

South Acton Swamps Focus Area

Acton & Lebanon, Maine

Description:

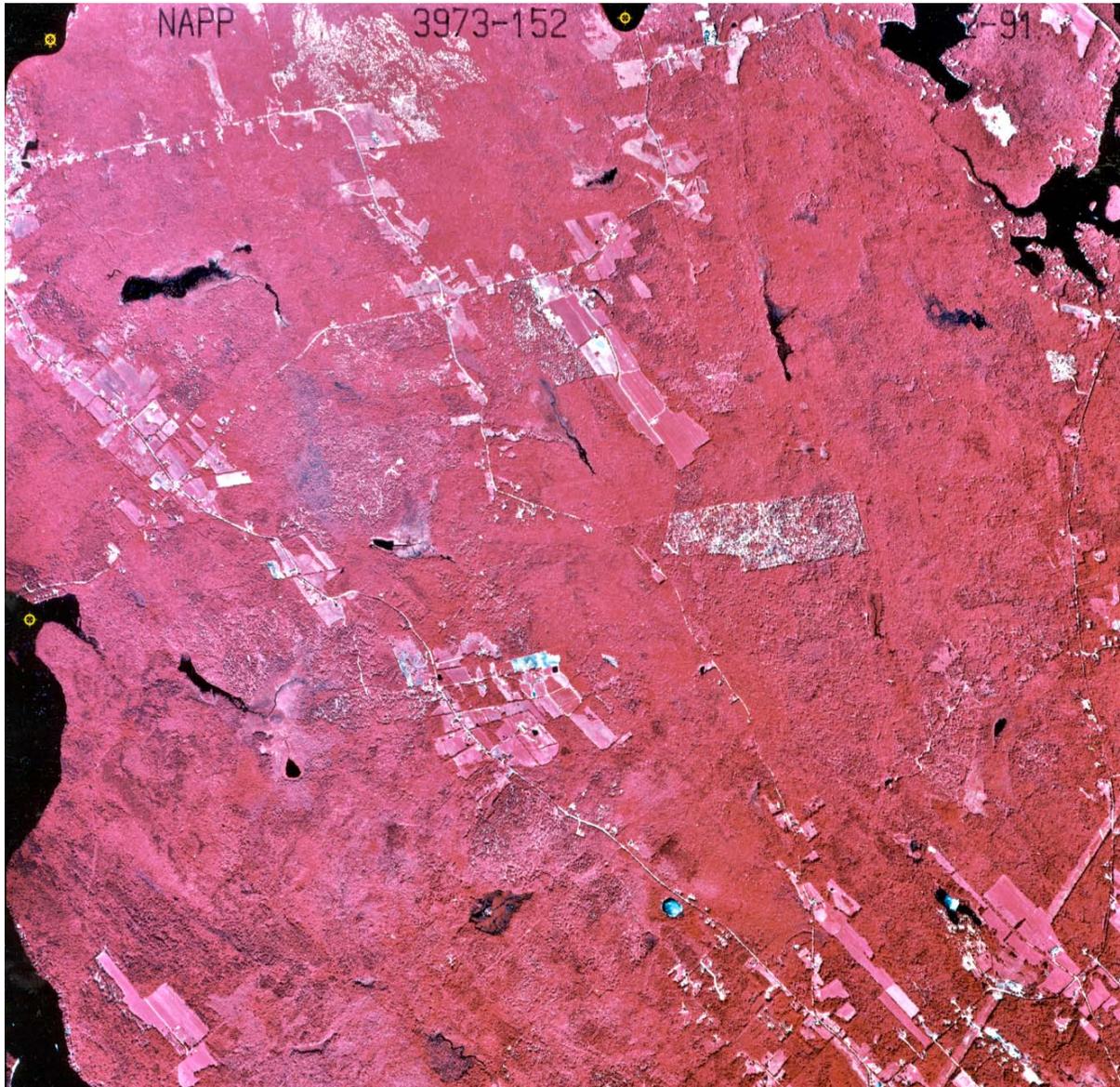
The South Acton Swamps Focus Area is a series of moderately broad basins surrounded by gentle to steep forested hillsides. The basins have approximately 250 acres of forested wetlands along with a number of marshes and open water systems. All together the various upland forest types and the variety of wetlands create a landscape with a wide diversity of plant and animal habitats. Within the site there are three local watersheds, two of which drain directly west into the Salmon Falls River, and a third, to the east, that drains into the Little River and eventually into the Salmon Falls River well to the south. Prominent features include the Black Pond wetland mosaic, an area with forested swamp, shrub swamp, sedge meadows, streams, and a small bog pond with peatland vegetation around its margin. These wetlands are surrounded by



