

The Evaluation of Non-Native Plant Species for Invasiveness in Massachusetts (with annotated list)

Massachusetts Invasive Plant Advisory Group

Partnering Organizations

American Nursery and Landscape Association
Arnold Arboretum of Harvard University
Bigelow Nurseries Inc.
Brewster Conservation Administration
Cape Cod Commission, Barnstable County
C.W. Layton Consulting
NSTAR Electric
Ecological Landscaping Association
Gardens Are...
Invasive Plant Atlas of New England
Massachusetts Audubon Society
MA Department of Agricultural Resources
 Div. of Regulatory and Consumer Services
MA Department of Conservation & Recreation
 Div. of Water Supply Protection
MA Association of Professional Foresters
MA Division of Fisheries and Wildlife
 Natural Heritage and Endangered Species Program
Massachusetts Natural Heritage &
 Endangered Species Advisory Committee
Massachusetts Nursery and Landscape Association
New England Nursery Association
New England Wild Flower Society
Northeastern Weed Science Society
Silvio O. Conte National Fish & Wildlife Refuge
The Nature Conservancy
University of Massachusetts Extension Service
 Landscape, Nursery and Urban Forestry
 Weed Science
Vegetation Control Service
Weston Nurseries, Inc.
Wilkinson Ecological Design

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Office of Environmental
Affairs



Massachusetts Department
of Fish and Game,
Div. of Fisheries & Wildlife



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Purpose and organizing principles of the Massachusetts Invasive Plant Advisory Group (MIPAG)

Formerly known as the Massachusetts Invasive Plant Group, the Massachusetts Invasive Plant Advisory Group (MIPAG) was formed in 1999 by the Ad Hoc Native Plant Advisory Committee to begin addressing the invasive plant issue in Massachusetts. The Executive Office of Environmental Affairs recognized it as part of the Massachusetts Council on Invasive Species. This Council was intended to serve as a coordinating mechanism for the various invasive species management activities undertaken by state agencies, federal agencies, and private organizations.

The Massachusetts Invasive Plant Advisory Group is a voluntary collaboration between public and private organizations concerned about the problem of invasive plants in Massachusetts. Eighteen entities are represented including state and federal governmental agencies in fish and wildlife, agriculture, and natural resources; the horticulture industry; academic science institutions; land management and nonprofit conservation organizations. Its members affirm their commitment to working within their individual organizations to substantially address the impact of species determined by scientific criteria to be Invasive, Likely Invasive, or Potentially Invasive in the Commonwealth of Massachusetts.

The first order of business of the MIPAG has been to determine which plant species are invasive in Massachusetts. With the assistance of Dr. Leslie Mehrhoff of the University of Connecticut, the group adopted a definition and set of biologically based criteria upon which to objectively evaluate plants suspected to be invasive in the state. The group contracted with Dr. Mehrhoff to gather existing data about these species and help the group assess which are currently invasive and which have the potential to become problematic in Massachusetts.

Findings from plant evaluations of 85 species (conducted in two phases) include an annotated list of Invasive, Likely Invasive, and Potentially Invasive species. The annotated list, as well as information about the evaluation process, definitions and criteria, and group member composition, are contained within this document and can also be found online at www.mnla.com and www.newfs.org. Also included on the annotated list are species that were considered but for which sufficient information or evidence is currently lacking for an adequate evaluation.

The MIPAG makes all its important decisions at its scheduled meetings by voting. In certain instances, representatives of the same member organization voluntarily share a vote and alternate their attendance. Quorum for any meeting must be 2/3 of the voting membership (currently 12), and any decision must pass by a 2/3 majority of members present. The only exception is when a vote is taken at a meeting to determine the status of a species under assessment by MIPAG criteria for invasiveness in Massachusetts. In this case, all voting members have the right to vote, with those absent from the meeting having not more than two additional weeks after the initial vote to submit their votes to the MIPAG recorder. Only one vote per organization is allowed. Agreed by quorum on 6/12/2002, "a 2/3 majority will be calculated only using affirmative and negative votes cast. Abstentions will not be included."

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Massachusetts Criteria for Evaluating Non-Native Plant Species for Invasiveness

(THESE CRITERIA HAVE NO OFFICIAL STATUS FOR MASSACHUSETTS)

The Massachusetts Invasive Plant Advisory Group (MIPAG) defines invasive plants as “*non-native species that have spread into native or minimally managed plant systems in Massachusetts. These plants cause economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems.* As defined here, "species" includes all synonyms, subspecies, varieties, forms, and cultivars of that species unless proven otherwise by a process of scientific evaluation.

The following criteria are being used to objectively evaluate and categorize plant species suspected of being, or with the potential to become, invasive in Massachusetts. They were developed by the George Safford Torrey Herbarium at the University of Connecticut and a subcommittee of the Massachusetts Invasive Plant Group representing science, nursery, and conservation professionals.

The criteria enable the separation of plants into the following categories:

- *Invasive Plants in Massachusetts*
- *Likely Invasive Plants in Massachusetts*
- *Potentially Invasive Plants in Massachusetts (species not currently known to be naturalized in Massachusetts, but that can be expected to become invasive within minimally managed habitats within the Commonwealth)*

For a species to be included on the list of species determined to be **Invasive, Likely Invasive or Potentially Invasive** in Massachusetts, it must be substantiated by scientific investigation (including herbarium specimens, peer-reviewed papers, published records and other data available for public review) to meet specific criteria. The process of reviewing individual plant species for their invasiveness in Massachusetts is ongoing and may result in a change in status pending new data and further review.

Tabular summary of criteria to be met

	Criteria that must be met
Base criteria	1-4
Invasive	1-9
Likely Invasive	1-5, at least one of 6-9, at least one of 10-12
Potentially Invasive	1-4, (not 5), 13-15

For a species to be designated as “INVASIVE”, “LIKELY INVASIVE” or “POTENTIALLY INVASIVE” it must to meet certain base criteria (#1-4 below). The species must:

1. Be nonindigenous to Massachusetts.
2. Have the biologic potential for rapid and widespread dispersion and establishment in minimally managed habitats.
3. Have the biologic potential for dispersing over spatial gaps away from site of introduction.
4. Have the biologic potential for existing in high numbers away from intensively managed artificial habitats.

If a species does not meet all four of the previous criteria, stop here. The species cannot be listed at this time. If a species meets all four, go on to #5.

5. Be naturalized in Massachusetts (persists without cultivation in Massachusetts)

If a species meets Criteria 1-4 and Criterion 5, it may be considered “INVASIVE ” or “LIKELY INVASIVE” in Massachusetts. Go to Criteria 6-9.

If it does not meet Criterion 5, it may be considered “POTENTIALLY INVASIVE” if it meets Criteria 13-15.

