Natural Heritage & Endangered Species Program

Commonwealth of Massachusetts
Division of Fisheries & Wildlife
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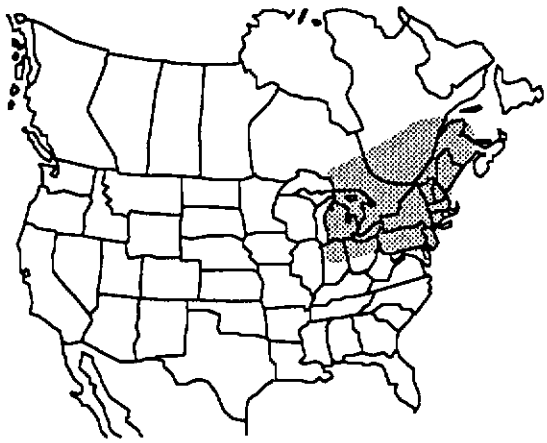
THREATENED SPECIES OF MASSACHUSETTS

SWAMP BIRCH
(*Betula pumila* L.)

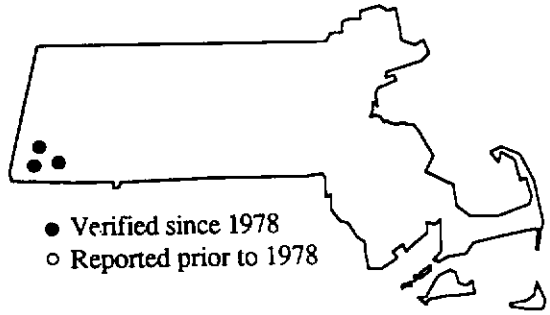
Gleason, H.A. The New Britton & Brown Illustrated Flora of the US & Adjacent Canada. NY Botanical Garden, New York. 1952.

Description: Swamp birch--also known as dwarf birch or low birch--is a medium-sized, bushy shrub in the Birch family (Betulaceae) that may grow to a height of 3 m (10 ft.). Its bark is brown, and its young leaves are covered with soft white hairs. (Young twigs may also be hairy.) The 2-3 cm (0.8 - 1.2 in.) long leaves are coarsely toothed and egg-shaped, with the broader ends at the tops. They are lighter color below. The flowers are characteristic birch flowers: single sex catkins (dense flower clusters consisting of small, scalelike flowers) expand in the spring. The male catkins drop off early, the erect female catkins (1 to 2 cm [0.4 - 0.8 in.] long) remain. The winged, scale-like nutlets or individual seeds in the catkins mature from late June to late September.

Range: The documented range of swamp birch extends from Newfoundland and Quebec to southern Ontario and Michigan, south to New Jersey, central Ohio and northern Indiana. Its distribution is local in northeastern North America.



Documented Range of Swamp Birch



Massachusetts Distribution by Town

Habitat: Swamp birch is generally a calciphile. It is found in open and forested wetlands influenced by calcareous groundwater seepage. Specific habitats in the Commonwealth include a shrub-dominated peaty wetland that is fed by calacareous seepage, calcareous fens, and a larch bog. Associated species include speckled alder (*Alnus rugosa*), larch (*Larix laricina*), shrubby cinquefoil (*Potentilla fruticosa*), tussock sedge (*Carex stricta*) and hoary willow (*Salix candida*). Rare Massachusetts plants found with swamp birch include showy lady's-slipper (*Cypripedium reginae*).

Population Status: Swamp birch is presently listed as "Threatened" in Massachusetts, where there are 4 current stations (discovered or relocated since 1978) in 3 towns. One station has only a single plant. As with all species listed in Massachusetts, individuals of the species are protected from take (picking, collecting, killing...) and sale under the Massachusetts Endangered Species Act. Reasons for its rarity in Massachusetts include a scarcity of alkaline wetland habitats and habitat destruction. Threats include degradation of habitat and the raising of water levels by beaver activity. Swamp birch is uncommon throughout New England.

Management Recommendations: As with most rare plants, exact needs for management of Swamp birch are not known. The following advice comes from observations of the populations in Massachusetts and Maine. Loss of habitat through alteration of drainage patterns appears to be the principal threat. In Maine, populations of dwarf birch appear to have few problems unless habitat degradation occurs from changed water regimes--either increasing or decreasing water levels, siltation onto the peat, or nutrient enrichment of the water or peat. Observations of populations in Massachusetts indicate that beavers can raise water levels to the point that swamp birch populations will die back temporarily leaving smaller populations restricted to tops of hummocks.

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