











Emerging Invasive
Plants in IndianaThe Top 20 to Report
on EDDMaps

Indiana Invasive Species Council
Invasive Plant Advisory Committee *August 2018*

Watch for and Report These Invasive Plants:

- Japanese stiltgrass
- 2. Spiny plumeless thistle
- 3. Black swallow-wort
- 4. Pale swallow-wort
- 5. Callery pear
- 6. Burning bush
- 7. Amur cork tree
- 8. Sweet autumn clematis
- 9. Japanese chaff flower
- 10. Mile-a-minute vine

- 11. Lesser celandine
- 12. Jetbead
- 13. Wisteria
- 14. Hairy willow-herb
- 15. Mimosa
- 16. Chinese yam/Air potato
- 17. Small carpgrass or carpetgrass
- 18. Ravenna grass
- 19. Perilla
- 20. Catnip

Japanese Stiltgrass Microstegium vimineum

- Annual, sprawling grass up to 4 feet tall
- Leaves pale green, lanceshaped, 1-4 inches long, with a silvery strip on midrib
- Small terminal flower spikes appear in late summer

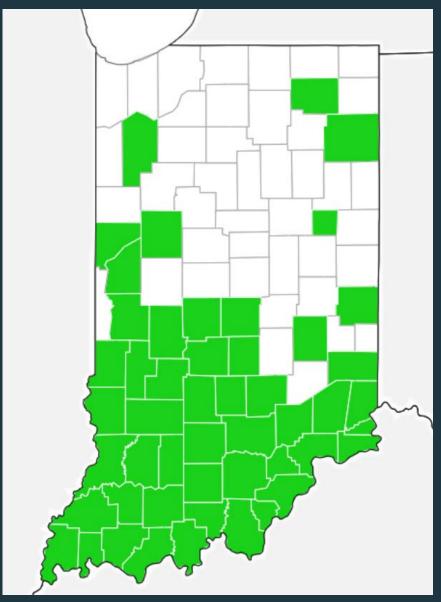




Japanese Stiltgrass *Microstegium vimineum*

- Highly shade tolerant so it's able to invade forests
- Grows densely, displacing native plants
- Moving quickly north
- Reports are needed to better assess its range





Distribution as of 8/2018

Spiny plumeless thistle

Carduus acanthoides

- Highly branched biennial, with one flower at the end of each branch
- Each flower up to 1" in diameter
- Looks like bull thistle, but:
 - Even spinier than bull thistle
 - Leaves paler
 - Flowers 2 weeks earlier (early July, versus bull thistle blooming in late July)



Spiny plumeless thistle Carduus acanthoides

- Fast moving biennial thistle with winddisseminated seeds that move from one open area to another.
- Because of its similarity to other thistles it may be more widespread than has been documented.





Black Swallow-wort

Vincetoxicum nigrum



Leaves dark green, flowers dark purple, peduncles <2 cm



Pale Swallow-wort

Vincetoxicum rossicum



Leaves medium green, flowers pink to reddish, peduncles >2cm



Black Swallow-wort

Vincetoxicum nigrum



Distribution as of 8/2018

Pale Swallow-wort

Vincetoxicum rossicum



- Both black and pale swallow-worts create dense thickets that smother native plants.
- Monarch caterpillars will ingest swallow-wort, which is related to our native milkweeds, but swallow-worts are toxic to them and kill the caterpillar.

Black and Pale Swallow-wort Native Look-alike

Invasive Native



Black swallow-wort Leaf base is rounded



Honey vine, *Cynanchum laeve*Heart-shaped leaf base and white flowers

Callery Pear Pyrus calleryana

- White flowers in early spring,
 before or just as leaves emerge
- Leaves heart-shaped to ovate with a wavy, finely serrated margin (outside edge).
- Fruits round, brown, ½ inch diameter
- Common yard tree, planted in strip malls, business parking lots, suburbs, etc.





Distribution as of 8/2018

Callery Pear Pyrus calleryana

- One of the fastest moving invasive plants in Indiana
- Also one of the most commonly planted trees in Indiana communities





All the green is Callery pear dominating forest understory

Burning bush *Euonymus alatus*

- Extremely popular landscaping shrub which is invading forests throughout Indiana
 - As of April 2019, over 100 acres are covered with Burning Bush in Indiana.

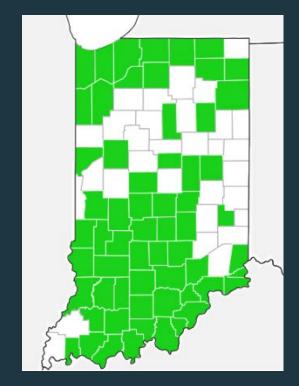
• Green, more or less winged twigs with finely-toothed opposite leaves, turning bright red in fall



Burning bush Euonymus alatus

- Invasions are most evident in October/November when the invading shrubs turn red in forest understory.
- Because it is so widely planted, there are many infestations in the state.
- More reports are needed to accurately map the infestations and assess the species.