6. Be widespread in Massachusetts, or at least common in a region or habitat type(s) in the state.
7. Have many occurrences of numerous individuals in Massachusetts that have high numbers of individuals forming dense stands in minimally managed habitats
8. Be able to out-compete other species in the same natural plant community.
9. Have the potential for rapid growth, high seed or propagule production and dissemination, and establishment in natural plant communities.

If a species meet the initial five Criteria and Criteria 6-9 it may be considered a “INVASIVE” species in Massachusetts.

If a species meets the initial five Criteria, but does not meet all of Criteria 6-9 at this time, it may be considered a “LIKELY INVASIVE” species in Massachusetts if in addition it meets at least one of the following three Criteria (#10-12).

10. Have at least one occurrence in Massachusetts that has high numbers of individuals forming dense stands in minimally managed habitats
11. Have the potential, based on its biology and its colonization history in the northeast or elsewhere, to become invasive in Massachusetts.
12. Be acknowledged to be invasive in nearby states but its status in Massachusetts is unknown or unclear. This may result from lack of field experience with the species or from difficulty in species determination or taxonomy.

If the species meets the basic criteria for invasiveness (Criteria 1-4) but is not naturalized in Massachusetts (Criterion 5), the species may be considered “POTENTIALLY INVASIVE” in Massachusetts if it meets the following three criteria (#13-15):

13. The species, if it becomes naturalized in Massachusetts, based on its biology and biological potential, would pose an imminent threat to the biodiversity of Massachusetts **and**
14. Its naturalization in Massachusetts is anticipated, **and**
15. The species has a documented history of invasiveness in other areas of the Northeast.

**DEFINITIONS TO ACCOMPANY
“CRITERIA FOR EVALUATING NON-NATIVE PLANT SPECIES FOR INVASIVENESS IN
MASSACHUSETTS”**

Biologic potential - The ability of a species to increase its number, either sexually and/or asexually.

Invasive plants – Non-native species that have spread into native or minimally managed plant systems in Massachusetts. These plants cause economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems. *As defined here, "species" includes all synonyms, subspecies, varieties, forms, and cultivars of that species unless proven otherwise by a process of scientific evaluation.*

Indigenous species - otherwise A species that occurs natively in Massachusetts. Indigenous species often have a pre-colonial presence (pre 1500) or have arrived in the region more recently without the aid of human intervention. Synonymous with native species.

Intensively managed habitats - Intensively managed habitats are habitats or land systems where management efforts and investments of time, money and labor occur frequently. Examples include manicured lawns, landscaped grounds, gardens, roadsides or agricultural lands for crops or livestock.

Likely Invasive plants – non-native species that are naturalized in Massachusetts but do not meet the full criteria that would trigger an "Invasive plant" designation.

Minimally managed habitats - Minimally managed habitats are habitats where management efforts and investments of time, money and labor are infrequent or non-existent. These habitats may have been intensively managed for anthropogenic reasons at one time in their history. In some instances, management may be more intense but management is done for conservation purposes and is primarily aimed at preserving elements of biological diversity such as imperiled species or critical natural communities. Minimally managed habitats are similar to "natural areas" but the distinction is made in order to remove bias, misconceptions or ambiguities that surround the term "natural area".

Non-indigenous species - A species that is not native or naturally occurring (based on its biology, phylogeny, distribution and current knowledge about the species) within Massachusetts. A species may be indigenous to North America but non-indigenous in Massachusetts. Synonymous with non-native species.

Naturalized species - A non-indigenous taxon that occurs without the aid and benefits of cultivation in Massachusetts. Further, it implies two biological points: it freely and regularly reproduces in the wild, sexually or asexually, and occurrences persist over time.

Natural plant community - A natural plant community is an association or assemblage of plant species that repeatedly occur together in reoccurring patterns in a specific type of habitat. This assemblage can be characterized by dominant species and biological properties. A natural plant community implies a minimally managed situation where all or most of the species that make up the assemblage are indigenous to the defined area.

Occurrence – Existing example of a species on the landscape.

Potentially invasive plants – Non-native species not currently known to be naturalized in Massachusetts, but that can be expected to become invasive within minimally managed habitats within the Commonwealth.

Spatial gaps - This term is used in reference to the ability of a species to disperse away from existing occurrences. The concept of crossing spatial gaps is used to distinguish those species that can disperse over discontinuities and become established elsewhere from species that spread across a habitat only by continual, uninterrupted growth.

Invasive, Likely Invasive, and Potentially Invasive Plants in Massachusetts: Findings from the Assessment Process by the Massachusetts Invasive Plant Advisory Group

Plants voted as: **INVASIVE**

"Invasive plants" are non-native species that have spread into native or minimally managed plant systems in Massachusetts. These plants cause economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems. As defined here, "species" includes all synonyms, subspecies, varieties, forms, and cultivars of that species unless proven otherwise by a process of scientific evaluation.

***Acer platanoides* L. (Norway maple)**

A tree occurring in all regions of the state in upland and wetland habitats, and especially common in woodlands with colluvial soils. It grows in full sun to full shade. Escapes from cultivation; can form dense stands; out-competes native vegetation, including sugar maple; dispersed by water, wind and vehicles.

***Acer pseudoplatanus* L. (Sycamore maple)**

A tree occurring mostly in southeastern counties of Massachusetts, primarily in woodlands and especially near the coast. It grows in full sun to partial shade. Escapes from cultivation inland as well as along the coast; salt-spray tolerant; dispersed by wind, water and vehicles.

***Aegopodium podagraria* L. (Bishop's goutweed; bishop's weed; goutweed)**

A perennial herb occurring in all regions of the state in uplands and wetlands. Grows in full sun to full shade. Escapes from cultivation; spreads aggressively by roots; forms dense colonies in flood plains.

***Ailanthus altissima* (P. Miller) Swingle (Tree of heaven)**

This tree occurs in all regions of the state in upland, wetland, & coastal habitats. Grows in full sun to full shade. Spreads aggressively from root suckers, especially in disturbed areas.

***Alliaria petiolata* (Bieb.) Cavara & Grande (Garlic mustard)**

Synonym: *Alliaria officinalis* Andr. Ex Bieb.

A biennial herb occurring in all regions of the state in uplands. Grows in full sun to full shade. Spreads aggressively by seed, especially in wooded areas.

***Berberis thunbergii* DC. (Japanese barberry)**

A shrub occurring in all regions of the state in open and wooded uplands and wetlands. Grows in full sun to full shade. Escaping from cultivation; spread by birds; forms dense stands.

***Cabomba caroliniana* A.Gray (Carolina fanwort; fanwort)**

A perennial herb occurring in all regions of the state in aquatic habitats. Common in the aquarium trade; chokes waterways.

***Celastrus orbiculatus* Thunb. (Oriental bittersweet; Asian or Asiatic bittersweet)**

A perennial vine occurring in all regions of the state in uplands. Grows in full sun to partial shade. Escaping from cultivation; berries spread by birds and humans; overwhelms and kills vegetation.

