Massachusetts Invasive Plant Advisory Group

January 5, 2026

Taryn LaScola-Miner
Director, Crop & Pest Services
MA Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Dear Taryn,

The Massachusetts Invasive Plant Advisory Group (MIPAG) is writing to request that the Massachusetts Department of Agricultural Resources add the species listed below to its regulated invasive plant list. As you know the first 66 species reviewed by MIPAG in 2002-2004 were listed as regulated in 2006 under new rules established in 2005 to ban or phase out the importation, propagation, and sale in the Commonwealth of more than 140 plants identified as either noxious and/or invasive in the Commonwealth. In December 2025 MIPAG evaluated and determined the following species to be invasive:

Invasive

Aralia elata (Miq.) Seem. (Japanese angelica tree)

A conspicuous single- or multi-stemmed spiny tree to 20 to 40 ft with large pinnate leaves and massive many-flowered inflorescences. It can grow in a range of soil types, but prefers moist, well-drained soil and sun to partial shade. It produces small purple to black berries and also suckers from its base and spreads.

Likely Invasive

Symplocos paniculata (Thunb.) Miq. (sapphire berry, Asiatic sweetleaf)

A perennial deciduous shrub or small tree to 10 ft with inconspicuous white flowers, leaves with deeply ridged veins, and many conspicuous shiny pea-sized blue berries. It can grow in a variety of conditions and can become dominant in the understory of undisturbed forests.

Phase Out Period

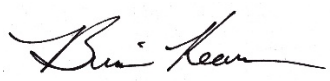
MIPAG would also like to recommend that MDAR consider a phase out period for any plants that are in the horticultural trade. In 2006, all species assessed as invasive, potentially invasive, and likely invasive

were added to the prohibited plant list. In the original listing of species, the phase out period was three years for trees, two years for shrubs and one year for herbaceous plants.

More information on the process and designations can be found on our website: *www.massnrc.org/**mipag**/*.

If you would like to discuss this further, please contact me at brian.keevan@mass.gov

Sincerely,



Brian Keevan
MIPAG Chair

cc: Karen Lombard

Species Information

***Symplocos paniculata* (Thunb.) Miq. (sapphire berry, Asiatic sweetleaf)**

Syn. none

TAXONOMY

Family: Symplocaceae

Summary*:*

Symplocos paniculata (Thunb.) Miq. (Symplocaceae), sapphire berry, is a shrub or small tree with alternate elliptic or obovate serrulate leaves to 10 cm that are abaxially pubescent, with inconspicuous white flowers and 1-cm blue berries.

Almeda & Fritsch (2009) describe it in detail as "**Shrubs or trees,** deciduous, 1-10 m. **Bark** gray on ridges and dark in fissures. **Branches** spreading; branchlets gray or brown, often purplish. **Winter buds** 0.5-3 mm; scales orbiculate, proximally glabrous, distally sericeous. **Leaves:** petiole 3-9 mm; blade ovate to obovate, usually slightly rhombic, 3.8-8.9 × 1.9-5.2 cm, membranous to chartaceous, base broadly cuneate to rounded or subcordate, margins closely serrate, serrulate, or dentate, surfaces abaxially light green, glabrous or pubescent, adaxially dark green, glabrous or pubescent, midvein impressed adaxially. **Inflorescences** usually internodal panicles, usually from branchlets of current year, sometimes from leaf axils of previous year, 4-20-flowered, often reduced proximally along branchlet to 2-5-flowered inflorescences or solitary flowers. **Flowers** not enclosed in bud by scales, appearing with leaves; corolla white [yellow], lobes 2.5-5 mm; anthers yellow; ovary incompletely 2-locular; ovules 4 per carpel; disc glabrous or hairy; style 2-4 mm. **Drupes** bright blue to bluish black, ovoid or globose, 3-8 mm, glabrous or hairy. **Seeds** reniform. **2*n*** = 22."

Sapphire berry, an inconspicuous member of the forest understory when not in fruit, is likely under-collected and may have been present in the eastern Massachusetts flora for many years (Standley 2022). Although collections of this species are few and mostly recent (post-1990), where collected it appears to have been long-established and forms large populations in relative undisturbed forest. Although it appears to readily spread from cultivation and can become dominant in the understory of undisturbed forests, *Symplocos* is not listed as an invasive (Swearingen and Bargeron 2016).

