

IPSWICH'S INVASIVE PLANTS

IDENTIFICATION, CONTROL AND NATIVE ALTERNATIVES



The Great Marsh of North Shore Massachusetts is a large salt marsh that comprises a number of towns in northern Essex County, including Ipswich. This marsh is threatened by a number of invasive species.
(The Cricket, 2022)

INVASIVE PLANTS BACKGROUND

This brochure highlights some of our region's most invasive plants

Invasive plants: non-native species that have been introduced and spread throughout a variety of ecosystems that pose great harm to native organisms

Massachusetts prohibits the sale, transport, and propagation of invasive plant species. These plants may neither be purchased out-of-state nor transported into MA. The Commonwealth of Massachusetts provides a complete list of invasive species, which can be found at <https://www.mass.gov/service-details/invasive-plants>

Why are invasive species a major threat to functioning native ecosystems?

- Grow rapidly and spread quickly, through aggressive root systems or abundant seed production
- Thrive under most conditions and are highly adaptive to survive in a changing climate
- Lack the natural checks on their population that are found in their native land
- Outcompetes native species and creates plant monocultures, not diverse species for a healthy ecosystem
- Provide less nutritional value for wildlife



Japanese Honeysuckle
(Mass Audubon)

Prevention and early detection is important

This brochure is intended to help community members understand the challenges posed by invasive plants and to provide resources and guidance for identification and removal.

What you can do:

- Watch your step! Invasive plant seeds can travel to new locations on shoes, clothing, and recreational equipment
- Keep your eyes open! Download free apps such as “Seek” or “iNaturalist” to help identify plant species
- Visit <https://greenscapes.org/> and <https://friendsofhoodpond.org/> for information and local updates
- MA CZM (<https://www.mass.gov/marine-invasive-species-program>) is also a great resource for information regarding coastal invasive species

NATIVE PLANTS BACKGROUND

Native plants: species that have originated naturally alongside local wildlife in a particular ecosystem

- Integral to a healthy ecosystem as they provide food and shelter to a range of species

What you can do:

- Identify locations containing existing native plants and clear out the invasive plants nearby
- When purchasing plants, opt for native, straight species over native cultivars
- Ask your nursery how their plants are sourced and if pesticides were used in production
- Adding native plants to fill in an area where plants were removed helps prevent future invasive plant growth



Milkweed & Monarch Butterfly
(Mass Audubon, 2012)

Native pollinators: an insect or animal that transfers pollen from native plant to native plant, allowing for plant reproduction

- Critical players in a healthy ecosystem
- Native plants provide pollinators with pollen and nectar as nutritional reward of reproduction
- The majority of pollinators are threatened by habitat loss and pesticide use, declining their population

Resources:

Local organizations including Ipswich Town and Country Garden Club, Greenscapes, and Native Plant Trust are great resources for native plant landscaping. Visit Essex County's Land Trust (Greenbelt) website to learn more about their pollinator program and land conservation initiatives. Ipswich's Shade Tree and Beautification Committee has published Ipswich's Native Plant Policy, encouraging native plant use.

WHAT CAN WE DO?

Where to begin:

- Early detection and removal is most effective
- Revisit worked sites for a few years to check for re-sprouts
- Reach out to friends to assist in hand-picking work days
- Educate others about the importance of eliminating invasive plants
- Contact Ipswich's Conservation Commission or Mass Audubon to participate in removal projects

Fundamentals:

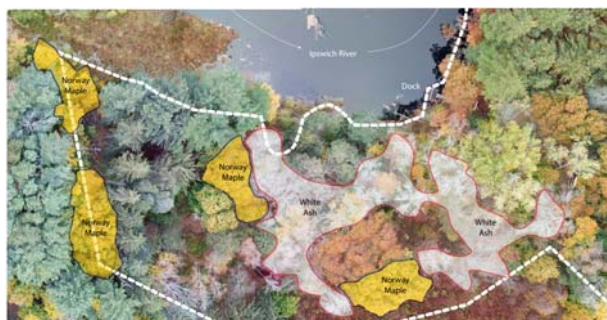
- Repeated cutting after a plant's leaves have dropped will weaken it
- Covering a cut patch with black plastic will block photosynthesis
- Cutting flower heads and stripping off berries will interfere with seed production and impede seed dispersal
- Remember to dispose of mature seeds/berries with care
- Collect in black plastic and "cook" in the sun or burn
- Compost young plants before flowers develop
- Herbicides should be the last resort
- According to MA law, herbicides must be applied by someone licensed by the state, unless applied by a private property owner

Please note that any invasive species control, including chemical application, within 100-ft of wetlands or 200-ft of year-round flowing streams must be reviewed and approved by the Conservation Commission. Please contact 978-356-6661 and visit the Guidance Documents page of the Conservation section on the Town's website for more information.

IPSWICH & GREAT MARSH SUCCESS STORIES

Ecological Restoration at the Ipswich River Watershed Association (IRWA)

- The Barnard Estate, formerly located beside IRWA, contained a Brook Garden with a large collection of plants and stone infrastructure
- 15 acres of this former estate was donated to IRWA in 2006, 2 acres of this land has been infested by an abundance of invasive species
- After getting Ipswich Conservation Commission approval, these harmful plants will be removed and replaced with native species



The Norway Maple, an invasive tree species, has been observed on site, along with native White Ash trees. Unfortunately, the White Ash trees are being decimated by the Emerald Ash Borer, an invasive insect. Both tree species will be removed.

Perennial Pepperweed pulling (Mass Audubon, Massachusetts Bays Estuary Program, Newburyport Gulf of Maine Institute)

- Since 2006, these local programs have been leading groups of volunteers to remove Perennial Pepperweed in the Great Marsh of Massachusetts
- Local schools and other groups have gotten involved over the years to assist Mass Audubon in the mapping and controlling of Pepperweed populations

Volunteers pull invasive Perennial Pepperweed at Strawberry Hill (Town of Ipswich, 2015)



INVASIVE: BURNING BUSH

(Euonymus alatus)

IDENTIFICATION

- Deciduous shrub
- Can grow to be about 10 ft tall
- Red fall foliage
- Invades fields and forests
- Native to Eastern Asia, particularly China, Japan, and Korea
- Alternating branching pattern
- Seeds are spread by birds
- Prevent native species from growing



(Mass Audubon)

CONTROL

- Hand-pulling of smaller plants
- Frequent mowing
- Cutting of larger plants and applying registered herbicide to cut stem

NATIVE ALTERNATIVES



(iNaturalist)

- Highbush blueberry (*Vaccinium corymbosum*) is a typical native alternative to Burning bush
- Height can range from 6-12 ft tall
- Flowers bloom in spring, followed by fruiting in the spring until early fall
- Located in both wet and dry environments
- Leaves turn bright colors in fall

INVASIVE: COMMON REED

(*Phragmites australis*)

IDENTIFICATION

- Perennial invasive grass
- Native to Europe and Asia
- Can grow up to 14ft tall in the summer months
- Brown colored canes are present throughout winter
- Form in thick and dense groups in wetlands



(Mass Audubon)

CONTROL

- Mowing and hand-cutting work well, but fail to eliminate the entire species
- Herbicides applied in the late summer and early fall are most effective since roots spread laterally and are difficult to pull up, apply directly to freshly cut stem

NATIVE ALTERNATIVES

- Broadleaf cattail (*Typha latifolia*) is a common replacement of the invasive common reed plant
- They contain linear leaf blades and a brown cylinder for flowering
- Cattails clean and regulate water flow
- These plants are also used for bird nesting and protection



(Gardenia)

INVASIVE: GARLIC MUSTARD

(*Alliaria petiolata*)

IDENTIFICATION

- Native herb from Europe
- Can grow up to 3 ft tall
- Small white flowers in spring
- Seeds dispersed by wind and water
- Commonly found in fields and woodlands
- Changes soil conditions, which harms native plants