Plants voted as: **INVASIVE** (*continued*)

***Cynanchum louiseae* Kartesz & Gandhi (Black swallow-wort, Louise's swallow-wort)**

Synonyms: *Cynanchum nigrum* (L.) Pers. non Cav.; *Vincetoxicum nigrum* (L.) Moench

A perennial vine occurring in all regions of the state in upland, wetland, and coastal habitats. Grows in full sun to partial shade. Forms dense stands, out-competing native species: deadly to Monarch butterflies.

***Elaeagnus umbellata* Thunb. (Autumn olive)**

A shrub occurring in uplands in all regions of the state. Grows in full sun. Escaping from cultivation; berries spread by birds; aggressive in open areas; has the ability to change soil.

***Euonymus alatus* (Thunb.) Sieb. (Winged euonymus; Burning bush)**

A shrub occurring in all regions of the state and capable of germinating prolifically in many different habitats. It grows in full sun to full shade. Escaping from cultivation and can form dense thickets and dominate the understory; seeds are dispersed by birds.

***Euphorbia esula* L. (Leafy spurge; wolf's milk)**

A perennial herb occurring in all regions of the state in grasslands and coastal habitats. Grows in full sun. An aggressive herbaceous perennial and a notable problem in western USA.

***Frangula alnus* P. Mill. (European buckthorn; glossy buckthorn)**

Synonyms: *Rhamnus frangula* L.; *R. frangula* var. *angustifolia* Loud.

Shrub or tree occurring in all regions of the state in upland, wetland, and coastal habitats. Grows in full sun to full shade. Produces fruit throughout the growing season; grows in multiple habitats; forms thickets.

***Glaucium flavum* Crantz (Sea or horned poppy; yellow hornpoppy)**

A biennial and perennial herb occurring in southeastern MA in coastal habitats. Grows in full sun. Seeds float; spreads along rocky beaches; primarily Cape Cod and Islands.

***Hesperis matronalis* L. (Dame's rocket)**

A biennial and perennial herb occurring in all regions of the state in upland and wetland habitats. Grows in full sun to full shade. Spreads by seed; can form dense stands, particularly in flood plains.

***Iris pseudacorus* L. (Yellow iris)**

A perennial herb occurring in all regions of the state in wetland habitats, primarily in flood plains. Grows in full sun to partial shade. Out-competes native plant communities.

***Lepidium latifolium* L. (Broad-leaved pepperweed; tall pepperweed)**

A perennial herb occurring in eastern and southeastern regions of the state in coastal habitats. Grows in full sun. Primarily coastal at upper edge of wetlands; also found in disturbed areas; salt tolerant.

***Lonicera japonica* Thunb. (Japanese honeysuckle)**

A perennial vine occurring in all regions of the state in upland, wetland, and coastal habitats. Grows in full sun to full shade. Rapidly growing, dense stands climb and overwhelm native vegetation; produces many seeds that are bird dispersed; more common in southeastern Massachusetts.

***Lonicera morrowii* A.Gray (Morrow's honeysuckle)** A shrub occurring in all regions of the state in upland, wetland, and coastal habitats. Grows in full sun to full shade. Part of a confusing hybrid complex of nonnative honeysuckles commonly planted and escaping from cultivation via bird dispersal.

Plants voted as: **INVASIVE** (*continued*)

***Lonicera x bella* Zabel [*morrowii x tatarica*] (Bell's honeysuckle)**

This shrub occurs in all regions of the state in upland, wetland, and coastal habitats. Grows in full sun to full shade. Part of a confusing hybrid complex of nonnative honeysuckles commonly planted and escaping from cultivation via bird dispersal.

***Lysimachia nummularia* L. (Creeping jenny; moneywort)**

A perennial herb occurring in all regions of the state in upland and wetland habitats. Grows in full sun to full shade. Escaping from cultivation; problematic in flood plains, forests and wetlands; forms dense mats.

***Lythrum salicaria* L. (Purple loosestrife)**

A perennial herb or subshrub occurring in all regions of the state in upland and wetland habitats. Grows in full sun to partial shade. Escaping from cultivation; overtakes wetlands; high seed production and longevity.

***Myriophyllum heterophyllum* Michx. (Variable water-milfoil; Two-leaved water-milfoil)**

A perennial herb occurring in all regions of the state in aquatic habitats. Chokes waterways, spread by humans and possibly birds.

***Myriophyllum spicatum* L. (Eurasian or European water-milfoil; spike water-milfoil)**

A perennial herb found in all regions of the state in aquatic habitats. Chokes waterways, spread by humans and possibly birds.

***Phalaris arundinacea* L. (Reed canary-grass)**

This perennial grass occurs in all regions of the state in wetlands and open uplands. Grows in full sun to partial shade. Can form huge colonies and overwhelm wetlands; flourishes in disturbed areas; native and introduced strains; common in agricultural settings and in forage crops.

***Phragmites australis* (Cav.) Trin. ex Steud. subsp. australis (Common reed)**

A perennial grass (USDA lists as subshrub, shrub) found in all regions of the state. Grows in upland and wetland habitats in full sun to full shade. Overwhelms wetlands forming huge, dense stands; flourishes in disturbed areas; native and introduced strains.

***Polygonum cuspidatum* Sieb. & Zucc. (Japanese knotweed; Japanese or Mexican Bamboo)**

Synonym: *Fallopia japonica* (Houtt.) Dcne.; *Reynoutria japonica* Houtt.

A perennial herbaceous subshrub or shrub occurring in all regions of the state in upland, wetland, and coastal habitats. Grows in full sun to full shade, but hardier in full sun. Spreads vegetatively and by seed; forms dense thickets.

***Potamogeton crispus* L. (Crisped pondweed; curly pondweed)**

A perennial herb occurring in all regions of the state in aquatic habitats. Forms dense mats in the spring and persists vegetatively.

***Ranunculus ficaria* L. (Lesser celandine; fig buttercup)**

A perennial herb occurring on stream banks, and in lowland and uplands woods in all regions of the state. Grows in full sun to full shade. Propagates vegetatively and by seed; forms dense stands especially in riparian woodlands; an ephemeral that outcompetes native spring wildflowers.

***Rhamnus cathartica* L. (Common buckthorn)**

A shrub or tree occurring in all regions of the state in upland and wetland habitats. Grows in full sun to full shade. Produces fruit in fall; grows in multiple habitats; forms dense thickets.

Plants voted as: **INVASIVE** (*continued*)

***Robinia pseudoacacia* L. (Black locust)**

A tree that occurs in all regions of the state in upland habitats. Grows in full sun to full shade. While the species is native to central portions of Eastern North America, it is not indigenous to Massachusetts. It has been planted throughout the state since the 1700's and is now widely naturalized. It behaves as an invasive species in areas with sandy soils.

