond. The site supports one rare natural community type, a pitch pine bog, and one exemplary common community type, a mixed tall sedge fen. These communities among other habitats at the site support a suite of rare moths as well as a diversity of other species.

NATURAL COMMUNITIES

Pitch Pine Bog is a sparsely forested wetland in which the dominant tree is pitch pine. The shrub layer indicates the more southerly affinities of this type, with maleberry and highbush blueberry common along with the standard typical bog shrubs of such as huckleberry and mountain holly. The herb layer may be dense heath shrubs, especially leatherleaf, or it may be more sparse. Peat mosses cover the ground and form the substrate. This acidic habitat occurs in shallow basins on the coastal plain. Peat may be shallow, over sandy mineral soil, or deep as is typical of some other types of peatlands.

Mixed Tall Sedge Fen communities are made up of expanses of tall grasses and sedges growing on peat soils. Slender sedge typically is 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 (sedges and grasses). The moss layer varies depending on the amount of standing water; the greater the depth of standing water generally the less moss occurs. This community is generally found on peaty deposits adjacent to open water and sometimes forms a floating mat.

CHARACTERISTIC SPECIES

The Folsom Pond Focus Area is dynamic in its diversity of lepidopteran (moth and butterfly) species as well as other animal and plant groups due to its juxtaposition with a variety of common and rare wetland habitat types and the surrounding dry upland forests. To date, at least three rare species of moths have been documented within the pitch pine-scrub oak habitat at this site. The **similar underwing (***Catocala similis)*, **barrens chaetaglaea** *(Chaetaglaea tremula)*, and **broad sallow** (*Xylotype capax)* are all currently designated as Special Concern in Maine. All three of these moths are at the northern edge of their range here, and are typically exclusive to pitch pine-scrub

oak habitat in southern Maine. The Folsom Pond Focus Area is one of only two modern occurrences known in Maine for the broad sallow; one of only three for the barrens chaetaglaea; and one of four for the similar underwing. Several other rare lepidopteran species in Maine rely on pitch pine-scrub oak habitats. With additional survey work it might be possible to document other rare lepidopterans here at this site.

In addition, the unnamed stream and wetlands extending to the west and east of Folsom Pond provide important **Inland Wadingbird and Waterfowl Habitat**. These areas provide undisturbed nesting habitat and feeding areas and are essential for maintaining viable wading bird and waterfowl populations.

Ecological Services of the Focus Area
- Retains floodwaters
- Protects water quality of downstream water bodies
- Provides habitat to rare and declining as well as common wildlife species

Economic Contributions of the Focus Area
- Provides groundwater recharge
- Provides opportunities for outdoor recreation, including hunting, fishing and wildlife watching

CONSERVATION CONSIDERATIONS

» Natural habitat still occurring on the uplands adjacent to these significant wetlands, including mixed forests and pine barrens, should be conserved as part of the greater ecosystem of the marsh. Long term preservation of the biodiversity of this high value natural area will be best achieved by retaining as much of the surrounding natural landscape as possible. A buffer of 250 feet or more will serve to limit impacts from adjacent development, help prevent erosion, provide habitat needed by numerous species that depend on the wetlands, limit opportunities for colonization of invasive species, and prevent reckless impacts from off road vehicle use.

» Development often results in increased road construction and fragmentation which has a negative impact on the movements of animals. While non-native species are not a current stress on the system, there is an increased likelihood that exotics may play a role as development increases. Frequently, trails and roads are avenues for the dispersal of exotic weeds. If areas must be developed, footprints of buildings, yards and roads should be minimized and landscaped with indigenous pine barrens plants.

» Intensive timber management can lead to increased fragmentation and isolation of habitat patches and conversion to other forest types. However, forestry, applied properly within pitch pine habitats may actually help regenerate some barrens community types. There is evidence that past timber management at Waterboro Barrens and Ossipee Pine Barrens were instrumental in perpetuating pitch pine stands. Strip cuts completed in the late 1980s at Vernon Walker Wildlife Management Area succeeded in promoting early successional pitch pine community types.

» 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. In addition, 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 activity should avoid additional impacts to the site's hydrology.

» Periodically, Gypsy moths are capable of attaining outbreak population levels, defoliating a large proportion of scrub oak and other species in some areas of southern Maine. During an outbreak period, several thousand acres may be sprayed with BT (Bacillus thuringensis) from the air to help control Gypsy moth populations. While BT is believed to pose no threat to higher organisms, it is NOT host specific within the order Lepidoptera and thus poses a potentially severe threat to the area's rare butterfly and moth species. For this reason, and following consultation with Department of Inland Fisheries and Wildlife biologists, wide buffers should be flown around sections of pitch pine barrens hosting known occurrences of rare butterflies and moths when spraying pesticides for control of gypsy moths and other pests.

» This area includes Significant Wildlife Habitat for Waterfowl and Wading Birds. Land managers should follow best management practices with respect to construction and 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.

» 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	Similar Underwing	*Catocala similis*	SC	S2S3	G5
	Barrens Chaetaglaea	*Chaetaglaea tremula*	SC	S2S3	G5
	Broad Sallow	*Xylotype capax*	SC	S3	G4
Natural Communities	Tall Sedge Fen	Mixed Tall Sedge Fen		S4	G4G5
	Pitch Pine Bog	Pitch Pine Bog		S2	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.