

Iron County Land and Water Conservation Department



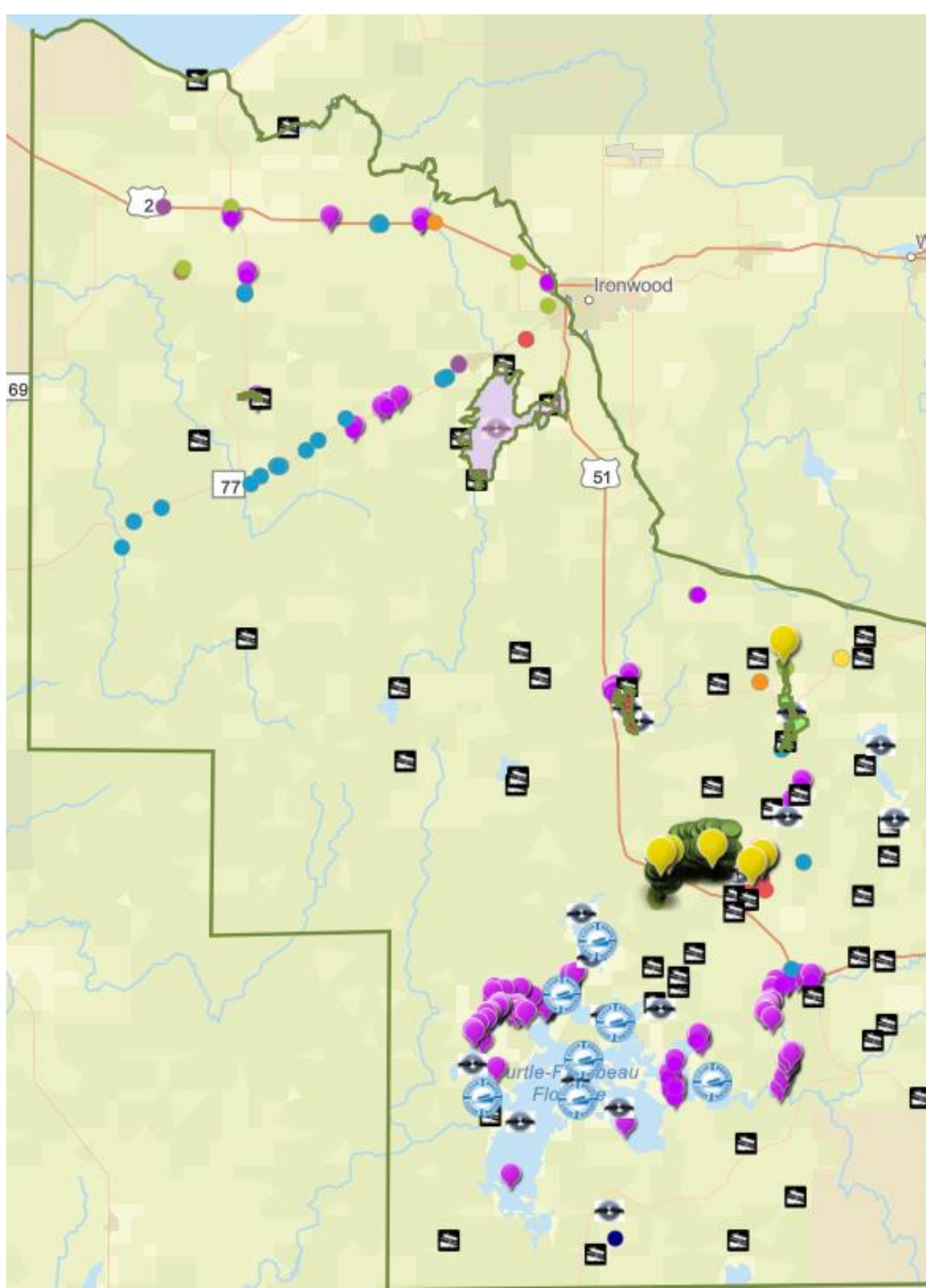
Iron County Land and Water Conservation Department

Invasive Species are a Big Deal



County Invasive Species Coordinator

Annual Summer LTE's



A Holistic / Watershed / Future Approach

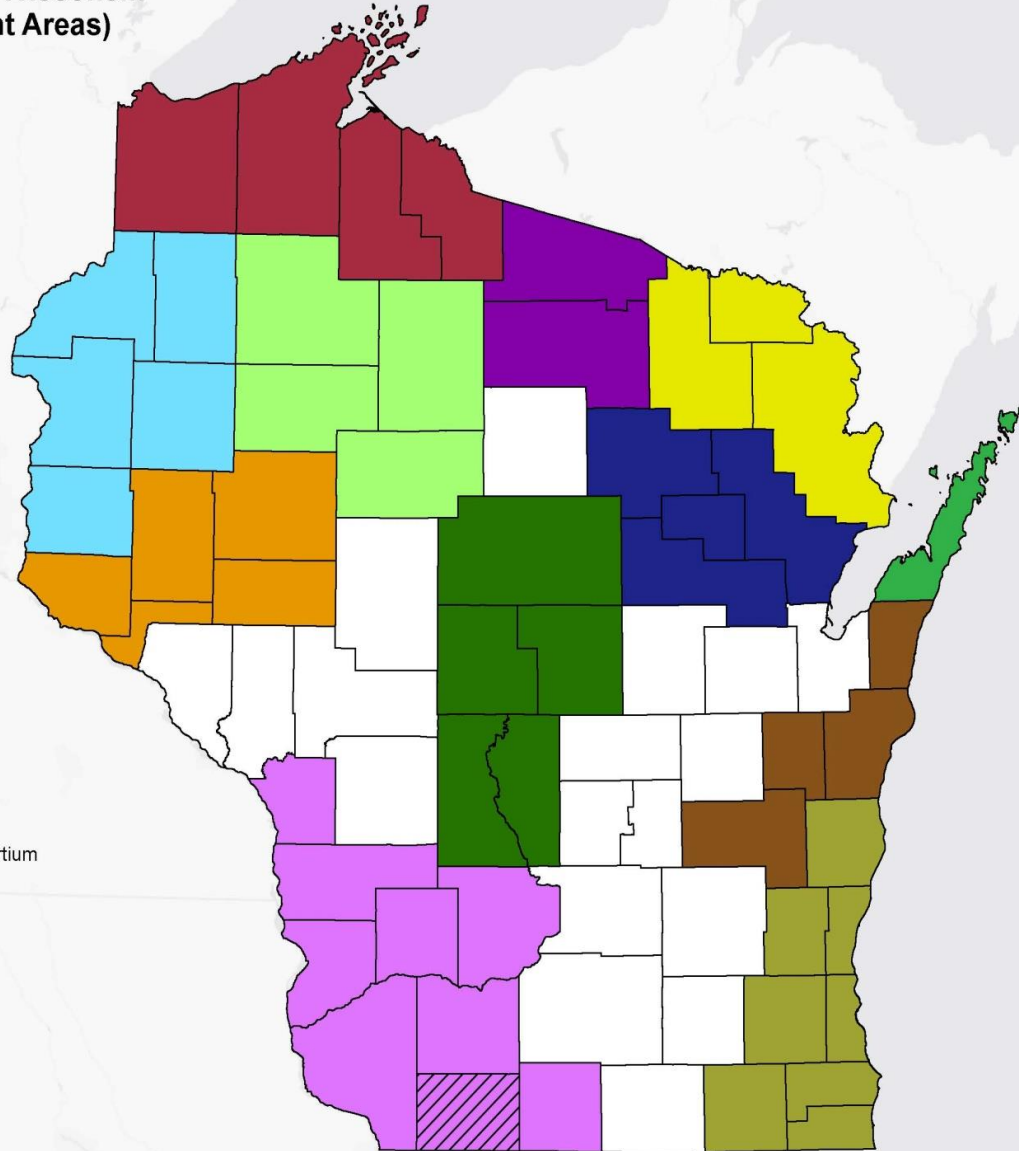
- Climate Change
- Helping Lake Association
- Nutrient Management
- AIS- Education, Monitoring, and Management
- Terrestrial Invasive- NWCMA
- Shoreline Restoration
 - Erosion Control
- Critical Habitat Assessment
- Shoreline Assessment and CWH
- Education
- Water Quality Monitoring CLMN Program
- Watershed Management



**Regional Invasive Plant Groups in Wisconsin
(Cooperative Weed Management Areas)
As of January, 2018**

Regional Group Name

- Central Sands Invasives Group
- Door County Invasive Species Team
- Lafayette Environmental Action Group
- Lakeshore Invasive Species Management Area
- Lower Chippewa Invasives Partnership
- Northwoods CWMA
- Southeastern Wisconsin Invasive Species Consortium
- Southwest WI Weed Management Area
- St. Croix Red Cedar CWMA
- Timberland Invasives Partnership
- Upper Chippewa CWMA
- Wild Rivers Invasive Species Coalition
- Wisconsin Headwaters Invasives Partnership
- No regional invasive plant group



Partnerships

- Northwoods Cooperative Weed Management Area
- Great Lake Indian Fish & Wildlife Commission
- WDNR- Forestry, Wildlife, Parks
- Iron County Forestry
- US Forest Service
- Townships
- Gogebic County Conservation District

Invasive Species

Harm the Environment, Economy, Human Health

- Threaten native ecosystems
- Degrade habitat quality
- Vectors for disease
- Forestry
- Health-Skin Rash, Poisonous
- Property Damage
- Disease (Limes)
- Agriculture (Sick Cattle)



AIS alone have cost North America over \$26 Billion per year since 2010.

Wisconsin's NR 40 Rule

Classifies the most invasive species as Prohibited or Restricted. Goal is to decrease spread of invasive species.

Restricted: Species cannot be transported, transferred and introduced, but possession is allowed.

Prohibited: Not well established. Species cannot be transported, *possessed*, transferred or introduced. Required to manage.

Iron County Priority Invasive Species

- Wild Parsnip (R)
- Giant Hogweed (P)
- Garlic Mustard (R)
- Japanese (R) and Giant Knotweed (P)
- Purple Loosestrife (R)
- Invasive Shrubs: Woodland invaders
 - Common buckthorn & glossy buckthorn (R)
 - Invasive bush honeysuckles (R)
 - Japanese barberry (R)
 - Black Locust (N)-Spreading in our area.
- Emerald Ash Borer
- Garden Valerian (R) (Very bad to the west Douglas County, it's coming)
- European Marsh Thistle (R)
- Leafy Spurge (R)
- Teasels (R) (No known sites in Iron County)



WANTED

AQUATIC INVASIVE SPECIES

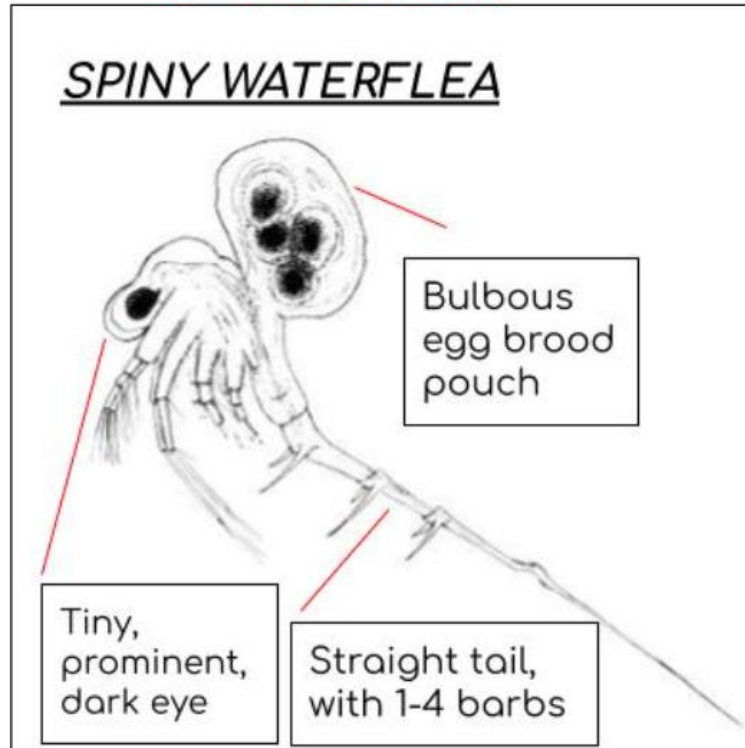
SPINY WATER FLEA



CONCERNS:

This large type of zooplankton reproduces rapidly. Females can produce eggs without the need for mating. The diet of the spiny water flea consists of smaller zooplankton, an important food supply for fish in larval stages and for forage fish. Spiny water fleas can disrupt the entire ecosystem food chain and affect many organisms.

