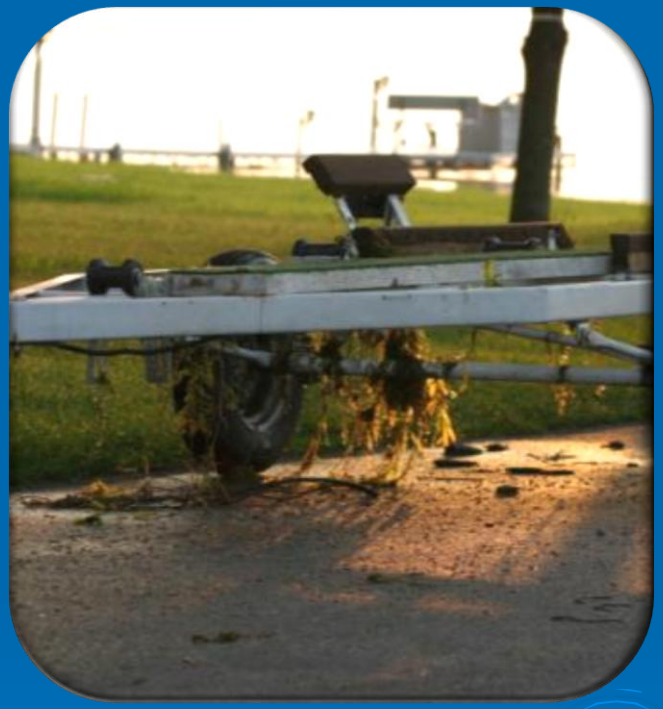
Aquatic Invasive Species in Wisconsin

Paul Skawinski – Regional AIS Education Specialist
Golden Sands RC&D

What are Invasive Species?



- Species that can “take over” an ecosystem
- Not all non-native species are invasive; not all invasive species are non-native
- Successful because:
  - No natural predators, parasites, etc.
  - Native species can’t hide, compete, or fight back
  - Often aggressive, prolific, and mature early

How do they get here?

- Shipping - ballast water
- Intentional introduction - stocking
- Canals - migration from the ocean
- Nursery industry
- Anglers/Bait industry
- Aquaculture
- Aquarium trade

How do they get here?

- **Shipping - ballast water**
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- Anglers/Bait industry
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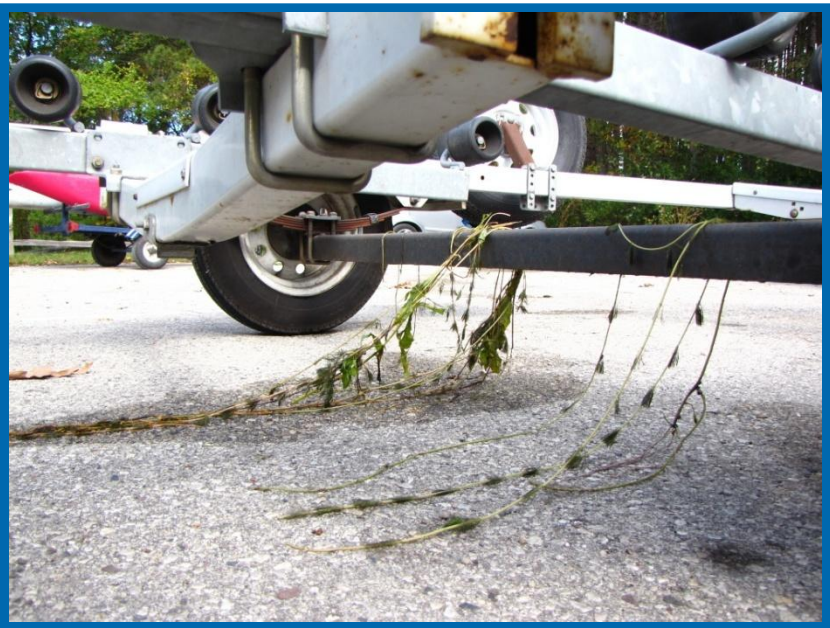
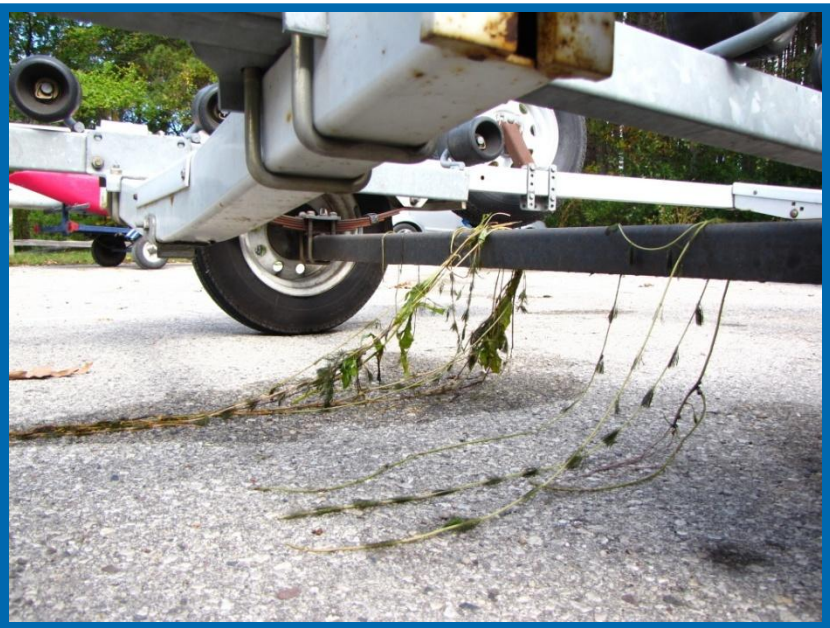
How do they spread?