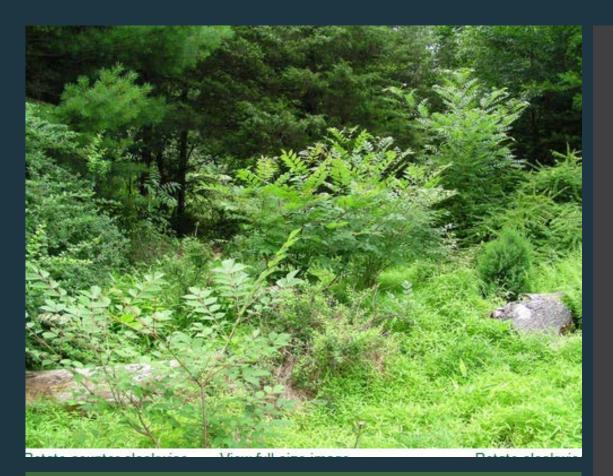
Amur cork tree

Phellodendron amurense

- 30'-60' tall tree
- Pinnately compound leaves with 5-13 leaflets, opposite arrangement, with acute tips.
- Leaves smell like turpentine when crushed
- Fruits are small drupes (fleshy fruits with thin skin)
- Corky bark







Amur cork tree *Phellodendron amurense*



- Scattered locations through the state
- Unsure how prevalent this species is and reports are needed to better map and assess the species.

Sweet autumn clematis Clematis terniflora

• Invasive vine in open habitats, climbing over other vegetation

• Leaves are trifoliate, opposite, smooth margin.

• Flowers with four white petals; fruits with feathery plumes





Sweet autumn clematis

Clematis terniflora

- Scattered in Indiana, unclear how widespread it is. Reports are needed to better assess this species.
- Has a native look-a-like, *Clematis* virginiana, which has toothed leaves.

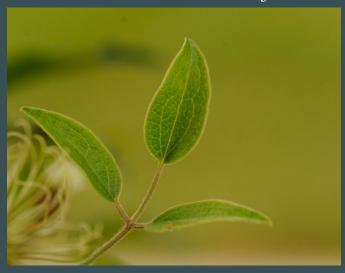


Distribution as of 8/2018

Native Clematis virginiana



Invasive Clematis terniflora





Japanese chaff flower Achyranthes japonica

> The leaves are opposite, simple, and entire along the

The flowers occur on erect spikes at the end of the stems and upper branches.

The flowers diverge at nearly a right angle from the spike, giving the flowers some what of a bottle-brush look.

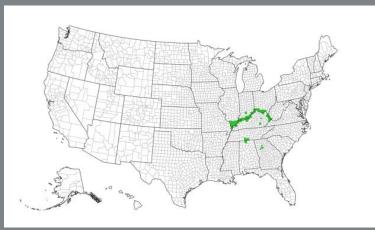
When the fruit are formed, the spikes elongate greatly and the fruit lay flat against the spike. Each fruit has a pair of stiff bracts that aid in

Japanese chaff flower *Achyranthes japonica*

- This is a relatively new invader in Indiana found in riparian areas near the Ohio River
- It is moving north quickly due to its barbed fruits and should be watched for and reported in all counties.







Mile-a-minute vine Persicaria perfoliata

- Leaves alternate, nearly perfect triangles with a smooth margin
- Vines and underside of leaves have small, stiff recurved barbs.
- Small, cup- or saucer-shaped leaf structures, called ocreae, encircle the stem at each node
- Clusters of small white, rather inconspicuous, flowers
- emerge from the ocreae.
- Flowers develop into clusters of deep, iridescent blue berry-like fruits, approximately 5 mm in diameter





Mile-a-minute vine Persicaria perfoliata

- One site in Monroe County, already eradicated.
- Invasive vine in open habitats can spread quickly by birds scattering the fruits.





Distribution as of 8/2018

Wisteria Wisteria sinensis/ W. floribunda

- Chinese and Japanese wisteria are similar looking invasive woody vines.
- Alternate, pinnately compound leaves with 7-13 leaflets that are tapered and have wavy edges.
- Dangling clusters of lavender flowers appear before the leaves emerge (the native wisteria, *W. frutescens*, has upright clusters of flowers that bloom when leaves have already emerged)
- Fruits are fuzzy seed pods (the native wisteria has smooth seed pods)









Wisteria

Wisteria sinensis/ W. floribunda

- Fast-growing vine that can displace native vegetation.
- Kills trees and shrubs by girdling them.
- More reports are needed to better map and assess this species.