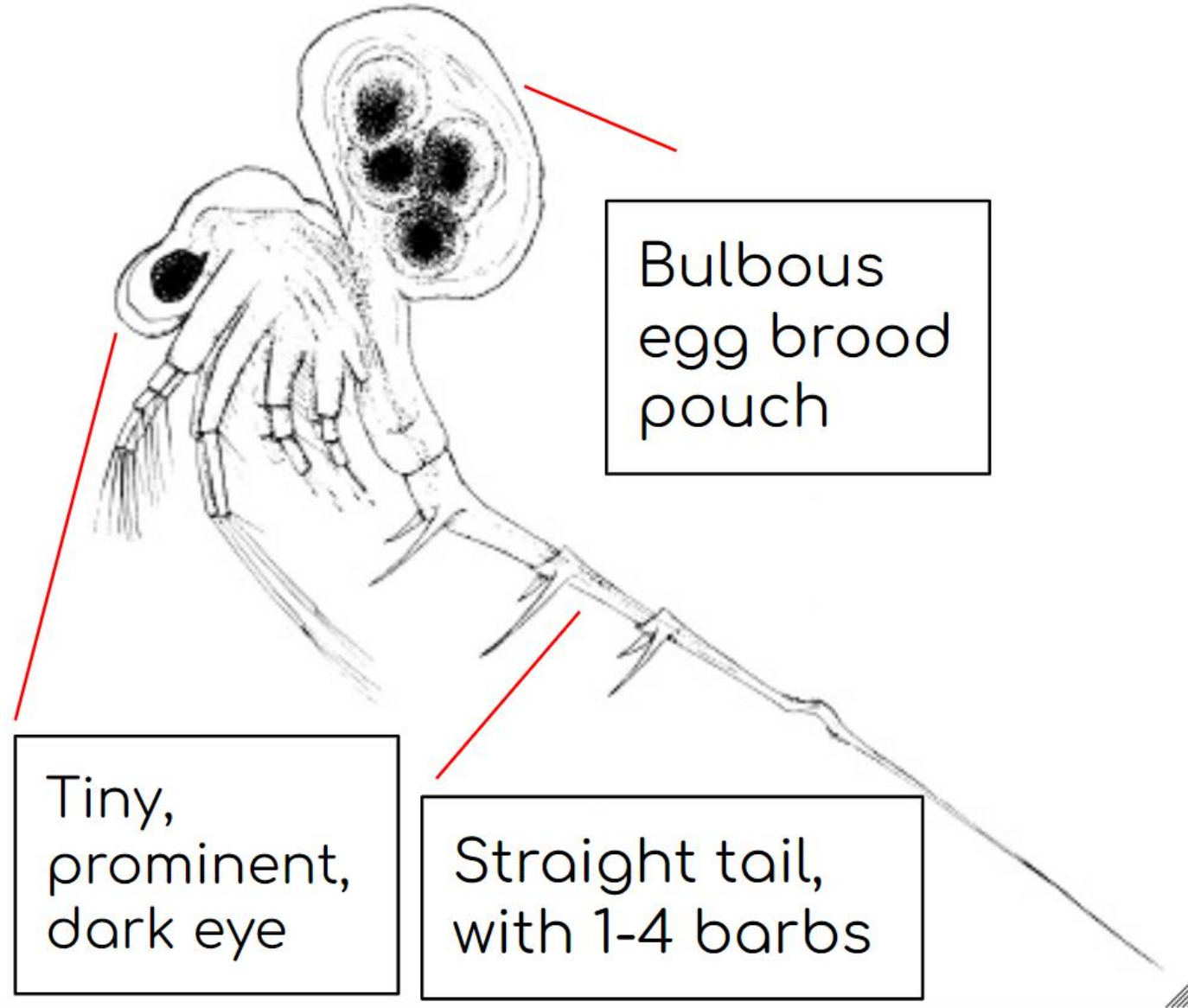
IDENTIFICATION:



STEPS TO PREVENT THEIR SPREAD:

- 1) Maintain good boat cleanliness, keeping boats clear of debris and mud that could harbor spiny water fleas.
- 2) Ballast areas should be flushed before entering new bodies of water. Motors, livewells, or bilges should be drained on land before moving to another water body.
- 3) Fishing gear should always be washed after use.
- 4) If you suspect you've spotted it, report it to local authorities.

SPINY WATERFLEA

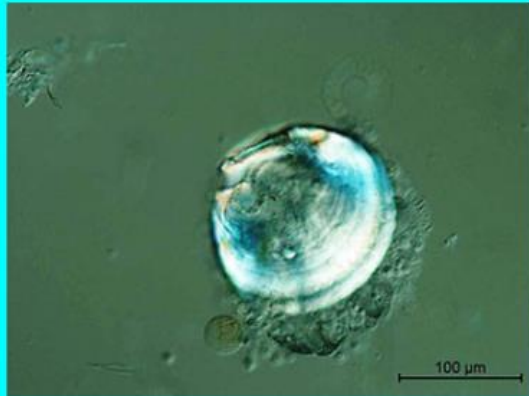


WANTED

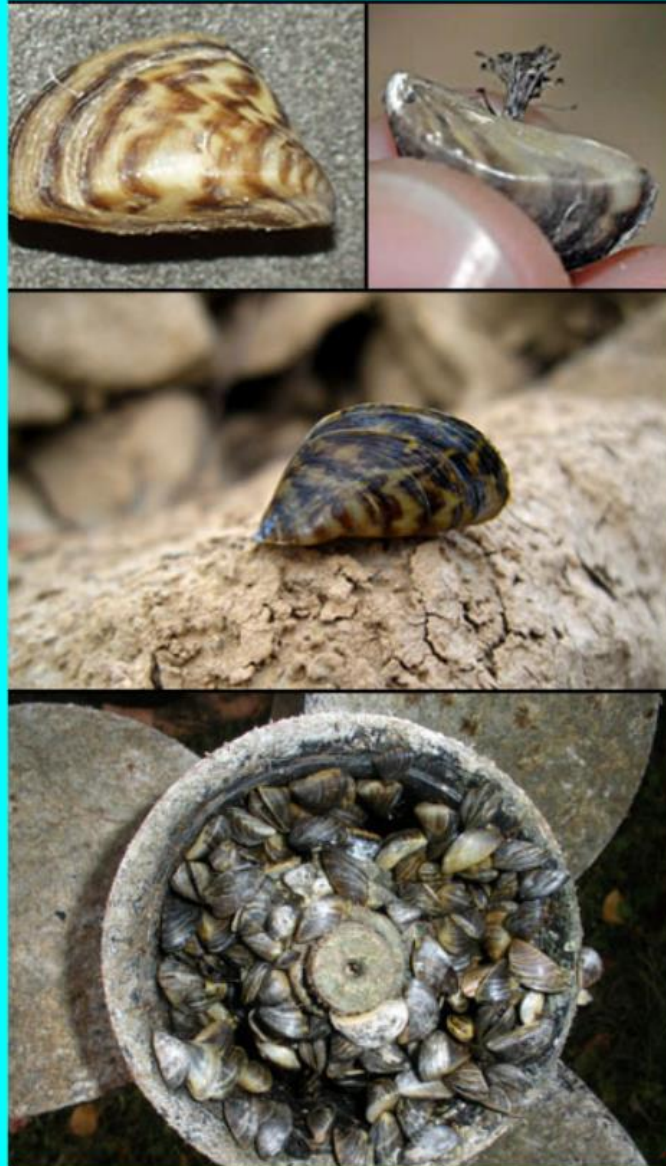
Zebra Mussels

Identification:

1/4-1/2" long, D-shaped phytoplankton with alternating brown stripes.



The larval form, pictured above, are invisible to the naked eye and can spread inland by recreational boats.



Concerns: Zebra mussels reproduce rapidly and create thick mats on hard surfaces in lakes, including on docks, in pipes, and around native mussels (eventually smothering the native mussels to death). They also filter food particles out of the water, limiting the food availability for other water creatures.

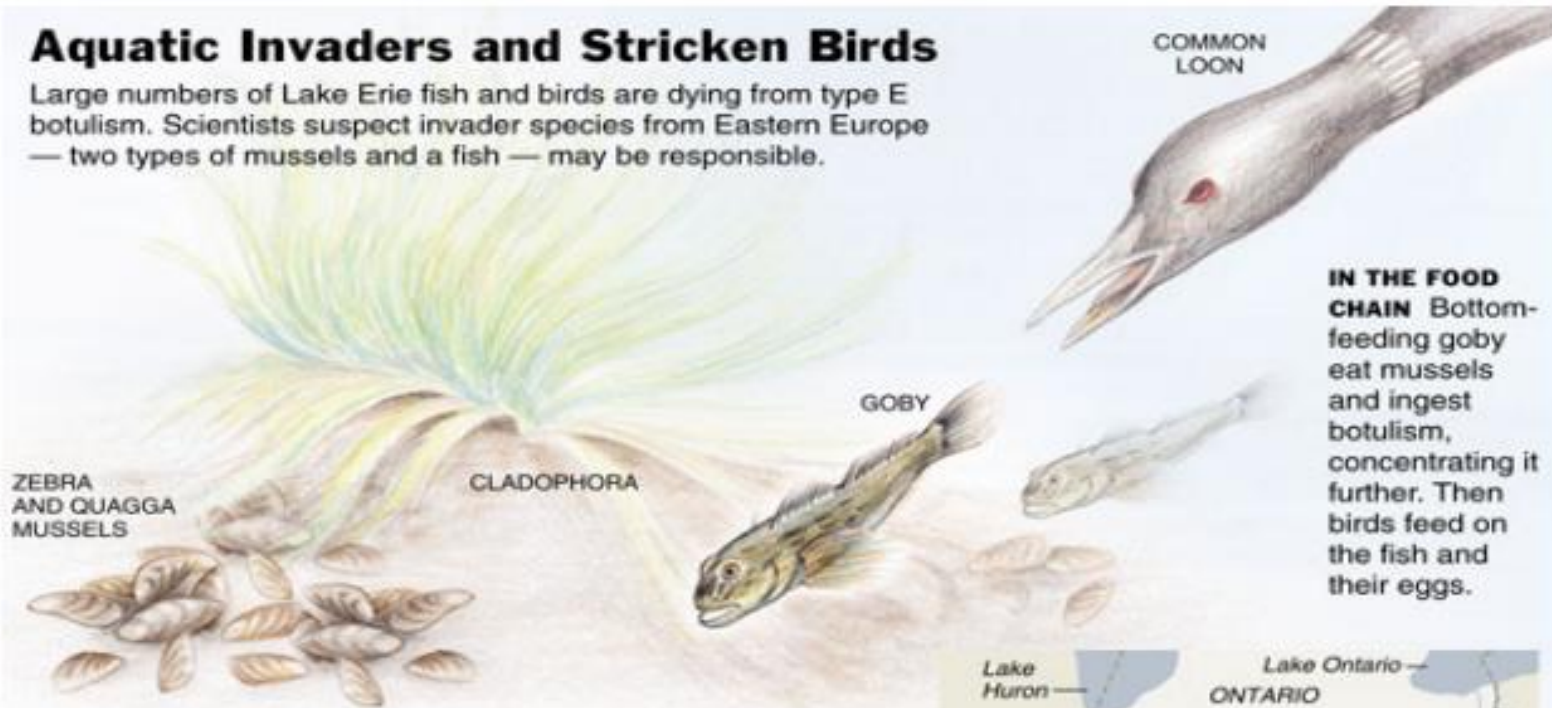
What can you do?