- Boaters
- Anglers
- Other water users (sea planes, SCUBA, etc)
- Water garden & aquarium owners
- Natural dispersal

How do they spread?



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- Anglers
- Other water users (sea planes, SCUBA, etc)
- **Water garden & aquarium owners**
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Why do we care?

Biodiversity decreases

Boating

Property values

Swimming

Sport fishing

Tourism dollars

Commercial fishing

Stunted fish populations

Food web impacts

Zebra Mussels

- Ballast water introduction to the Great Lakes in 1980's
- Present in 131 WI inland lakes (Nov 2010)
- Attach to any hard surface - may reach tens of thousands per square meter!
- Are microscopic in early life stages
- Female can produce 1 million eggs/season

Zebra Mussels

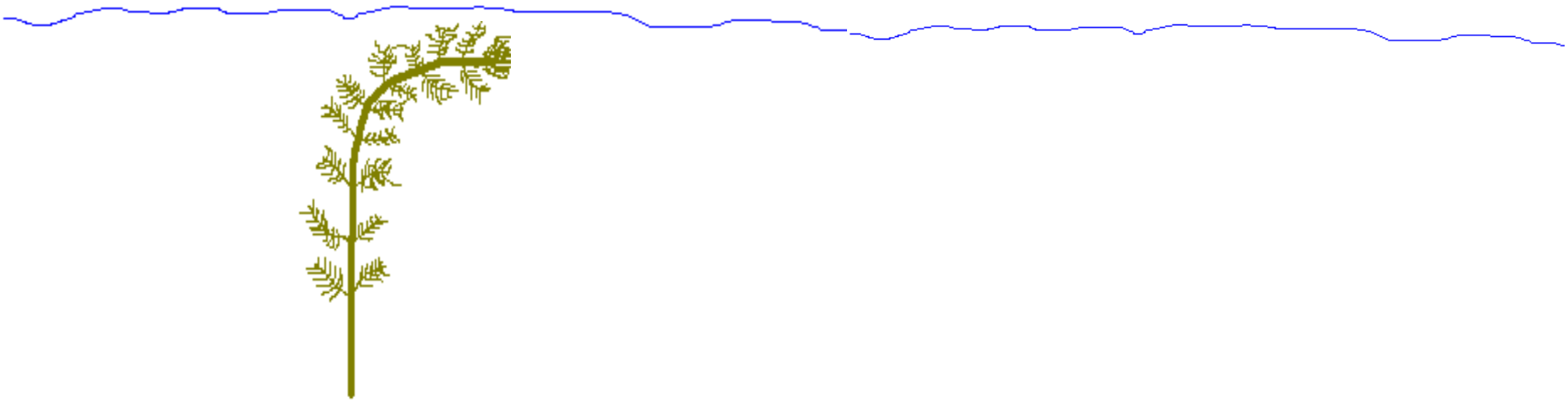
- Currently no management option

- Eaten on small scale by some animals

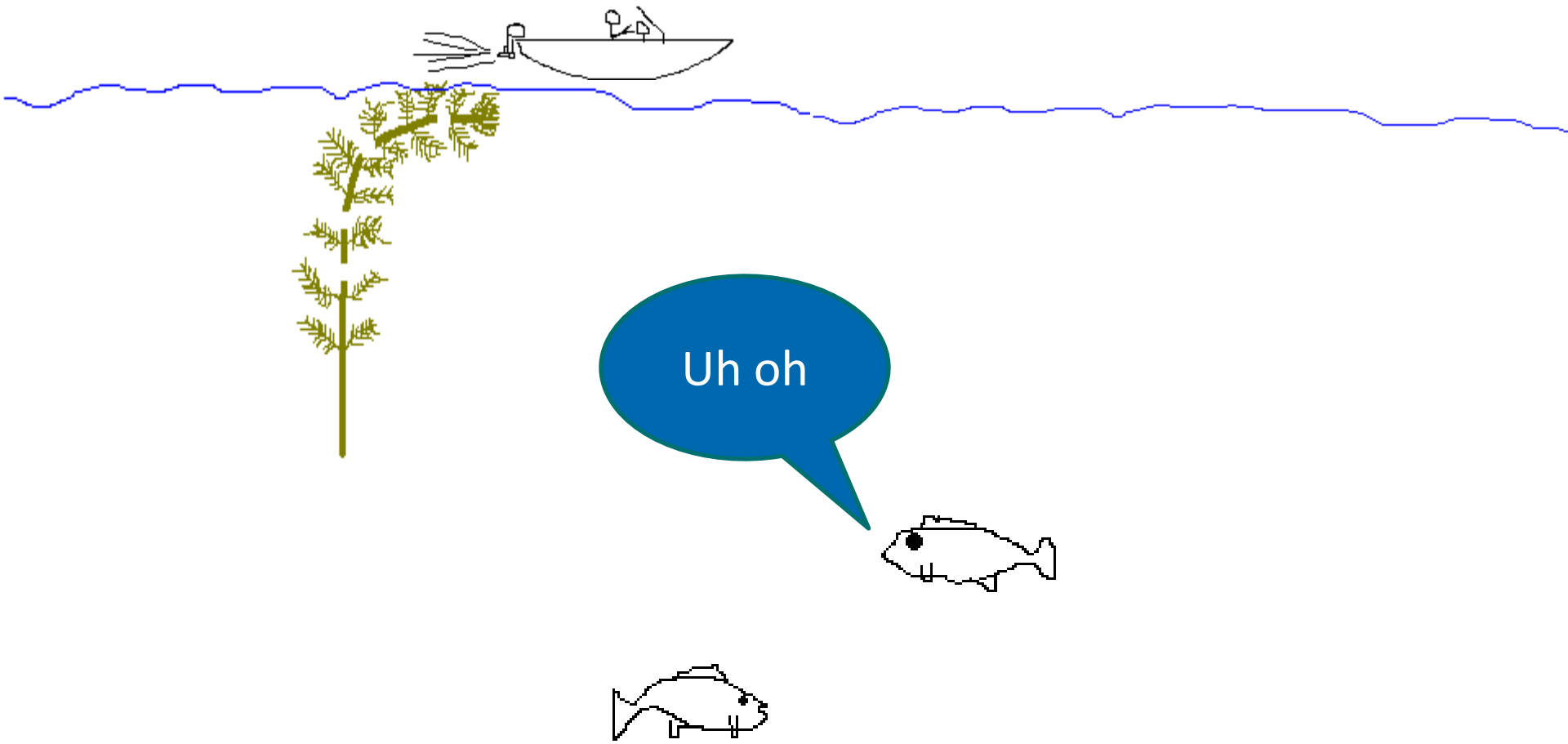
Eurasian Water-milfoil

- First found in WI in 1960s
- Currently found in 540 WI lakes (Nov 2010)
- Forms dense mats - interferes with water recreation
- Can spread from small fragments

Eurasian Watermilfoil Spread



Eurasian Watermilfoil Spread



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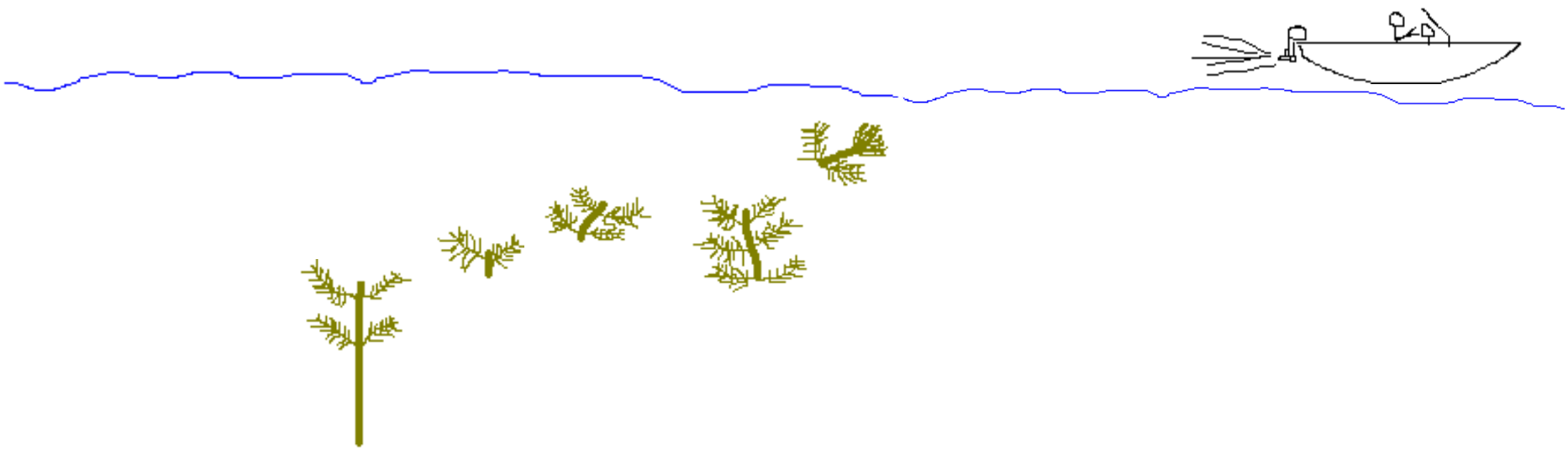

