

Alismatid Families of Massachusetts

Author: Jarek Reihner

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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 all species come from the field guides cited below or GoBotany, when no physical information could be found. 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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Acoraceae – Sweet Flag Family

Acorus

One species of sweetflag is present.

Acorus americanus (Several Veined Sweetflag)

Bigelow and Gray likely use *Acorus calamus* (Linnaeus). It is difficult to tell whether historic descriptions of this plant are the introduced *Acorus calamus* or the native *Acorus americanus*. The 1935 *Rhodora* article *Acorus Calamus in America* by Murray F. Buell claims that the plant is native to the United States. He does not differentiate his remarks by subspecies, but seems to observe wide distribution of the non-sterile variety throughout. However, Britton and Brown state that the plant rarely fruits in the northeast.

Boston District: Swamps and borders of still waters, common throughout

Middlesex: Apparently native; common

Worcester: In swamps and low grounds; not rare

Berkshire: Wet meadows and marshes; common

Conservation status S3?; range throughout New England. iNaturalist data shows very few observations in Massachusetts; however, *Acorus calamus* is widely distributed but also limited in number of observations. Due to limited information, my suggested range and population is based on conservation status and GoBotany distribution. Suggestion: widely distributed; occasional

Alismataceae – Water Plantain Family

Alisma

Two species of water plantain are present.

Alisma subcordatum (Southern Water Plantain)

Bigelow and Gray use *Alisma plantago* (Linnaeus). Britton and Brown references these names and *Alisma plantago* var. *americanum* (Roemer & Schultes) under *Alisma subcordatum* (Rafinesque).

Boston District: Shallow ponds with muddy water throughout

Middlesex: Rather common

Worcester: Shallow water; common

Berkshire: Muddy shores and ditches; common

Conservation status S5; range throughout New England excluding northern Maine. iNaturalist data shows few observations with populations scattered across Massachusetts. Suggestion: widely distributed; common

Alisma triviale (Northern Water Plantain)

Bigelow and Gray do not explicitly describe this species, although it may have been historically grouped under the same generic name. Gray references the synonyms *Alisma trivialis* (Pursh) and *Alisma parviflora* (Pursh) in early descriptions of *Alisma plantago* (Linnaeus).

Conservation status S4; range throughout New England excluding southern parts of Connecticut and Rhode Island. iNaturalist data shows scattered observations in eastern Massachusetts. Non- research grade observations are more widely distributed. Suggestion: widely distributed; frequent

Helanthium

One species of burhead was present. Bigelow does not describe this species. Gray uses *Echinodorus parvulus* (Engelmann). *Helanthium tenellum* was historically found in Middlesex County at Cambridge and Winter Pond, Winchester.

Sagittaria

Eight species of arrowhead are present. *S. cuneata*, *S. montevidensis*, and *S. rigida* are rare.

Sagittaria cuneata (Northern Arrowhead)

Bigelow and Gray do not describe this species. It is described in the Berkshire flora as *Sagittaria arifolia* (Nuttall) which is a synonym according to Britton and Brown.

Berkshire: Shallow water; occasional

Conservation status S2; range scattered throughout New England, with greater populations in the north. iNaturalist data shows no observations in Massachusetts. Suggestion: rare in the west

Sagittaria engelmanniana (Engelmann's Arrowhead)

Bigelow does not describe this species. Gray uses *Sagittaria variabilis* var. *gracilis* (Engelmann) and reference the synonym *Sagittaria gracilis* (Pursh), however Britton and Brown state that it should not be attributed to Engelmann.

Boston District: Muddy or peaty soil around ponds or wet places

Worcester: G.E. Stone

Berkshire: Shallow water, borders of lakes and streams; frequent

Conservation status S4; range from Massachusetts southward, excluding western parts of Massachusetts and Connecticut. iNaturalist data shows scattered observations in eastern Massachusetts. Suggestion: frequent in the east, occasional elsewhere

Sagittaria filiformis (Narrow Leaved Arrowhead)

Bigelow does not describe this species. Gray uses *Sagittaria natans* var. *gracillima* (Watson), found in deep water of streams in eastern Massachusetts. Britton and Brown use *Sagittaria lorata* (Chapman) and reference *Sagittaria natans* var. *gracillima* (Watson) and *Sagittaria subulata* var. *gracillima* (Watson) as possible synonyms.

