Clean Boats, Clean Waters
Watercraft Inspection Program



STOP AQUATIC HITCHHIKERS!™

Add your organization logo(s)

(your name)
(affiliation)
2024

Add your organization logo(s)

CLEAN BOATS CLEAN WATERS

Wisconsin Lakes Partnership

WISCONSIN
DEPT. OF NATURAL RESOURCES

Science

WISCONSIN
LAKES

Citizens

Extension Lakes
College of Natural Resources
University of Wisconsin-Stevens Point

Education


OLIPHANT THE OREGONIAN ©2012 8/10
CLASS, TODAY WE'RE GOING TO STUDY WHY IT'S BAD TO INTRODUCE INVASIVE SPECIES...

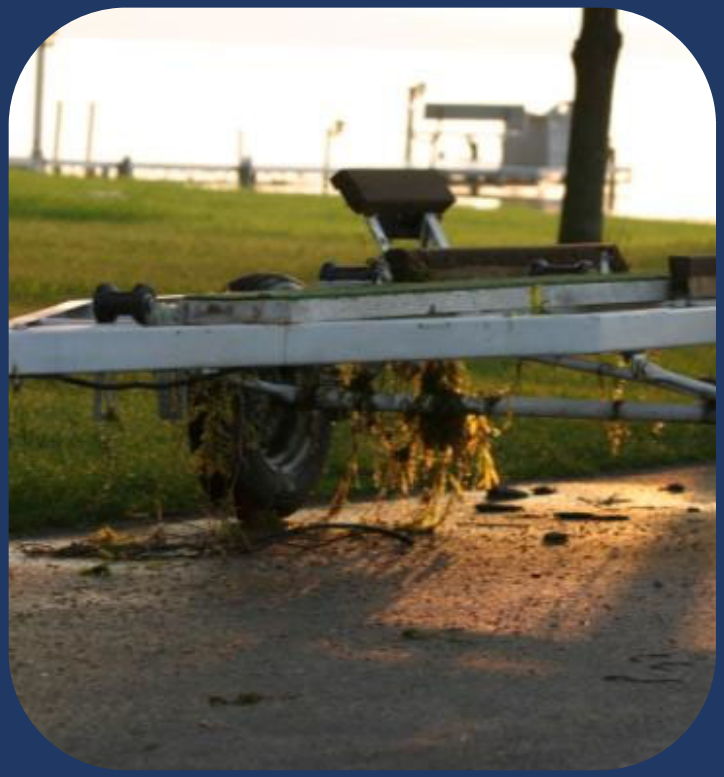
Wisconsin: A Gathering of Waters

- 11,190 square miles of water
- 15,081 lakes
- 43,000 miles of rivers and streams
- 5.3 million acres of wetlands
- 6.4 million acres of Great Lakes
- Estimated 1 million boats on waters each year!

Welcome to the Challenge!

What are invasive species?

- Non-native species that can “take over”
- Not all non-native species are invasive



- 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 spread?

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

Why do we care?

- Economic impacts
  - Sport & commercial fishing
  - Tourism
  - Water users & property owners
- Ecological
  - Native fish, invertebrates, plants impacted
- Recreational impacts
  - Boating
  - Angling