Do your part! Boaters are strongly encouraged to check their boats, trailers, and equipment for attached mussels and drain all water before leaving landings.

Gobies as suspects

Aquatic Invaders and Stricken Birds

Large numbers of Lake Erie fish and birds are dying from type E botulism. Scientists suspect invader species from Eastern Europe — two types of mussels and a fish — may be responsible.



IN THE FOOD CHAIN Bottom-feeding goby eat mussels and ingest botulism, concentrating it further. Then birds feed on the fish and their eggs.

ZEBRA AND QUAGGA MUSSELS

CLADOPHORA

GOBY

COMMON LOON

A CHANGED ECOSYSTEM

Zebra and quagga mussels filter algae from the water, making the lake clearer. Sunlight reaches the lake bed, prompting plant growth.

BACTERIA THRIVE Decaying plants create an oxygen-deprived environment favorable for botulism bacteria. As they filter the water, mussels may concentrate the toxin.



Roadside ditches are a perfect place for Invasives



Birds Foot Trefoil

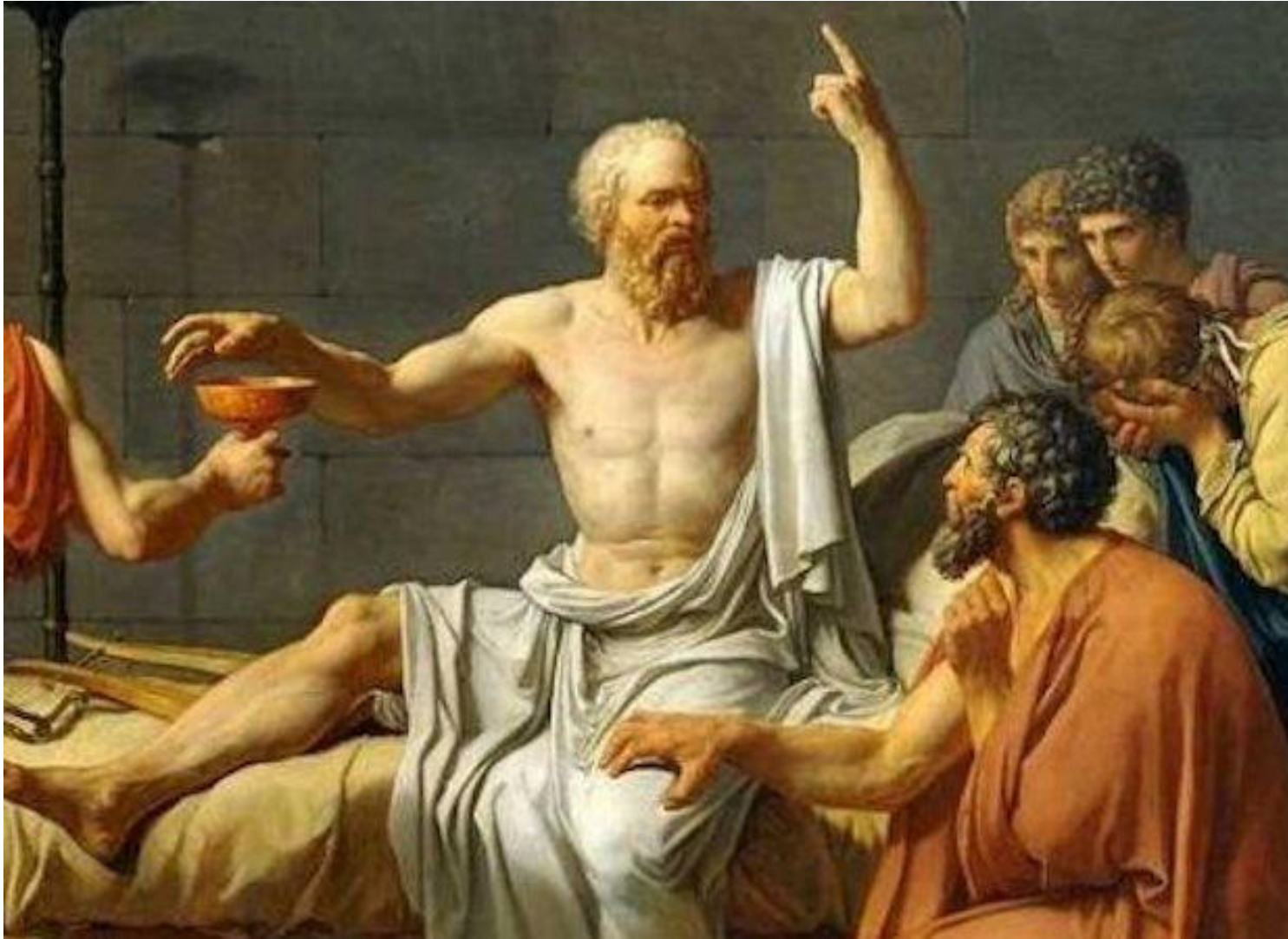
White and Yellow Sweet Clover



Crown Vetch



Poison Hemlock / Water Hemlock



Poison Hemlock

Invasive -Deadly



- Queen Annes Lace

Invasive but edible



Poison Hemlock and Water Hemlock



No... that's not Ditch Weed!!



Giant Hogweed



<https://www.fws.gov/story/dont-touch-these-plants>



Description:

Height: grows 6–18 feet tall;

Leaves: up to 5 feet across, notably spiked with jagged appearance;

Stem: 4–6 inches in diameter, covered with reddish-purple spots and stiff hairs filled with sap

Flowers: white flower clusters bloom in late June-July and can be up to 2 feet across

GIANT HOGWEED

DO NOT TOUCH THIS PLANT!!

One of the most dangerous plants in the world, giant hogweed produces a phototoxic sap that, when brushed against and exposed to sunlight, can cause severe skin blisters, scarring, and blindness! For this reason, it should not be mowed down, weed-whacked, burned, or composted.

Control Methods: Small infestations can be hand-pulled or dug up (using proper safety precautions), bagged, and laid in the sun to liquify/compost for a minimum of 1 week before disposing in the trash. Large infestations can be managed with herbicide treatment.

Phototoxic Look-alikes



Cow parsnip (left) is a smaller plant overall, with leaves 2–2.5 feet across, 1–2-inch stems with soft hairs, and white flower clusters up to 1 foot across. Flowering occurs weeks before giant hogweed.



Wild parsnip (above) grows 2–5 feet tall, have compound leaves (main stem has 5-15 leaflets), and grooved, hollow stems with yellow flower clusters.

Is this Giant Hogweed or Cow Parsnip?



© 2008 k. chayka

Cow Parsnip

- 1 to 2.5 metres tall
- Stem is 2.5 to 5 cm in diameter
- Palmate-shaped, compound leaves (looks similar to a maple leaf, or an open palm with fingers outstretched), divided into 3 segments

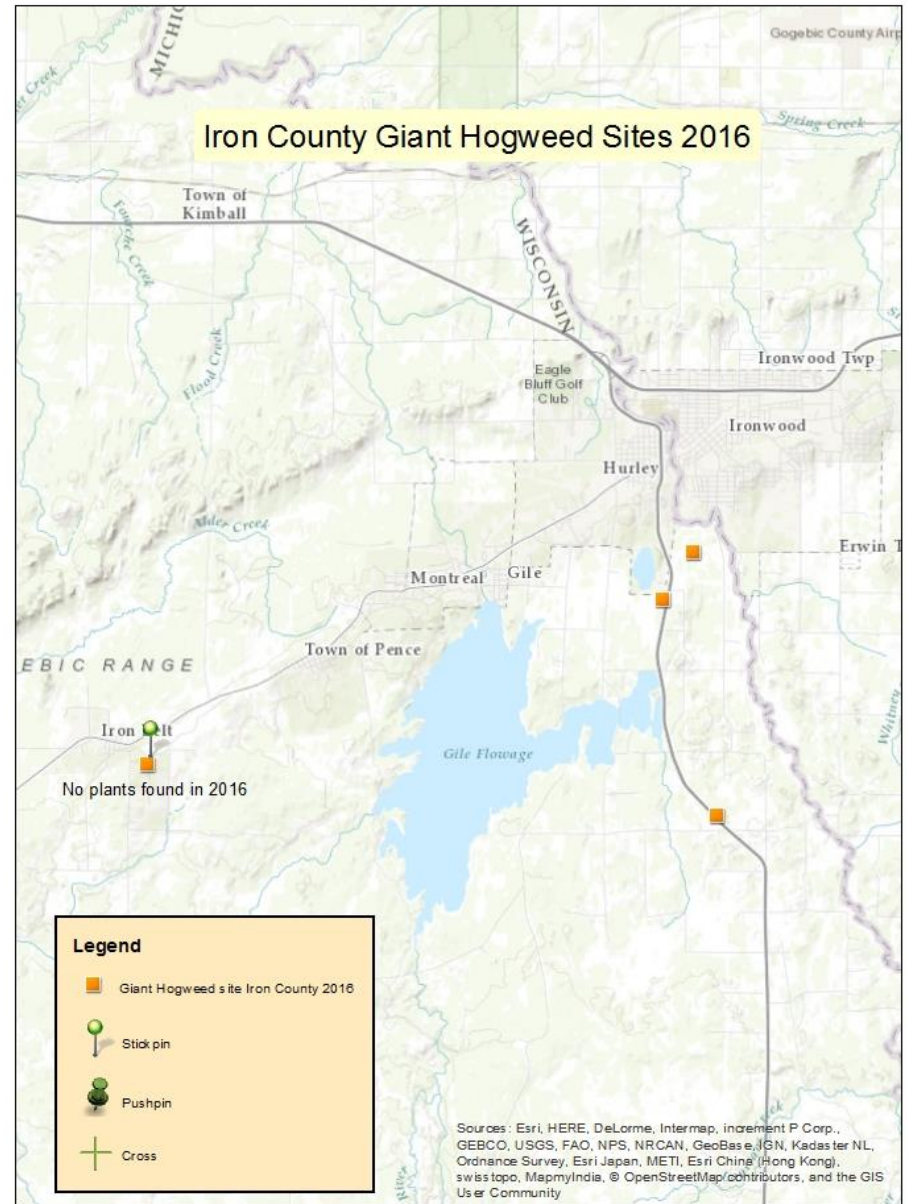


Giant Hogweed

- 3 to 5 metres tall
- Stem is 3 to 10 centimetres in diameter
- Compound, lobed leaves (single leaves with lobes that look like a hand and fingers), which are deeply incised

It's Giant!!





WHY IT MATTERS

INVASIVE SPECIES TAKE OVER NATIVE SPECIES HABITAT, DECREASING NATIVE POPULATIONS. NATIVE PLANT SPECIES ARE IMPORTANT FOR AN ECOSYSTEMS STABILITY.

WILD PARSNIP SAP CAN CAUSE *PHYTOPHOTODERMATITIS*. WHEN SAP COMES IN CONTACT WITH SKIN, AND SUN EXPOSURE, SEVERE BLISTERING CAN OCCUR.



! WARNING

WILD PARSNIP



INVASIVE SPECIES



TREATMENT:

HERBICIDE

GLYPHOSATE CAN PROVIDE EFFECTIVE CONTROL OF WILD PARSNIP. IT SHOULD BE APPLIED WHEN PLANTS ARE DORMANT, SPRING OR FALL. IT CAN ALSO BE APPLIED TO BUDDING AND FLOWERING PLANTS, BUT SHOULD BE DONE BEFORE PLANTS COME TO SEED.

MANUAL

CUT ROOT WITH SHOVEL TO KILL PLANT

Wild Parsnip (*Pastinaca sativa*)

- Brought from Europe for food (tuber).
- Located in disturbed sites and along roads.



Wild Parsnip

Human Health Concern!

- Phytophotodermatitis: Sun and sap on skin can cause serious blisters.





