

Conifer Families of Massachusetts

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Introduction

The purpose of this work is to highlight historical observations of the various plants found within Massachusetts in an effort to classify their native range and population distributions. Its other intent is to develop an accurate etymology of historical Latin names to the present day. For most plants, we will be using *Florula Bostoniensis* written by Dr. Jacob Bigelow as a launching point for naming conventions and status within Massachusetts. While his book was originally intended to classify plants within 5-10 miles of Boston, Bigelow later expanded his range to many parts of New England. There are many interesting observations of rare plants and those species unique to the alpine zones of Northern New England, but here I only include those that are native to Massachusetts. There should be no plants listed here that are not native to the state. To build a complete picture, I chose the earliest floras from Middlesex County, Worcester County, and Berkshire County as historical markers for various regions of the state: east, central, and west respectively. I have broadly included the southeastern coastal region as part of the east in several descriptions, but be advised that most plants that often appear in this plant community will be ones that prefer dry or sandy soils. The range of trees and shrubs come from the field guides cited below. This document is organized according to the *Vascular Plants of Massachusetts: A County Checklist* which is the authoritative list of the plants known to Massachusetts.

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Cupressaceae – Cedar Family

Chamaecyparis

One species of white cedar is present.

Chamaecyparis thyoides (Atlantic White Cedar)

Bigelow uses *Cupressus thuyoides* (Linnaeus), found occasionally, but not frequently in the neighborhood of Boston. Gray uses *Cupressus thyoides* (Linnaeus) and then later *Chamaecyparis sphaeroidea* (Spach).

Boston District: In very wet places throughout, usually forming “cedar swamps”; less common northward

Middlesex: Not very common

Worcester: Swamps, common

Conservation status S5; range from Southern Maine southward along the coast. Dame and Brooks state that it is in deep swamps and marshes, mostly near the seacoast. In Massachusetts, it is occasional in central and eastern sections and very common in the southeast. Suggestion: frequent in central and east

Juniperus

Two species of juniper are present.

Juniperus communis (Common Juniper)

Bigelow uses *Juniperus communis*, found in dry woods in Roxbury and Brookline. He also references the unconfirmed synonym *Juniperus repens* (Nuttall). Gray uses *Juniperus communis* (Linnaeus).

Boston District: Dry sterile soil, very common

Middlesex: Common

Worcester: In pastures and on dry hills; not rare

Berkshire: Hillside pastures and borders of woodland; frequent in Sheffield, rare elsewhere in the valley. Frequent on a gravelly hillside, Cold Spring Road, Williamstown. Occasional on the plateau, Savoy, Washington.

Conservation status S5; range throughout New England. iNaturalist data shows populations widely distributed from the Connecticut River Valley eastward. Suggestion: frequent in central and east, occasional elsewhere

Juniperus virginiana (Eastern Red Cedar)

Bigelow and Gray use *Juniperus virginiana* (Linnaeus).

Boston District: Dry soil throughout, common

Middlesex: Common

Worcester: In pastures and dry hills; not rare

Berkshire: Hillside pastures; frequent in Sheffield, occasional in the Housatonic Valley as far north as Lee. A fine grove on a gravelly hillside on the Cold Spring Road, Williamstown. A few scattered trees in South Sandisfield; not noted elsewhere on the plateau.

Conservation status S5; range throughout New England. Dame and Brooks state that in Massachusetts, it is common in the east and occasional in the center and west. Suggestion: common in the east, occasional elsewhere

Thuja

One species of white cedar is present. It is rare in the state.

Thuja occidentalis (Northern White Cedar)

Bigelow uses *Thuja occidentalis*, found in Maine and New Hampshire. Bigelow uses *Thuja occidentalis* (Linnaeus).

Boston District: Reported from a few stations as introduced.

Middlesex: Concord; introduced

Worcester: Templeton

Berkshire: Commonly planted and occasionally spreading. No native trees have been discovered in the county.

Conservation status S1; range mostly in northern New England. Dame and Brooks state that in Massachusetts it is found in Berkshire County and is occasional in the northern sections of the Connecticut River Valley. Suggestion: rare in the west

Pinaceae – Pine Family

Abies

One species of fir is present.

Abies balsamea (Balsam Fir)

Bigelow uses *Pinus balsamea* (Linnaeus), found in Maine and New Hampshire. He also uses the synonym *Abies balsamifera* (Michaux). Gray uses *Abies balsamea* (Marsh).

Boston District: Reported from a few scattered stations but apparently not native in our range.

Middlesex: Rare

Worcester: Northern part of the county

Berkshire: Swamps and moist slopes, along the plateau from Sandisfield northward; frequent in Sandisfield, common in parts of Washington and on Greylock.

Conservation status S4; range from western Massachusetts into northern New England. Dame and Brooks state that in Massachusetts it is not uncommon on mountain slopes in the northwestern and central portions of the state, ranging above the red spruces upon Greylock. A few trees here and there in damp woods or cold swamps in the southern and eastern sections are probably accidentally introduced.

Suggestion: frequent in central and west

Larix

One species of larch is present.