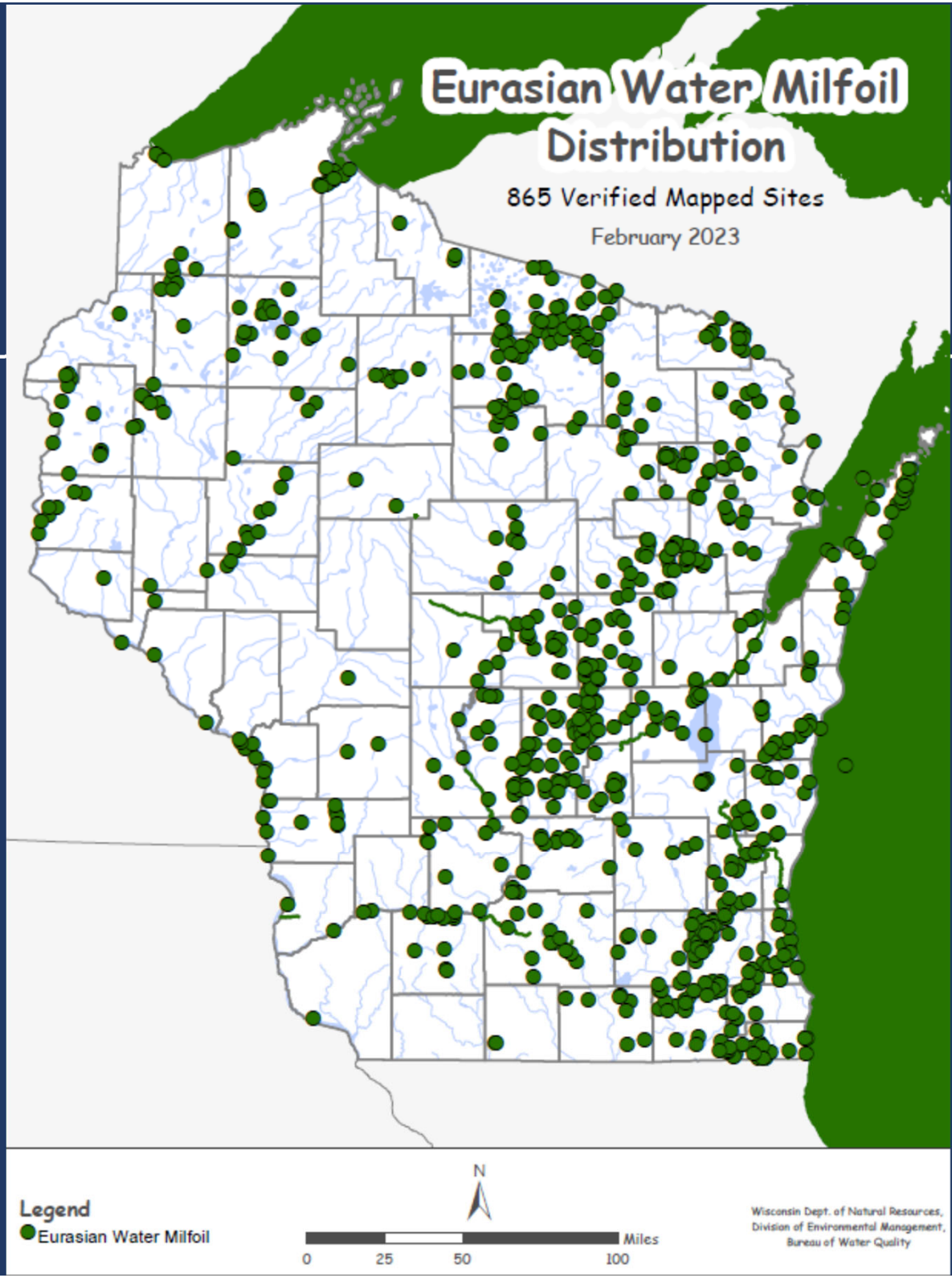
Eurasian Water-milfoil

- First found in WI in 1960s
- Currently found in 932 WI lakes & rivers (March 2024)
- Forms dense mats - interferes with water recreation
- Can spread from small fragments


Adventitious roots
develop on fragments
Photo: Paul Skawinski, UWEX Lakes

Eurasian Water-milfoil Distribution

[Insert specific numbers for county here.]