Wild Parsnip

- ▶ Hwy 77 between Iron Belt and Upson
- ▶ Mercer Birch Tree Drive at end of cul-de-sac
- ▶ Moore Park Rd. end of turn around
- ▶ Wilson Lake Circle- Back side
- ▶ Hwy 122 near Chart Road
- ▶ Hwy 122 near Upson and Forestry Pit
- ▶ US Hwy 2 near Valley Road



Wild Parsnip

(*Pastinaca sativa*)

- 1 to 5 feet tall
- Tiny pale-yellow flowers in many flat top clusters
- Flowers in July, Seeds at End of July August
- Leaves alternate along stem
- Flowers once and dies.
- Toothed and divided with egg shaped-leaflets along single stem.



Photo: Christopher Noll (left), Online Virtual Flora of Wisconsin. 2019. <http://wisflora.org/>
Accessed on March 16.

Wild Parsnip in June 14, 2018
Hwy 77- Upson



Wild Parsnip (July and August)



Ashland County
Highway 2 (July 3)



Ashland Bike Trail (July 16)

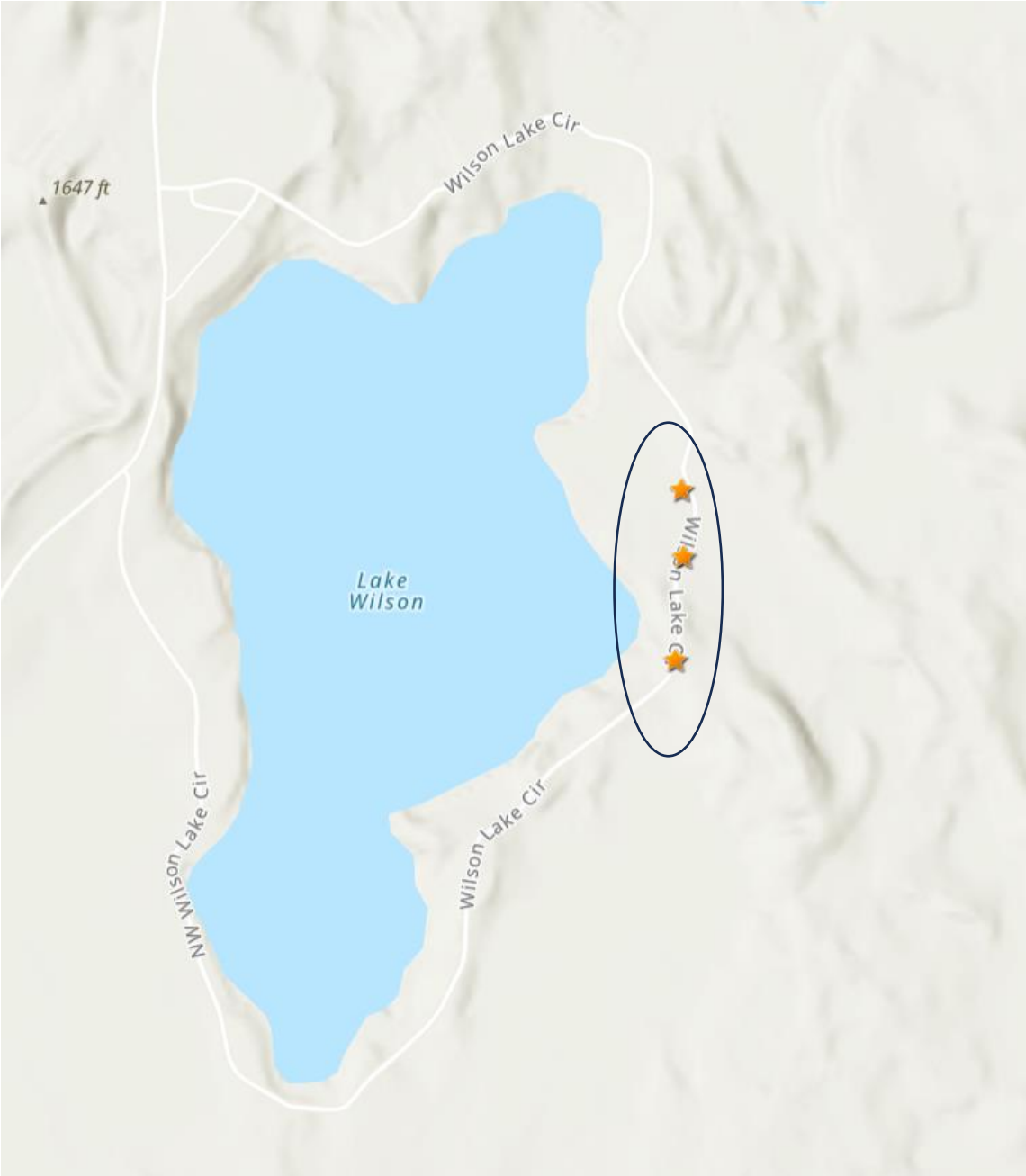
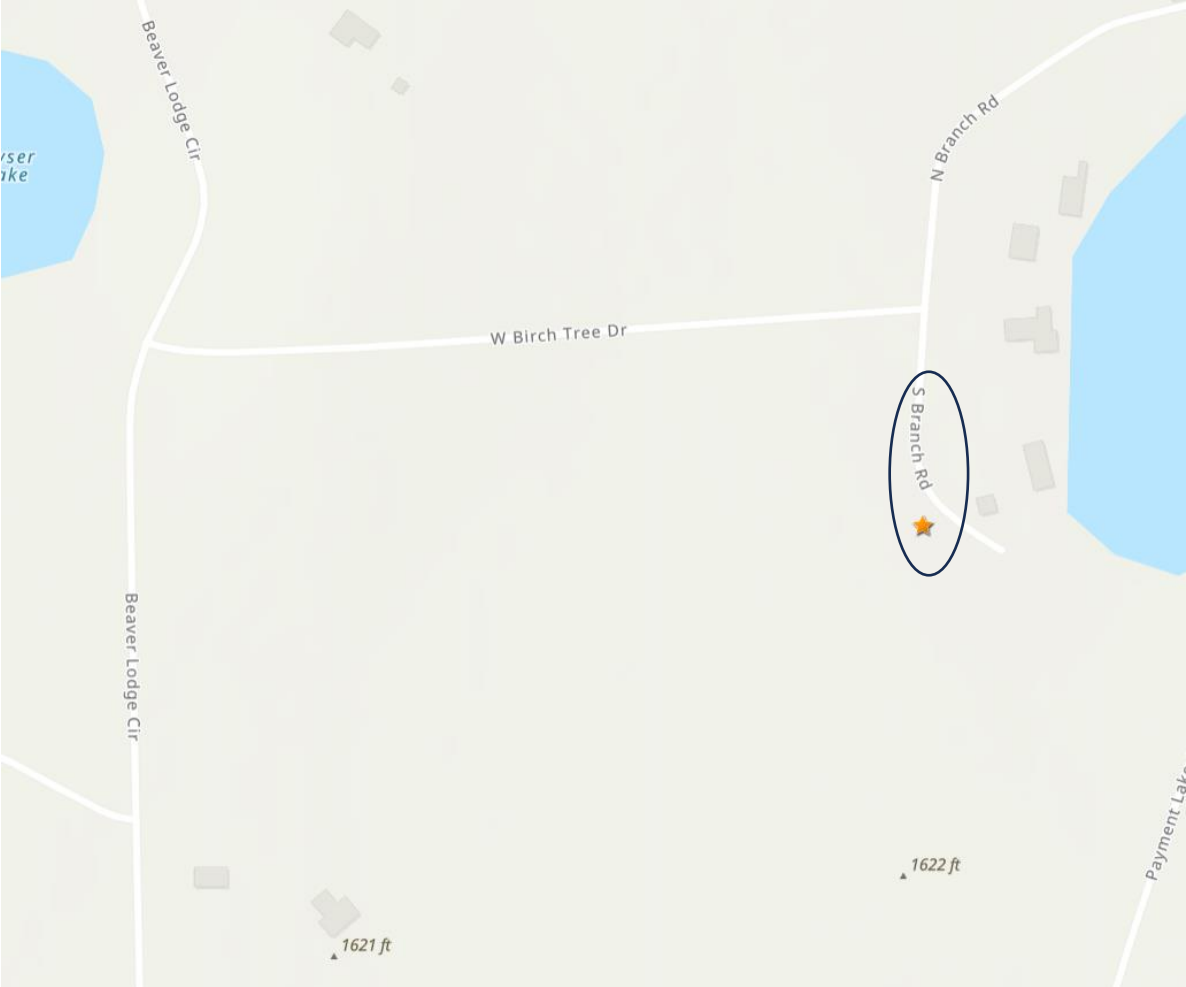


(July 10)



August

Mercer Area Wild Parsnip



INVASIVE SPECIES ALERT

GIANT KNOTWEED

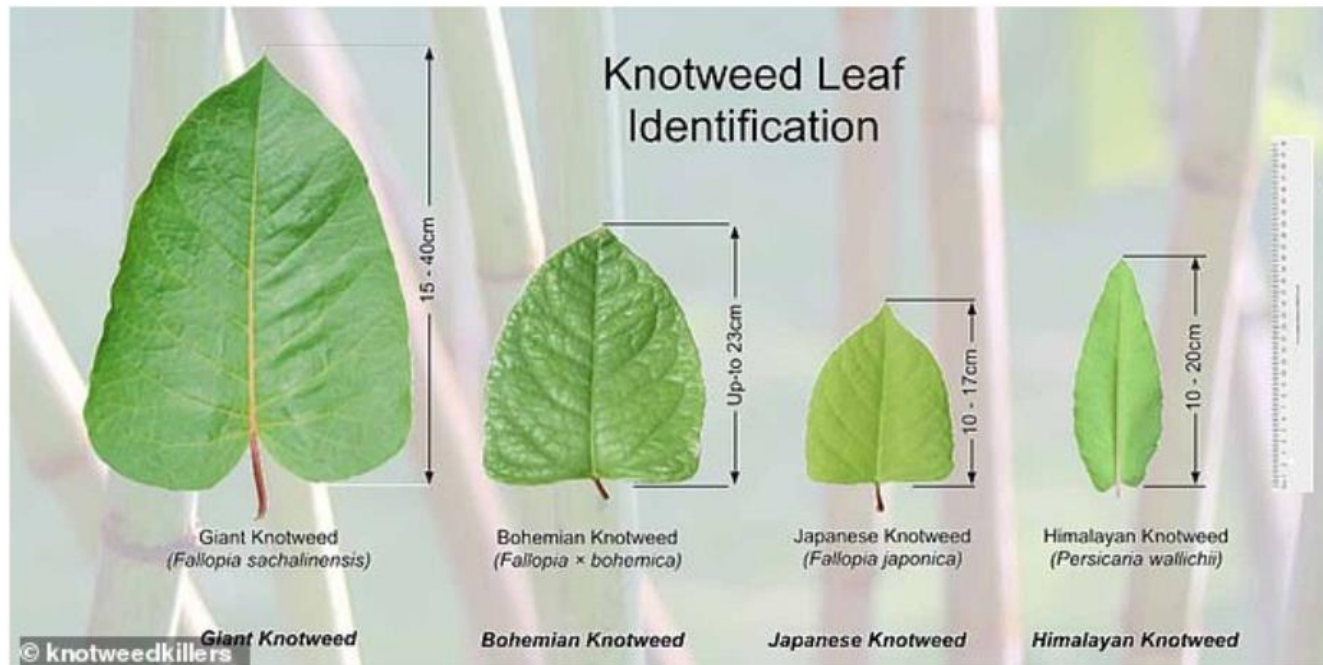
Giant knotweed is a rapidly growing plant that spreads aggressively by roots and broken stems. It limits diversity by shading and crowding out native species, increases the risk of stream bank erosion, decreases habitat value, and impedes the movement of wildlife.

IDENTIFICATION

Semi-woody, shrub-like perennial. The stems usually reach between 6 and 16 feet tall, are sparingly branched, hollow, light green, smooth, and swollen at the nodes, **resembling bamboo canes**. The **heart-shaped leaves** are 6 to 14 inches long with fine hairs on the underside.