Boston District: Paul's Bridge, Neponset River, Milton; Charles River in Newton, Needham, and Natick; Waban Brook, Wellesley; "Concord River"

Middlesex: Westford, Littleton, Concord River

Conservation status S4; range scattered throughout New England with greater distribution in Massachusetts. iNaturalist data shows two observations in central Massachusetts that are not research grade. Suggestion: frequent in the east

Sagittaria graminea (Grass Leaved Arrowhead)

Bigelow uses *Sagittaria acutifolia*, found in the edges of Fresh Pond. Gray references this name as *Sagittaria simplex* (American authors), and later uses *Sagittaria graminea* (Michaux).

Boston District: Shallow water; scattered stations in northern half of district

Middlesex: Cambridge, Arlington, Framingham, Natick, Medford

Worcester: G.E. Stone

Berkshire: Lake shores; occasional in the valley

Conservation status S4; range throughout New England. iNaturalist data shows scattered observations in eastern Massachusetts. Non-research grade observations are more widely distributed. Suggestion: scattered; frequent

Sagittaria latifolia (Common Arrowhead)

Bigelow uses *Sagittaria sagittifolia* (Linnaeus). Gray references this name as *Sagittaria variabilis* (Engelmann). Britton and Brown reference the name by Gray as *Sagittaria latifolia* (Willdenow).

Boston District: Wet places throughout; common

Middlesex: Very common

Worcester: In water or wet places; common

Berkshire: Muddy shores and swamps; common

Conservation status S5; range throughout New England. iNaturalist data shows populations widely distributed in Massachusetts. Suggestion: widely distributed; common

Sagittaria montevidensis (Spongy Leaved Arrowhead)

Bigelow does not describe this species. Gray uses *Sagittaria calycina* var. *spongiosa* (Engelmann).

Boston District: Alewife Brook, West Cambridge; Mystic River; bank of Mystic Pond; Woburn Pond; tidal river flats, Newburyport

Middlesex: Medford

Conservation status S1; range scattered throughout New England with a coastal direction. iNaturalist data shows no observations in Massachusetts. Suggestion: rare in the east

Sagittaria rigida (Sessile Fruited Arrowhead)

Bigelow does not describe this species. Gray uses *Sagittaria heterophylla* var. *rigida* (Pursh) and references the synonym *Sagittaria rigida* (Pursh). It is on the state watch list.

Boston District: Newbury

Berkshire: Shallow water of ponds; occasional

Conservation status S2?; range from Vermont and New Hampshire southward, excluding coastal regions of southern New England and much of northern New England. iNaturalist data shows one observation in Pepperell, Massachusetts. Suggestion: scattered; rare

Sagittaria teres (Quill Leaved Arrowhead)

Bigelow does not describe this species. Gray uses *Sagittaria teres* (Watson), found in southern New England.

Boston District: Sandy Pond, Lincoln

Conservation status S3; range from eastern Massachusetts south to Rhode Island. iNaturalist data shows populations widely distributed from Plymouth to Cape Cod. Suggestion: occasional in the east

Araceae – Arum Family

Arisaema

Two species of jack in the pulpit are present.

Arisaema dracontium (Green Dragon)

Bigelow does not describe this species. Gray uses *Arum dracontium* (Linnaeus) and later uses *Arisaema dracontium* (Schott).

Berkshire: Alluvial soil along the Housatonic River; occasional in Great Barrington and Sheffield

Conservation status S2; range from western New England into central Massachusetts. iNaturalist data shows three observations in the Connecticut River Valley of Massachusetts. Suggestion: rare in the west

Arisaema triphyllum (Jack in the Pulpit)

Bigelow and Gray use *Arum triphyllum* (Linnaeus). Gray later uses *Arisaema triphyllum* (Torrey).

Boston District: Rich moist woods, common and abundant

Middlesex: Common

Worcester: Common

Berkshire: Rich woods and swamps; common

Conservation status S5; range throughout New England. iNaturalist data shows populations widely distributed throughout Massachusetts. Suggestion: widely distributed; common

Calla

One species of calla is present.

Calla palustris (Wild Calla)

Bigelow and Gray use *Calla palustris* (Linnaeus).

Boston District: Very wet muddy places. We have no records from the southeastern section, but the plant occurs sparingly throughout the rest of the district.