Wisteria floribunda

Distribution as of 8/2018

Lesser celandine *Ficaria verna*

- Short herbaceous perennial
- Basal leaves are dark green, shiny, kidney- to heart-shaped and vary greatly in size.
- Flowering occurs in March and April with showy, bright yellow, eightpetaled flowers.
- This plant is ephemeral, and after fruits are produced in April the leaves turn yellow and disappear until the next year.



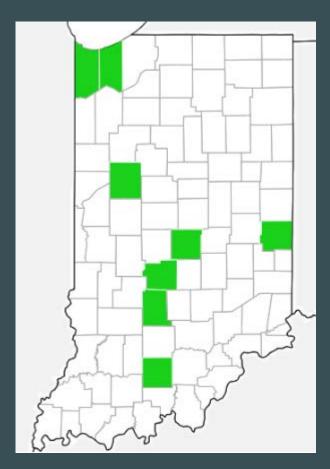


Lesser celandine

Ficaria verna

- Spreads through riparian areas through seeds, bulblets and tubers forming dense carpets.
- More reports are needed to better map and assess this species.





Distribution as of 8/2018

Jetbead *Rhodotypos scandens*

- Multi-stemmed shrub up to 6' tall
- Leaves opposite, simple, 2.5-4" long and doubly serrate, with ribbed veins.
- Flowers in spring with white, four-petaled, 2" wide flowers.
- Fruits are black when ripe, bead-like.



Distribution as of 8/2018



Jetbead *Rhodotypos scandens*

- Invades forested areas creating a thick shrub layer which could displace native plant species.
- More reports are needed to better map and assess this species.

Hairy willow-herb *Epilobium hirsutum*

- Herbaceous perennial that spreads by rhizomes.
- Stems erect and softly hirsute-pubescent, 1.5'-6.5' tall.
- Leaves opposite, sessile and often clasping at the base, 2-5" long with sharply serrulate margins.
- Flowers July- Sept. with rose-colored, four-petaled, 1" wide flowers in racemes in the upper leaf axils.
- Slender fruit capsules are 2-3" long.



Hairy willow-herb *Epilobium hirsutum*

- Invades wetland areas creating a monoculture that can displace native plant species.
- This is not a well-known species, and more reports are needed to better map and assess this species





Distribution as of 8/2018





Mimosa *Albizia julibrissin*

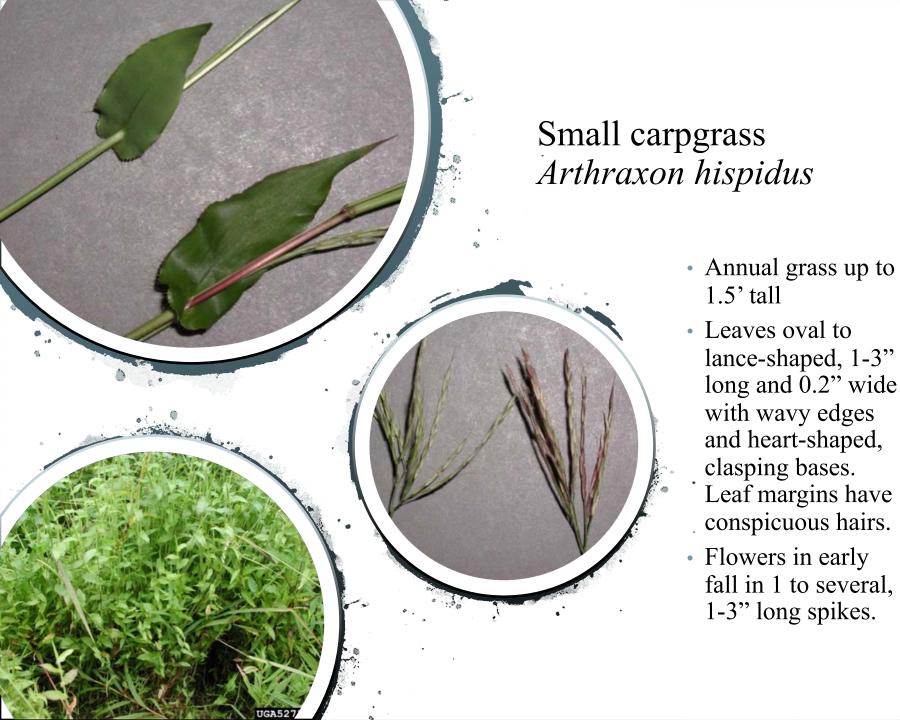
- Small tree 10'-50' tall often having multiple trunks.
- Leaves delicate-looking, bi-pinnately compound and resembling ferns.
- Flowers in early summer with very showy, fragrant pink flowers in groups at the end of branches.
- Fruits are flat, 6" long seed pods.

Mimosa *Albizia julibrissin*

- Invades any type of disturbed habitats, and is a particular problem in glades and barrens in southern IN.
- Originally reported in the Ohio River counties, more invasions are being reported each year in counties north of the Ohio River.
- More reports are needed to better map and assess this species.