Native Region or Range:

Symplocos paniculata is native to Asia from the Himalayas to southwest Japan (Almeda and Fritsch 2009)

Figure 1. Natural distribution of *Symplocos paniculata* (World Floras Online)

HISTORY

Symplocos paniculata was introduced to the horticultural trade in North American in 1875 (Del Tredici 2017). The earliest record of *S. paniculata* in cultivation at the Arnold Arboretum was in 1880, from Japan (Arnold Arboretum 2020); however, the Arnold Arboretum acquired seed in 1881 from a plant in cultivation at the Harvard Botanical Garden in Cambridge, Massachusetts, indicating it was grown in Massachusetts prior to 1880. It was not collected outside of cultivation until 1973, in Topsfield, Massachusetts (*Gilmore 135* [AA]), and had not been collected in Massachusetts outside of this locality and the Arnold Arboretum until 2020.

BIOLOGY

Life Form – deciduous shrub or small tree

Naturalized – *Symplocos paniculata* has become naturalized in numerous locations in Massachusetts and elsewhere. Where it occurs, it forms extensive stands. The population in Fairfield County CT was reported to consist of "scores of individuals of various sizes." Standley collected in three locations in Massachusetts in 2020, in Middlesex (Natick) and

Norfolk (Needham, Sharon) Counties. An extensive population was found in 2024 in Sherborn MA (Norfolk County). In Natick, sapphire berry occurs throughout a large area of the Town Forest. It is also naturalized in Wales, MA (Hampden County). In all locations this species formed extensive populations along trails and in undisturbed forest.

Dispersal – Apparently bird-dispersed, by conspicuous shiny blue berries.

Massachusetts habitats – Minimally managed forests.

Biological potential – This species can form dense, monotypic understory stands in minimally managed upland forests. Little information is available on dispersal or establishment.

REPORTED INVASIVENESS

Symplocos paniculata is not listed as Invasive on any official state lists (EDDMapS 2025). Indeed, numerous websites recommend *Symplocos* as a desirable horticultural shrub, particularly for bird gardens and at the interface of landscaped areas and natural areas (Missouri Botanical Garden 2025).

The Connecticut Invasive Plant Working Group (2025) includes it on its Research List, species for which additional information is required. The Town of Natick MA (2025) defines it as invasive, and it is featured in the guide to Invasive Plants of South Mountain Reservation (New Jersey) (iNaturalist 2025a). Although not regulated in New York, it is listed assigned an Ecological Invasiveness Rank of "High", and is ranked T3 (highly invasive with medium abundance, management goal of containment) in the Lower Hudson and Long Island Sound areas (New York Natural Heritage Program 2025).

DISTRIBUTION

Published maps are inconsistent as to the distribution of *Symplocos paniculata* in eastern North America. BONAP shows the widest distribution, with plants recorded from Massachusetts to Ohio, south to Delaware. In New England, it appears to be present in Massachusetts and Connecticut, although EddMapS shows it from Windham County CT, while GoBotany reports it from Fairfield County. Outside of Massachusetts, it has been documented in single localities in New Hampshire (Cheshire County, *Bowman s.n*. [NHA]) and Tolland and Fairfield counties, Connecticut (*Mehrhoff 23512* [CONN], *Glenn 3174* [CONN]), although not listed by Drejer (2014). The population in Fairfield County was reported to consist of "scores of individuals of various sizes." It is reported from New York (Werier 2017) and a single locality in Ohio (Vincent et al. 2011). (From Standley 2022).

EddMapS shows Symplocos only in Worcester County, MA, while GoBotany indicates it is present only in Middlesex. Recent investigations using herbarium specimens and iNaturalist "research grade" specimens, however, clarify these discrepancies and indicate a much wider distribution within the state.

Massachusetts Counties

BE	FR	HS	HD	WO	MI	ES	SU	NO	BR	PL	BA	DU	NA
		X	X		X	X	X				X		

The distribution of **Symplocos** in Massachusetts is not well documented.

I have seen plants, and herbarium specimens, from Middlesex and Norfolk Counties. Sorrie and Somers (1999) did not report *Symplocos* from Massachusetts, and by 2011 Cullina et. al. list it in only one county (Suffolk). It is now reported widely across eastern Massachusetts, from Essex to Barnstable counties, and sporadically from the central part of the state. Herbarium records are few, but document that *Symplocos* was present in Essex County as early as 1937.