(Mass Audubon)

CONTROL

- Hand-pulling
- Mowing prior to production of seeds
- Do not cut stems too high as it will prompt flowering
- Registered herbicides

NATIVE ALTERNATIVES

- Canada wild ginger (*Asarum canadense*) is commonly used as a replacement of Garlic mustard
- The perennial is found in forested areas across New England
- They contain simple basal leaves that are heart-shaped
- Grow 4-8 inches tall
- A singular flower is found below the leaves near the ground



(Native Plant Trust)

INVASIVE: GLOSSY BUCKTHORN

(*Rhamnus frangula*)

IDENTIFICATION

- Deciduous shrub or tall tree
- Ranges from 20-30 ft tall at maturity
- Native to Europe, Central Asia, and North Africa
- Shiny leaves with dark fruit attached
- Fruits spread by birds
- Commonly invades fields, woodlands, and wetlands
- Flowers emerge light green/yellow color in late spring/early



(Mass Audubon)

CONTROL

- Hand pulling
- Frequent mowing in fields
- Cutting of larger plants
- Applying registered herbicide

NATIVE ALTERNATIVES



(Natural Lands, 2014)

- Alternate-leaved dogwood (*Swida alternifolia*) is a common replacement of Glossy buckthorn
- Terrestrial shrub or small tree located in forests
- May grow up to 25ft tall and 30ft wide
- Dark colored fruits are produced
- Vegetative reproduction

INVASIVE: JAPANESE KNOTWEED

(*Fallopia japonica*)

IDENTIFICATION

- Perennial herb that is native to eastern Asia
- Can grow up to 10 ft tall
- Leaves are heart-shaped
- Contain white flowers
- Live along roads, streams, rivers, and wetlands

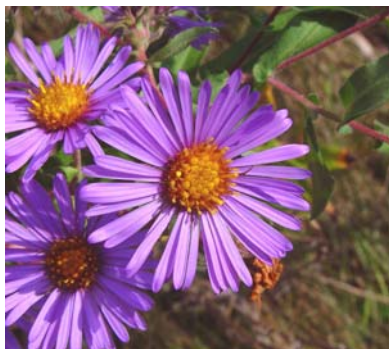


(Mass Audubon)

CONTROL

- Hand pulling
- Repeated cutting
- Applying registered herbicide to cut stems
- Cut down large populations in June or July
- Newly grown plants should be treated with herbicide in August or September

NATIVE ALTERNATIVES



(Native Land Trust)

- New England American Aster (*Symphyotrichum novae-angliae*) is a common native alternative for Japanese Knotweed
- Found in man-made areas, as well as meadows, fields, and wetlands
- Purple ray flower
- Can grow up to 6 ft tall
- Deer resistant

INVASIVE: MULTIFLORA ROSE

(Rosa multiflora)

IDENTIFICATION

- Deciduous shrub
- Contains white flowers and red fruit
- Native to Asia
- Sharp thorns
- Can grow up to 10 ft or taller
- Wide plant
- Forms in dense groups in fields, forests, and wetlands



(Mass Audubon)

CONTROL

- Repeated mowing of fields for a number of years
- Hand-pulling or cutting
- Application of registered herbicide on cut stems

NATIVE ALTERNATIVES

- New England Rose (*Rosa nitida*) is a typical native replacement for the invasive Multiflora rose
- Also known as the Shining rose
- Common in bogs, swamps, and wetlands
- Pink flowers are produced in the summer months
- Shiny leaves



(Gardenia)

INVASIVE: NORWAY MAPLE

(*Acer platanoides*)

IDENTIFICATION



(Mass Audubon)

- Deciduous tree
- Can grow to be approximately 40-60ft tall
- Native to Europe and Western Asia
- Contains a milky sap in leaf stem
- Red and purple leaves
- Produces large quantity seed that disperse and outcompete native plants in the understory