Middlesex: Widely distributed but not very common

Worcester: Cold bogs; common

Berkshire: Cold bogs; frequent on the plateau, occasional in the valley

Conservation status S4; range throughout New England. iNaturalist data shows populations distributed throughout much of Massachusetts. Suggestion: widely distributed; frequent

Lemna

Two species of duckweed are present. *L. perpusilla*, *L. turionifera*, and *L. valdiviana* are historical.

Lemna minor (Common Duckweed)

Bigelow and Gray use *Lemna minor* (Linnaeus).

Boston District: Still water, common in central part of area

Middlesex: Common

Worcester: Stagnant waters; common

Berkshire: Pools and slow streams; occasional in the valley

Conservation status S5; range throughout New England, excluding sections of northern New England. iNaturalist data shows populations throughout Massachusetts, but tapering off heading west. Suggestion: widely distributed; frequent

Lemna trisulca (Ivy Leaved Duckweed)

Bigelow does not describe this species. Gray uses *Lemna trisulca* (Linnaeus).

Boston District: Fresh Pond, Cambridge; Glacialis, Fresh Pond, Cambridge; Lincoln; “Alewife Brook below bridge on the Powderhouse Road, Medford”

Middlesex: Rare

Berkshire: Pools in marshes, muddy ponds and slow streams; local

Conservation status S4?; range scattered throughout New England. iNaturalist data shows one observation in Springfield, Massachusetts. Suggestion: scattered; occasional

Lemna valdiviana (Pale Duckweed)

Bigelow does not describe this species. Gray uses *Lemna torreyi* (Austin) and then later uses *Lemna valdiviana* (Philippi).

Boston District: Nooks in slow streams; Monatiquot Stream, Blue Hills; Beaver Brook, Sharon

Orontium

One species of golden club is present and it is rare.

Orontium aquaticum (Golden Club)

Bigelow uses *Orontium aquaticum* (Linnaeus), found in Southwick, MA and Derby, CT. Gray uses the same name. It is not described in the floras.

Conservation status S1; range from Massachusetts southward, excluding sections of the northern border of the state. iNaturalist data shows few observations scattered throughout Massachusetts, but a large number of observations in Provincetown. Suggestion: scattered; rare

Peltandra

One species of arrow arum is present.

Peltandra virginica (Green Arrow Arum)

Bigelow uses *Calla virginica* (Michaux) and references the synonym *Arum virginicum* (Linnaeus). Gray uses *Peltandra virginica* (Rafinesque) and *Peltandra undulata* (Rafinesque) as synonyms.

Boston District: Wet meadows and muddy shores, frequent throughout

Middlesex: Not uncommon

Worcester: In shallow water; not common

Berkshire: Pools in swamps, borders of ponds, and slow streams; common

Conservation status S5; range throughout New England, excluding parts of the north. iNaturalist data shows populations mostly in the east and greatly reduced in central and western Massachusetts.

Suggestion: widely distributed; frequent

Spirodela

One species of duck meal is present.

Spirodela polyrrhiza (Common Duck Meal)

Bigelow does not describe this species. Gray uses *Lemna polyrrhiza* (Linnaeus) and later uses *Spirodela polyrrhiza* (Schleiden).

Boston District: Still water; frequent in northern half of district, but not reported in the southern towns

Middlesex: Common

Worcester: In pools and ponds; common

Berkshire: Stagnant pools and ponds; occasional in the valley

Conservation status S5; range throughout New England, excluding parts of New Hampshire, Vermont, and Maine. iNaturalist data shows populations scattered throughout Massachusetts, mostly concentrated in the east. Suggestion: widely distributed; frequent

Symplocarpus

One species of skunk cabbage is present.

Symplocarpus foetidus (Skunk Cabbage)

Bigelow uses *Ictodes foetidus* and references the synonyms *Dracontium foetidum* (Linnaeus), *Pothos foetida* (Michaux), and *Symplocarpus foetida* (Nuttall). Gray uses *Symplocarpus foetidus* (Salisbury) and references the entry from Bigelow.

Boston District: Wet woods and swamps; common and abundant throughout

Middlesex: Common

Worcester: Moist grounds; common

Berkshire: Swamps and low ground; common in the valley, not noted on the plateau

Conservation status S5; range throughout New England, excluding northern Maine. iNaturalist data shows populations widely distributed, excluding a large region from Franklin to Hampden County. Suggestion: widely distributed; common

Wolffia

Three species of water meal are present. They are not described in the floras.

Wolffia borealis (Northern Water Meal)

Bigelow and Gray do not describe this species. There are two collected specimens of this plant in Massachusetts.