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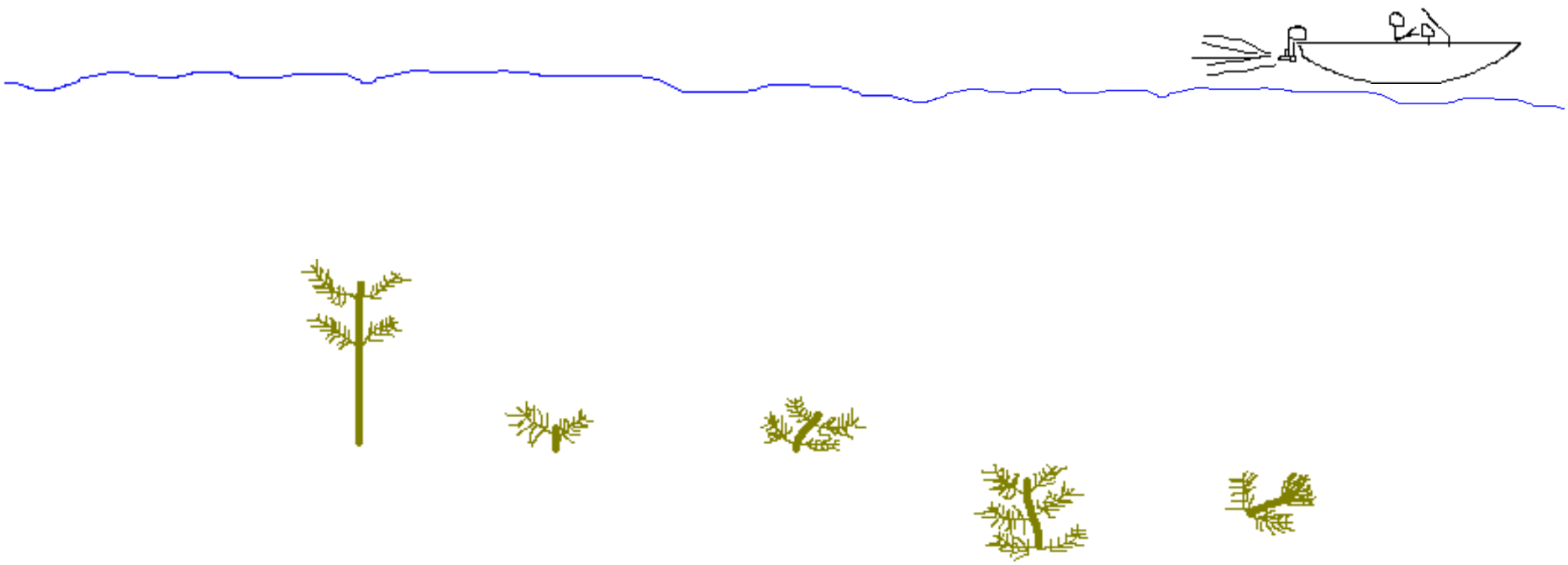

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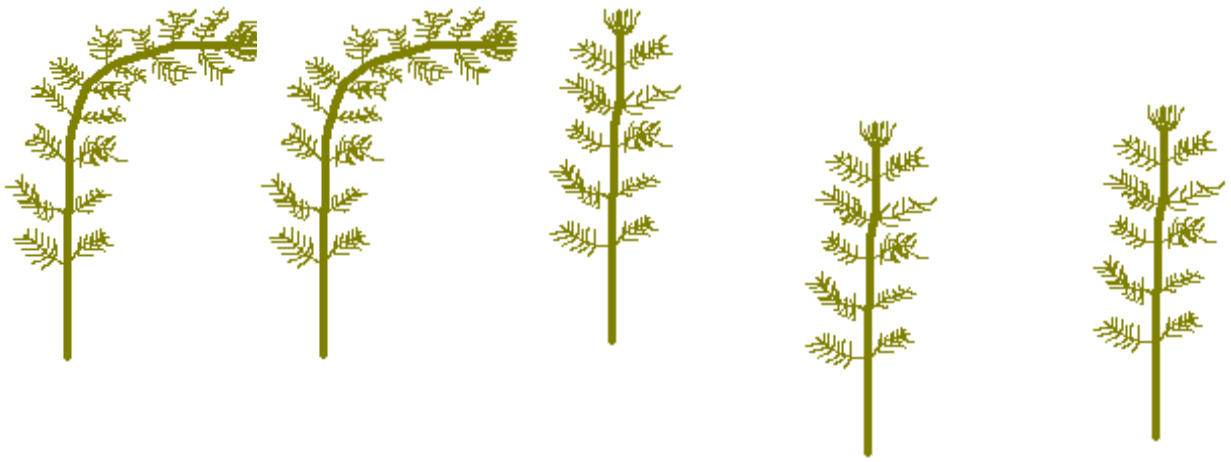