Curly-leaf Pondweed

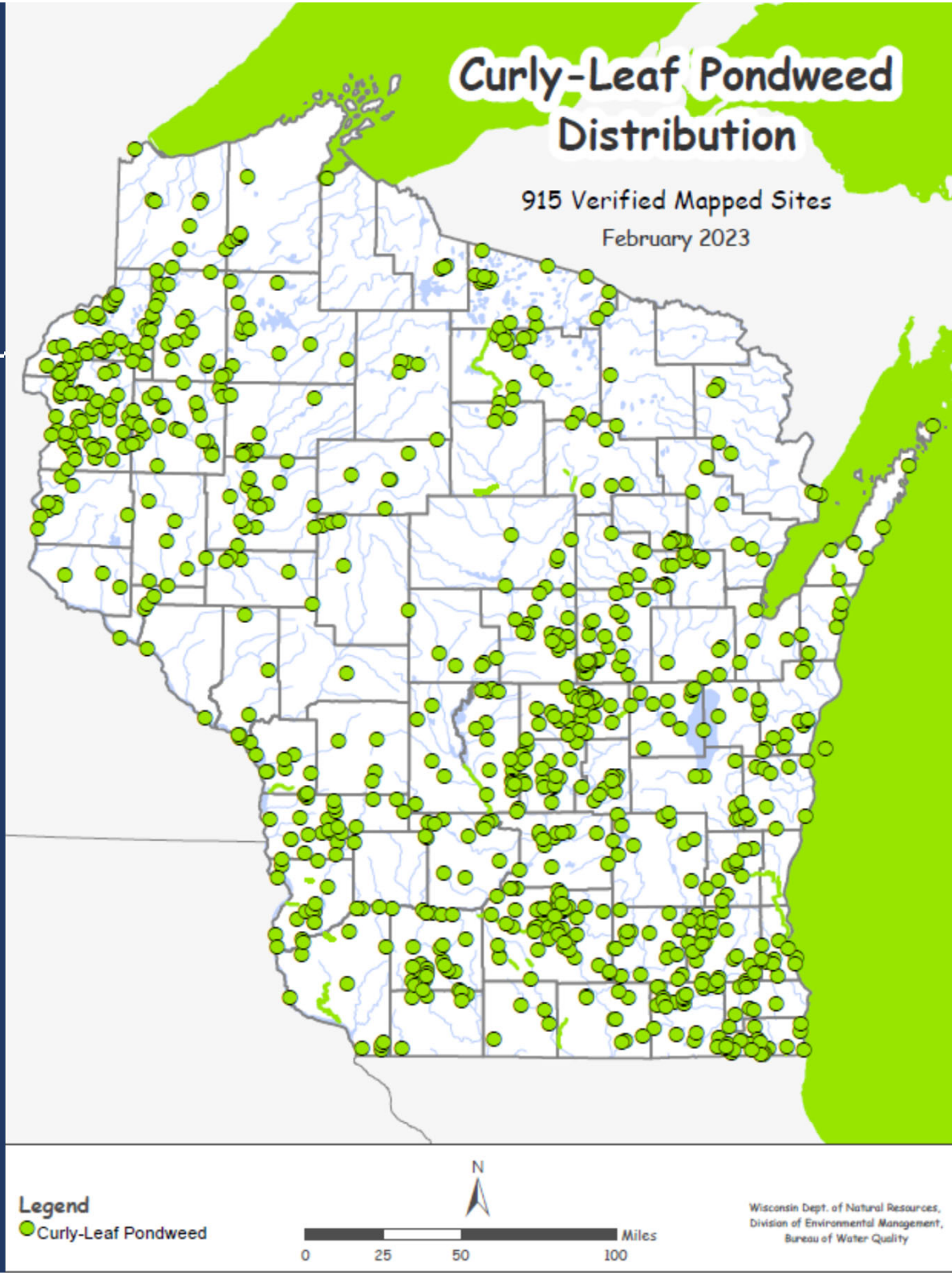
- Introduced through ballast water, aquarium dumping, and/or during common carp stocking programs
- Typically grows from October - June
- Releases nutrients into water column when it dies off – contributes to algae blooms

Curly-leaf Pondweed

- Documented in 916 WI lakes and rivers (March 2024)
- Spreads by rhizomes and turions

Curly-leaf Pondweed Distribution

[Insert specific numbers for county here.]