CONTROL

- Mowing and hand-pulling seedlings/saplings
- Registered herbicide
- Girdling may work as well
- **Girdling:** the process of removing the outer tissue layers of a tree

NATIVE ALTERNATIVES

- Red maple (*Acer rubrum*) is a typical replacement for the invasive Norway maple
- Deciduous tree that is native in eastern U.S.
- Can grow to be 50-60 ft tall
- Flowers early in the season
- Lobed toothed leaves
- Red flowers show in spring before the leaves emerge



(Native Plant Trust)

INVASIVE: ORIENTAL BITTERSWEET

(*Celastrus orbiculatus*)

IDENTIFICATION

- Woody vine that is native to China
- Small red berries with orange husk, sprout in fall
- Can grow up to 60 ft long
- Commonly invade and suffocate trees located in fields and forests
- Seeds and roots built up from the soil and are spread by birds and humans



(Mass Audubon)

CONTROL

- Hand-pulling, easier when vines are small
- Repeated mowing of fields
- Cutting vines that have grown onto trees
- Application of registered herbicide onto cut stem

NATIVE ALTERNATIVES



(Natural Communities)

- Virginia creeper (*Parthenocissus quinquefolia*) is a common native replacement of Oriental bittersweet
- Deciduous vine that can range from 3-40 ft long
- Climbs with its tendrils, attaching to bark
- Toothed leaves turn red and purple
- Small green flowers and blue fruit

INVASIVE: PERENNIAL PEPPERWEED

(*Lepidium latifolium*)

IDENTIFICATION



(Mass Audubon)

- Native plant to Europe and Western Asia
- Found along coastal marshes, wetlands, and inland highways in dense patches
- Has recently become established in Massachusetts and the Great Marsh
- Alters soil conditions that allows for them to outcompete native plants
- Small, white, four-petaled flowers
- Flower in late spring/early summer
- Range from 2-5 ft tall
- Alternate leaves have jagged edges and look waxy
- Begin growth as small rosettes

CONTROL

- Hand-pulling consistently can be effective
- Registered herbicides can also be applied

NATIVE ALTERNATIVES

- Marsh elder (*Iva frutescens*) is a native alternative to the invasive Perennial Pepperweed
- Shrub that can survive high salinity and poor drainage
- Located in wetlands and marshes
- Can grow from 3-8 ft tall



(Native Plant Trust)

OTHER COMMON NATIVE PLANTS

Lady Fern
(*Athyrium filix-femina*)



Eastern White Pine
(*Pinus strobus*)



Sweet Birch
(*Betula lenta*)



Northern Bush Honeysuckle
(*Diervilla lonicera*)



Smooth Hydrangea
(*Hydrangea arborescens*)



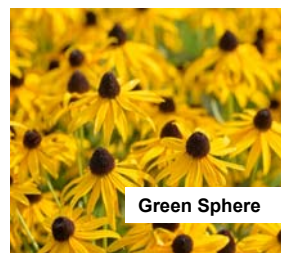
American Beachgrass
(*Ammophila breviligulata*)



Common Yarrow
(*Achillea millefolium*)



Black-eyed Susan
(*Rudbeckia hirta*)



Pixie Fountain Tufted Hair Grass
(*Deschampsia cespitosa*)



There are many invasive species not mentioned in this publication, as well as many “species of concern,” which are not yet formally listed as invasive. Please visit the Massachusetts Invasive Plant Advisory Group (MIPAG) website for the current invasive plant list.

Sources:

Mass Audubon’s invasive species information was referred to during the creation of this booklet.

Special thanks to the Town of Lincoln Conservation Department for content and formatting, and Rowan Galanis, the Open Space Intern, for implementation. We also recognize the Open Space Program and Conservation Office staff for review and assistance.

**For more information, or to request a brochure,
contact us:**

Ipswich Conservation Office

Jenna Pirrotta: Conservation Agent

jennap@ipswichma.gov

<https://www.ipswichma.gov/255/Conservation>

978-356-6661