

Invasive Species Alert

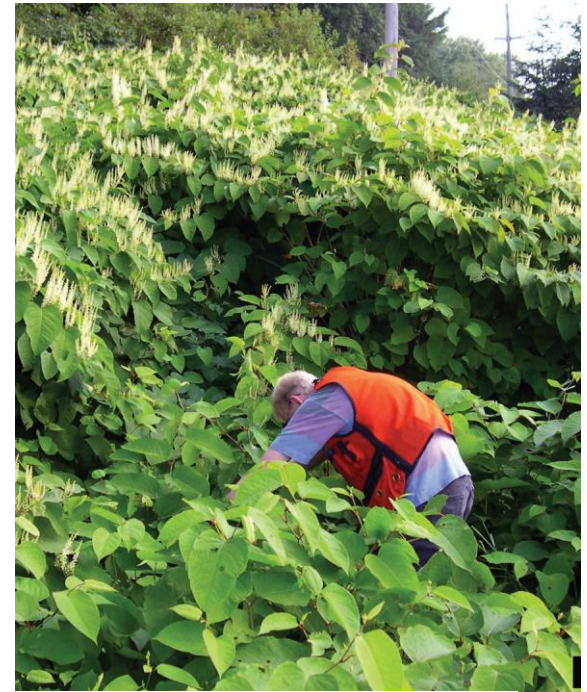
Japanese Knotweed

(*Fallopia japonica*)

Established in Michigan

Identification:

- Perennial, herbaceous shrub that can grow from 3-10 feet high
- Hollow stalks are persistent through winter, looks similar to bamboo
- Stems have a fine white coating that rubs off easily
- Flowers arranged in spikes near the end of the stem are small, numerous, and creamy white in color
- Flowers bloom in August and September in Michigan



Tom Heutte, USDA Forest Service,



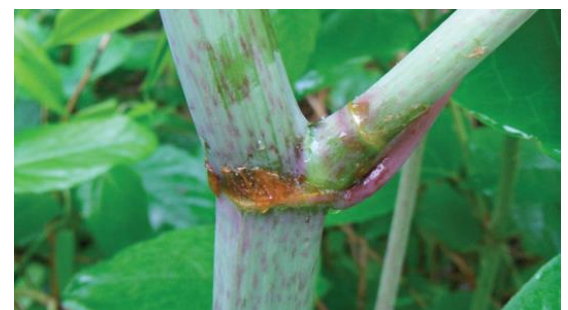
Suzan Campbell, MNFI

Habitat: Japanese knotweed can be found along roadsides, wetlands, wet depression, woodland edges, and stream or river banks. Full sun conditions are preferable, although this plant can tolerate some shade and a wide range of soil and moisture conditions.

Native Range: Asia

U.S. Distribution: Japanese knotweed has been introduced to most of the contiguous U.S. Florida, Alabama, Texas, New Mexico, Arizona, Nevada, Wyoming, and North Dakota are the exceptions.

Local Concern: Japanese knotweed grows very aggressively in disturbed areas. It excludes native plants by light limitation, nutrient cycling alterations, and allelopathy (releasing toxic or inhibiting chemicals to suppress the growth of potential competitor plant species).



Suzan Campbell, MNFI

Invasive Species Alert

Red Swamp Crayfish

(*Procambarus clarkii*)

Detected in Michigan

Identification:

- Dark red color with bright red raised spots, look like small lobsters
- Elongated claws and bony exoskeleton
- Elongated head with a triangular rostrum
- 2.2 inches – 4.7 inches in length

Habitat: Red swamp crayfish live in a variety of permanent freshwater habitats. Crayfish are crustaceans that burrow deep into the substrate of their habitat and create large mounds of sand and soil called chimneys with a relatively large hole in the center.



Photo by Chris Lukhaup

Diet: Crayfish feed heavily on snails, fish, amphibians, and plants.



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Native Range: Mississippi river drainage and Gulf coast

U.S. Distribution (outside of native range): Established populations in California, Delaware, Maryland, Ohio, Oregon, South Carolina, Utah, Virginia, Washington, and Wisconsin. Introduced but not established in Alaska, Hawaii, Idaho, Illinois, Indiana, Nevada, and New York.

Local Concern: Red swamp crayfish compete aggressively with native crayfish species for food and habitat. Feeding behavior reduces the amount of available habitat for amphibians, invertebrates, and juvenile fish. Burrowing and foraging behavior can also lead to summer cyanobacteria blooms and eutrophic conditions.

Other Names: Louisiana crayfish/crawfish

Potential Means of Introduction: Aquaculture/aquarium trade, classroom/laboratory release, live bait dumping, small chance of introduction through fish stocking events

Native look-alikes and how you can tell them apart from red swamp crayfish:

- ✓ **Devil crawfish:** mostly tan body with red highlights around head, body, and claws
- ✓ **White river crayfish:** color may vary from tan to rusty red color, no bright red bumps

Report this species to Seth Herbst, MDNR, at herbsts1@michigan.gov or 517-284-5841 or at www.misin.msu.edu or download the MISIN app to your smartphone

Invasive Species Alert

New Zealand Mudsnail

(*Potamopyrgus antipodarum*)

Detected in Michigan

Identification:

- Average of 1/8 inch long
- 5-6 whorls on shell
- Shells vary from light brown to black
- Difficult to identify



Habitat: New Zealand mud snails can tolerate a wide variety of habitats, including reservoirs, estuaries, rivers, and lakes. They are most prolific in water bodies with a constant temperature and flow, but are highly adaptable.

Diet: Diet consists of diatoms, detritus, and plant and animal matter attached to submerged debris.