Standley collected in three locations in Massachusetts in 2020, in Middlesex (Natick) and Norfolk (Needham, Sharon) Counties. An extensive population was found in 2024 in Sherborn MA (Norfolk County), and a population exists in Wales (Hampden County). EDDMaps shows from Worcester County only, although Bertin & Rawinski (2012) did not document it there. GoBotany (2025) shows it only from Middlesex. iNaturalist (2025) currently includes 48 "research grade" records from 7 counties (Barnstable, Essex, Hampden, Hampshire, Middlesex, Norfolk, Suffolk) and 19 municipalities. Records are primarily from Middlesex and Norfolk Counties, but *Symplocos* is clearly established throughout eastern MA and in at least a few localities in the Connecticut River drainage.

Herbarium records (CNH 2025): USA: Massachusetts. Essex Co., Topsfield, Ipswich River Wildlife Sanctuary, 6/6/1937, *Gilmore 135*. Middlesex Co., Natick, Natick Town Forest, 6/24/2020, *Standley sn*. Norfolk Co., Needham, Ridge Hill Reservation, 8/19/2020, *Standley sn.* Sharon, Moose Hill Wildlife Sanctuary, 9.11.2020, *Standley sn*. Suffolk Co, Arnold Arboretum, 9/10/2008, *Mehrhoff 23380*; 5/22/2009, *Mehrhoff 23511*; Allandale Woods, 6/3/2010, *Kadis 2000*.

SPREAD & IMPACTS

Symplocos paniculata appears to have spread from cultivation in numerous locations in the Northeastern US. Well-established large populations are present in Massachusetts, Connecticut, New York, New Jersey, Pennsylvania and Ohio. However, each available mapping source presents a different picture of the distribution of this species. The following figures show several sources: of these, the BONAP map appears to be the most accurate, based on current data.

Other than reports of invasiveness in specific locations (South Mountain Reservation NJ, Natick Town Forest MA) there are no published analyses of impacts on forest communities. Personal observation at two locations (Natick Town Forest, Mill Farm Reservation Sherborn) and observations by Dan Wilder (pers. comm) show that sapphire berry can become a dominant understory shrub. Where it is present in high densities, typical native understory shrubs (*Viburnum acerifolium, Gaylussacia baccata,* etc.) appear to be excluded.

In Hampden County, it is present at the Norcross Wildlife Foundation, where efforts are being made to control it. Sapphire berry was discovered at the Norcross Wildlife Foundation sometime in the 1990's in an upland area. It was not purposely introduced and the assumption was that it came to the area via a passing bird. It quickly colonized the area but was kept from spreading by regular mowing events. At some point it spread into the understory of a nearby red maple swamp. It is hard to determine how quickly it spread through the swamp as it was overlooked until shrubs began producing berries, at that point an effort was made to remove the shrubs and Norcross staff realized that it had spread substantially. Significant effort was put into removing the shrubs with a follow up effort targeting seedlings the following season. The plants in the understory have responded well to management however the plants in the open areas have resisted management. Repeated cutbacks proved unsucessful. In 2024 plants were cut and painted with herbicide which has resulted in an ~85% mortality however follow up work is still needed (Dan Wilder, Norcross Wildlife Sanctuary).

In the Natick Town Forest (Middlesex County), *Symplocos* is present throughout the eastern half of the property, in undisturbed white pine and pine-oak forest. In 2021, the town used a professional ecological management firm to treat *Symplocus* and the co-occurring *Frangula alnus* with herbicide (foliar application). The program was only partially successful, and some regeneration of *Symplocos* has occurred throughout the treated area.

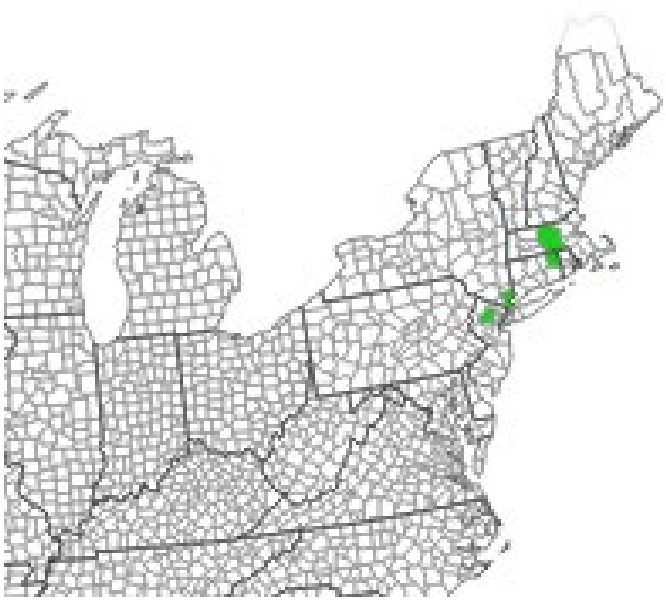


Figure 2. Distribution of introduced *Symplocos paniculata* (Source: EDDMapS).

