

TERRESTRIAL PLANTS

Cinnamon Vine Dioscera polystachya



- Pointed, heart-shaped leaves with indented sides.
- Air tubers present from June to September, which resemble small potatoes.
- Small, white or greenish-yellow flowers that smell of cinnamon.
- Can grow to 16 feet in height and engulf surrounding vegetation.

Impacts: Lowers biodiversity, damage to small trees and shrubs.

Purple Jewelweed Impatiens glandulifera



- An annual plant found in wetlands, forests, gardens, yards, and roadsides.
- Grows between 3-6 feet tall.
- Purple/red stems that are smooth and hollow with 5-10 flowers
- Fruit capsules explode when ripe and touched.

Impacts: Outcompetes native flowers (pollinators) and can alter flow (erosion/flooding) in waterways.

Mile-A-Minute-Weed Persicaria perfoilata



- Fast-growing annual vine with equilateral triangles leaves and circular stipules.
- Narrow, delicate, green or red stems with barbs.
- Clusters of pea-sized, blue fruit first appear in July.
- Prefers open and disturbed areas with preference for wetter soil and access to sunlight.

Impacts: Agricultural fields, displaces pollinators, edge habitats.

Kudzu Peuraria montana var. lobata



- A single plant can have 30+ vines each growing 30-100 feet up into the canopy.
- Six-foot long roots can weigh up to 400 pounds.
- Alternate, compound leaves.
- Spire of purple red flowers in late summer months.
- · Hairy pea-pod fruit.

Impacts: Engulfs everything: buildings, habitat, agricultural fields, etc.

Stiltgrass Microstegium vimineum



- Delicate, low-growing, annual grass that can re-root at nodes.
- Short (3-8 cm) alternate leaves are slender pale-green with shiny central vein.
- Very adaptable but prefers forested floodplains and in deep shade to full sunlight.
- Produces 100 to 1,000 seeds per plant.

Impacts: Outcompetes native flowers (pollinators), and can alter flow (erosion/flooding) in waterways.

Chaff Flower Achyranthes japonica



- Perennial plant that grows three to six feet high.
- Stem at ground is red, even in seedlings.
- Opposite, smooth-edged leaves.
- Flowers lack petals is a green, bottle brush-like spikes.
- Seeds readily attach to fabrics and hair.

Impacts: Its tall dense growth outcompete native flowers, overfills ditches and can infiltrate croplands.

Lesser Celandine Ficaria verna



- Low-growing, spreading perennial plant found in floodplains in early spring with the entire plant disappearing by June.
- Small, one-inch wide bright yellow flowers with 8-12 petals.
- Shiny, dark green leaves heartshaped and grow from a central rosette.

Impacts: Outcompetes native flowers in the spring (pollinators), and leaves understory barren in summer (erosion/flooding).

Calligraphy Sedge Carex kobomugi



- Perennial sedge that grows to about one foot tall.
- Triangular stem with clubshaped flowering heads.
- Small ridges along the edges of leaves; making it feel serrated.

Impacts: Can out-compete native dune grasses and may cause dunes to become vulnerable to erosion and wind blowouts.



AQUATIC PLANTS



Parrot Feather* Myriophyllum aquaticum

- Leathery leaves that grow in whorls of 4-6
- Bright green, upper stem can emerge up to one foot above the water, while submerged leaves and stems may be tinted reddish
- Small, white flowers along the stem above the water line.
- Prefers slow-moving freshwater habitats with high nutrient and light levels.
- · Spreads via fragmentation.



- · Resembles a fourleaf clover.
- Anchors into sediment in shallow. slow-moving waters.
- Leaves are smooth and can be either submerged or emergent.
- Maximum height is approximately 8 inches.
- Green stems end in a single leaf.
- Spread via rhizome fragments, and spores.





Water Chestnut Trapa natans



- Green floating rosette of sharply-serrated leaves
- Small, white, four-petaled flowers.
- Hard "woody" nut surrounded by sharp, barbed spines.
- Prefers shallow, nutrient-rich lakes and rivers but can grow in mucky substrates.
- Spread by seeds "nut" or offset reproduction (i.e. form a baby rosette).

Large Flower Water Primrose*

Ludwigia grandifolia



- Floating or emergent growth up to two feet and forms dense mats.
- Reddish stems and vellow flowers with 5 or 6 petals.
- Prefers shallower waters (up to 3 meters deep) and thrives in wetlands, and along shorelines.
- Spread by seed and fragmentation.