CONTROL
combination of cutting stems
and applying herbicide.



Knotweeds

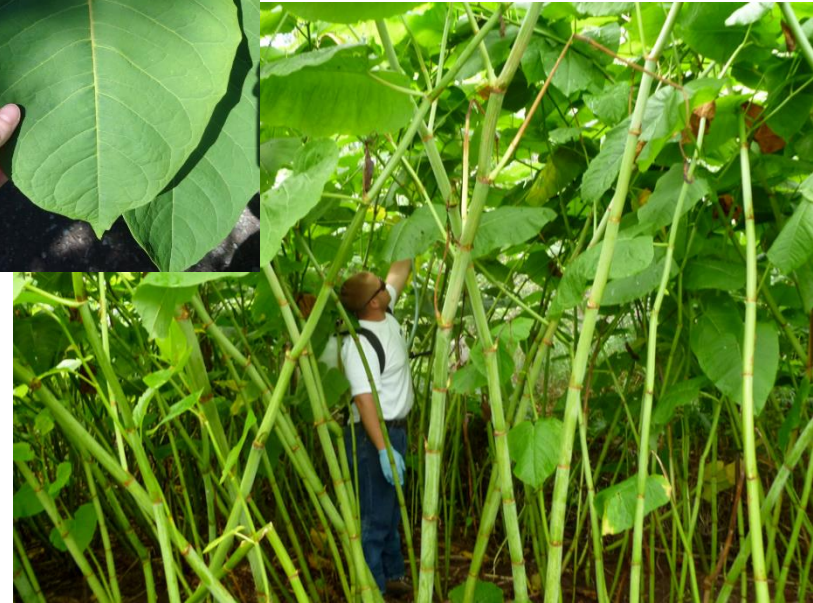
- Hollow stems, bamboo-like, and tall (giant-10 to 20 feet).
- Tiny flowers-clusters in axils. Bloom in late summer/fall.
- Large simple leaves.
- Not a shrub! All growth is new each year.



Japanese knotweed
(*Polygonum cuspidatum*)
Restricted



Giant Knotweed
(*Polygonum sachalinensis*)
Prohibited



Knotweeds

a. Very difficult to eradicate

- Deep roots may spread 65 feet horizontally
- NCWMA will help treat!
- **Report it!**



Giant knotweed in Bayfield County

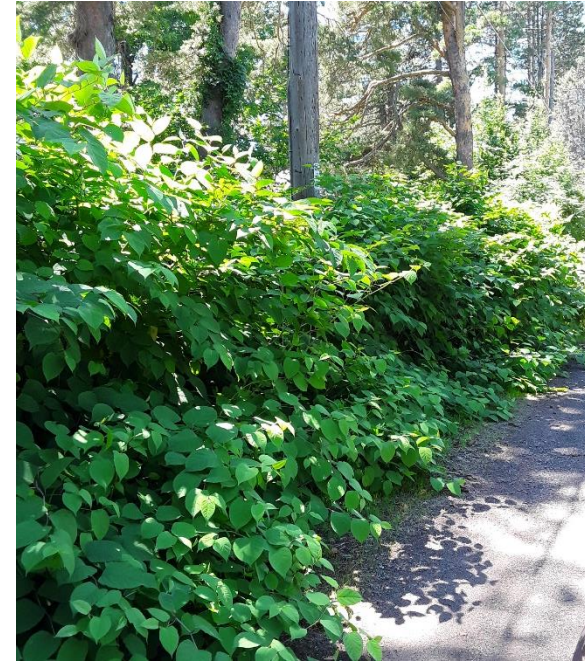


Knotweeds can obstruct the right of way.



Bayfield, Wisconsin

Knotweed in Iron County



Montreal Alley



Hurley (near Farmer's Market)

European Marsh Thistle

Cirsium palustre

European Marsh Thistle grows along roadsides, forest edges, wetlands, beaches and dunes – an upland and lowland threat.

It can spread aggressively once introduced to an area, decreasing resources for native species – thus harming ecosystem biodiversity.

MANAGEMENT:

- Hand pull
- Dig up completely
- Cut off seed heads



**INVASIVE
SPECIES**

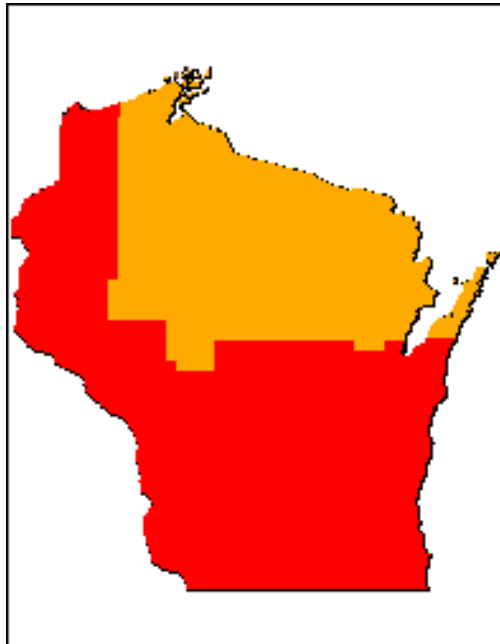
IDENTIFICATION:

- Flower head clusters – approximately 3/4 of an inch each with purple feathery flowers.
- Blooms in June and July.
 - Generally tall, single stalked, will branch out at the top for flower heads.



European marsh thistle (*Cirsium palustre*)

- Three locations in Iron County -
- (County Road G-Long Lake / Hewitt Lake)
- Hwy 51-Moose Lake Road under powerline
- County Hwy FF - Lake of the Falls Area



Big Threat to the Northwoods





Leaf Identification

Treatment

- **Pull** from base to make sure you get the roots. Before flowers (seed heads) grow is best!
- A **weed wacker** also works.

WANTED



Garlic Mustard



- Replaces native flora by competing for light, nutrients, and water.
- **Identification Tip:** Leaves smell like garlic when rubbed between fingers.

Flower Identification



Garlic mustard

- May be seen at edge of forest.
- Small white flowers in spring.
- Triangular shaped leaves with deep teeth.
- Takes over the Forest

- Report it!





Garlic Mustard

Partners: U.S. Forest Service, WDNR, Hurley School, Gogebic Conservation Dept., Master Gardener's Group



Students Pulled 800 lbs.



Location: End of North Pripps Road, Springstead, WI. (46.007578, -90.146796)

Date: May 20th & 21st.

Time: 9:00 am.— 2 p.m. Work a few hours or the day!

Contact Ramona Shackelford for more information or to sign up!

info@northwoodscwma.org or 715-373-3415

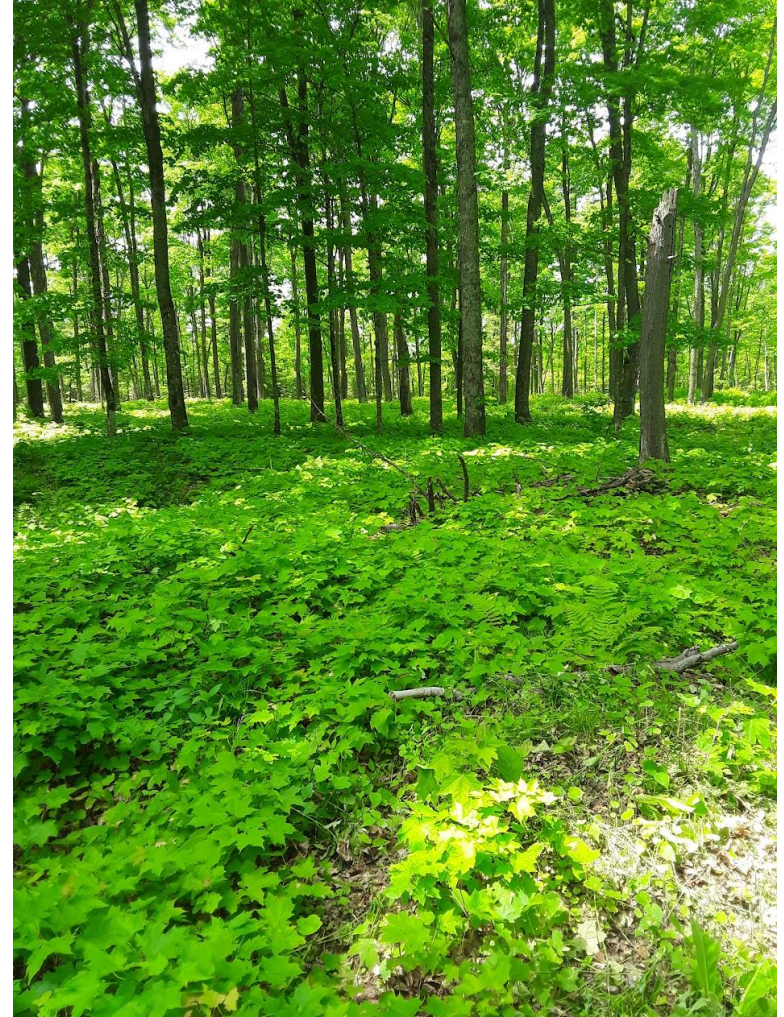


We practice social distancing and wear masks.