Purple Loosestrife

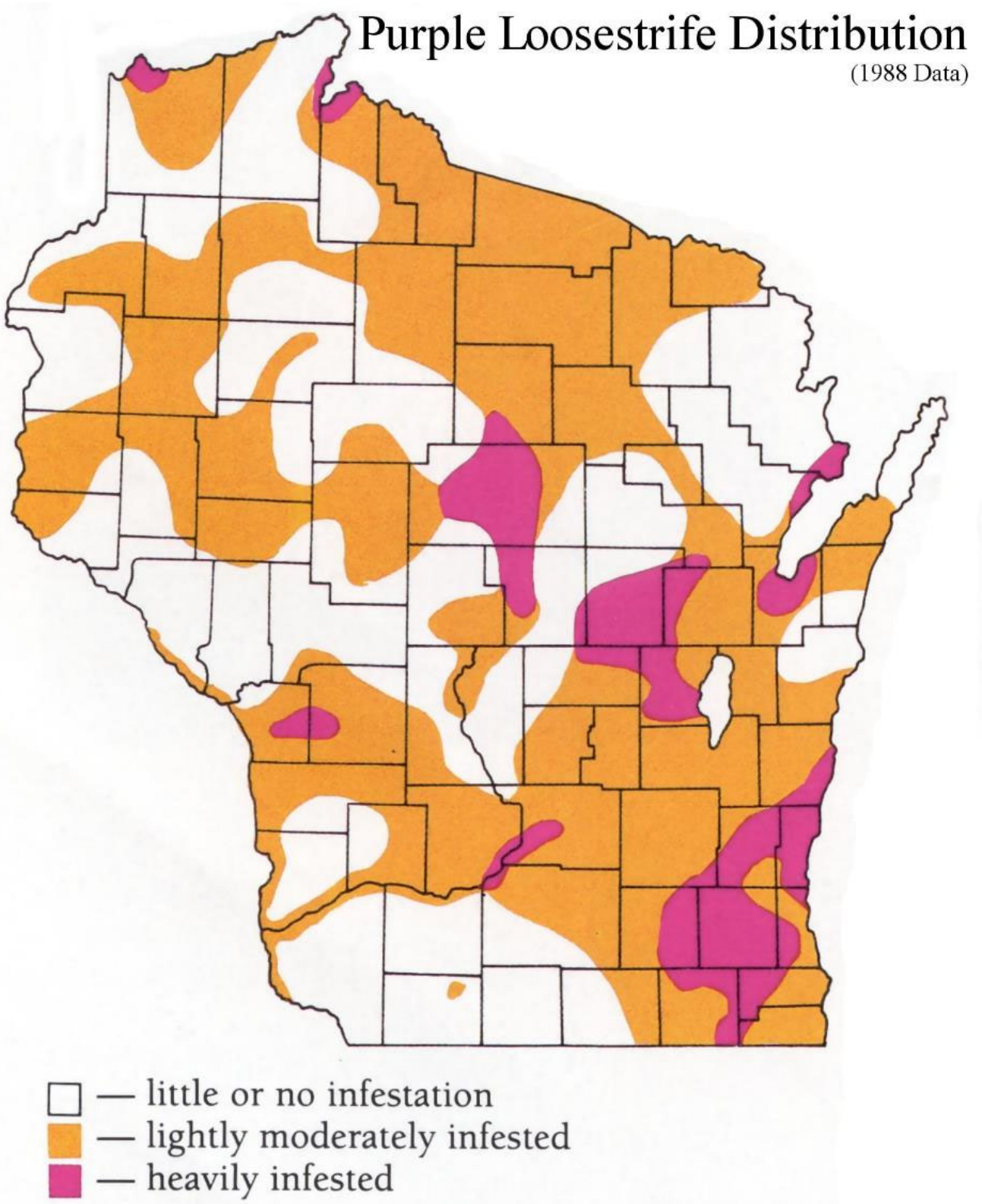
- Imported from Europe for gardens (late 1800s), also seeds in ballast water/soil
- Crowds out native wetland species
- Spreads rapidly: >1 million seeds annually, plus vegetative spread

Purple Loosestrife ID

- Square or 6-sided 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.