Water Soldier

Stratiotes aloides

- A submerged, aquatic plant in the form of a large rosette that becomes buoyant during the summer.
- Leaves are bright green, sword-shaped, and have sharply-serrated edges, giving a similar appearance to aloe and spider plants.
- Showy, white flowers with 3 petals.
- A perennial plant and inhabits lakes, and rivers.
- Spreads via offset reproduction.



AQUATIC PLANTS



Yellow Floating Heart* *Nymphoides peltata*

- A perennial plant that prefers slowmoving rivers, ponds, and lakes.
- Exhibits bright yellow flowers with 5 petals located above the surface of the water.
- Leaves are circular or heart-shaped with a wavy edge.
- Spread via seeds that are flat and oval-shaped.



Brazilian Elodea *Egeria densa*

- A bushy aquatic plant with dense whorls of 4 bright green leaves.
- White, three-pedaled blooms at the surface of the water.
- Can grow up to 18 feet.
- Leaves are smooth to the touch.
- Spreads via fragmentation.



Water Lettuce*
Pistia stratiotes
• Free-floating plan

- Free-floating plant displaying a rosette of leaves that resembles an open head of lettuce.
- Leaves are thick, ridged, rounded at the end, light green, and have short, white hairs.
- Produces small, white to pale green flowers and has many feathery roots that dangle underneath the rosette.
- Prefers ponds, lakes, rivers, and streams.
- Spread via offset reproduction.

Water Hyacinth*

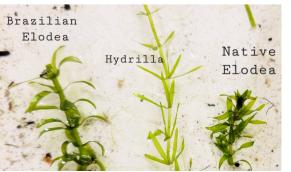
Eichhornia crassipes

- Free-floating perennial with leathery leaves with distinctive air bladders.
- Can produce a stalk of lavender flowers, but not known to flower in Michigan.
- intolerant to freezing temperatures.
- Spreads via offset reproduction.

Hydrilla*

Hydrilla verticilata

• Slender, green, saw-toothed leaves whorled in ground of 4-8 (5 being the most common).



- If leaf mid-vein may contain a row of spines and red in color.
- Grow up to 30 feet long and branch out considerably near the water's surface.
- Exhibits white, three-pedaled flowers.
- Spreads via fragmentation.



TREE PESTS

Please note reports made to MISIN.msu.edu or on the MISIN app require at least one clear photo of the pest

Asian Longhorned Beetle

Anaplophora glabripennis

- Legs and feet are blueish in color.
- Long banded antennae.
- Point where wings meet on "neck" is black, while native sawyer beetles have a white dot.
- Round exit holes about the size of a pencil.
- Trees may exhibit premature yellow leaves or leaves with chewed veins.



Balsam Woolly Adelgid

Adelges piceae

- Targets true fir trees such as balsam, concolor and
- Tiny, white, cottony-tufts on the trunk.
- Tree twigs display swollen tissues.
- Infested trees may exhibit "flagging," multiple branches may turn brick-

Beech Leaf Disease

Litvlenchus crenatae

- Visible bands of thickened, dark-green or brown tissue between leaf veins. (see picture)
- Leaves become distorted. puckered, or curled.
- Results in leaf loss as disease progresses.
- Leaf symptoms can best be observed by looking up unto the tree canopy.



Mountain Pine Beetle

Dendroctonus ponderosae

- Many popcorn-like globs of brown, pink, or white pitch on tree trunk.
- Check out picnic beetles for alternative pests.
 Yellow to red needles in tree
- crown visible in the summer time.
- Red frass, like sawdust, on crevices and around tree bases.
- Dieback is visible soon after infestation.



Hemlock Woolly Adelgid

- Small, round, cottony-masses located on twigs at the bases of needles on the underside of hemlock tree branches.
- Infections are present year-round, but are most visible in the fall and winter.
- Only infects Eastern Hemlock trees, no pine or spruce trees, and prefers the more moderate winters closer to Lake Michigan.

Adelges tsugae



Thousand Cankers Disease

Geosmithia morbida

- Suspect twigs will have slightly sunken spots, often darker than the surrounding area.
- Center of cankers will display a small hole or dark spot.
- Tree crowns my exhibit signs of dieback.
- Spreads through a combination of native twig beetles and exotic fungi.



Spotted Lanternfly

Lycorma delicatula

- Feeds predominately on Tree of Heaven and other hardwoods, but can impact vineyards, orchards and hops.
- Egg masses are a gray color, resemble old chewing gum. columns of eggs with a puttylike coating.
- Juveniles are wingless and beetle-like. They start out black with white spots, and develop red patches as they mature, about 1/4-1/2 inch
- Adults are about one inch long. Folded wings are translucent tan color with black spots. When wings are open a red hindwing and yellow/black body are visible.
- Short distance fliers and relies more on hopping.
- Adults are most visible August through October.