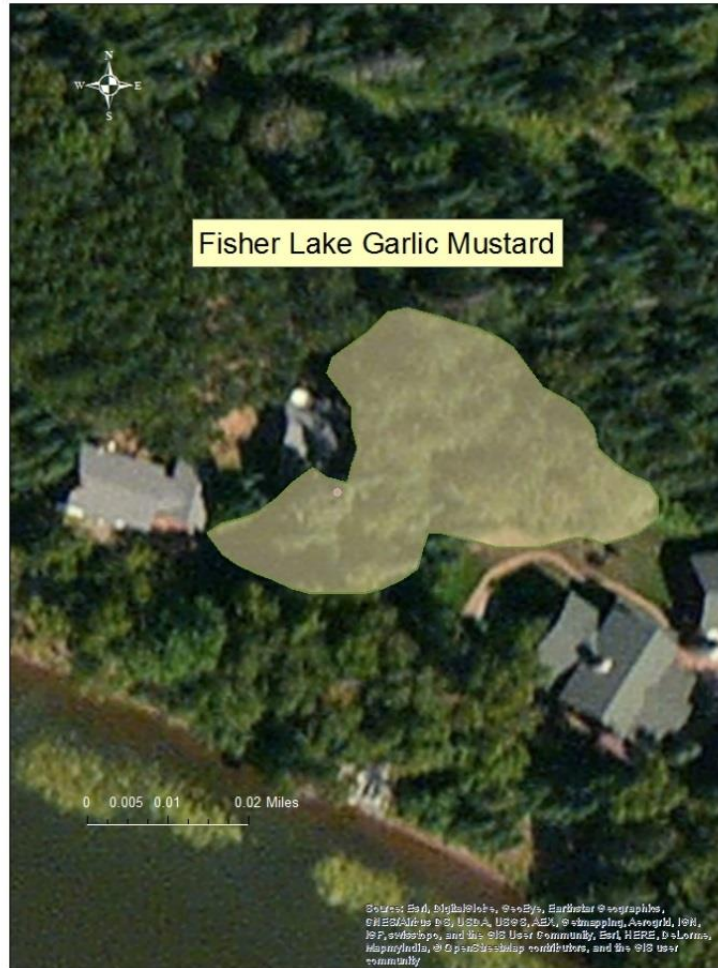
Montreal River -Garlic Mustard



Spring Stead- 20 acres in 2020 = Less than 1 Acre



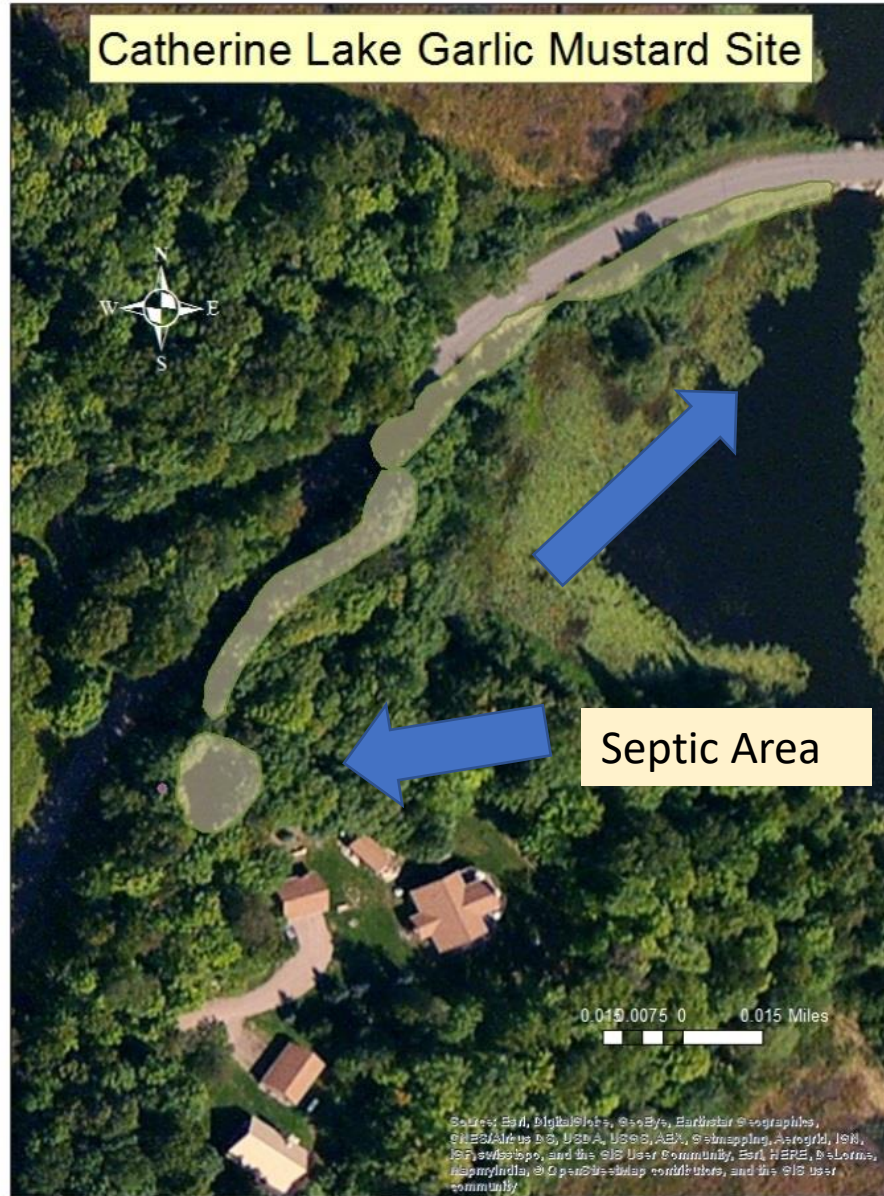
Garlic Mustard Site (Fisher Lake)



- Lead: ICLWCD and Mercer School
- Location: Fisher Lake, Iron County:
- History: 2006 – 100-500 plants found by Garske (2011 located and documented additional spread)
- 2006 – 2014 – no treatment
- 2015 – Iron County LWCD hand pulled with kids group
- Management: Hand pulling
- Note: Lots of young rosettes, landowner is a science teacher and is alerting the neighborhood.

Approximately .33 acres. 50%-75% cover.

Catherine Lake Garlic Mustard



- Lead: ICLWCD and Mercer
- Location: Catherine Lake
- History: Found in 2014 by Dara
- Management: Hand pulled in 2015
- Along the road and on the septic field
- Note: Landowner is concerned and will help.
- Future: LWCD staff and Mercer students will return each year for more pulling.

Penokee Hills, ATV trail

- Location: Iron County ATV trail near Weber lake
- ATV Trail East of Weber Lake
- 2006 - Ian found – Penokee Range ATV trail, 1 on both sides; scattered patchy; flowering
- 2007 – 100-500 - Patch on west end of short ad-hoc diversion from ATV trail. Most plants rosettes. Seed pods removed.
- 2014 and 2015-Monitored with no plants found

- ★ Crowds out native plant species
- ★ Forms dense clumps that alter wildlife habitat and biodiversity.
- ★ Escapes gardens and ponds
- ★ Its sap can cause skin irritation.



Removal:

- Wearing gloves and long sleeves, **dig out plant** ensuring rhizomes are removed.
- Or at least **cut flower heads** to prevent seed spread.

Yellow Flag Iris



Aquatic Invasive Species

- ★ When not flowering, yellow flag iris might be confused with the native blue flag iris. Blue flag iris has a blue flower.



WANTED

YELLOW IRIS INVASIVE



This plant spreads by seeds and by a rhizome structure underground



Leaves come directly out of the substrate and have a prominent mid-vein for most of the length of the leaf you can feel with your hand

Large yellow flower blooms in late spring and early summer

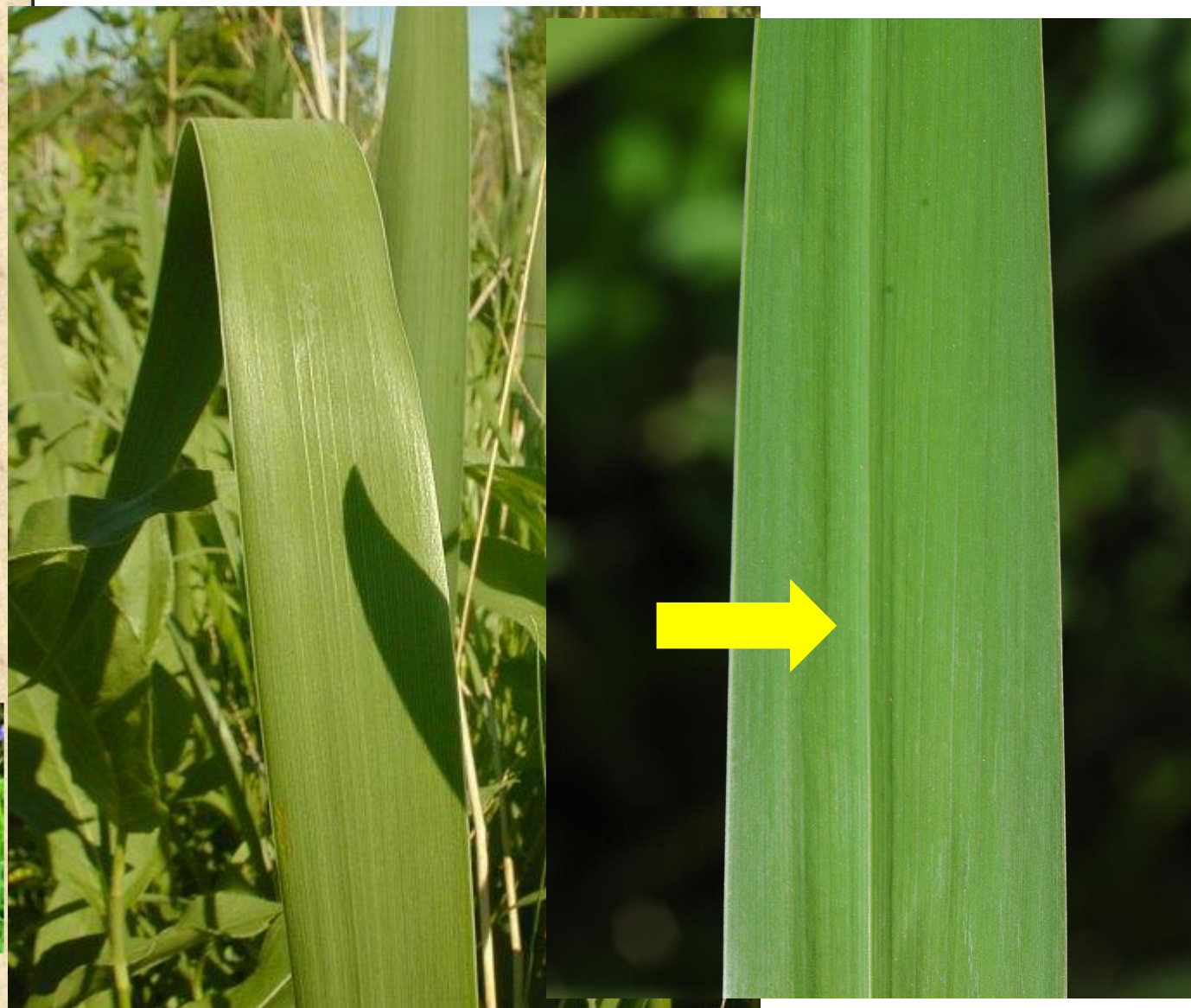


**YELLOW
IRIS**

Yellow Iris is **NOT** to be confused with the **NATIVE** Blue Flag Iris! The plants look very similar without flowers and grow in the same environment. However blue flag does not have a mid-vein for most of the leaf length like Yellow Iris. When the plant is flowering it is easy to tell the difference in color.



**BLUE
FLAG
IRIS**



Teasel species (common and cut-leaf)

(Dipsacus fullonum or Dipsacus laciniatus)

- Few sites in Ashland and Bayfield Counties along roads.
- Dried seed heads used in flower arrangements.
- *Both: Ovoid flower/seed heads with pointed sepals, prickly stems, up to 7 feet tall.*
- **Report it!**



Ph

Be on the Lookout for Teasel



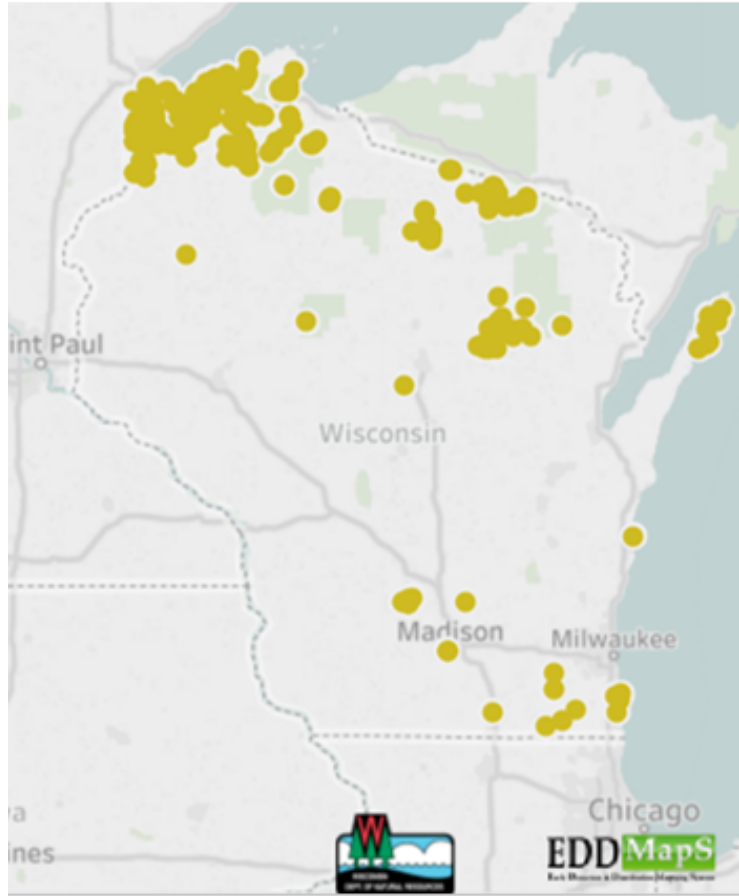
Garden Valerian

(Valeriana officinalis)

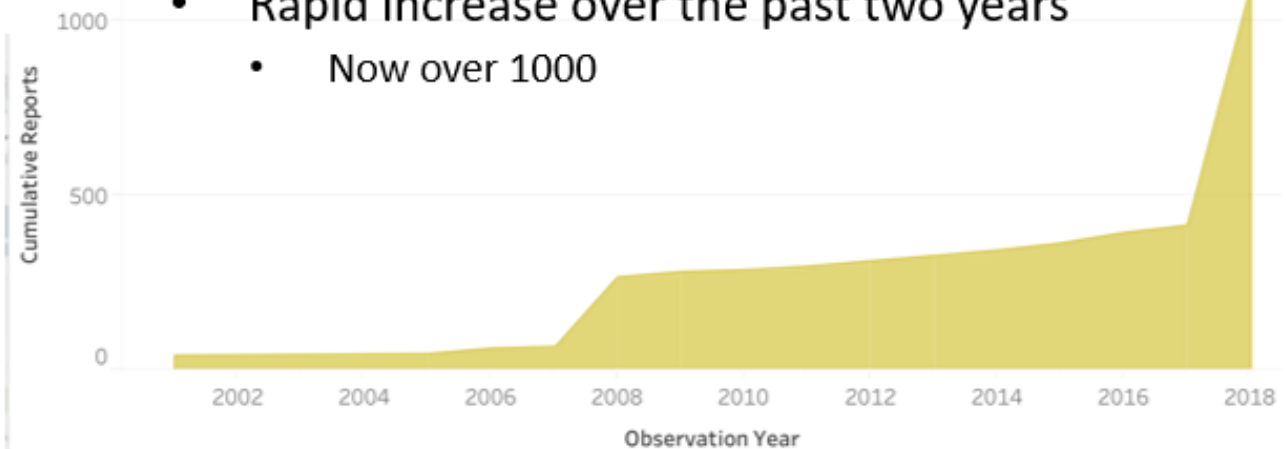
- Toxic to cattle.
- Could be in hay.
- Spreads in open and shaded habitats.
- Fragrant.