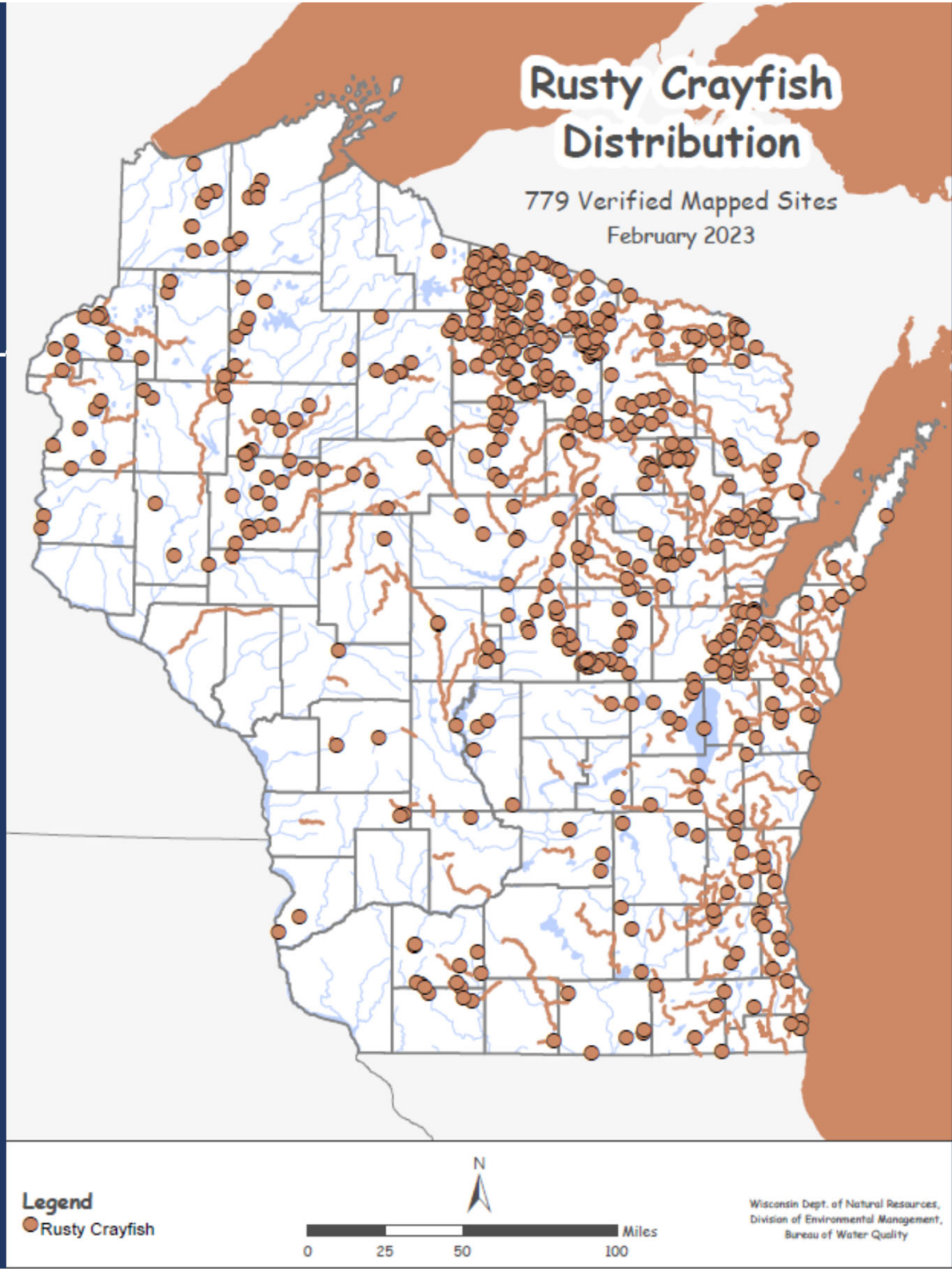


Rusty Crayfish

- Brought to WI as bait 1960s
- In 870 lakes and rivers
  (March 2024)
- Severely reduce aquatic vegetation, impacting spawning
- Aggressive; compete with native crayfish and fish for cover and food

Rusty Crayfish Distribution

[Insert specific numbers for county here.]