Bog pond (from MNAP files)

relatively steeply sloped forested hills, the primary historic use of which has probably been limited to timber harvest due to steepness of slope. To the north, in a separate local watershed, there is a small lake – marsh formation that is fed by a narrow, mile long forested wetland. To the east, in another distinct local watershed, is a broad ~60 acre marsh and shrub swamp. The

wide diversity of habitats within the focus area include several exemplary ecosystems / natural communities along with hundreds of species of native plants and animals.



Infrared Aerial Photograph of South Acton Swamps Focus Area (1991)

Ecosystems / Natural communities documented in the South Acton Swamps Focus Area:

Mixed graminoid - shrub marsh natural community: A heterogeneous wetland type in which herbs and shrubs occur in various assemblages. A typical example is dominated by herbs including mostly grasses and sedges, and often has a sparse shrub layer containing meadowsweet or hardhack. Bluejoint grass is frequent, although any of a variety of graminoids may be prominent at different sites. Three-way sedge and yellow loosestrife are indicators. A variant in southern Maine has buttonbush as a prominent shrub. This community type typically occurs on

mineral soils that are flooded early in the growing season and remain saturated throughout the season.

Streamshore ecosystem: This is the group of communities bordering and directly influenced by the open-water portion of a stream (first-order through third or fourth-order). It includes vegetated aquatic communities as well as the emergent and bordering communities. Most communities are palustrine; streams are generally too small to exert many disturbance effects on adjacent terrestrial areas.

Unpatterned fen ecosystem: Fens are peatlands in which groundwater or water from adjacent uplands moves through the area. As a result, plants are exposed to more nutrients, and the vegetation is typically different and more diverse than that of bogs. The peat soil is moderately well to well decomposed and of variable thickness. The vegetation consists predominantly of sedges, grasses, reeds, and sphagnum. Bog communities, dominated by heath shrubs, may be present; but though fen and bog vegetation may co-occur, in a fen ecosystem the former is more extensive.

Rare animals and plants

The wetlands and uplands in this focus area support the state endangered Blandings turtle. Blandings turtles are generally found only in the southern most part of the state where increasing development contributes to loss of habitat, habitat fragmentation, and loss of individuals at road crossings. Blandings turtles are most frequently associated with complexes of small, acidic wetlands and vernal pools in large, intact forested landscapes. They also use small streams, shrub swamps, and wet meadows. Although these turtles spend most of their time in the water, they readily travel overland between wetlands during the spring and summer months. Upland habitats are critical for basking, aestivating (a period of late summer inactivity), nesting, and as travel corridors between wetlands.

Blandings turtles have evolved relatively long adult life spans to offset the long time it takes to reach reproductive maturity and to offset high levels of nest mortality. Because of this unusual life history, Blandings turtle populations are at low densities, and thus populations are extremely vulnerable to any human sources of adult mortality. Road mortality and collecting for pets, for example, can be deleterious as the attrition of just a few individuals every year can lead to the long-term decline and extinction of a local population. The secondary effects of human development – increased predator populations, pollution, filling of small wetlands, and blocking upland travel corridors – also limit populations. Blandings turtles are strictly protected from take (collecting, killing or in possession) by the Maine Endangered Species Act.