Figure 3. Distribution of introduced *Symplocos paniculata* (USDA Plants)

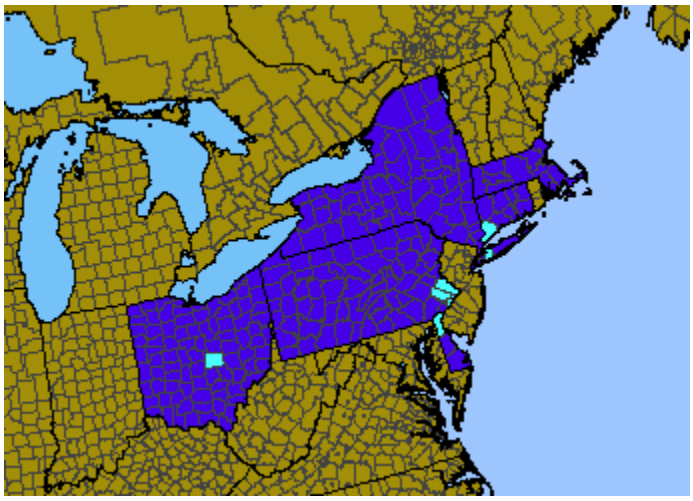


Figure 4. Distribution of introduced *Symplocos paniculata* (BONAP)

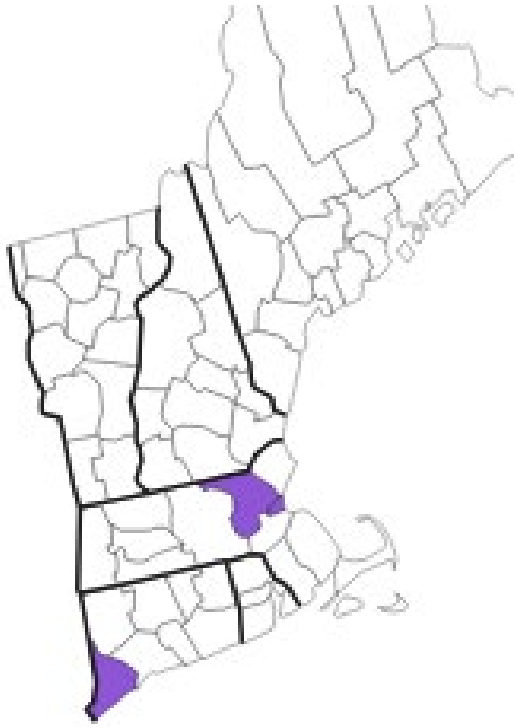


Figure 5. Distribution of introduced *Symplocos paniculata* in New England (Go Botany)