Common / Garden Valerian Distribution in WI



- Largest populations in Northern WI
- Reports are increasing
 - Few in early 2000s
 - Rapid increase over the past two years
 - Now over 1000



Images taken from WISTIPP viewer

fyi.uwex.edu/wifdn

Garden Valerian

- 2-5 feet tall
- Heads of small white flowers
- Leaves divided along center.
- Report it!



Photo: Mark Renz, UW-Extension.



Photo: Jane Anklam, UW-Extension.

Invasive Tres and Shrubs

- **Buckthorns**
- **Exotic honeysuckles**
- **Japanese barberry**
- **Black Locust**



Black Locust Tree

- The bark, seeds, and leaves of black locust trees contain poisonous compounds called toxalbumins.
- They are toxic to both livestock and humans



Location in Iron County

Hadley Brush Pit

Mercer Shoot Range- Old 51 under powerline

Mercer Ranger Station

Swamp Creek Road

Range Road in Hurley at Intersection

Town of Montreal- Near the river on Hwy 77

Highway US 2 – Birch Hill / Firelane Road



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BUCKTHORN

RHAMNUS CATHARTICA

COMMON AND EUROPEAN BUCKTHORN ARE INVASIVE SPECIES THAT FORM LARGE DENSE HEDGES, DISPLACING NATIVE SPECIES AND DECREASING AN ECOSYSTEMS BIODIVERSITY

BUCKTHORN FLOWERS DURING LATE SPRING (MAY-JUNE) WHILE LEAVES ARE EMERGING.

SEEDS MAY PERSIST IN THE GROUND FOR FIVE YEARS RESULTING IN NEW GROWTH

CONTROL METHODS INCLUDE:

- MOWING, EXCAVATION, CUTTING AND BURNING.
- REPEATED MOWING AND CUTTING HAS BEEN SHOWN TO REDUCE THE VIGOR OF THE PLANTS



IDENTIFICATION:

BRANCHES ARE TIPPED WITH A SHORT THORN (THORN MAY ALSO BE FOUND IN THE FORK BETWEEN TWO BRANCHES)

LEAVES MAY BE OPPOSITE OR IN AN ALTERNATING PATTERN

LEAVES ARE OVAL OR EGG SHAPED WITH SMALL, SERRATED TEETH.



Buckthorns

- Tall bush to small tree
- Simple egg-shaped leaves
- Distinct veins
- Common buckthorn twigs end in thorns.
- Greenish flowers at base of leaves.
- Red to black fruit.



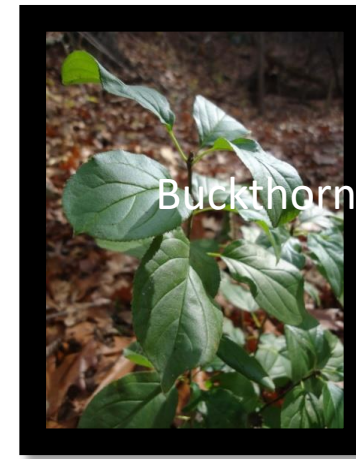
Glossy buckthorn



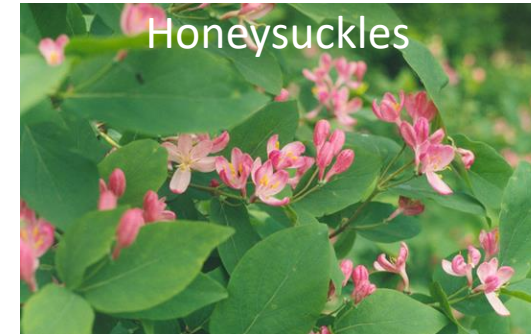
Common buckthorn

Invasive Shrubs

- Ornamental bushes or small trees
- Birds eat their berries and spread into forests.
- Take over the understory of forests.
- Hamper tree regeneration.



Robert W. Freckmann Herbarium, University of Wisconsin-Stevens Point.
Wisconsin Plants web site (<http://wisplants.uwsp.edu>).



Japanese Barberry

(*Berberis thunbergii*)

- Ornamentals still found in nurseries.





Japanese
Barberry
(*Berberis
thunbergii*)

- Deer don't browse.
- Increased Lyme disease carrying ticks in areas



Exotic Honeysuckles (*Lonicera spp.*)

- Leaves: Simple egg-shaped.
- Flowers pink or white.
- Shaggy light brown bark
- Red or orange berries



WANTED



PURPLE LOOSESTRIFE

Invasive Species

Grows primarily in wetlands and ditches and will invade home gardens.

CONCERNS:

- Crowds out native species
- 2 Million seeds per plant
- Seeds spread easily by wind and water
- These seeds remain viable for many years

IDENTIFICATION:

- 3-7 feet tall
 - Leaves opposite, alternating on stem
 - Topped with **purple flower spikes**
 - Square stem**
- ★ Fireweed is commonly confused with Purple Loosestrife. Its square stem is a key indicator.

Purple Loosestrife



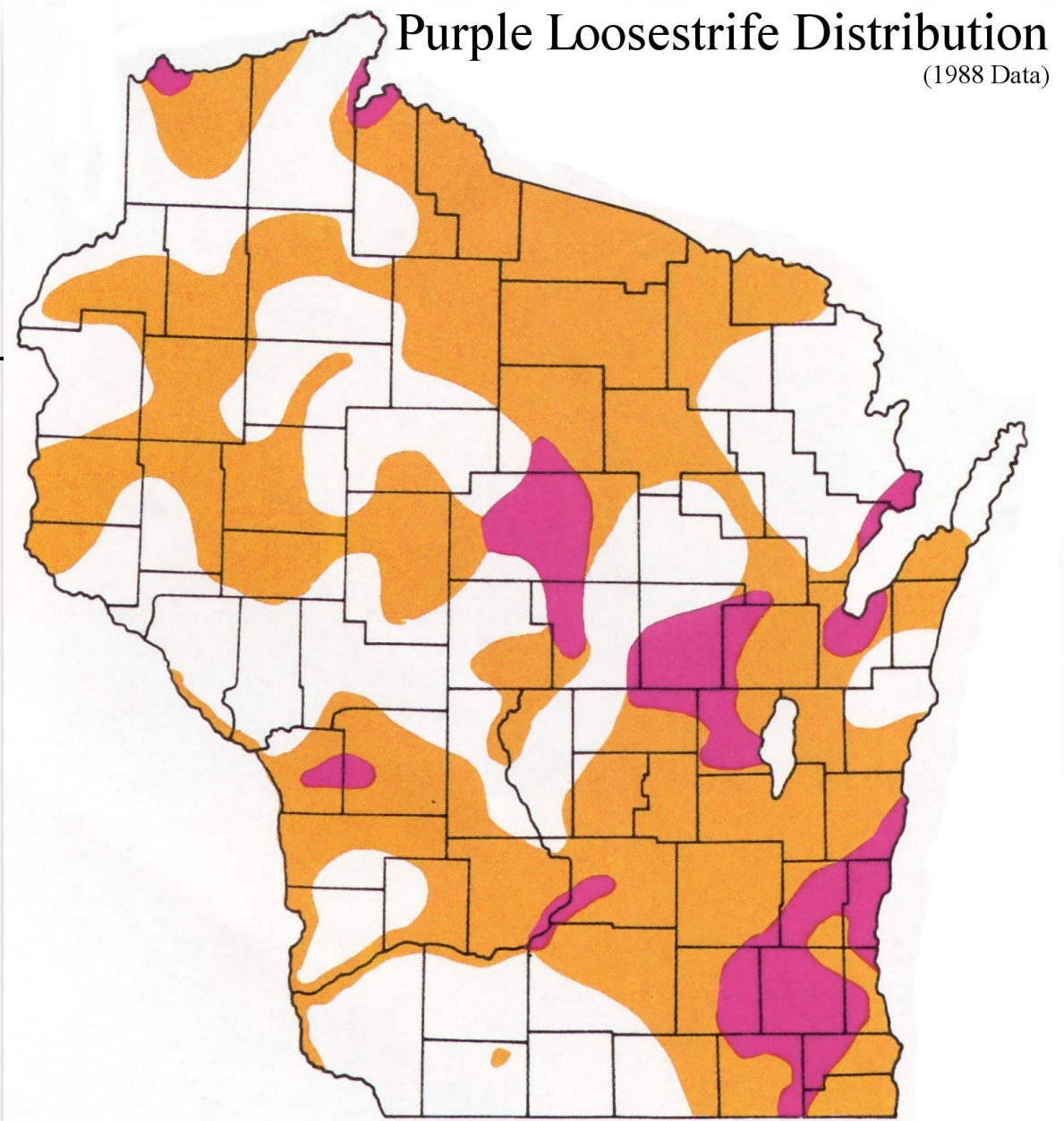
- Imported from Europe for gardens (late 1800s), also seeds in ballast water
- Crowds out native wetland species
- Spreads rapidly: >1 million seeds annually, plus vegetative spread

Purple Loosestrife



Purple Loosestrife Distribution

Purple loosestrife is now found in every county in WI.