***Rosa multiflora* Thunb. (Multiflora rose)**

A perennial vine or shrub occurring in all regions of the state in upland, wetland and coastal habitats. Grows in full sun to full shade. Forms impenetrable thorny thickets that can overwhelm other vegetation; bird dispersed.

***Trapa natans* L. (Water-chestnut)**

An annual herb occurring in the western, central, and eastern regions of the state in aquatic habitats. Forms dense floating mats on water.

Plants votes as: **LIKELY INVASIVE**

"Likely Invasive plants" are non-native species that are naturalized in Massachusetts but do not meet the full criteria that would trigger an "Invasive plant" designation. As defined here, "species" includes all synonyms, subspecies, varieties, forms, and cultivars of that species unless proven otherwise by a process of scientific evaluation.

***Ampelopsis brevipedunculata* (Maxim.) Trautv. (Porcelain-berry; Amur peppervine)**

A woody vine found primarily in southeastern counties of Massachusetts but known from some western counties as well. Occurs in upland woodland edges and thickets and grows in full sun to partial shade. Escapes from cultivation and is bird dispersed.

***Anthriscus sylvestris* (L.) Hoffmann (Wild chervil)**

Synonym: *Chaerophyllum sylvestre* L.

A biennial or short-lived perennial herb with a few reported sites in minimally managed habitats scattered across the state. It occurs in old fields, wetlands, roadsides and proliferates in floodplain soils. Grows in full sun to partial shade. It has a very long taproot and is reported to be spreading in Vermont and Connecticut.

***Berberis vulgaris* L. (Common barberry; European barberry)**

A shrub occurring in all regions of the state, primarily in uplands. It grows in full sun to full shade. The potential of this plant to spread is high; once common but widely eradicated because it is an alternate host for wheat rust; it hybridizes with Japanese barberry.

***Cardamine impatiens* L. (Bushy rock-cress; narrowleaf bittercress)**

A winter annual or biennial herb found in western Massachusetts occurring in rich woods, rocky ledges, roadsides, and stream banks. It grows in full sun to full shade. Disperses seeds easily and is spreading rapidly in other parts of New England.

***Centaurea biebersteinii* DC. (Spotted knapweed)**

Synonym: *Centaurea maculosa* auct. non Lam.

A biennial or perennial herb occurring in all regions of the state in upland and coastal habitats. Grows in full sun. Aggressively grows in well-drained, disturbed soils; serious problem in western states where it out-competes native grassland species, literature reports are currently lacking for this in the northeast.

Plants voted as: **LIKELY INVASIVE** (*continued*)

Cynanchum rossicum (Kleopov) Borhidi (**European swallow-wort; pale swallow-wort**)

Synonym: *Vincetoxicum rossicum* (Kleopov) Barbarich

A perennial herb occurring in the western region of the state in upland habitats. Grows in full sun to partial shade. Forms dense stands; found primarily in the lower Connecticut River Valley.

Egeria densa Planchon (**Brazilian waterweed; Brazilian elodea**)

Synonyms: *Anacharis densa* (Planch.) Victorin; *Elodea densa* (Planch.) Caspary

A perennial herb occurring in the eastern and southeastern regions of the state in aquatic habitats. Common in the aquarium trade; chokes waterways; currently only found in a few MA ponds.

Epilobium hirsutum L. (**Hairy willow-herb; Codlins and cream**)

A perennial herb occurring in all regions of the state in wetlands. Grows in full sun. Seeds dispersed by wind and water; evidence currently lacking that this species out-competes other vegetation in minimally managed habitats.

Euphorbia cyparissias L. (**Cypress spurge**)

A perennial herb occurring in all regions of the state in upland habitats. Grows in full sun. Persists in open areas; evidence currently lacking that this species out-competes other vegetation in minimally managed habitats.

Festuca filiformis Pourret (**Hair fescue; fineleaf sheep fescue**)

A perennial grass occurring in all regions of the state, in grasslands and open woodlands. Grows in full sun to partial shade. Common in minimally managed grassland habitats; more data needed on its ability to outcompete native species.

Glyceria maxima (Hartman) Holmburg (**Tall mannagrass; reed mannagrass**)

A perennial grass currently known from one marsh in Essex County. Grows in full sun to partial shade. Spreads vegetatively and produces viable seeds; forms dense stands.

Heracleum mantegazzianum Sommier & Levier (**Giant hogweed**)

A perennial herb occurring in scattered sites across all regions of the state; thrives in multiple habitats. Grows in full sun to full shade. Escapes from cultivation; seeds can be dispersed by water; can cause severe skin reactions.

Humulus japonicus Sieb. & Zucc. (**Japanese hops**)

An annual herbaceous vine with current records in western MA, but historical records from all regions of the state. Grows in floodplain forests and riverbanks in full sun to partial shade. Escapes from cultivation; capable of prolific growth.

Hydrilla verticillata (L.f.) Royle (**Hydrilla; water-thyme; Florida elodea**)

A perennial aquatic herb occurring in the southeastern region of the state. Only found in one MA pond currently (2004); easily dispersed by birds and humans; chokes entire water bodies.

Ligustrum obtusifolium Sieb. & Zucc. (**Border privet**)

A shrub occurring in all regions of the state in woodlands and woodland edges. Grows in full sun to full shade. Widespread and shade tolerant, bird dispersed; more data needed on density and distribution; flowers are needed to identify species.

Lonicera tatarica L. (**Tatarian honeysuckle**)

A shrub found from Boston westward in thickets, woods, and edges of woods. Can grow in full sun to full shade. Commonly confused with other non-native honeysuckles; crosses with Morrow's honeysuckle (*L. morrowii*) to produce the invasive hybrid Belle's honeysuckle (*L. xbella*).

Plants voted as: **LIKELY INVASIVE** (*continued*)

Microstegium vimineum (Trin.) A. Camus (**Japanese stilt grass; Nepalese browntop**)

An annual grass occurring in the western region of the state in upland and wetland habitats. Grows in full sun to full shade. Forms dense stands; currently localized in the lower Connecticut River Valley; spreads in flood plains.

Miscanthus sacchariflorus (Maxim.) Franch. (**Plume grass; Amur silvergrass**)

This perennial grass is currently known to occur in central MA in wetland margins and roadsides. Grows in full sun. Spreads by rhizomes and develops dense stands along roadsides and adjacent native habitats.

Myosotis scorpioides L. (**Forget-me-not**)

A perennial herb occurring in all regions of the state in wetlands. Grows in full sun to full shade. Escaping from cultivation; prolific in open wooded streams, stream-banks and wet meadows; evidence about its persistence is needed.

Myriophyllum aquaticum (Vell.) Verdc. (**Parrot-feather; water-feather; Brazilian watermilfoil**)

Synonym: *Myriophyllum brasiliense* Camb.

A perennial herbaceous aquatic occurring in southeastern MA along a shallow pond edge. Grows in full sun to partial shade. Reproduces from fragments; commonly used in the water garden trade.