Larix laricina (American Larch)

Bigelow uses *Pinus microcarpa* (Lambert), found occasionally but not frequently in the neighborhood of Boston. He also uses the synonym *Larix americana* (Michaux) that is used by Gray. Britton and Brown reference this synonym as *Larix laricina* (Du Roi).

Boston District: Cold swamps; not common

Middlesex: Widely distributed; not uncommon

Worcester: Common in the northern part of the county

Berkshire: Wet hillsides and swamps; common

Conservation status S5; range from central and western Massachusetts into northern New England. Dame and Brooks state that in Massachusetts it is rather common, at least northward. Suggestion: widely distributed; frequent

Picea

Two species of spruce are present.

Picea mariana (Black Spruce)

Bigelow uses *Pinus nigra* (Aiton), not very common in the environs of Boston. He also uses the synonym *Abies nigra* (Michaux) which is used by Gray but attributed to Poiret. Gray later uses *Picea nigra* (Link).

Boston District: Cold swamps; reported from eleven towns, mostly in northern portions of the district

Middlesex: Rather scarce, especially eastward

Worcester: Not rare

Berkshire: Peat bogs; occasional

Conservation status S5; range from Massachusetts northward. Dame and Brooks state that it is not uncommon, especially northward on dry uplands and mountain slopes. In Massachusetts it is frequent.

Suggestion: scattered; frequent

Picea rubens (Red Spruce)

Bigelow does not describe this species. Gray uses *Picea nigra* var *rubra* (Engelmann).

Boston District: Abundant on rocky hillside near Cape Pond, Rockport; a single tree in Neponset River meadow, Milton; a few trees in Randolph

Worcester: Uplands

Berkshire: Rocky summits on the plateau; occasional in the valley

Conservation status S4; range from western Massachusetts into northern New England. Dame and Brooks state that in Massachusetts it is common in the mountainous regions of Berkshire county and on uplands in the northern sections. It is occasionally found southwards. Suggestion: frequent in central and west

Pinus

Three species of pine are present.

Pinus resinosa (Red Pine)

Bigelow uses *Pinus resinosa*, found at Brookline and various parts of the interior. Gray uses the same name and attributes it to Aiton. Bigelow also uses the synonym *Pinus rubra* (Francois Michaux) which is confirmed by Gray.

Boston District: Dry soil; found sparingly as far south as Chestnut Hill, Brookline

Middlesex: Generally distributed, but not common

Worcester: Templeton

Berkshire: Rocky woods; rare

Conservation status S2S3; range scattered in the west and along the northern border of Massachusetts northward. Dame and Brooks state that in Massachusetts it is local, with stations widely separated and single trees or small groups. Suggestion: scattered; rare

Pinus rigida (Pitch Pine)

Bigelow uses *Pinus rigida* (Linnaeus). Gray uses the same name but attributes it to Miller.

Boston District: Dry sterile soil, very abundant throughout

Middlesex: Common

Worcester: Common

Berkshire: Sandy soil; frequent in Sheffield, occasional in Stockbridge, New Marlboro, Sandisfield, Great Barrington; summit of The Dome, Mt. Washington

Conservation status S5; range from Connecticut through mid New England hugging the coast. Dame and Brooks state that it is common in the southern New England states, often forming large tracts of woodland, sometimes exclusively occupying extensive areas. Suggestion: common in central and east, occasional elsewhere

Pinus strobus (Eastern White Pine)

Bigelow and Gray use *Pinus strobus* (Linnaeus).

Boston District: Common

Middlesex: Common

Worcester: Common

Berkshire: In almost every soil and situation; common

Conservation status S5; range throughout New England. Dame and Brooks state that it is common in New England, from the vicinity of the seacoast to altitudes of 2500 feet, forming extensive forests. Suggestion: widely distributed; common

Tsuga

One species of hemlock is present.

Tsuga canadensis (Eastern Hemlock)

Bigelow uses *Pinus canadensis* (Linnaeus), which occurs frequently in the woods around the vicinity of Boston. He also uses the synonym *Abies canadensis* (Michaux) which is used by Gray. Gray later uses *Tsuga canadensis* (Carriere).

Boston District: Cold soil of rocky ridges and ravines; frequent

Middlesex: Rather common

Worcester: Quite common

Berkshire: Rocky woods; common

Conservation status S4; range throughout New England. Dame and Brooks state that it is common in the southern states of New England. Suggestion: widely distributed; frequent

Taxaceae – Yew Family

Taxus

One species of yew is present.

Taxus canadensis (American Yew)

Bigelow uses *Taxus canadensis* (Willdenow), found in Hallowell, Maine. Gray uses the same name. Bigelow also uses the unconfirmed synonym *Taxus baccata* var *minor* (Michaux).

Boston District: Cold woods; abundant at a few stations

Middlesex: Common in Ashby; very rare elsewhere

Worcester: Worcester

Berkshire: Cool woods and shaded slopes; common

Conservation status S5; range from western region of southern New England northwards. iNaturalist shows populations mostly in western Massachusetts and scattered throughout the state. Suggestion: frequent in the west, occasional elsewhere