- — little or no infestation
- — lightly/moderately infested
- — heavily infested

Phragmites



- Invades moist habitats: lake shores, river banks, & roadways
- Well established along Lake Michigan and moving west in the state
- Alters hydrology and wildlife habitat
- Spreads from root fragments, seeds, cut stems, & above ground runners

Phragmites



Phragmites



Leafy Spurge

Euphorbia esula



Cypress Spurge
Euphorbia cyparissias

- Leaves bluish-green, alternate, and narrow
- Flowers yellow-green
- Milky juice (toxic)
- Deep roots



Everlasting Pea

Lathyrus latifolius
Bean family (Fabaceae)

Location: Sherman / Springstead Area

- Flowage Road near Springstead landing on the Turtle Flambeau Flowage
- Flowage Road near boot lake

Management: Town mows twice a year, monitoring for spread

Partnership: Town of Sherman and LWCD

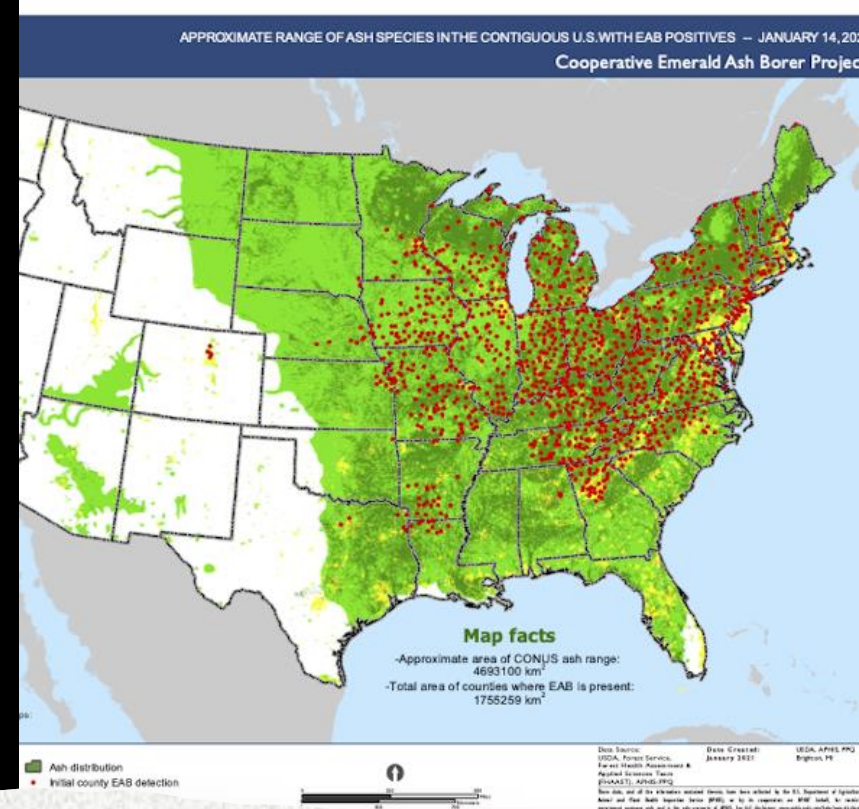


Crown -Vetch





© 2012 Katy Chayka



- Emerald ash borers have killed tens of millions of US trees with an estimated replacement cost of \$10-25 billion.
- Iron County has 8,000 ACRES OF BLACK ASH
- **Don't move Ash infested wood if possible!!**

Mowing Dates for Common Roadside Invasive Plants – Northwestern Wisconsin

Species	Apr	May	June	July	Aug	Sept	Oct	
Leafy Spurge		Good to Mow			Do Not Mow			
Canada Thistle		Good to Mow			Do Not Mow			
Wild Parsnip		Good to Mow			✕	Do Not Mow		
Garden Valerian		Good to Mow		Do Not Mow				
Spotted Knapweed		Good to Mow			Do Not Mow			
Common Tansy		Good to Mow			Do Not Mow			
Japanese Knotweed		Good to Mow				Do Not Mow		
Reed Canary Grass		Good to Mow		Do Not Mow				
Giant Reed (<i>Phragmites</i>)		Good to Mow					Do Not Mow	
Purple Loosestrife		Good to Mow			Do Not Mow			
European Marsh Thistle*		Good to Mow			Do Not Mow			
Cypress Spurge*		Good to Mow		Do Not Mow				
Teasel*		Good to Mow			Do Not Mow			

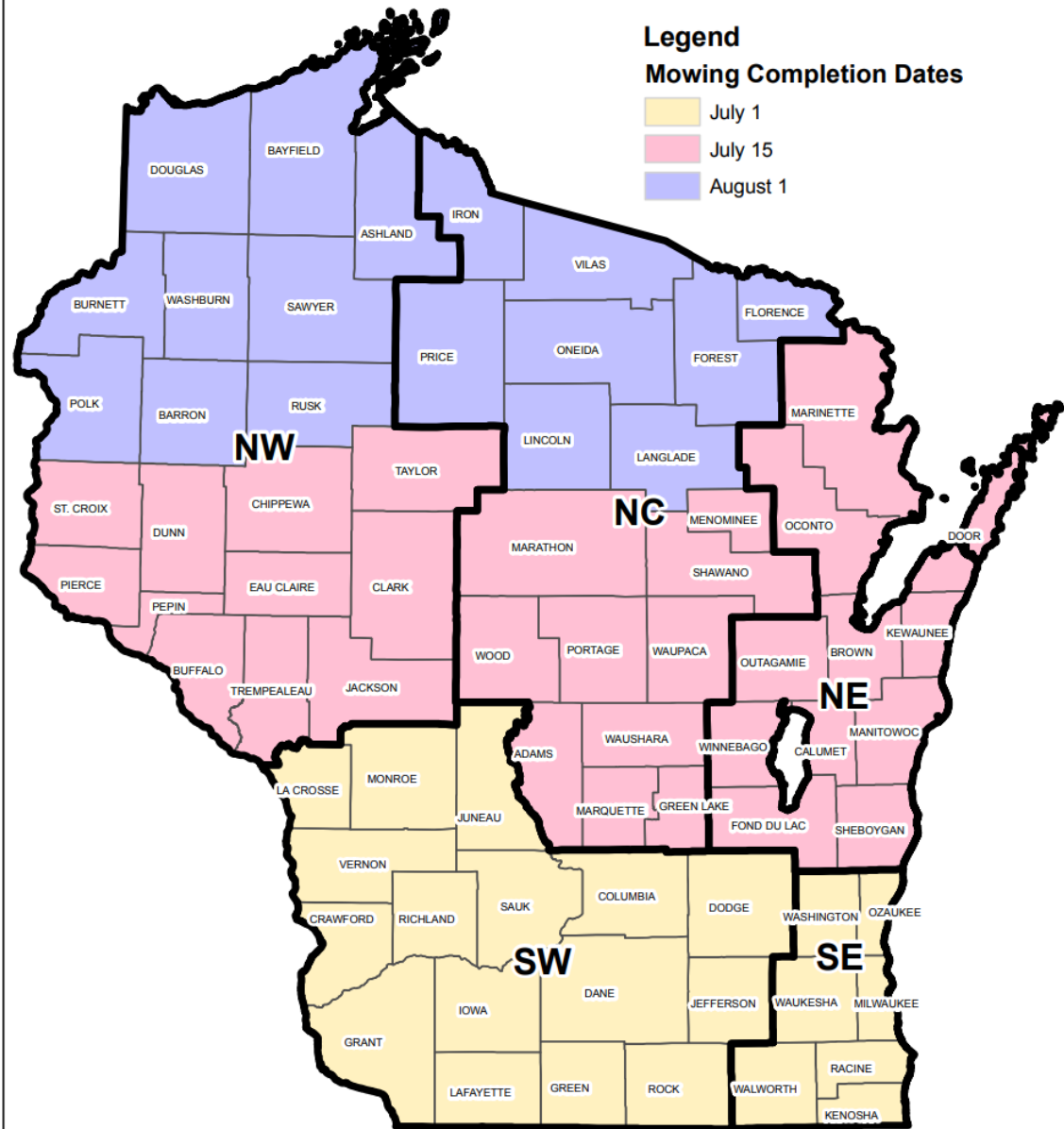
*Species that are not common in northwestern Wisconsin as of 2019 but represent a near future threat.



Good to Mow



Do Not Mow



Equipment Cleaning 101



- Wear Person Protection Equipment (PPE)
- Gloves when cleaning mower
- Long sleeves when checking culverts
- Wash off (Wipes)
- Eye Protection

How to report invasive species?

Conservation Office

KoBoToolbox

Report a Weed - Highway Dept

***What species did you find?**
If you are unsure, give your guess.

none selected

Record your current location
Use GPS on your phone or type in the location and put a point at the location.

latitude (x.y °)

longitude (x.y °)

altitude (m)

accuracy (m)

search for place or address

+
-

© OpenStreetMap | Terms

Point and shoot! Use the camera to take a photo

Click here to upload file. (< 10MB)

Point and shoot! Use the camera to take a photo

Click here to upload file. (< 10MB)

Name

Phone number (optional)

Describe (optional)
Add any details about the location or plant.

Save as Draft

Submit



Questions

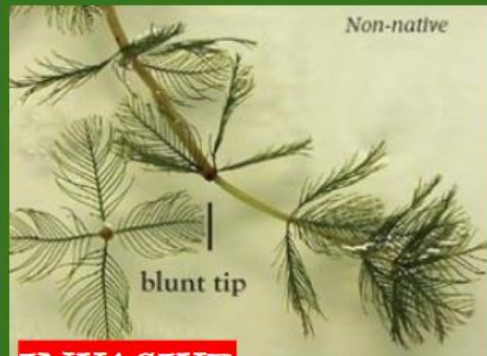
- Zach Wilson
- Conservation Specialist
- Iron County Land and Water Conservation Department
- 607 3rd Avenue, North, Hurley, WI. 54534
- Phone: 715-561-2234
- Email: zach@ironcountywi.org
- Facebook:
- Website: www.ironcountylwcd.com
-

EURASIAN WATER MILFOIL

- ❑ Eurasian Water Milfoil forms dense mats that reduce the amount of sunlight able to penetrate through the water column. This harms the native plant species, reducing biodiversity.
- ❑ Eurasian Water Milfoil spreads rapidly.
- ❑ In large amounts, it decreases your ability to navigate through waterways on motorized boats and will decrease lakefront property value.



HOW TO IDENTIFY:



INVASIVE

Eurasian Water Milfoil:
- More than 12 leaflet pairs
- Feathery Leaflets
- Very long stems



NATIVE

Northern Water Milfoil:
- Less than 12 leaflet pairs
- thicker leaves



Removal:

- Hand pulling is effective for small populations
- A permit is required for chemical treatment

CURLY-LEAF PONDWEED

This aquatic plant grows quickly to create thick underwater mats. These mats impede recreational activities, outcompete native aquatic plant species, and deplete natural habitats for fish. Curly Leaf Pondweed also causes a phosphorus build up, which leads to algae blooms.



Identification:

Leaves are submerged, alternate, oblong, translucent green, with no leaf stalk, and distinct **wavy, fine-toothed edges**.

They have stiff overwintering buds called turions.

Turions are produced and dispersed each year. They sprout the same year or lay dormant in the sediment for up to 7 years, so treatment is a multi-year process.



Treatment:
Hand-pulling

WANTED

RUSTY CRAYFISH

Aggressive and resilient species that's become a threat to our aquatic plant and fish populations.

Rusty Crayfish starve out native species by eating massive amounts of vegetation. This lack of plants also increases sediment erosion.

IDENTIFICATION

- **Red spots on both sides of body**
- Larger claws than native crayfish
- Black bands on tips of claws
- When claws are closed there is an oval gap in middle

WHAT YOU CAN DO

- They can be trapped and boiled for food with your fishing license
- Don't use live crayfish as bait, they should not be transported from one body of water to another.



AQUATIC INVASIVE SPECIES

WANTED

Chinese Mystery Snail



IDENTIFICATION:

Large, distinctive cone-shaped shell, up to 2.5 inches tall with 6-8 whorls. Adult snails range from olive green to ruddy brown while juveniles are light brown.

CONCERNS:

These snails outcompete native freshwater snails for space and food. They also serve as a vector for the transmission of diseases and parasites to native aquatic species.

STEPS YOU CAN TAKE TO PREVENT THE SPREAD OF INVASIVE SPECIES:

- 1) Always clean, drain, and dry your angling equipment, boat, and trailer when leaving water.
- 2) Never release water or aquatic species from aquariums or domestic ponds into natural water bodies.
- 3) Look for and report invasive animals and plants to invasive.species@wisconsin.gov

WANTED

Rainbow Smelt

Rainbow smelt thrive in clear, cool, deep lakes. They spend most of their time in deep water offshore, yet spawn in early spring along shorelines, rivers and streams. They school in open water during summer. They're currently found in all Great Lakes.

The sides of the fish are iridescent purple, blue, and pink with a bright silvery stripe. They have less than 75 scales on the lateral line.



They can be easily transferred to other bodies of water by using the fish as bait for fishing, or unknowingly carrying fish eggs attached to your boat into other water bodies.

Adults range from 7-9 inches.

IMPACT

Rainbow Smelt out compete their native competition. In this case changing the diet of predators among lakes.