Najas minor All. (**Brittle water-nymph; lesser naiad**)

An annual herb occurring in the western region of the state in aquatic habitats. Chokes waterways; spread by humans and possibly birds; currently found only in Berkshire County (2002).

Nymphoides peltata (Gmel.) Kuntze (**Yellow floating heart**)

This aquatic perennial occurs in ponds in central MA. Grows in full sun to partial shade. Can create a dense floating mat on ponds and can reproduce from fragments.

Phellodendron amurense Rupr. (sensu lato) (**Amur cork-tree**)

Synonyms: *Phellodendron japonicum* Maxim.; *Phellodendron amurense* var. *japonicum* (Maxim.) Ohwi; *Phellodendron sachalinense* (F. Schmidt) Sarg.; *Phellodendron amurense* var. *sachalinense* F. Schmidt; *Phellodendron lavalleyi* Dode; *Phellodendron amurense* var. *lavalleyi* (Dode) Sprague

This tree occurs in uplands of eastern to central MA. Grows in full sun to full shade. A bird dispersed species that has escaped cultivation.

Pueraria montana (Lour.) Merrill (**Kudzu; Japanese arrowroot**)

Synonym: *Pueraria montana* var. *lobata* (Willd.) Maesen & S. Almeida

A perennial herbaceous vine found in southeastern MA. Occurs at Arnold Arboretum; uplands. Grows in full sun to partial shade. Present in MA and subject to control; marginally hardy in MA but has the potential to invade minimally-managed areas based on its performance elsewhere.

Ranunculus repens L. (**Creeping buttercup**)

A perennial herb occurring in all regions of the state in wetlands. Grows in full sun to full shade. Common around springs and wetlands; evidence currently lacking that this species out-competes other vegetation in minimally managed habitats.

Rorippa amphibia (L.) Bess. (**Water yellowcress; great yellowcress**)

Synonyms: *Nasturtium amphibium* (L.) Ait. f.; *Sisymbrium amphibium* L.

A perennial herb occurring in central MA. Grows in wetlands in full sun to partial shade. Common and increasing in central MA river drainages; a major threat to riparian habitats forming dense stands at some locations.

Plants voted as: **LIKELY INVASIVE** (*continued*)

***Rubus phoenicolasius* Maxim. (Wineberry; Japanese wineberry; wine raspberry)**

A shrub found in uplands of southern MA. Can grow in full sun to partial shade. Animal and human dispersed; forms thickets.

***Senecio jacobaea* L. (Tansy ragwort; stinking Willie)**

A biennial herb occurring in a few sites east of the Connecticut River; habitat is open uplands. Grows in sun or partial shade. This species is highly invasive in the Canadian Maritimes; may also spread from disturbed areas.

***Tussilago farfara* L. (Coltsfoot)**

A perennial herb occurring in all regions of the state in upland and wetland habitats. Grows in full sun to full shade. Particularly problematic in lime seeps and disturbed sites; evidence currently lacking that this species outcompetes other vegetation in minimally managed habitats.

Plants voted as: **POTENTIALLY INVASIVE**

"Potentially invasive plants" are non-native species not currently known to be naturalized in Massachusetts, but that can be expected to become invasive within minimally managed habitats within the Commonwealth. As defined here, "species" includes all synonyms, subspecies, varieties, forms, and cultivars of that species unless proven otherwise by a process of scientific evaluation.

***Arthraxon hispidus* (Thunb.) Makino (Hairy joint grass; jointhead; small carpetgrass)**

An annual grass historically known from Franklin County but not currently known from the state. Habitats elsewhere include roadsides, shores, ditches, and low woods and fields. Grows in full to partial shade. Is problematic in Connecticut and southward.

***Carex kobomugi* Ohwi (Japanese sedge; Asiatic sand sedge)**

A perennial sedge established mainly in sand dunes and growing in full sun. There is only one current New England location--in Rhode Island; it can spread rapidly in dune systems.

***Lonicera maackii* (Rupr.) Herder (Amur honeysuckle)**

A shrub having specimens and reports from a number of MA counties, but verification of naturalization at these locations is needed. The likely habitats are woods and woodland edges. Can grow in full sun or shade. Escapes from cultivation, but documentation needed regarding naturalized populations in MA; recognized as invasive in the Midwest and portions of the southeastern USA.

***Polygonum perfoliatum* L. (Mile-a-minute vine or weed; Asiatic tearthumb)**

Synonym: *Ampelygonum perfoliatum* (L.) Roberty & Vautier

This annual herbaceous vine is not currently known to exist in MA, but has been found in RI and CT. Habitats include streamside, fields, and road edges in full sun to partial shade. Highly aggressive; bird and human dispersed.

EVALUATED PLANTS NOT MEETING CRITERIA (Do not list at this time)

The following plants were evaluated for invasiveness by the Massachusetts Invasive Plant Advisory Group. They did not meet the necessary criteria to list them as Invasive, Likely Invasive or Potentially Invasive at the time of evaluation.

***Actinidia arguta* (Sieb. & Zucc.) Planchon ex Miq. (Hardy kiwi; tara vine)**

A woody vine that is dioecious (i.e., with male and female flowers on separate individuals). It grows in full sun to partial shade. Can form dense stands; evidence needed to evaluate its reproductive ability and potential to establish new populations away from cultivation.

***Akebia quinata* (Houtt.) Dcne. (Five-leaved Akebia; chocolate vine)**

A woody vine that grows in full sun to full shade. Can form dense stands; evidence needed to evaluate its reproductive ability and potential for establishment away from cultivation.

***Catalpa speciosa* (Warder) Warder ex Engelm. (Northern catalpa)**

A tree that grows in full sun to partial shade. Preliminary data suggest that this species could be invasive in floodplain forests; more data is needed on its ability to out compete native species.

***Cytisus scoparius* (L.) Link (Scotch broom; English broom)**

A shrub that grows in full sun to partial shade. Current evidence does not show that it is spreading rapidly from cultivation and out competing native species in Massachusetts.

***Elaeagnus angustifolia* L. (Russian olive)**

A small tree or shrub that grows in full sun to full shade. Not currently known from minimally managed habitats in Massachusetts; invasive elsewhere in the United States; commonly confused with autumn olive (*Elaeagnus umbellata*).

***Festuca ovina* L. (Sheep fescue)**

A perennial grass that grows in full sun. More data needed on its ability to outcompete native species in minimally managed habitats.

***Ligustrum ovalifolium* Hassk. (California privet)**

Shrub. Because of the difficulty in identifying privet species and the current lack of data, we have chosen not to rank most privets; further research is needed in identification and invasiveness.

***Ligustrum sinense* Lour. (Chinese privet)**

A shrub that can tolerate full sun or shade. Because of the difficulty in identifying privet species and the current lack of data, we have chosen not to rank most privets; further research is needed on identification and invasiveness.