Ribbon snakes (special concern) also occur in wetlands within the site. This species of special concern is typically found around the edges of wetland habitats such as marshy lake shores where amphibians are plentiful. These snakes will travel through water and occasionally use it to hide. Their range in Maine is limited to the southern part of the state.

Populations of two rare plants, spotted wintergreen (state endangered) and swamp saxifrage (special concern) have been documented within the focus area. Swamp saxifrage occurs in southern Maine in the herbaceous layer of deciduous-forested wetlands, shrub swamps,

and wet meadows and old pastures. Common associates include alder, red maple, sensitive fern, and sedges. Spotted wintergreen tends to inhabit mixed woods with full to partial canopy on slight slopes. All Maine populations of spotted wintergreen generally consist of few individuals and have been declining. Both of these rare plants are at the north edge of their ranges in southern Maine, and both are vulnerable to human activity.

Rare Species Table for Little River Headwater:

Common Name	Scientific Name	Status	S-Rank	G-Rank
Natural Communities				
Mixed graminoid - shrub marsh	Mixed graminoid - shrub marsh	n/a	S5	not ranked
Streamshore ecosystem	Streamshore Ecosystem	n/a	S4	not ranked
Unpatterned fen ecosystem	Unpatterned Fen Ecosystem	n/a	S4	not ranked
Rare Plants				
Spotted wintergreen	<i>Chimaphila maculata</i>	E	S1	G5
Swamp saxifrage	<i>Saxifraga pensylvanica</i>	T	S2	G5
Rare Animals				
Blanding's turtle	<i>Emydoidea blandingii</i>	E	S2	G4
Ribbon snake	<i>Thamnophis sauritus</i>	SC	S3	G5

Other Resources Mapped by MDIFW:

Deer Wintering Area
Wading Bird / Waterfowl Habitat

Conservation Considerations :

- The integrity of wetlands and the processes and life forms they support including rare plants and animals are dependent on the maintenance of the current hydrology and water quality of the site. 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 that can degrade the high quality natural systems that occur here.
- No activities should be permitted that could lead to the loss or degradation of turtle wetlands including filling, dredging, sedimentation, or changing of hydrology unless the activity is approved by MDIFW.
- A minimum 250-foot forested buffer zone should be maintained around target wetlands with known Blanding's turtle locations. All wetlands, regardless of size, within 1/4 mile of

mapped spotted turtle locations should be considered potential habitat for this wide ranging species, and protected from direct impacts, and buffered by forested upland;

- Impervious surfaces such as yards, buildings, parking lots, and roads should be minimized in the upland landscape within 1/4 mile of turtle wetlands. Natural forest habitat should predominate the landscape. Intensive developments that concentrate human populations and road traffic within 1/4 mile of turtle wetlands should be avoided including subdivisions and service centers.
- Less pervasive is degradation from incidental uses related to the increasing residential development in the area. Upland buffers can also play a major role in protection here. Care needs to be taken that ORV's stay on existing trails and remain out of all wetlands when the ground is not frozen. Existing trails should be reviewed with particular recreation and access needs in mind, and trails closed if they run counter to protection needs. Fragmenting features should be minimized where possible.
- Low-intensity cutting (single tree or small group selection, firewood harvest) is likely compatible with sensitive features as long as operators avoid wetlands. Winter harvests are recommended to minimize impacts to rare plants, animals, and wetland systems. Close adherence to Best Management Practices for forestry activities near vernal pools (see Forestry Endangered and Threatened Species Guide) will ensure the protection of wetland habitats and the amphibian food source they supply.
- Conservation planning for upland features should include setting some areas aside from timber harvesting to allow for the development of some unmanaged forest ecosystems.

Protection Status:

There is no known conservation ownership within the focus area.

STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- 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.

Note: **State Ranks** are determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

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

Note: **Global Ranks** are determined by The Nature Conservancy.

STATE LEGAL STATUS FOR PLANTS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- 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 considered Threatened or Endangered.

Visit our web site for more information on rare, threatened and endangered species!
<http://www.state.me.us/doc/nrimc/mnap/factsheets/mnapfact.htm>