



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Sweet Bay *Magnolia virginiana* L.

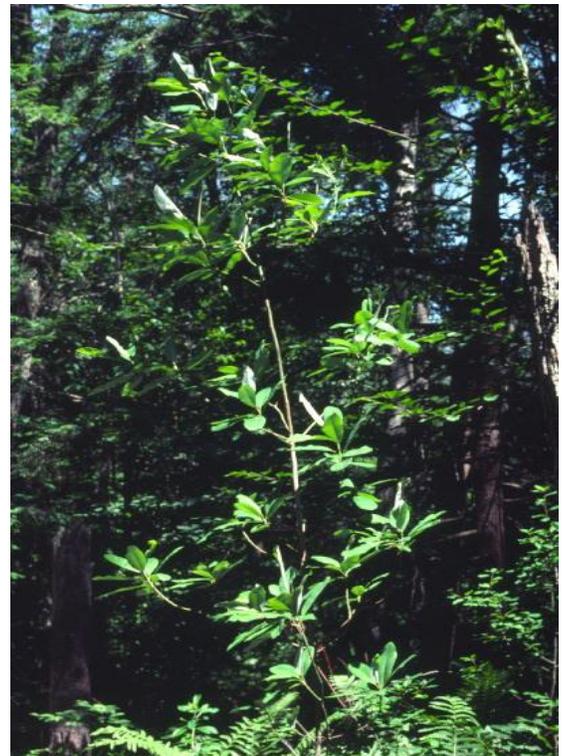
State Status: **Endangered**

Federal Status: **None**

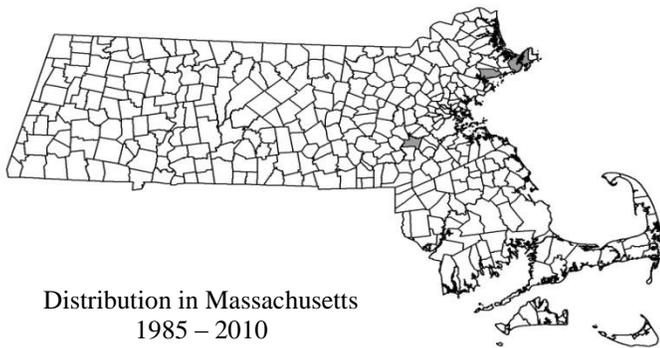
DESCRIPTION: In Massachusetts, Sweet Bay is a deciduous, multi-trunked tall shrub or small tree to 10 meters (~ 33 feet) in height. In the South, Sweet Bay may reach 20 m (~ 66 feet) and is often evergreen or semi-evergreen. In late spring to early summer Sweet Bay bears intensely fragrant flowers consisting of 9-12 white petals that are 3 to 5 cm (~1-2 inches) long. The seeds are borne inside fleshy red arils produced by an ellipsoid to round cone-like structure 2 to 5.5 cm (~1-2 inches) long by 1.5 to 3 cm (0.6-1.2 inches) wide.

AIDS TO IDENTIFICATION: Sweet Bay leaves are alternately arranged, oblong or ovate in shape 6 to 22 cm (~2-9 inches) long, with a leathery texture. The lower leaf surface is usually densely silky-pubescent (often appearing chalky white), above the leaves are dull to lustrous green. Leaves and twigs of this species are fragrant when broken.

SIMILAR SPECIES: Sweet Bay is the only native or naturalized *Magnolia* with a shrub-like habit and leathery leaves. Umbrella Magnolia (*Magnolia tripetala*) and Cucumber-tree (*Magnolia acuminata*) are naturalized in Massachusetts, but are taller species with larger non-leathery leaves.



Sweet Bay flower and leathery leaves and (below) shrub-like growth in Massachusetts. Photos: B.A. Sorrie, NHESP.



Distribution in Massachusetts
1985 – 2010
Based on records in the
Natural Heritage Database

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw

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HABITAT IN MASSACHUSETTS: In Massachusetts, Sweet Bay is found in red maple swamps on the Coastal Plain. Associated canopy species include Red Maple (*Acer rubrum*), White Pine (*Pinus strobus*), Hemlock (*Tsuga canadensis*), Black Gum (*Nyssa sylvatica*) and Yellow Birch (*Betula alleghaniensis*). Shrub species include Sweet Pepper-bush (*Clethra alnifolia*) and Highbush Blueberry (*Vaccinium corymbosum*). Vines may include Poison Ivy (*Toxicodendron radicans*) and Round-leaved Greenbrier (*Smilax rotundifolia*). Herbaceous species may include New England Aster (*Symphotrichum novae-angliae*), Jewelweed (*Impatiens capensis*), Skunk Cabbage (*Symplocarpus foetidus*), and Cinnamon Fern (*Osmunda cinnamomea*). Sphagnum moss (*Sphagnum* spp.) may also be present.

DISTRIBUTION IN MASSACHUSETTS 1983-2010: Essex and Norfolk Counties.

RANGE: Sweet Bay is found over much of the Coastal Plain and portions of the adjacent Piedmont from Massachusetts to Texas. It is imperiled or critically imperiled in New York, Pennsylvania and Tennessee.

POPULATION STATUS: Sweet Bay is listed under the Massachusetts Endangered Species Act as Endangered. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. It is currently known from Essex and Norfolk Counties

MANAGEMENT RECOMMENDATIONS: Primary threats include any activities that alter the natural hydrology or water quality of its habitat and browsing by white-tailed deer. Invasive species including Japanese Barberry (*Berberis thunbergii*), Glossy Buckthorn (*Frangula alnus*), and Purple Loosestrife (*Lythrum salicaria*) may outcompete Sweet Bay plants, including seedlings.

Sites should be monitored for establishment and/or expansion of invasive plants. If control is deemed necessary, a plan should be developed, in consultation with the Massachusetts Natural Heritage and Endangered Species Program, to remove the invaders. However, in some cases, native species may also shade out Sweet Bay, so any management plan should address native species management if necessary.

Sites should also be monitored for deer browse and, if necessary, specific measures such as fencing used to maintain stable populations of Sweet Bay.

All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage and Endangered Species Program.

Flowering time in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

REFERENCES:

- Meyer, F.G. 1997. Magnolia. In: Flora of North America Editorial Committee, eds. 1993. Flora of North America North of Mexico. 15+ vols. New York and Oxford. Vol.3, p 8.
- Rhoads, A. F., and T. A. Block. 2000. The Plants of Pennsylvania: an illustrated manual. University of Pennsylvania Press, Philadelphia, PA.

Updated 2015

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

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