***Ligustrum vulgare* L. (European privet)**

Shrub. Because of the difficulty in identifying privet species and the current lack of data, we have chosen not to rank most privets; further research is needed in identification and invasiveness.

***Lonicera xylosteum* L. (Dwarf honeysuckle)**

Shrub. Reports of naturalized occurrences need verification in MA.

***Miscanthus sinensis* Anderss. (Eulalia; Chinese silvergrass)**

A perennial grass that grows in full sun. More data needed for minimally managed habitats.

EVALUATED PLANTS NOT MEETING CRITERIA (*continued*)

***Morus alba* L. (White mulberry)**

A tree that grows in full sun to partial shade. Reports of naturalized occurrences and invasiveness need verification in MA.

***Polygonum sachalinense* F. Schmidt ex Maxim. (Giant knotweed)**

Synonyms: *Fallopia sachalinensis* (F. Schmidt ex Maxim.) Dcne.;

Reynoutria sachalinensis (F. Schmidt ex Maxim.) Nakai

A perennial herb that grows in full sun. Data needed on occurrences in minimally managed areas in MA; highly invasive in the maritime provinces of Canada.

***Populus alba* L. (White poplar)**

A tree that grows in full sun. Data needed on occurrences in minimally managed areas.

***Rorippa microphylla* (Boenn. ex Reichenb.) Hyland ex A. & D. Löve (Watercress; onerow yellowcress)**

Synonym: *Nasturtium microphyllum* Boenn. Ex Reichenb.

A perennial aquatic that grows in full sun to partial shade. There is difficulty in separating this species from *Rorippa nasturtium-aquaticum*; more data needed on its current status on the landscape and its impact on minimally managed habitats.

***Rorippa nasturtium-aquaticum* (L.) Hayek (Watercress)**

Synonym: *Nasturtium officinale* Ait. f.

A perennial aquatic that grows in full sun to partial shade. There is difficulty in separating this species from *Rorippa microphylla*; more data needed on its current status on the landscape and its impact on minimally managed habitats.

***Rosa rugosa* Thunb. (Japanese rose; rugosa rose)**

A shrub that grows in full sun. This is a widely planted urban & coastal plant; listing it as Invasive or Likely Invasive does not accurately reflect all the properties of this plant; there are no data at this time to suggest that this species is disruptive to native plant habitats in MA.

***Sedum telephium* L. ssp. telephium (Live-forever; orpine; witch's moneybags)**

A perennial herb that can grow in full sun to shade. More data needed on taxonomy, nomenclature, and occurrences in minimally managed areas.

***Verbascum thapsus* L. (Common mullein; flannel mullein; velvet plant)**

A biennial herb that grows in full sun. Although MIPAG does not feel this species meets the criteria for listing at this time, its occurrence in critical habitats (especially limestone cliff communities) is of concern; species has not been proven to have outcompeting qualities; more data needed on this species and the very similar *Verbascum phlomoides*, including taxonomy, persistence, and their impact on minimally managed habitats.

Species Reviewed (Phases I and II): Listed Alphabetically

Species	Common name	Category
<i>Aegopodium podagraria</i>	Bishop's goutweed; bishop's weed; goutweed	Invasive
<i>Acer platanoides</i>	Norway maple	Invasive
<i>Acer pseudoplatanus</i>	Sycamore maple	Invasive
<i>Actinidia arguta</i>	Hardy kiwi; tara vine	Do not list at this time
<i>Ailanthus altissima</i>	Tree of heaven	Invasive
<i>Akebia quinata</i>	Five-leaved Akebia; chocolate vine	Do not list at this time
<i>Alliaria petiolata</i>	Garlic mustard	Invasive
<i>Ampelopsis brevipedunculata</i>	Porcelain-berry; Amur peppervine	Likely invasive
<i>Ampelgynomum perfoliatum</i> – see <i>Polygonum perfoliatum</i>		
<i>Anacharis densa</i> – see <i>Egeria densa</i>		
<i>Anthriscus sylvestris</i>	Wild chervil	Likely invasive
<i>Arthraxon hispidus</i>	Hairy joint grass; jointhead; small carpet grass	Potentially Invasive
<i>Berberis thunbergii</i>	Japanese barberry	Invasive
<i>Berberis vulgaris</i>	Common barberry; European barberry	Likely Invasive
<i>Cabomba caroliniana</i>	Carolina fanwort; fanwort	Invasive
<i>Cardamine impatiens</i>	Bushy rock-cress; narrowleaf bittercress	Likely Invasive
<i>Carex kobomugi</i>	Japanese sedge; Asiatic sand sedge	Potentially Invasive
<i>Catalpa speciosa</i>	Northern catalpa	Do not list at this time
<i>Celastrus orbiculatus</i>	Oriental bittersweet; Asian or Asiatic bittersweet	Invasive
<i>Centaurea biebersteinii</i>	Spotted knapweed	Likely Invasive
<i>Centaurea maculosa</i> – see <i>Centaurea biebersteinii</i>		
<i>Chaerophyllum sylvestre</i> – see <i>Anthriscus sylvestris</i>		
<i>Cynanchum louiseae</i>	Black swallow-wort; Louis's swallow-wort	Invasive
<i>Cynanchum nigrum</i> – see <i>Cynanchum louiseae</i>		
<i>Cynanchum rossicum</i>	European swallow-wort; pale swallow-wort	Likely Invasive
<i>Cytisus scoparius</i>	Scotch broom; English broom	Do not list at this time
<i>Egeria densa</i>	Brazilian water weed	Likely Invasive
<i>Elaeagnus umbellata</i>	Autumn olive	Invasive
<i>Elaeagnus angustifolia</i>	Russian olive	Do not list at this time
<i>Elodea densa</i> – see <i>Egeria densa</i>		
<i>Epilobium hirsutum</i>	Hairy willow herb; Codlins and cream	Likely Invasive
<i>Euonymus alatus</i>	Winged euonymus; burning bush	Invasive
<i>Euphorbia cyparissias</i>	Cypress spurge	Likely Invasive
<i>Euphorbia esula</i>	Leafy spurge; wolf's milk	Invasive
<i>Fallopia japonica</i> - see <i>Polygonum cuspidatum</i>		
<i>Fallopia sachalinensis</i> - see <i>Polygonum sachalinense</i>		