Conservation status SNR; range scattered throughout New England. iNaturalist data shows one non-research grade observation in Dedham, Massachusetts. Suggestion: scattered; rare

Wolffia brasiliensis (Brazilian Water Meal)

Gray uses *Wolffia brasiliensis* (Weddell). Collected specimens are scattered across Massachusetts.

Conservation status S4; range mostly in Massachusetts and southern New England. iNaturalist data shows only two observations in eastern Massachusetts. Suggestion: scattered; frequent

Wolffia columbiana (Columbian Water Meal)

Gray uses *Wolffia columbiana* (Karsten). Collected specimens are mostly from eastern Massachusetts but scattered throughout.

Conservation status S4; range mostly in southern New England and coastal zones, scattered northward. iNaturalist data shows one non-research grade observation in Dedham, Massachusetts. Suggestion: scattered; frequent

Wolffiella

One species of bog mat is present.

Wolffiella gladiata (Sword-like Bog Mat)

Bigelow and Gray do not describe this species. It is not described in the floras. There are only three collected specimens from Lincoln, Massachusetts.

Conservation status SNR; range only in two counties of eastern Massachusetts. iNaturalist data shows no observations in Massachusetts. Suggestion: rare in the east

Hydrocharitaceae – Frog’s Bit Family

Elodea

Two species of waterweed are present.

Elodea canadensis (Common Waterweed)

Bigelow does not describe this species. Gray uses *Udora canadensis* (Nuttall) and later uses *Anacharis canadensis* (Planchon) and *Elodea canadensis* (Michaux)

Middlesex: Somerville; Arlington; Fresh Pond, Cambridge

Worcester: Ponds; common

Berkshire: Shallow water in ponds and streams; common in the valley

Conservation status S5; range throughout New England, excluding northern Maine. iNaturalist data shows observations scattered throughout Massachusetts. Suggestion: widely distributed; frequent

Elodea nuttallii (Free Flowered Waterweed)

Bigelow does not describe this species. Gray may have grouped this plant under *Elodea canadensis*. In early descriptions, Gray references *Anacharis nuttallii* (Planchard) as having similar morphology. It is not described in the floras. Collected specimens distributed throughout Massachusetts.

Conservation status S5; range throughout New England, excluding northern Maine. iNaturalist data shows few observations scattered throughout Massachusetts. Suggestion: widely distributed; frequent

Najas

Two species of waternymph are present.

Najas flexilis (Nodding Waternymph)

Bigelow uses *Najas canadensis* (Michaux), found in Fresh Pond. Bigelow also uses *Caulinia flexilis* (Nuttall) as a synonym. Gray references these names as *Naias flexilis* (Rostkovius).

Boston District: Shallow water of ponds or slow streams, on sandy or muddy bottoms, common throughout

Middlesex: Common

Worcester: Lake Quinsigamond

Berkshire: Ponds and slow streams; common in the valley, not noted on the plateau

Conservation status S5; range throughout New England. iNaturalist data shows two observations in Massachusetts; only one is research grade in Turners Falls. Suggestion: widely distributed; frequent

Najas gracillima (Slender Waternymph)

Bigelow does not describe this species. Gray uses *Naias indica* var. *gracillima* (Braun). Collected specimens distributed throughout Massachusetts

Boston District: Ponds; North Andover, Stoneham, Winchester, Woburn, Mystic Pond

Middlesex: Rare

Worcester: Lake Quinsigamond

Conservation status S5; range from southern New England northward, following a coastal path. iNaturalist data shows no observations in Massachusetts. Suggestion: widely distributed; frequent

Vallisneria

One species of tape grass is present.

Vallisneria americana (Tape Grass)

Bigelow uses *Vallisneria americana* (Michaux), found in Fresh Pond, Cambridge. Gray uses *Vallisneria spiralis* (Linnaeus).

Boston District: Deep still water; scattered stations in northern half of district

Middlesex: Common

Worcester: Lake Quinsigamond

Berkshire: Shallow water of ponds and in the Housatonic River; frequent

Conservation status S5; range throughout New England, excluding northern Maine. iNaturalist data shows observations scattered throughout Massachusetts. Suggestion: widely distributed; frequent

Juncaginaceae – Arrow Grass Family

Triglochin

One species of arrow grass is present.

Triglochin maritima (Salt Marsh Arrow Grass)

Bigelow and Gray use *Triglochin maritimum* (Linnaeus). Gray later uses *Triglochin maritima* (Linnaeus).

