

Invasive Plant Species



What's the Problem?

Many plants in Southeast Michigan's landscape are not native to this area. While most of them have little negative impact to our environment or water resources, there are some non-native plants that have become invasive. Invasive species may overtake and threaten native plant communities found in wetlands and woodlands, degrade fish and wildlife habitat, and may restrict recreational opportunities. That's because invasive species may lack natural predators, competitors, and diseases that would normally keep their populations in check.

Preventing the Spread of Invasive Plants

- Learn how to identify the invasive plants in your area.
- Avoid planting invasive species. The most effective way to limit the spread of invasive species is to avoid planting them.

The Michigan Invasive Plant Council (MIPC) has developed an assessment system to determine whether a plant is invasive in Michigan. Consult MIPC for identifying invasive plant species in your area.

Low-cost solutions

Removing invasive species can be expensive and time consuming. The best low-cost solutions are to prevent the spread of invasive species by:

Learning how to identify the invasive plants in your area.

Using mechanical devices (such as a bootbrush) to remove seeds and other plant material from your shoes and gear at entrances to natural areas.

Using non-invasive native or introduced plants.

SEMCOG

Our Water. Our Future.



Ours to Protect



Source: Oakland County Parks



This example shows how invasive plants can over take a woodland. Left is before invasive species removal. Right is after removal.

Plants to Avoid

The following is a list of plants known to create problems in Southeast Michigan.

Common Name	Scientific Name
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Trees:

Tree of Heaven	<i>Ailanthus altissima</i>
European Alder	<i>Alnus glutinosa</i>
White Poplar	<i>Populus alba</i>
Black Locust*	<i>Robinia pseudocacia</i>
Siberian Elm	<i>Ulmus pumila</i>

*A native species, but tends to be invasive.

Shrubs and Vines:

Common barberry	<i>Berberis vulgaris</i>
Oriental Bittersweet	<i>Celastrus orbiculatus</i>
Autumn Olive	<i>Eleagnus umbellata</i>
Russian Olive	<i>Eleagnus angustifolia</i>
Amur Honeysuckle	<i>Lonicera maackii</i>
Morrow Honeysuckle	<i>Lonicera morrowi</i>
Tartarian Honeysuckle	<i>Lonicera tatarica</i>
Common Buckthorn	<i>Rhamnus cathartica</i>
Multiflora Rose	<i>Rosa multiflora</i>

Grasses and Grass-Like Plants:

Giant Reed	<i>Phragmites australis</i>
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Flowers and Groundcovers:

Garlic Mustard	<i>Alliaria officinalis</i>
Spotted Knapweed	<i>Centaurea maculosa</i>
Queen Ann's Lace	<i>Daucus carota</i>
Japanese Knotweed	<i>Fallopia japonica</i>
Dame's Rocket	<i>Hesperis matronalis</i>
Purple Loosestrife	<i>Lythrum salicaria</i>

Identifying and Controlling Invasive Species

The techniques for removing or killing an invasive plant vary by species. However, there are some general tips for controlling invasive plants:

- Eradicate them early before they become established.
- Work from the least infested areas toward the worst infested areas.
- Consider the overall botanical quality of the area. Concentrate eradication efforts on areas that have well established native plants.
- Know thy enemy. Research your particular invasive to know the best method for identification and removal.



Source: City of Farmington Hills

“Invasive species” refer to a plant or animal that is non-native (or alien) to an ecosystem, and whose introduction is likely to cause economic, human health, or environmental damage in that ecosystem. Also, plant species can be invasive in some regions, but not in others.

Cover photo: Courtesy of Oakland County Parks. Herbicides are an effective way to control medium and large populations of phragmites.

Top left photo: Garlic mustard can be effectively removed by hand pulling. A low-cost solution would be to include volunteers, such as scout troops, in these efforts.

Back page photo: Utilizing signage is one method to inform the public of your invasive species control efforts.