Adventitious roots


Northern watermilfoil
Myriophyllum sibiricum
Eurasian watermilfoil
Myriophyllum spicatum

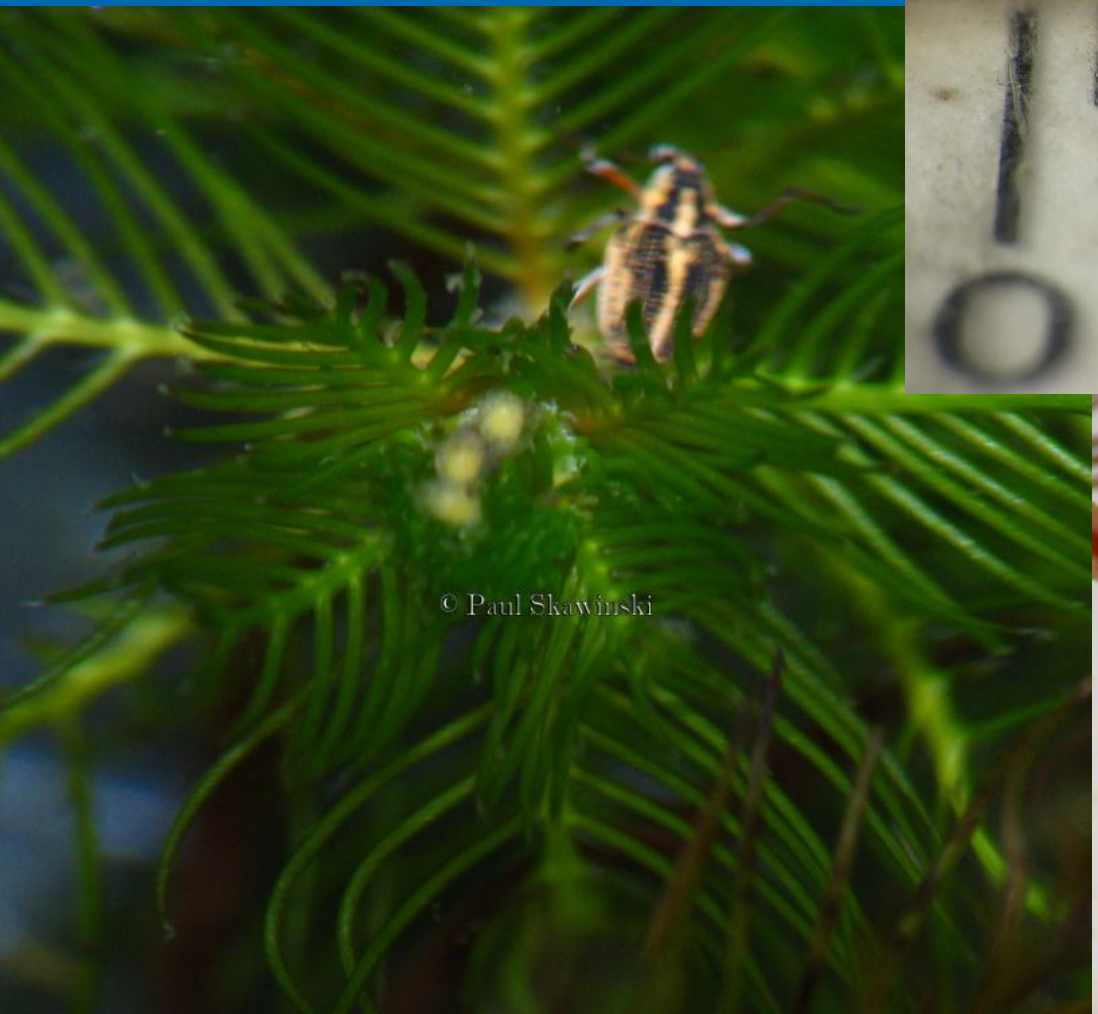
Whorled WM –
Myriophyllum verticillatum

Hitchhiking on hitchhikers

Managing EWM

EWM Biological Control

Euhrychiopsis (and *Phytobius*) weevils



Euhrychiopsis lecontei
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Manual Removal Option

Hand-pulling

AIS hand-removal can be done by anyone, anytime

no permit needed

Just be sure to get the roots! Do not fragment it!