Boston District: Salt marshes; common

Middlesex: Common in salt marshes

Conservation status S4; range along the coast of New England into northern Maine. iNaturalist data shows observations in northeast Massachusetts and Cape Cod. Suggestion: frequent in the east

Potamogetonaceae – Pondweed Family

Potamogeton

Twenty six species of pondweed are present. *P. confervoides*, *P. friesii*, *P. gemmiparus*, *P. obtusifolius*, *P. odenii*, *P. strictifolius*, and *P. vaseyi* are rare. *P. alpinus* is historical.

Potamogeton alpinus (Alpine Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton rufescens* (Schrader). Britton and Brown reference this name as *Potamogeton alpinus* (Balbis). It was historically found in Berkshire County.

Berkshire: Collected in Richmond in 1864 by J.W. Robbins

Potamogeton amplifolius (Big Leaved Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton amplifolius* (Tuckerman).

Boston District: Ponds and rivers, frequent in northern half of district, also occurring in Canton

Middlesex: Mystic Pond, Medford; Fresh Pond, Cambridge; Concord; Townsend; Bedford

Worcester: Lake Quinsigamond

Berkshire: Ponds and sluggish streams; common

Conservation status S5; range throughout New England, excluding a few counties. iNaturalist data shows observations scattered throughout Massachusetts. Suggestion: widely distributed; frequent

Potamogeton berchtoldii (Berchtold's Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton pusillus* var. *tenuissimus* (Mertens & Koch) and states that it is rather rare. Collected specimens distributed throughout Massachusetts

Boston District: Ponds and streams; eight scattered stations north and west of Boston

Middlesex: Natick

Worcester: Lake Quinsigamond

Berkshire: Stockbridge Bowl, Stockbridge; Prospect Pond, Egremont

Conservation status S5; range throughout New England. iNaturalist data shows one non-research grade observation in Amesbury, Massachusetts. Suggestion: widely distributed; frequent

Potamogeton bicupulatus (Snail Seed Pondweed)

Bigelow uses *Potamogeton setaceum* (Willdenow). Gray references this name under *Potamogeton hybridus* (Michaux) but attributes it to Pursh. Britton and Brown reference this name as *Potamogeton diversifolius* (Rafinesque) with *Potamogeton diversifolius* var. *trichophyllus* (Morong) as a synonym. Collected specimens distributed across Massachusetts; few in Berkshire County.

Boston District: Still water, many stations in northern half of district, also occurring in Pembroke

Middlesex: Winchester; Silver Lake, Wilmington; Round Pond, Woburn; Bedford, Medford clay pits

Worcester: Common

Berkshire: Plantin Pond, Mt. Washington

Conservation status S5; range throughout New England excluding northern areas of Vermont, New Hampshire, and Maine. iNaturalist data shows scattered observations from central Massachusetts eastward. Suggestion: widely distributed; frequent

Potamogeton confervoides (Alga-like Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton trichoides* and later uses *Potamogeton tuckermani* (Robbins), found in cold ponds in the White Mountains of New Hampshire. Britton and Brown reference these names as *Potamogeton confervoides* (Reichenbach).

Worcester: Shockalog Pond, Uxbridge

Berkshire: In Guilder Pond on the Dome, Mt. Washington, altitude 2000 feet

Conservation status S2; range scattered throughout New England. iNaturalist data shows one non-research grade observation in Douglas, Massachusetts. Suggestion: rare

Potamogeton epihydrus (Ribbon Leaved Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton claytonii* (Tuckerman) and later uses *Potamogeton pennsylvanicus* (Chamisso). Britton and Brown reference the first name as *Potamogeton epihydrus* (Rafinesque).

Boston District: Ponds and streams; many records from all parts of the district

Middlesex: Common

Worcester: Common in ponds and quiet streams

Berkshire: Ponds and brooks; common

Conservation status S5; range throughout New England. iNaturalist data shows observations distributed throughout Massachusetts. Suggestion: widely distributed; common

Potamogeton foliosus (Leafy Pondweed)

Bigelow uses *Potamogeton pauciflorum*. Gray uses *Potamogeton pauciflorus* (Pursh). Britton and Brown reference this name as *Potamogeton foliosus* (Rafinesque). Collected specimens mostly from western Massachusetts.

