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
Brewster Conservation Administration
NSTAR Electric
Ecological Landscaping Association
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 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

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

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

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Coordination provided by:

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Table of Contents

Purpose and organizing principles of the Massachusetts Invasive Plant Advisory Group ….2

MIPAG Member Representatives and Alternates ……. 3

Criteria for Evaluating Non-Native Plant Species for Invasiveness ……5

Definitions …….. 7

Annotated Species List for Massachusetts

Invasive plants ……..... 8
Likely Invasive plants ……..……. 11
Potentially Invasive plants ……..…….. 14
Evaluated plants not meeting criteria …….. 15

Species Reviewed Listed Alphabetically (Phases I and II): …… 17

Species Reviewed Listed by Category (Phases I and II): ...……...…… 19

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 <u>not</u> 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* Andrz. Ex Bieb.
A biennial herb occuring 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 occuring 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 occuring 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 occuring 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.* x*bella).*

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

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

Phalaris arundinacea	Reed canary-grass	Invasive
Phellodendron amurense	Amur cork-tree	Likely Invasive
Phellodendron amurense var. japonicum - see Phellodendron amurense		
Phellodendron amurense var. lavallei - *see Phellodendron amurense*		
Phellodendron amurense var. sachalinense - see Phellodendron amurense		
Phellodendron lavallei - see Phellodendron amurense		
Phellodendron sachalinense - see Phellodendron amurense		
Phragmites australis	Common reed	Invasive
Polygonum cuspidatum	Japanese knotweed; Japanese or Mexican bamboo	Invasive
Polygonum perfoliatum	Mile-a-minute vine or weed; Asiatic tearthumb	Potentially Invasive
Polygonum sachalinense	Giant knotweed	Do not list at this time
Populus alba	White poplar	Do not list at this time
Potamogeton crispus	Crisped pondweed; curly pondweed	Invasive
Pueraria montana	Kudzu; Japanese arrowroot	Likely Invasive
Pueraria montana var. lobata – see Pueraria montana		
Ranunculus ficaria	Lesser celandine; fig buttercup	Invasive
Ranunculus repens	Creeping buttercup	Likely Invasive
Reynoutria sachalinensis – see Polygonum sachalinense		
Reynoutria japonica – see Polygonum cuspidatum		
Rhamnus cathartica	Common buckthorn	Invasive
Rhamnus frangula – see Frangula alnus		
Robinia pseudoacacia	Black locust	Invasive
Rorippa amphibia	Water yellowcress; great yellowcress	Invasive
Rorippa microphylla	Watercress; onerow yellowcress	Do not list at this time
Rorippa nasturtium-aquaticum	Watercress	Do not list at this time
Rosa multiflora	Multiflora rose	Invasive
Rosa rugosa	Japanese rose; rugosa rose	Do not list at this time
Rubus phoenicolasius	Wineberry; Japanese wineberry; wine raspberry	Likely Invasive
Sedum telephium ssp. telephium	Live-forever; orpine; witch's moneybags	Do not list at this time
Senecio jacobaea	Tansy ragwort; stinking Willie	Likely Invasive
Sisymbrium amphibium - see Rorripa amphibia		

Trapa natans	Water-chestnut	Invasive
Tussilago farfara	Coltsfoot	Likely Invasive
Verbascum thapsus	Common mullein; flannel mullein;	Do not list at this time
	velvet plant	
Vincetoxicum nigrum – see Cynanchum nigrum		
Vincetoxicum rossicum – Cynanchum rossicum		

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

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

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