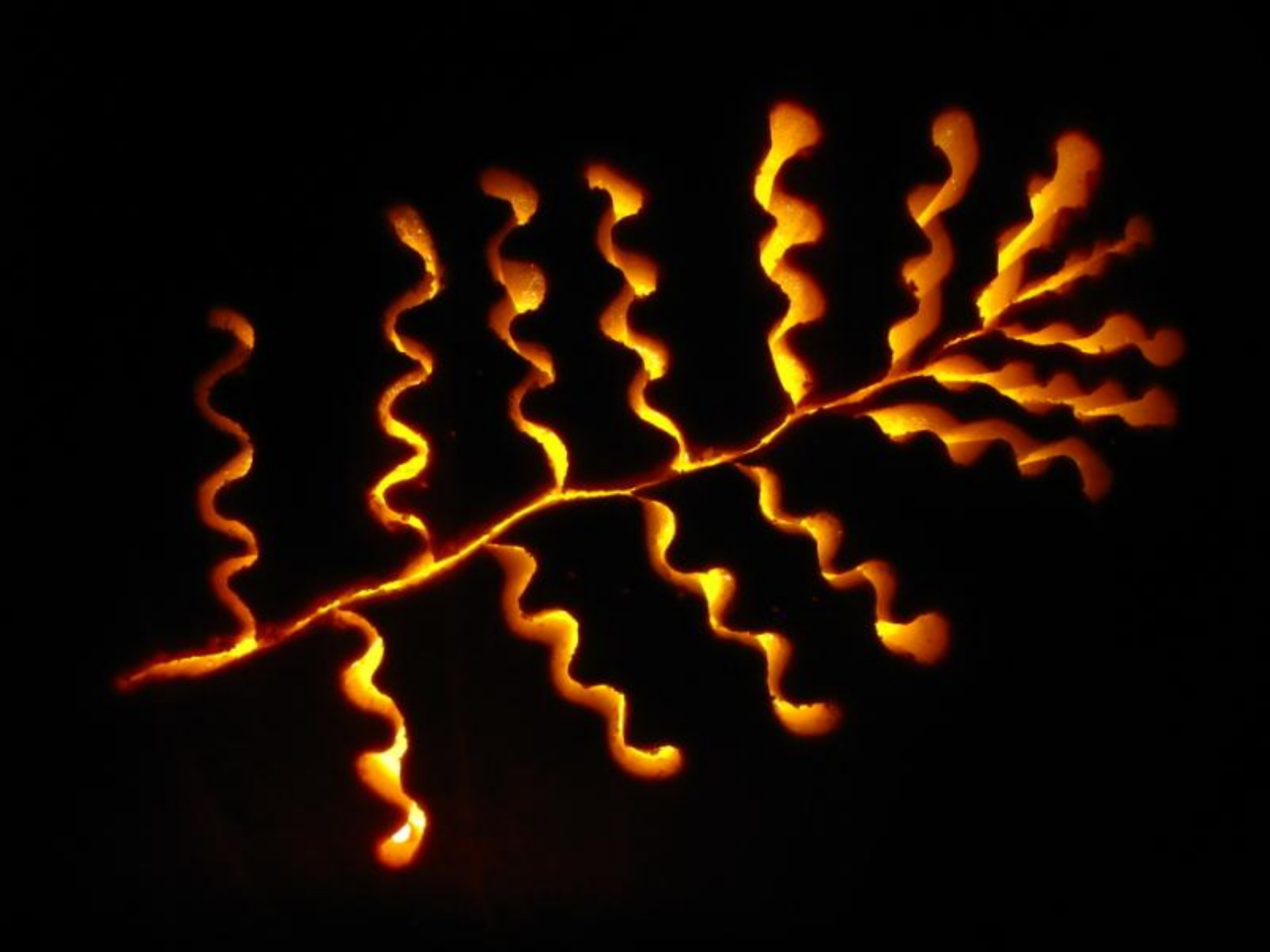
Rusty Crayfish

ID tip: Dark, rusty spot on each side of carapace.

- Brought to WI as bait in 1960s
- In 465 inland lakes and streams (Nov 2010)
- Severely reduce aquatic vegetation, impacting spawning
- Aggressive; compete with native crayfish and fish for cover and food

Rusty Crayfish

Rusty Crayfish Trapping



Curly-leaf Pondweed

- Accidentally introduced as aquarium plant (1880s)
- Fairly widespread – in 382 water bodies (Nov 2010)
- Active very early in growing season – even under ice
- Can form dense mats, interfering with recreation and native plants

Paul Skawinski

Curly-leaf pondweed turions

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Curly-leaf pondweed turions

Japanese Knotweed

- Ornamental species
- Resembles bamboo
  - Trade names
- Spreads quickly by rhizomes, especially along river corridors

Japanese Knotweed

Japanese Knotweed


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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 ID