Boston District: Still waters, from scattered stations in eastern half of district

Middlesex: Medford, Cambridge

Worcester: Lake Quinsigamond

Berkshire: In quiet shallow water; frequent

Conservation status S4; range following a western and eastern distribution throughout New England, excluding central regions. iNaturalist data shows two non-research grade observations near Boston, Massachusetts. Suggestion: frequent in the west, occasional elsewhere

Potamogeton friesii (Flat Stalked Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton pusillus* var. *major* (Fries) and later uses *Potamogeton mucronatus* (Schrader). Britton and Brown reference the first name as *Potamogeton friesii* (Ruprecht).

Berkshire: Occasional

Conservation status S1; range scattered in western New England and few counties elsewhere. iNaturalist data shows no observations in Massachusetts. Suggestion: scattered; rare

Potamogeton gemmiparus (Budding Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton pusillus* var. *gemmiparus* and later uses *Potamogeton gemmiparus* (Robbins), found in the outlet of Mystic Pond and the Blackstone Valley from Worcester to Providence. Britton and Brown state that it is native to eastern Massachusetts and Rhode Island. Collected specimens are few and scattered across Massachusetts; higher observations found in Worcester County. It is on the state watch list.

Boston District: Charles River at Dedham and South Natick; Neponset River at Dedham; Fresh Pond, Cambridge; Wenham Pond, Wenham; Mystic Pond

Middlesex: Mystic Pond; South Natick

Worcester: Common

Conservation status S2?; range scattered throughout eastern New England. iNaturalist data shows one observation in Worcester County, Massachusetts. Suggestion: occasional in central

Potamogeton gramineus (Grassy Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton gramineus* (Linnaeus) and later uses *Potamogeton heterophyllus* (Schreber).

Boston District: Ponds and streams; numerous stations in northern half, and as far south as Canton

Middlesex: Common

Worcester: Lake Quinsigamond

Berkshire: Ponds, on gravelly bottom; common

Conservation status S5; range throughout New England, excluding a part of northern Maine. iNaturalist data shows only three observations scattered in Massachusetts. Suggestion: widely distributed; common

Potamogeton hillii (Hill's Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton hillii* (Morong). It is not described in the floras. There are 137 collected specimens from the Berkshires.

Conservation status S3; range in western New England from Vermont southward. iNaturalist data shows no observations in Massachusetts. Suggestion: occasional in the west

Potamogeton illinoensis (Illinois Pondweed)

Bigelow uses *Potamogeton lucens* (Michaux). Gray uses the same name but attributes it to Linnaeus. He later adds *Potamogeton illinoensis* (Morong) to the manual but does not include New England in the range. Britton and Brown also separate both names and do not include *P. illinoensis* in the range of New England. The floras only use *P. lucens*, so it is probably the more accurate name to reference for historic observations.

Boston District: Fresh Pond, Cambridge; Wenham Pond, Wenham; Pleasant Pond, Wenham; Winchester

Middlesex: Fresh Pond; Winchester

Berkshire: Frequent in the southern part of the valley

Conservation status S4; range mostly in western New England. iNaturalist data shows no observations in Massachusetts. Suggestion: frequent in the west, occasional in the east

Potamogeton natans (Floating Pondweed)

Bigelow and Gray use *Potamogeton natans* (Linnaeus).

Boston District: Ponds and slow streams; many stations, running as far south as Canton

Middlesex: Common

Worcester: Very common

Berkshire: Ponds and slow streams; common

Conservation status S5; range throughout New England. iNaturalist data shows observations distributed throughout Massachusetts, excluding the Connecticut River Valley. Suggestion: widely distributed; common

Potamogeton nodosus (Long Leaved Pondweed)

Bigelow uses *Potamogeton fluitans* (Linnaeus). Gray uses this name but attributes it to Roth. He uses *Potamogeton natans* var. *fluitans*, *Potamogeton lucens* var. *fluitans*, and *Potamogeton lonchites* (Tuckerman) as synonyms.

Boston District: Running water, occasionally in ponds

Middlesex: Winchester

Worcester: Worcester

Berkshire: In streams and outlets of lakes; frequent in the valley

Conservation status S4; range scattered throughout New England. iNaturalist data shows scattered observations with a central distribution in Massachusetts. Non-research grade observations widen from central to the east. Suggestion: frequent in the west, occasional elsewhere

Potamogeton oakesianus (Oakes' Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton oakesianus* (Robbins) and states that it is not rare in eastern Massachusetts. Collected specimens mostly from Worcester County.