<i>Festuca filiformis</i>	Hair fescue; fineleaf sheep fescue	Likely Invasive
<i>Festuca ovina</i>	Sheep fescue	Do not list at this time
<i>Frangula alnus</i>	European buckthorn; glossy buckthorn	Invasive
<i>Glaucium flavum</i>	Sea or horned poppy; yellow hornpoppy	Invasive
<i>Glyceria maxima</i>	Tall mannagrass; reed mannagrass	Likely Invasive
<i>Hesperis matronalis</i>	Dame's rocket	Invasive
<i>Heracleum mantegazzianum</i>	Giant hogweed	Likely Invasive
<i>Humulus japonicus</i>	Japanese hops	Likely Invasive
<i>Hydrilla verticillata</i>	Waterthyme	Likely Invasive
<i>Iris pseudacorus</i>	Yellow iris	Invasive
<i>Lepidium latifolium</i>	Broad-leaved pepperweed; tall pepperweed	Invasive
<i>Ligustrum obtusifolium</i>	Border privet	Likely Invasive
<i>Ligustrum ovalifolium</i>	California privet	Do not list at this time
<i>Ligustrum sinense</i>	Chinese privet	Do not list at this time
<i>Ligustrum vulgare</i> L.	European privet	Do not list at this time
<i>Lonicera japonica</i>	Japanese honeysuckle	Invasive
<i>Lonicera maackii</i>	Amur honeysuckle	Potentially Invasive.
<i>Lonicera morrowii</i>	Morrow's honeysuckle	Invasive
<i>Lonicera tatarica</i>	Tatarian honeysuckle	Likely invasive
<i>Lonicera xylostium</i>	Dwarf honeysuckle	Do not list at this time
<i>Lonicera x bella</i> [morrowii x tatarica]	Bell's honeysuckle	Invasive
<i>Lysimachia nummularia</i>	Creeping jenny; moneywort	Invasive
<i>Lythrum salicaria</i>	Purple loosestrife	Invasive
<i>Microstegium vimineum</i>	Japanese stilt grass; Nepalese browntop	Likely Invasive
<i>Miscanthus sacchariflorus</i>	Plume grass; Amur silvergrass	Likely Invasive
<i>Miscanthus sinensis</i>	Eulalia; Chinese silvergrass	Do not list at this time
<i>Morus alba</i>	White mulberry	Do not list at this time
<i>Myosotis scorpioides</i>	Forget-me-not	Likely Invasive
<i>Myriophyllum aquaticum</i>	Parrot feather; water-feather; Brazilian watermilfoil	Likely Invasive
<i>Myriophyllum brasiliense</i> - see <i>Myriophyllum aquaticum</i>		
<i>Myriophyllum heterophyllum</i>	Variable water-milfoil; two-leaved water-milfoil;	Invasive
<i>Myriophyllum spicatum</i>	Eurasian or European water-milfoil; spike water-milfoil	Invasive
<i>Najas minor</i>	Brittle water-nymph; lesser naiad	Likely Invasive
<i>Nasturtium amphibium</i> - see <i>Rorippa amphibia</i>		
<i>Nasturtium microphyllum</i> - see <i>Rorippa microphylla</i>		
<i>Nasturtium officinale</i> - see <i>Rorippa nasturtium-aquaticum</i>		
<i>Nymphoides peltata</i>	Yellow floating heart	Likely Invasive
<i>Phalaris arundinacea</i>	Reed canary-grass	Invasive
<i>Phellodendron amurense</i>	Amur cork-tree	Likely Invasive
<i>Phellodendron amurense</i> var. <i>japonicum</i> - see <i>Phellodendron amurense</i>		

<i>Phellodendron amurense</i> var. <i>lavallei</i>		
- see <i>Phellodendron amurense</i>		
<i>Phellodendron amurense</i> var. <i>sachalinense</i> - see <i>Phellodendron amurense</i>		
<i>Phellodendron lavallei</i> - see <i>Phellodendron amurense</i>		
<i>Phellodendron sachalinense</i> - see <i>Phellodendron amurense</i>		
<i>Phragmites australis</i>	Common reed	Invasive
<i>Polygonum cuspidatum</i>	Japanese knotweed; Japanese bamboo	Invasive
<i>Polygonum perfoliatum</i>	Mile-a-minute vine or weed; Asiatic tearthumb	Potentially Invasive
<i>Polygonum sachalinense</i>	Giant knotweed	Do not list at this time
<i>Populus alba</i>	White poplar	Do not list at this time
<i>Potamogeton crispus</i>	Crisped pondweed; curly pondweed	Invasive
<i>Pueraria montana</i>	Kudzu; Japanese arrowroot	Likely Invasive
<i>Pueraria montana</i> var. <i>lobata</i> – see <i>Pueraria montana</i>		
<i>Ranunculus ficaria</i>	Lesser celandine; fig buttercup	Invasive
<i>Ranunculus repens</i>	Creeping buttercup	Likely Invasive
<i>Reynoutria sachalinensis</i> – see <i>Polygonum sachalinense</i>		
<i>Reynoutria japonica</i> – see <i>Polygonum cuspidatum</i>		
<i>Rhamnus cathartica</i>	Common buckthorn	Invasive
<i>Rhamnus frangula</i> – see <i>Frangula alnus</i>		
<i>Robinia pseudoacacia</i>	Black locust	Invasive
<i>Rorippa amphibia</i>	Water yellowcress; great yellowcress	Invasive
<i>Rorippa microphylla</i>	Watercress; onerow yellowcress	Do not list at this time
<i>Rorippa nasturtium-aquaticum</i>	Watercress	Likely Invasive
<i>Rosa multiflora</i>	Multiflora rose	
<i>Rosa rugosa</i>	Japanese rose; rugosa rose	Do not list at this time
<i>Rubus phoenicolasius</i>	Wineberry; Japanese wineberry; wine raspberry	Likely Invasive
<i>Sedum telephium</i> ssp. <i>telephium</i>	Live-forever; orpine; witch's moneybags	Do not list at this time
<i>Senecio jacobaea</i>	Tansy ragwort; stinking Willie	Likely Invasive
<i>Sisymbrium amphibium</i> - see <i>Rorippa amphibia</i>		
<i>Trapa natans</i>	Water-chestnut	Invasive
<i>Tussilago farfara</i>	Coltsfoot	Likely Invasive
<i>Verbascum thapsus</i>	Common mullein; flannel mullein; velvet plant	Do not list at this time
<i>Vincetoxicum nigrum</i> – see <i>Cynanchum nigrum</i>		
<i>Vincetoxicum rossicum</i> – see <i>Cynanchum rossicum</i>		