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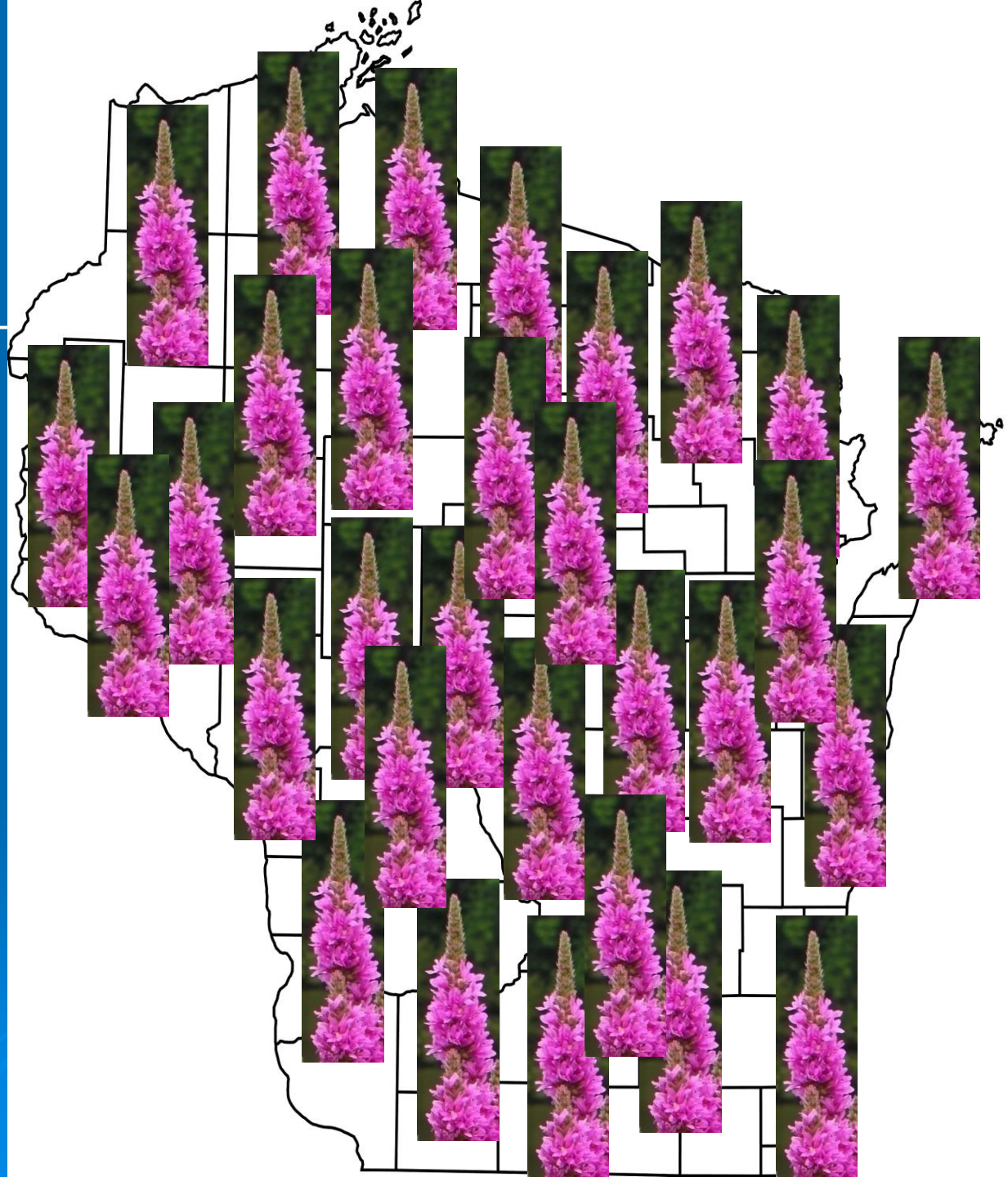
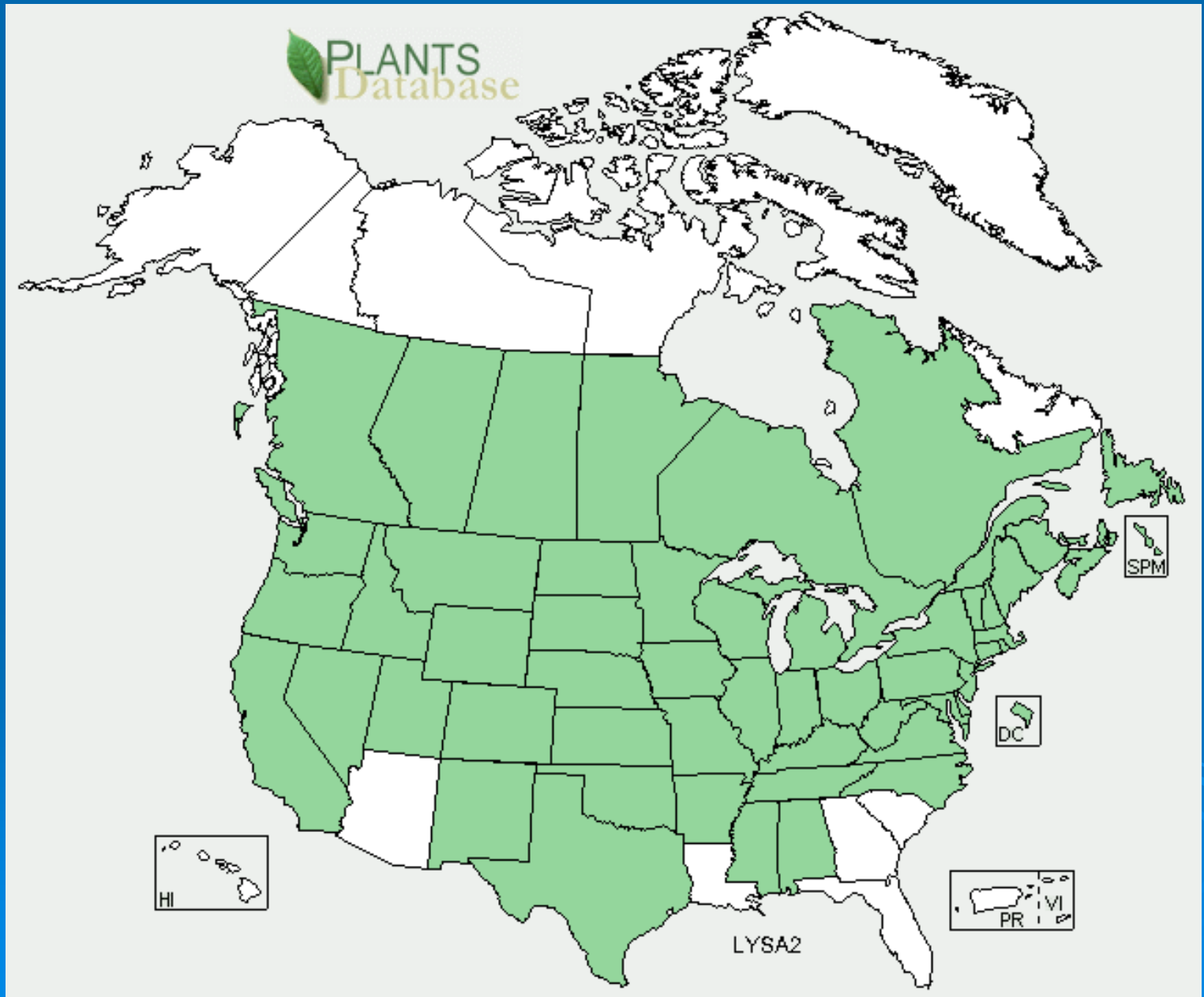
- Square stem
- Opposite or whorled leaves
- Leaf margins are smooth or with very small teeth
- Flowers pink or purple in spike arrangement, each with 6 petals