Boston District: Beverly, Dedham, Lynn, Natick, Stoneham, Woburn; Mystic Pond, Medford

Middlesex: Mystic Pond, Medford; Horn Pond, Woburn; Natick

Worcester: Uxbridge

Berkshire: On upland ponds; occasional

Conservation status S5; range throughout New England, excluding parts of the north. iNaturalist data shows most observations in the Cape Cod region of Massachusetts. Suggestion: widely distributed; frequent

Potamogeton obtusifolius (Blunt Leaved Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton obtusifolius* (Mertens & Koch).

Boston District: Newbury, Wenham, Natick

Middlesex: Natick

Worcester: Beaver Brook, Worcester

Berkshire: Shaw Pond, Becket; Parish Pond, Otis; Crane and Cranberry Ponds, West Stockbridge; Three Mile Pond, Sheffield

Conservation status S1?; range scattered throughout New England. iNaturalist data shows two observations in Massachusetts. Suggestion: rare

Potamogeton perfoliatus (Clasping Leaved Pondweed)

Bigelow uses *Potamogeton perfoliatum* (Linnaeus). Gray uses *Potamogeton perfoliatus* (Linnaeus).

Boston District: Cambridge, Lynn, Natick, Wakefield, Wellesley, Wenham, Mystic Pond

Middlesex: Mystic Pond, Fresh Pond

Worcester: Brookfield

Berkshire: Frequent in lakes in the southern part of the valley

Conservation status S5; range throughout New England, excluding a few counties. iNaturalist data shows scattered observations from the Connecticut River Valley in Massachusetts eastward. Suggestion: widely distributed; frequent

Potamogeton praelongus (White Stemmed Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton praelongus* (Wulfen). Collected specimens mostly from Berkshire County and Greater Boston region.

Boston District: Fresh Pond, Cambridge; Pleasant Pond, Wenham

Middlesex: Fresh Pond

Berkshire: Stockbridge Bowl, Stockbridge; Lake Garfield, Monterey; Harmon Pond, New Marlboro; Three Mile Pond, Sheffield

Conservation status S4; range mostly in northern New England scattered southward. iNaturalist data shows no observations in Massachusetts. Suggestion: scattered; frequent

Potamogeton pulcher (Spotted Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton pulcher* (Tuckerman). Collected specimens mostly from central and eastern Massachusetts.

Boston District: Ponds, streams, and ditches; scattered stations from all parts of district except the northwest and south

Middlesex: Spot Pond, Stoneham; Ashland; Fresh Pond, Cambridge; Concord

Worcester: Lake Quinsigamond

Conservation status S4; range mostly in southern New England scattered northward with a coastal direction. iNaturalist data shows one observation in Hopkinton, Massachusetts. Suggestion: frequent in central and east

Potamogeton pusillus (Small Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton pusillus* (Linnaeus). There are 462 collected specimens that are widely distributed across Massachusetts.

Boston District: Ponds and streams; frequent but no records from extreme northern and southern portions

Middlesex: Common

Worcester: Common

Berkshire: Shallow water in ponds and streams; common

Conservation status S4; range scattered throughout New England but not present in New Hampshire and most of Maine. iNaturalist data shows one observation in Philipston, Massachusetts. Suggestion: widely distributed; common

Potamogeton richardsonii (Richardson's Pondweed)

Bigelow and Gray do not describe this species. It is not described in the floras. Collected specimens mostly from Berkshire County but scattered throughout.

Conservation status S3?; range mostly in northern New England and scattered in the south. iNaturalist data shows two observations in Berkshire County and three observations in the Boston region.

Suggestion: scattered; occasional

Potamogeton robbinsii (Robbins' Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton robbinsii* (Oakes). Collected specimens distributed throughout Massachusetts.

Boston District: Deep water of ponds and streams; reported from thirteen stations north and west of Boston

Middlesex: Medford, Concord, Fresh Pond

Worcester: Lake Quinsigamond

Berkshire: In shallow water of ponds and lakes, throughout the southern half of the county

Conservation status S5; range throughout New England, excluding southern Vermont and New Hampshire. iNaturalist data shows observations distributed throughout Massachusetts. Suggestion: widely distributed; frequent

Potamogeton spirillus (Northern Snail Seed Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton spirillus* (Tuckerman). Collected specimens distributed throughout Massachusetts.