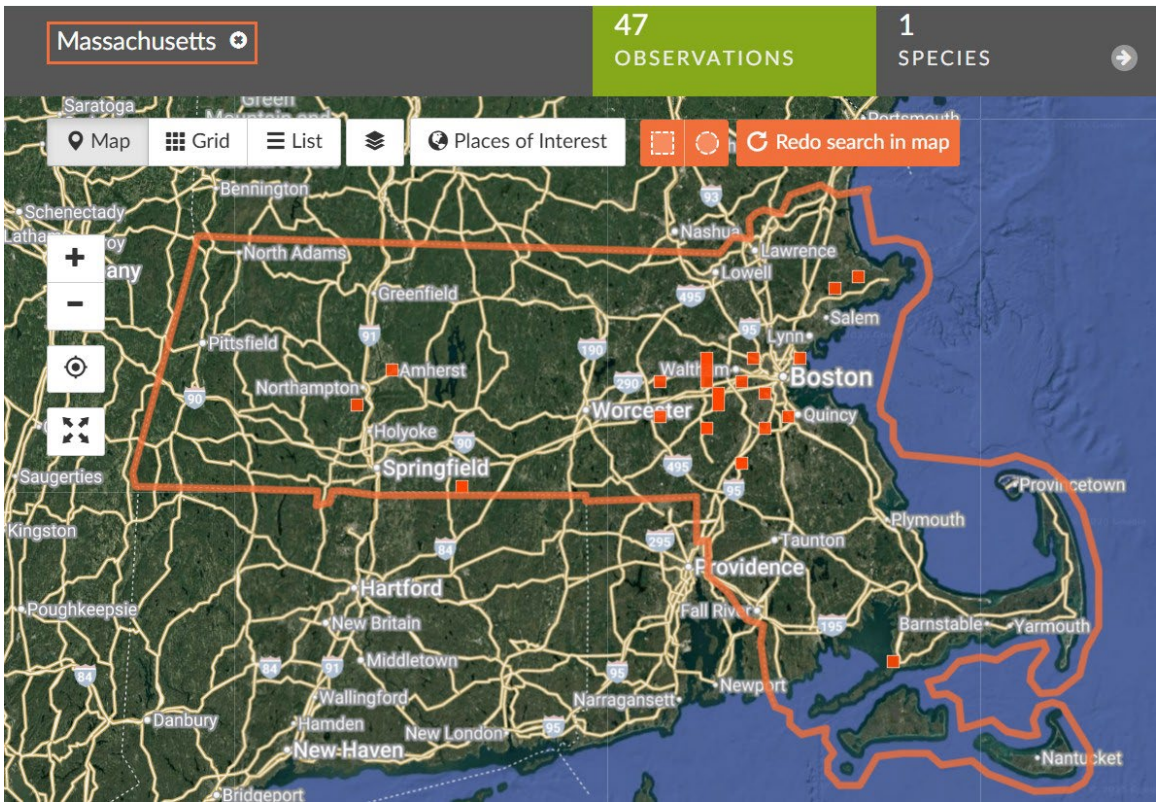


Figure 6. Research grade observations of *Symplocus paniculata* in MA in iNaturalist.

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Information compiled by: Lisa A. Standley, New England Botanical Society, April 2025.

SPECIES: *Symplocos paniculata* (Thunb.) Miq.

STATUS: Likely Invasive

NON-NATIVE INVASIVE PLANT WORKSHEET

MASSACHUSETTS CRITERIA FOR EVALUATING NON-NATIVE PLANT SPECIES FOR INVASIVENESS

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 originally developed in 2005 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. They were updated by MIPAG in 2022 to include climate change considerations and other minor clarifications.

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:

- Base criteria: 1- 4
- Invasvie: 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 meet certain base criteria (#1-4 below). The species must:

1. Be nonindigenous to Massachusetts.

Yes *No*

Symplocus paniculata is native to Asia from the Himalayas to southwest Japan (Almeda and Fritsch 2009)

2. Have the biologic potential for rapid dispersion and establishment in minimally managed habitats

Yes *No*

Symplocos paniculata produces fleshy drupes that are bird-dispersed. This species can form dense, monotypic understory stands in minimally managed upland forests. Little information is available on dispersal or establishment.

3. Have the biologic potential for dispersing over spatial gaps away from the site of introduction.

Yes *No*

Symplocos paniculata produces fleshy drupes that are bird-dispersed. Populations have been found far from potential source plants (horticultural), demonstrating successful dispersion over spatial gaps.

4. Have the biologic potential for existing in high numbers away from intensively managed artificial habitats

Yes *No*

Symplocos paniculata has become naturalized in numerous locations in Massachusetts and elsewhere. Where it occurs, it forms extensive stands. The population in Fairfield County CT was reported to consist of "scores of individuals of various sizes." Standley collected in three locations in Massachusetts in 2020, in Middlesex (Natick) and Norfolk (Needham, Sharon) Counties. An extensive population was found in 2024 in Sherborn MA (Norfolk County). In Natick, sapphire berry occurs throughout a large area of the Town Forest. In all locations this species formed extensive populations along trails and in undisturbed forest.

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. The species is naturalized in Massachusetts (persists without cultivation in Massachusetts)

Yes *No*

I have seen plants, and herbarium specimens, from Middlesex and Norfolk Counties. Sorrie and Somers (1999) did not report *Symplocos* from Massachusetts, and by 2011 Cullina et. al. list it in only one county (Suffolk). It is now reported widely across eastern Massachusetts, from Essex to Barnstable counties, and sporadically from the central part of the state. Herbarium records are few, but document that *Symplocos* was present in Essex County as early as 1937.