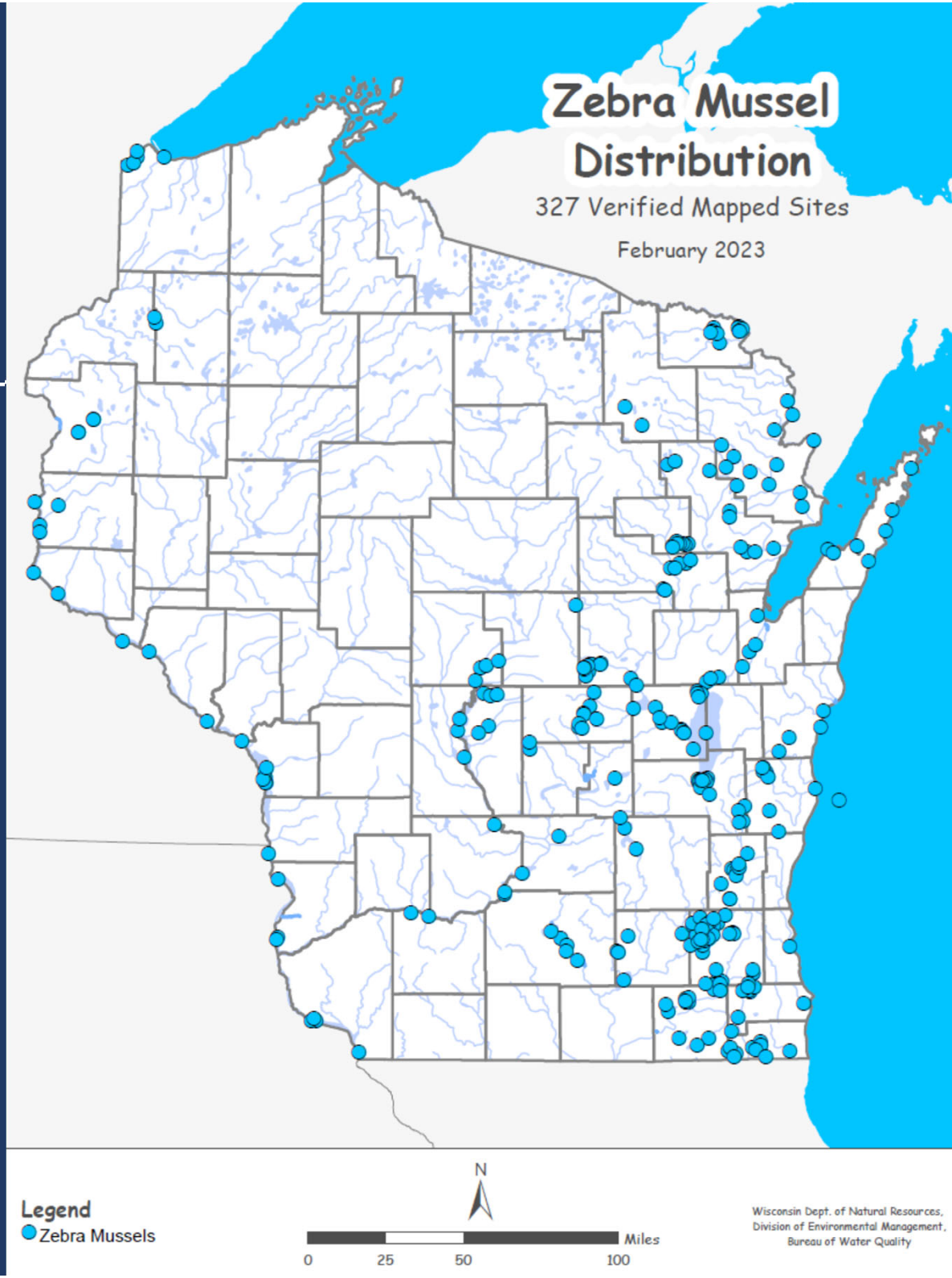


Zebra Mussels

- Ballast water introduction to the Great Lakes in 1980s
- Present in 310 WI lakes & streams (March 2024)
- Attach to any firm surface - may reach tens of thousands per square meter!
- Are microscopic in early life stages
- Female can produce 1 million eggs/season

Zebra Mussel Distribution

[Insert specific numbers for county here.]



Quagga Mussels

- Found in Great Lakes & Mississippi River
- Ballast water introduction
- Can survive wide range of temperature & oxygen levels
- Can live directly on mud & sand – don't need hard surface
- Can survive at depths greater than 100 feet