Species Reviewed (Phases I and II): Listed by Category

Species	Common name	Category
<i>Acer platanoides</i>	Norway maple	Invasive
<i>Acer pseudoplatanus</i>	Sycamore maple	Invasive
<i>Aegopodium podagraria</i>	Bishop's goutweed, bishop's weed;	Invasive
<i>Ailanthus altissima</i>	Tree of heaven	Invasive
<i>Alliaria petiolata</i>	Garlic mustard	Invasive
<i>Berberis thunbergii</i>	Japanese barberry	Invasive
<i>Cabomba caroliniana</i>	Carolina fanwort; fanwort	Invasive
<i>Celastrus orbiculatus</i>	Asian or Asiatic bittersweet;	Invasive
<i>Cynanchum louiseae</i>	Black swallow-wort; Louise's	Invasive
<i>Elaeagnus umbellata</i>	Autumn olive	Invasive
<i>Euonymus alatus</i>	Winged euonymus, burning bush	Invasive
<i>Euphorbia esula</i>	Leafy spurge; wolf's milk	Invasive
<i>Frangula alnus</i>	European buckthorn, glossy buckthorn	Invasive
<i>Glaucium flavum</i>	Sea or horned poppy, yellow hornpoppy	Invasive
<i>Hesperis matronalis</i>	Dame's rocket	Invasive
<i>Iris pseudacorus</i>	Yellow iris	Invasive
<i>Lepidium latifolium</i>	Broad-leaved pepperweed, tall pepperweed	Invasive
<i>Lonicera japonica</i>	Japanese honeysuckle	Invasive
<i>Lonicera morrowii</i>	Morrow's honeysuckle	Invasive
<i>Lonicera x bella [morrowii x tatarica]</i>	Bell's honeysuckle	Invasive
<i>Lysimachia nummularia</i>	Creeping jenny, moneywort	Invasive
<i>Lythrum salicaria</i>	Purple loosestrife	Invasive
<i>Myriophyllum heterophyllum</i>	Two-leaved water-milfoil; variable water-	Invasive
<i>Myriophyllum spicatum</i>	Eurasian or European water-milfoil;	Invasive
<i>Phalaris arundinacea</i>	Reed canary-grass	Invasive
<i>Phragmites australis</i>	Common reed	Invasive
<i>Polygonum cuspidatum</i>	Japanese knotweed; Japanese bamboo	Invasive
<i>Potamogeton crispus</i>	Crisped pondweed, curly pondweed	Invasive
<i>Ranunculus ficaria</i>	Lesser celandine; fig buttercup	Invasive
<i>Rhamnus cathartica</i>	Common buckthorn	Invasive
<i>Robinia pseudoacacia</i>	Black locust	Invasive
<i>Rosa multiflora</i>	Multiflora rose	Invasive
<i>Trapa natans</i>	Water-chestnut	Invasive
<i>Ampelopsis brevipedunculata</i>	Porcelain-berry; Amur peppervine	Likely invasive
<i>Anthriscus sylvestris</i>	Wild chervil	Likely invasive
<i>Berberis vulgaris</i>	Common barberry; European barberry	Likely Invasive
<i>Cardamine impatiens</i>	Bushy rock-cress; narrowleaf bittercress	Likely Invasive
<i>Centaurea biebersteinii</i>	Spotted knapweed	Likely Invasive
<i>Cynanchum rossicum</i>	European swallow-wort, pale swallow-wort	Likely Invasive
<i>Egeria densa</i>	Brazilian water weed	Likely Invasive
<i>Epilobium hirsutum</i>	Codlins and cream, hairy willow herb	Likely Invasive
<i>Euphorbia cyparissias</i>	Cypress spurge	Likely Invasive
<i>Festuca filiformis</i>	Hair fescue; fineleaf sheep fescue	Likely Invasive
<i>Glyceria maxima</i>	Tall mannagrass; reed mannagrass	Likely Invasive
<i>Heraclium mantegazzianum</i>	Giant hogweed	Likely Invasive
<i>Humulus japonicus</i>	Japanese hops	Likely Invasive

<i>Hydrilla verticillata</i>	Waterthyme	Likely Invasive
<i>Ligustrum obtusifolium</i>	Border privet	Likely Invasive
<i>Lonicera tatarica</i>	Tatarian honeysuckle	Likely invasive
<i>Microstegium vimineum</i>	Japanese stilt grass, Napalese browntop	Likely Invasive
<i>Miscanthus sacchariflorus</i>	Plume grass; Amur silvergrass	Likely Invasive
<i>Myosotis scorpioides</i>	Forget-me-not	Likely Invasive
<i>Myriophyllum aquaticum</i>	Parrot feather; water-feather; Brazilian	Likely Invasive
<i>Najas minor</i>	Brittle water-nymph, lesser naiad	Likely Invasive
<i>Nymphoides peltata</i>	Yellow floating heart	Likely Invasive
<i>Phellodendron amurense</i>	Amur cork-tree	Likely Invasive
<i>Pueraria montana</i>	Kudzu	Likely Invasive
<i>Ranunculus repens</i>	Creeping buttercup	Likely Invasive
<i>Rorippa amphibia</i>	Water yellowcress; great yellowcress	Likely Invasive
<i>Rorippa nasturtium-aquaticum</i>	Watercress	Likely Invasive
<i>Rubus phoenicolasius</i>	Wineberry; Japanese wineberry;	Likely Invasive
<i>Senecio jacobaea</i>	Tansy ragwort; stinking Willie	Likely Invasive
<i>Tussilago farfara</i>	Coltsfoot	Likely Invasive
<i>Arthraxon hispidus</i>	Hairy joint grass; jointhead; small	Potentially Invasive
<i>Carex kobomugi</i>	Japanese sedge, Asiatic sand sedge	Potentially Invasive
<i>Lonicera maackii</i>	Amur honeysuckle	Potentially Invasive.
<i>Polygonum perfoliatum</i>	Mile-a-minute vine or weed; Asiatic	Potentially Invasive
<i>Actinidia arguta</i>	Hardy kiwi; tara vine	Do not list at this time
<i>Akebia quinata</i>	Five-leaved Akebia; chocolate vine	Do not list at this time
<i>Catalpa speciosa</i>	Northern catalpa	Do not list at this time
<i>Cytisus scoparius</i>	Scotch broom; English broom	Do not list at this time
<i>Elaeagnus angustifolia</i>	Russian olive	Do not list at this time
<i>Festuca ovina</i>	Sheep fescue	Do not list at this time
<i>Ligustrum ovalifolium</i>	California privet	Do not list at this time
<i>Ligustrum sinense</i>	Chinese privet	Do not list at this time
<i>Ligustrum vulgare L.</i>	European privet	Do not list at this time
<i>Lonicera xylosteum</i>	Dwarf honeysuckle	Do not list at this time
<i>Miscanthus sinensis</i>	Eulalia; Chinese silvergrass	Do not list at this time
<i>Morus alba</i>	White mulberry	Do not list at this time
<i>Polygonum sachalinense</i>	Giant knotweed	Do not list at this time
<i>Populus alba</i>	White poplar	Do not list at this time
<i>Rorippa microphylla</i>	Watercress; onerow yellowcress	Do not list at this time
<i>Rorippa nasturtium-aquaticum</i>	Watercress	Do not list at this time
<i>Rosa rugosa</i>	Japanese rose; rugosa rose	Do not list at this time
<i>Sedum telephium ssp. telephium</i>	Live-forever; orpine; witch's moneybags	Do not list at this time
<i>Verbascum thapsus</i>	Common mullein; flannel mullein;	Do not list at this time