Purple Loosestrife Distribution

Purple loosestrife is now found in every county in WI.



National Distribution



Many More in Wisconsin…

Mystery Snails

And Many More on the Way…

A few future threats:

Water hyacinth

New Zealand mud snail

Asian carp

Photo: John Lyons

Northern Snakehead

Wisconsin's Aquatic Invasive Species Program

Education & Outreach

- Statewide coordination
- Publications & boat launch signs
- Displays & presentations
- Media

Contact: *Christal Campbell*
608-266-0061

Wisconsin's Aquatic Invasive Species Program

- **Watercraft Inspection**
  - DNR inspection program places staff at high-traffic boat landings
  - 'Clean Boats, Clean Waters' trains volunteers to monitor landings and educate boaters

- **Contact:** *Erin McFarlane*
  715-346-4978

Wisconsin's Aquatic Invasive Species Program

- **Volunteer Monitoring**
  - Volunteers collect data on lake health including aquatic invasives
  - Data used to map extent of spread for species

- **Contact:** *Laura Herman*
  715-365-8998

Wisconsin's Aquatic Invasive Species Program

- **Purple Loosestrife Biological Control**
  - Volunteers help raise & release beetles
  - Beetles available for free—great school or family project

Galerucella calmariensis

- **Contact:** *Brock Woods*
  608-221-6349

Wisconsin's Aquatic Invasive Species Program

- **AIS Grants**
  - $4.3 million available each year
  - State funds up to 75% of project
  - Local governments no longer given priority
  - Match includes cash, volunteer time, services, etc.
  - Funds provided as reimbursement

- **Contact:** *Regional Lake Coordinator [Brenda Nordin-WDNR]*

Purple Loosestrife Biological Control

- Volunteers help raise & release beetles – feed on roots or foliage/flowers
- Beetles available for free—great school or family project

Galerucella calmariensis

- **Contact:** *Brock Woods*
  608-221-6349
  Paul Skawinski
  715-343-6278

Netted, beetles stocked

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Questions on AIS?

Paul Skawinski
AIS Coordinator – Portage, Wood, Waushara, Marathon Counties

Golden Sands Resource Conservation & Development Council, Inc. (RC&D)

715-343-6278 skawinsp@co.portage.wi.us

Contracting with RC&D…

Golden Sands RC&D

Adams
Juneau
Marathon
Marquette
Monroe
Portage
Waupaca
Waushara
Wood

Contracting with an RC&D Council

AIS summer field staff

Quad-county
WC inspection, hand-pulling, surveys

McDill Pond – EWM intern

Portage County Parks – WC insp., surveys

Lake Emily – WC insp., hand-pulling EWM

McDill Pond AIS Contract

$3,150

441 – Administrative
598.75 – Supervisor
115 – Mileage
1,995.25 – LTE 185 hours @ 10.61 gross

McDill Pond AIS Contract

Mapping EWM
Hand-removal of EWM
Coordinating harvesting per APM plan
Confirming new reports of EWM, other AIS

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