



Non-Native Invasive Plants

M-NCPPC, Department of Parks

Natural Resource Stewardship Section
Park Planning & Stewardship Division



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What is a Non-Native Invasive (NNI) Plant?

- Non-native invasive (NNIs) plants are plant species that have been introduced to local areas from other geographical regions often far away.
- In their new environment these plants are free from the herbivores, diseases, and other environmental influences that naturally keep them in check in their native lands.
- Without environmental controls, these plants can quickly expand their range.



Why are invasive plants a problem?

- Invasive plants threaten 2/3 of the world's endangered species and are considered by most experts to be the 2nd greatest threat to biodiversity after habitat loss.
- These plants overgrow and kill mature trees, reducing the vigor of trees by shading and ultimately killing trees and shrubs by girdling or causing heavily burdened trees to topple.



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Why are invasive plants a problem?

- The rapid growth of NNIs displaces native shrubs and herbaceous plants by out-competing them for light, water and nutrients.



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Why are invasive plants a problem?

- The resulting monocultures eliminate entire native plant communities and reduce biodiversity.
- Food and shelter for native wildlife is reduced.



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Why are invasive plants a problem?

- Insect-to-native plant associations are disrupted.



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Why are invasive plants a problem?

- Native food sources for animals are reduced.



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Why are invasive plants a problem?

- Invasive leaves are not digestible by the larval stage or caterpillars of butterflies and moths in some cases.



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Why are invasive plants a problem?

- Some invasive plants produce chemicals that affect the growth of mature trees and saplings.



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What are some characteristics of NNI's?

- They grow fast and mature early.
- They reproduce profusely by seeds and/or vegetative structures.
- They are difficult to control.
- They have few known diseases or pests.
- They have seeds displaying long lives in the soil.
- They have high photosynthetic rates.
- They may produce biological toxins that suppress the growth of other plants.



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What are some examples of NNI's?

These plants present the most serious threats to natural areas in Montgomery County, including parkland owned and managed by Montgomery Parks.

VINES	HERBS	SHRUBS/TREES
<ul style="list-style-type: none">English ivyJapanese honeysuckleFive-leaved AkebiaKudzuMile-a-minutePorcelainberryWintercreeper/Climbing euonymusOriental bittersweet	<ul style="list-style-type: none">Japanese knotweedJapanese or Vietnamese stilt grassGarlic mustardLesser celandineCanada thistle	<ul style="list-style-type: none">Tree-of-heavenWine-berryRunning bamboos – various speciesMultiflora roseAutumn oliveBush honeysucklesJapanese barberry



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Oriental Bittersweet

(Celastrus orbiculatus)

- Look for long, thin branches extending vertically and vines wrapped around themselves. Vines become large and woody adding considerable weight to the trees they cover.



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Oriental Bittersweet

(*Celastrus orbiculatus*)

- Copious amounts of the yellow and red bittersweet berries found in late summer and early fall are readily spread by birds.



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English Ivy

(*Hedera helix*)

- English ivy climbs trees, slowly killing them by blocking sunlight and adding weight which can make a tree more susceptible to blow over.
- English ivy harbors bacterial leaf scorch (*Xylella fastidiosa*), a harmful plant pathogen that affects a wide variety of native and ornamental trees.



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English Ivy

(*Hedera helix*)

- On the ground, English ivy forms a thick canopy just above the ground preventing seeds from germinating and making it difficult for ground feeding birds to find food.



The Rufous-sided towhee is one example of a ground feeding species.



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Winter Creeper / Creeping Euonymus

(*Euonymus fortunei*)

- Winter creeper, much like English ivy, covers the forest floor and surrounding trees.



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Japanese Honeysuckle

(*Lonicera japonica*)

- Twisting and trailing vines grow in and around trees and bushes severely constricting and often killing them.



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Kudzu

(*Pueraria montana v. lobata*)

- Known as “the vine that ate the South,” Kudzu quickly and completely covers all vegetation smothering and ultimately killing all plants in its path.



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Porcelainberry

(*Ampelopsis brevipedunculata*)

- Porcelainberry quickly covers and shades out native shrubs and trees.
- Its berries are readily spread by birds and small animals.



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Mile a Minute

(*Polygonum perfoliatum*)

- Mile a Minute, a.k.a. Devil's Tear Thumb, is an annual vine that engulfs entire areas in one growing season. The underside of the stem and the triangular shaped leaves are covered with barbs or hooks.



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Lesser Celandine

(*Ranunculus ficaria*)

- Lesser Celandine carpets many of our parks' stream valleys, drastically reducing both the numbers of and variety of spring wildflowers.



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Japanese Stilt Grass

(*Microstegium vimineum*)

- Stilt grass invades all habitats including lawns, out-competing most herbaceous species. It has a diagnostic shiny, silver midrib.



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Autumn Olive

(Elaeagnus umbellata)

- Autumn olive invades grasslands, fields, open woodlands and disturbed areas. It displaces native species, interfering with natural plant succession.



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Multiflora Rose

(Rosa multiflora)

- Multiflora rose can grow in most ecosystems from dry fields to forests to wetlands. It often forms dense thickets which exclude native plants and may be detrimental to nesting native birds.



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Exotic Bush Honeysuckles

(Lonicera species)

- Exotic bush honeysuckles displace native plants and compete for pollinators, reducing seed set for native species. Unlike native shrubs, the fruits of exotic bush honeysuckles are carbohydrate-rich and do not provide migrating birds with the high fat content needed for long flights.



The plumage coloring of Cedar Waxwings is altered by a diet consisting of primarily bush honeysuckle berries.

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Nipping NNIs in the “bud”

Many nurseries still carry NNIs and continue the spread of these plant species and the many problems they cause.

**Check before you buy
new plants!**

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Nipping NNIs in the “bud”

Nursery plant materials which will relocate outside your yard.



Bradford Pear



Japanese Barberry



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Chinese silver grass

(Miscanthus sinensis)

- Ornamental plantings can become environmental problems.



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Winged burning bush

(Euonymus alatus)

- Quickly outcompetes native understory shrubs and herbaceous plants.



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How can I help?

- "Certified" Weed Warriors Program
- "Special Project" Warrior Events
- Make donations to fund contract work for NNI removal.



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Certified Weed Warrior Volunteer Program

Step 1 - Training

- Take our 1-hour online training course
- Attend one of our monthly 2-hour training sessions

Step 2 - Pick a park

- Choose a park close to your home or heart and work in it whenever your schedule fits!

Step 3 - Host an Event

- Run your own invasive plant project as a Certified Weed Warrior Supervisor.



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Special Project Warrior Events

1-day plant removal events

- supervised by a Natural Resources Stewardship staff member or a trained Certified Weed Warrior
- events help citizens learn about and work on invasive plants in their parks without making the commitment to become full-fledged Certified Weed Warriors
- scheduled throughout the year on weekends or weekdays throughout the park system.



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How to reach us...

- Certified Weed Warriors
- Special Project Warrior Events
- Donate to fund contract work for NNIs removal

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Join in the fight to win back
our native wildlands.

Thank You!