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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 Criteria 5, it may be considered "POTENTIALLY INVASIVE" if it meets Criteria 13-15.

6. The species is widespread in Massachusetts, or common in a region or habitat type(s) in the state.

Yes ***No***

Symplocos paniculata is not, at this time, widespread in Massachusetts or common in a particular habitat type. It has scattered occurrences in at least 7 counties.

7. The species has many occurrences in MA that have high numbers of individuals in minimally managed habitats.

Yes *No*

Symplocos paniculata has become naturalized in numerous locations in Massachusetts and elsewhere. Where it occurs, it forms extensive stands. The population in Fairfield County CT was reported to consist of "scores of individuals of various sizes." An extensive population was found in 2024 in Sherborn MA (Norfolk County). In Natick (Middlesex County), sapphire berry occurs throughout a large area of the Town Forest and in Wales (Hampden County) it has spread in one area. In all locations this species formed extensive populations along trails and in undisturbed forest.

8. The species is able to out-compete other species in the same natural plant community.

Yes *No*

The Sherborn population forms a monoculture in undisturbed deciduous forest patches throughout the property. No co-occurring shrubs were observed.

9. The species has the potential for rapid growth, high seed or propagule production and dissemination, and establishment in natural plant communities.

Yes ***No***

Uncertain – seed production is not high for a shrub, and shrubs do not appear to grow at an exceptionally rapid rate.

If a species meets the initial five Criteria and Criteria 6-9 it may be considered an "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. The species has at least one occurrence in Massachusetts that has high numbers of individuals forming dense stands in minimally managed habitats.

Yes *No*

The Sherborn population forms a monoculture in undisturbed deciduous forest patches throughout the property. No co-occurring shrubs were observed. The Natick and Wales populations also form dense stands in unmanaged habitats.

11. The species has the potential, based on its biology, colonization history outside its native range, and likelihood of range expansion or change in biologic potential from climate change predictions, to become invasive in Massachusetts.

Yes *No*

Symplocos paniculata appears to have spread from cultivation in numerous locations in the Northeastern US. Well-established large populations are present in Massachusetts, Connecticut, New York, New Jersey, Pennsylvania and Ohio. Other than reports of invasiveness in specific locations (South Mountain Reservation NJ, Natick Town Forest MA) there are no published analyses of impacts on forest communities. Observation at two locations (Natick Town Forest, Mill Farm Reservation Sherborn) show that sapphire berry can become an almost dominant understory shrub. Where it is present in high densities, typical native understory shrubs (*Viburnum acerifolium, Gaylussacia baccata,* etc.) appear to be excluded.

12. The species is 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.

Yes ***No***

Symplocos paniculata is not listed as Invasive on any official state lists (EDDMapS 2025). The Connecticut Invasive Plant Working Group (2025) includes it on its Research List, species for which additional information is required. Although not regulated in New York, it is listed assigned an Ecological Invasiveness Rank of "High", and is ranked T3 (highly invasive with medium abundance, management goal of containment) in the Lower Hudson and Long Island Sound areas (New York Natural Heritage Program 2025).The Town of Natick MA (2025) defines it as invasive, and it is featured in the guide to Invasive Plants of South Mountain Reservation (New Jersey) (iNaturalist 2025a). There are no difficulties in species identification or taxonomy, and there are numerous accepted iNaturalist observations.

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 biologic potential, would pose an imminent threat to the biodiversity of Massachusetts **and**

Yes No (note: include reference(s) and comments)

14. Its naturalization in Massachusetts is anticipated, **and**

Yes No (note: include reference(s) and comments)

15. The species has a documented history of invasiveness in other areas outside its native range including expansion of range and/or change in biological potential from climate change predictions.

Yes No (note: include reference(s) and comments)

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Completed by: Lisa A. Standley, Ph.D. Curator of Vascular Plants, New England Botanical Society. July 1, 2025

Decision by MIPAG and date: Voted as Likely Invasive, December 10, 2025.

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 - 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 and meets some but not all 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 American 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 re-occurring 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.

**There are no definitions for certain terms (e.g. widespread or high numbers) with the intent that discussion within MIPAG will be used to determine the outcome, given that we do not have perfect information.*