Middlesex: Westford, Woburn, Winchester, Medford, Billerica

Worcester: Common

Conservation status S5; range throughout New England. iNaturalist data shows one observation in Wareham, Massachusetts. Suggestion: widely distributed; frequent

Potamogeton strictifolius (Straight Leaved Pondweed)

Bigelow and Gray do not describe this species. Collected specimens found only in Berkshire County.

Boston District: Mystic Pond

Berkshire: In quiet water of lakes; occasional

Conservation status S1; range in western New England and northern Maine. iNaturalist data shows no observations in Massachusetts. Suggestion: rare in the west

Potamogeton vaseyi (Vasey's Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton vaseyi* (Robbins).

Boston District: Mystic Pond; Spot Pond, Stoneham

Middlesex: Mystic Pond, Medford; Spot Pond, Stoneham

Worcester: Lake Quinsigamond

Berkshire: Lake Garfield, Monterey

Conservation status S1; range scattered but mostly in northern New England. iNaturalist data shows no observations in Massachusetts. Suggestion: rare

Potamogeton zosteriformis (Flat Stem Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton compressus* (Fries) and later uses *Potamogeton zosteraefolius* (Schumacher). Collected specimens found mostly in Berkshire County and eastern Massachusetts.

Boston District: Cambridge, Canton, Lynnfield, Natick, Newbury, Wenham

Middlesex: Cambridge, Natick

Berkshire: In lakes and in the Housatonic River throughout the southern part of the valley

Conservation status S5; range throughout New England, excluding some coastal regions. iNaturalist data shows no observations in Massachusetts. Suggestion: frequent in the west, occasional elsewhere

Stuckenia

One species of false pondweed is present.

Stuckenia pectinata (Sago False Pondweed)

Bigelow does not describe this species. Gray uses *Potamogeton pectinatus* (Linnaeus). Collected specimens mostly found in Berkshire County and Cape Cod region, scattered throughout Massachusetts.

Berkshire: Common throughout the southern part of the county, in shallow muddy ponds, and in the Housatonic River

Conservation status S4; range mostly in western New England scattered throughout. iNaturalist data shows four observations in eastern Massachusetts. Suggestion: scattered; frequent

Zannichellia

One species of horned pondweed is present.

Zannichellia palustris (Horned Pondweed)

Bigelow does not describe this species. Gray uses *Zannichellia palustris* (Linnaeus), found in ponds and slow streams but not common. Collected specimens found mostly in eastern Massachusetts.

Boston District: Ipswich; Mystic River; Mystic Pond, Medford; Squantum, Quincy; Revere; Salem

Middlesex: Very abundant in Mystic Pond and Mystic River

Conservation status S4; range mostly along the coast of New England. iNaturalist data shows four non-research grade observations in Massachusetts; two in Worcester County and the others in Cape Cod.

Suggestion: frequent in the east

Ruppiaceae – Ditch Grass Family

Ruppia

One species of ditch grass is present.

Ruppia maritima (Beaked Ditch Grass)

Bigelow uses *Ruppia maritima* (Linnaeus), found in South Boston, etc. Gray uses the same name.

Boston District: Shallow brackish and salt water along the coast

Middlesex: Common in brackish water

Conservation status S4S5; range along the coast of New England. iNaturalist data shows five observations along the coast of eastern Massachusetts. Suggestion: frequent in the east

Scheuchzeriaceae – Rannoch Rush Family

Scheuchzeria

One species of pod grass is present and it is rare.

Scheuchzeria palustris (Pod Grass)

Bigelow uses *Scheuchzeria palustris* (Linnaeus), found in Belchertown. Gray uses the same name.

Boston District: Bogs and ponds; rare

Middlesex: Ashby, Tewksbury

Worcester: Lake Quinsigamond

Berkshire: Sedgy borders of peat bogs; rare

Conservation status S1; range scattered throughout New England. iNaturalist data shows several observations south of the Blue Hills region and some north of Worcester, Massachusetts. Suggestion: rare

Zosteraceae – Eel Grass Family

Zostera

One species of eel grass is present.

Zostera marina (Eel Grass)

Bigelow uses *Zostera marina* (Linnaeus). Gray uses the same name.

Boston District: In shallow salt water, generally below low tide; common and abundant along the entire coast

Middlesex: Very common in salt water

Conservation status S5; range along the coast of New England. iNaturalist data shows populations along the coast of eastern Massachusetts. Suggestion: common in the east