Distribution as of 8/2018



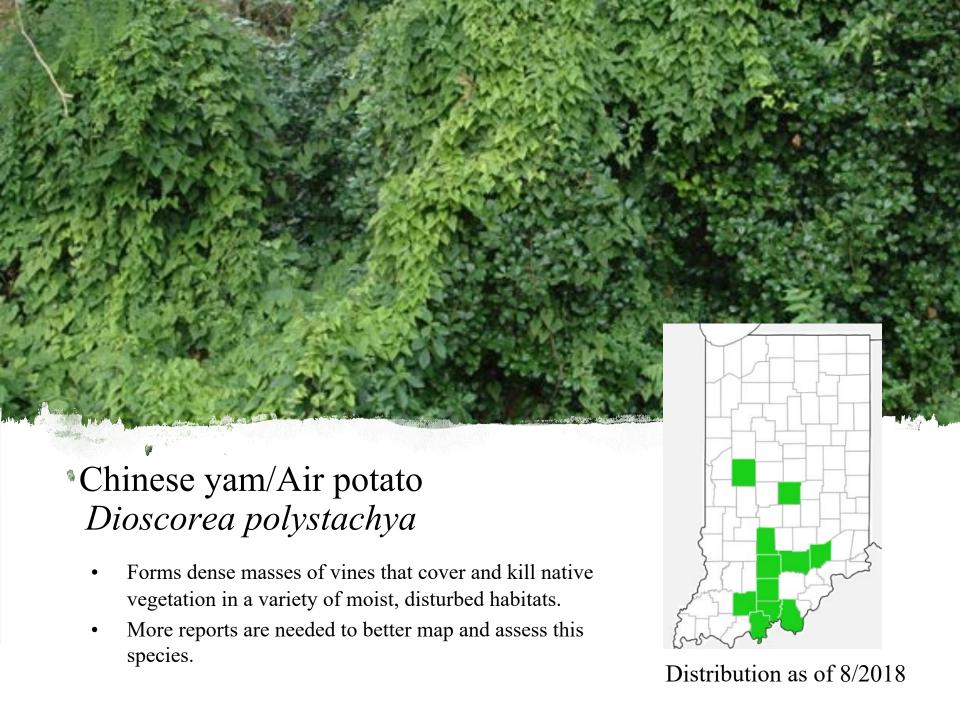
Small carpgrass Arthraxon hispidus

- Invades wet areas such as stream banks, floodplains and shorelines.
- Was only known from counties along the Ohio River until it was reported in Brown and Bartholomew Counties in 2016.
- More reports are needed to better map and assess this species.

Chinese yam/Air potato Dioscorea polystachya

- Herbaceous twining vine that grows to about 16.4'.
- Leaves alternate proximally but can become opposite as they advance up the vine. They are up to 8 inches long and wide and heart to fiddle shaped (margins three-lobed) with prominent, parallel veins.
- Chief means of reproduction are aerial, potato-like tubers (bulbils) located at leaf axils.









Ravennagrass Saccharum ravennae

- Tall clumping grass 8'-12' tall.
- Leaves are in a basal tuft that can be several feet in diameter.
- Flowering stem is largely naked of leaves with a feathery, fan-shaped plume at the top; flowers in early fall.
- Stem is covered with fine hairs



Ravennagrass Saccharum ravennae

- Invades wetlands and riparian areas.
- More reports are needed to better map and assess this species.



Distribution as of 8/2018

Beefsteak Plant *Perilla frutescens*

- Annual freely branching herb 1-6' tall.
- Square stems are hairy, with four parallel grooves.
- Opposite leaves ovate or orbicular, coarse teeth on margins. Leaves can be green or purple on both sides.
- Flowers held in pairs along stalks.







Beefsteak Plant Perilla frutescens

- Fast moving annual species spreading along roads and in other disturbed habitats.
- More reports are needed to better map and assess this species.



Distribution as of 8/2018

Catnip Nepeta cataria

- Herbaceous perennial 2'-3' tall.
- Leaves opposite, triangular, soft hairy, and fragrant with coarse teeth and 1" petioles.
- Stems square.
- Flowers in summer with terminal racemes of small flowers in densely crowded whorls.









Catnip Nepeta cataria

- Can spread aggressively in dry, disturbed habitats.
- More reports are needed to better map and assess this species.



Distribution as of 8/2018

How to Report These Species

- Mobile Device Download and use the Great Lakes Early Detection Network (GLEDN) app.
- Computer Report at EDDMapS.org

Need Directions:

- https://www.entm.purdue.edu/iisc/pdf/ho w-to-report-on-smartphone.pdf
- https://www.entm.purdue.edu/iisc/pdf/ho w-to-report-on-website.pdf