Common Invasive Species and Control Methods

Name	Botanical Name	Description	Impacts	Controls
Purple Loosestrife	<i>Lythrum salicaria</i>	Perennial plant with pink and purple flowers that is most commonly found in wetlands.	Seeds dispersed by wind, waterfowl, and humans (shoes and clothes). Germinates at high density, out-competing native plants for resources.	Small populations can be hand pulled or sprayed with herbicides. (Use an herbicide recommended for use near water resources). Large populations can be slowed by hand pulling or spraying the periphery. Biological control agents can also be used.
Common Buckthorn	<i>Rhamnus cathartica</i>	Shrub or small tree that has dark green, oval leaves.	Becomes a dominant understory shrub shading out native plants.	Prescribed fire can control seedlings. Herbicide application can control buckthorn; applying herbicide to freshly cut stumps is also effective.
Garlic Mustard	<i>Alliaria officinalis</i>	Perennial plant with triangular to heart shaped leaves; produces small white flowers in the spring.	Poses a severe threat to native plant communities particularly in woodlands by out-competing for resources; wildlife species are deprived of food sources; self-pollinates and scatters thousands of seeds.	Small populations can be removed by hand pulling. Focus on detecting and eradicating new infestations as soon as possible. Large populations a combination of hand pulling, cutting, prescribed fire, and herbicides should be used.
Bush Honeysuckles	<i>Lonicera japonica</i> , <i>Lonicera maackii</i> , <i>Lonicera morrowi</i> , <i>Lonicera tatarica</i>	Shrub or small tree; leaves are opposite, oblong; flowers are fragrant in May and June; yellow, orange or red berries in late summer.	Rapidly invades sites, forming dense understory and pushing out natives.	Small plants can be removed by hand pulling. Herbicide application to cut stumps provides adequate control.
Emerald Ash Borer	<i>Agrilus planipennis</i>	Metallic green beetle; only found in ash trees.	Infested trees have canopy dieback and suckering at the base of the trunk; removal of outer bark reveals winding tunnels in the inner bark where larvae have burrowed.	Prevent the spread of the beetle by limiting the movement of ash trees from nurseries, untreated ash logs, ash firewood and other ash products.
Common Reed (Phragmites)	<i>Phragmites australis</i>	Aggressive, native, 8-16 foot tall, coarse perennial grass often found in most soils associated with wetlands or roadside ditches.	Can be a problem plant because it is an excellent colonizer of disturbed soils and once established it usually crowds out all other wetlands plants.	Medium and large populations can be controlled with herbicides. Remove the dead vegetation by mowing or burning and replace with native species.

Consider Developing an Invasive Species Management Plan

Communities with large tracks of public lands (e.g., parks, natural areas) may consider developing an invasive species management plan. In developing a plan, you may want to include the following steps:

- Identify conservation goals and objectives for the site.
- Conduct an assessment of the site (inventory, mapping).
- Evaluate options for controlling invasive species.
- Develop and implement a management plan to move conditions towards your goals and objectives.
- Monitor and evaluate the effectiveness of the management actions.
- Based on results, re-evaluate and modify the plan as necessary.



Source: Oakland County Parks

Invasive Plant Species

Resources

Center for Invasive Plant Management. www.weedcenter.org

Integrated Pest Management Resources. Michigan State University. www.ipm.msu.edu.

Marshall, Jordan and Andrew Storer. *Bush Honeysuckles Quick Guide.* The Upper Great Lakes Center for Exotic Species. Michigan Tech. 2002.

Marshall, Jordan and Andrew Storer. *Common Buckthorn Quick Guide.* The Upper Great Lakes Center for Exotic Species. Michigan Tech. 2002.

Marshall, Jordan and Andrew Storer. *Emerald Ash Borer Quick Guide.* The Upper Great Lakes Center for Exotic Species. Michigan Tech. 2002.

Marshall, Jordan and Andrew Storer. *Garlic Mustard Quick Guide.* The Upper Great Lakes Center for Exotic Species. Michigan Tech. 2002.

Marshall, Jordan and Andrew Storer. *Purple Loosestrife Quick Guide.* The Upper Great Lakes Center for Exotic Species. Michigan Tech. 2002.

Michigan Invasive Plant Council. www.forestry.msu.edu/mipc/

Midwest Invasive Plant Network. www.mipn.org

Springfield Township, Michigan. *Going Native Series. Plants to Avoid – Invasive Plant Species*

Wild Ones. Dealing with Alien Invasives: Know the Enemy. 2002.

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