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Native Range: New Zealand

Local Concern: While mudsnails are able to reproduce sexually, it is not always necessary. Populations in the U.S. are made up almost entirely of self-cloning parthenogenetic females. In a matter of one year, a single female could result in a colony of 40 million snails. They

hold no nutritional value for native fishes, so populations in the U.S. do not fall subject to predation.

U.S. Distribution: Western United States, Great Lakes, and the Chesapeake Bay

Means of Introduction: Possibly via ballast water of transoceanic vessels or game fish imports

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Flowering Rush

(*Butomus umbellatus*)

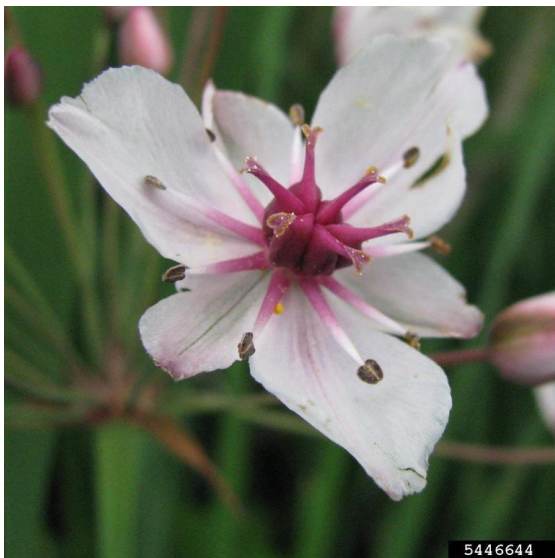
Established in Michigan

Identification:

- Resembles a large sedge
- May grow with upright foliage in shallow water or submerged with flexible leaves suspended in deeper waters
- Leaves have triangular cross section, are narrow, and twist toward the tip
- When flowering: flowers grow in round umbrella-like clusters of 20-50 flowers, 6 light pink to rose-colored petals per flower, 9 stamens per flower
- Difficult to identify when not flowering



Habitat: This perennial, aquatic, herbaceous plant typically grows in shallow sections of slow moving streams or rivers, lake shores, irrigation ditches, and wetlands, although it can survive in very clear water up to 20 feet deep.



Leslie J. Mehrhoff, University of Connecticut,
Bugwood.org

Native Range: Europe and Asia

U.S. Distribution: Most of the northern contiguous U.S.

Local Concern:

Flowering rush out-competes native species for resources and can hinder recreational activities like boating.



Leslie J. Mehrhoff, University of Connecticut,
Bugwood.org

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Invasive Species Alert

European Frog-bit

(*Hydrocharis morsus-ranae*)

Detected in Michigan

Identification:

- Single white flower with 3 round petals and a yellow center
- Free floating or sometimes rooted in shallow water
- Leaves are kidney-shaped to heart-shaped with a purple-red underside
- Leaves form a rosette



Michigan DNR

Habitat: Habitat includes slow moving rivers, sheltered inlets, ponds, and ditches. Preference is given to waters rich in calcium with no wave action.



Native Range: Europe, Asia, Africa

U.S. Distribution: European frog-bit is established in Washington and has been recorded in New York, Vermont, and Michigan.

Local Concern: Mats of European frog-bit can grow so thick that they impede boat traffic and movement of large fish and diving ducks. Large mats prevent nutrients and light from reaching submerged vegetation. When the mats die off in the fall, the resulting decrease in oxygen can cause fish and other organisms to die.



Michigan DNR

To report this species, visit www.michigan.gov/invasivespecies for contact information. Report online at www.misin.msu.edu or download the MISIN smartphone app and report it from your phone

Invasive Species Alert

Common Reed

(*Phragmites australis*)

Established in Michigan

Identification:

- Warm-season perennial grass with a rigid, hollow stem
- Height ranges from 6-13 feet
- Leaves are flat, smooth, and green to grayish-green
- Flowers grow as dense, branched clusters on the end of each stem that are open and feathery at maturity



Leslie J. Mehrhoff, University of Connecticut,
Bugwood.org

Habitat: Common reed, sometimes called phragmites, is often found in ditches, swales, wetlands, and on stream and pond banks.

Native Range: *Phragmites australis* is native to North America and commonly found around the world. One strain of this species is thought to be exotic or hybrid and is quickly replacing the native strain in many areas.

Local Concern: Phragmites can be difficult to walk through (for humans and wildlife) and often obstructs landowner views because of its ability to grow in tall, dense patches. The exotic strain can reduce native fish and wildlife populations, block out native salt marsh vegetation, and can be a fire danger for nearby residents.



Bernd Blossey, Cornell University, Bugwood.org

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Invasive Species Alert

Black Swallow-wort or Dog-strangling Vine

Cynanchum louiseae (*Vincetoxicum nigrum*)

Detected in Michigan

Identification:

- An herbaceous, perennial vine growing up to 7 feet in length
- Leaves are shiny dark-green and oval to heart-shaped with a pointed tip
- Small, star-shaped flowers are dark purple with 5-petals and grow in clusters of 6-10 blooms
- Seed pods are milkweed-like and full of flat, brown seeds covered in fine, white hairs



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Habitat: Black swallow-wort vines thrive in both shade and sun and are found in disturbed areas along roadsides, pastures, old fields and gardens as well as alvar and along fens.



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Native Range: Southwestern and Northern Europe

U.S. Distribution: From the Atlantic coast to the Midwest and as far south as Kentucky and Missouri. Also present in Quebec and Ontario.

Local Concern: Black swallow-wort grows rapidly and can cover other vegetation. Seeds are carried on the wind or transported by water. Roots are toxic to mammals, including livestock. Plants are toxic to many insect larvae including monarch caterpillars.

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