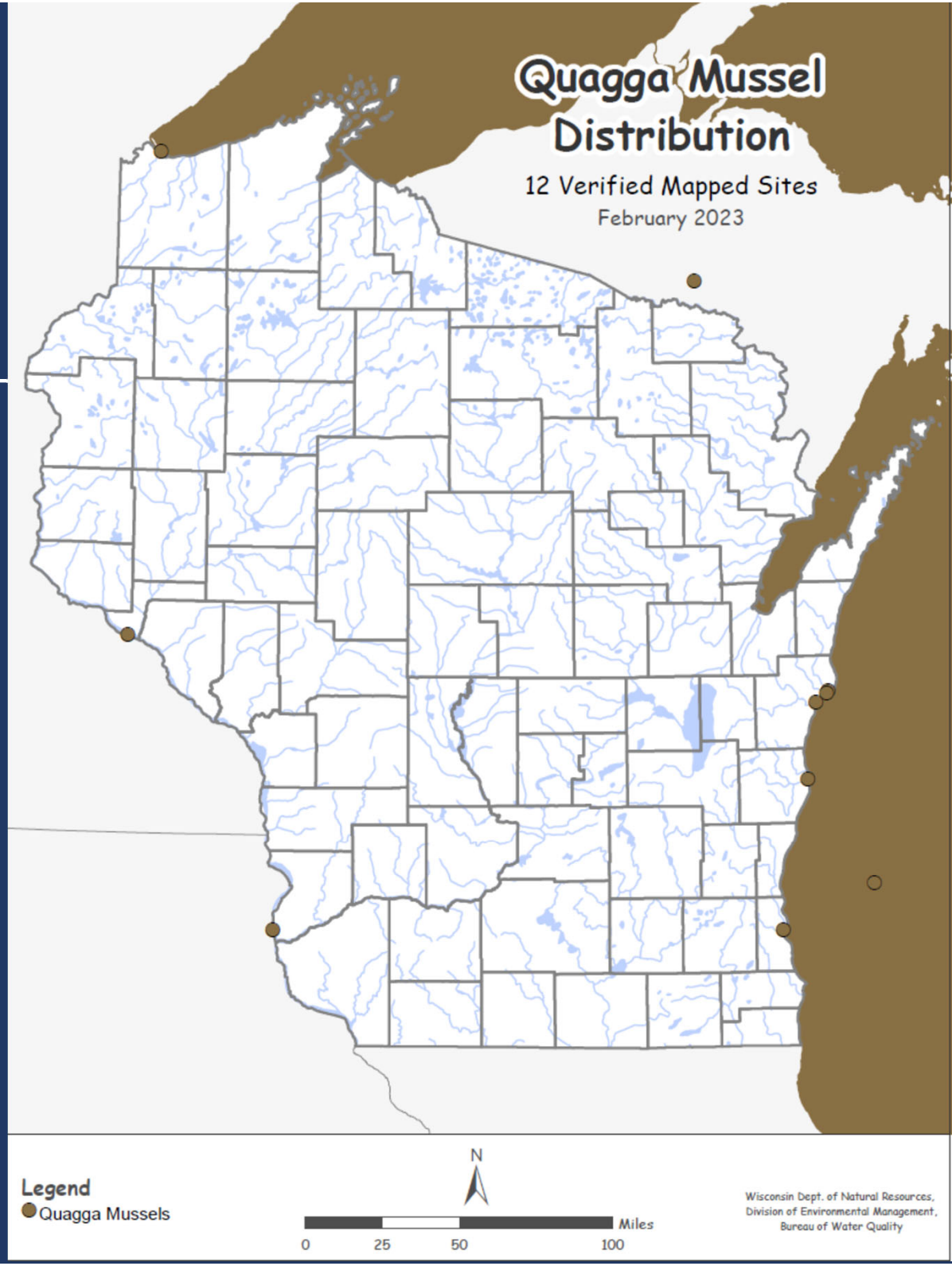
Quagga Mussels

- Have curved bottom side – tip if set on side
- Thrive at greater depth & cooler temps
- Transported in similar way as zebra
- Have potential to out-compete zebra mussels

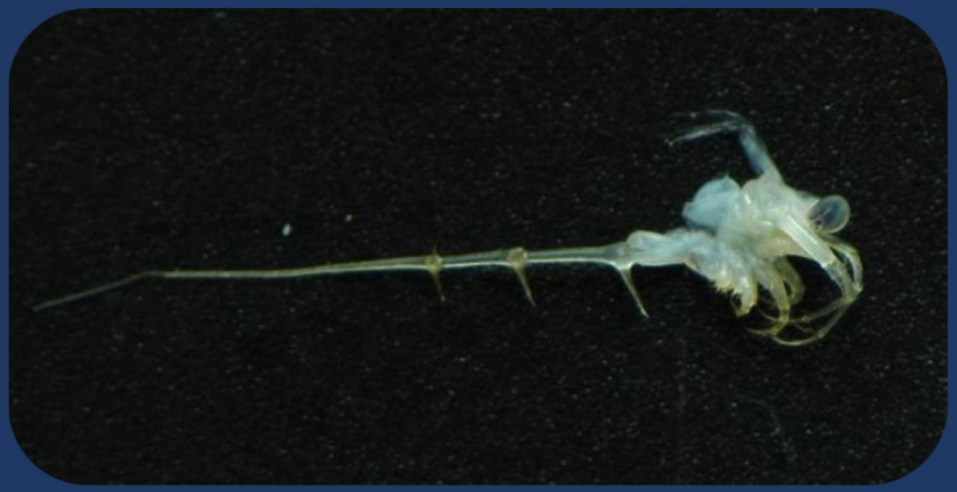
Quagga Mussels vs Zebra Mussels

Quagga Mussel Distribution

Quagga mussels have been verified along the Great Lakes & Mississippi River.



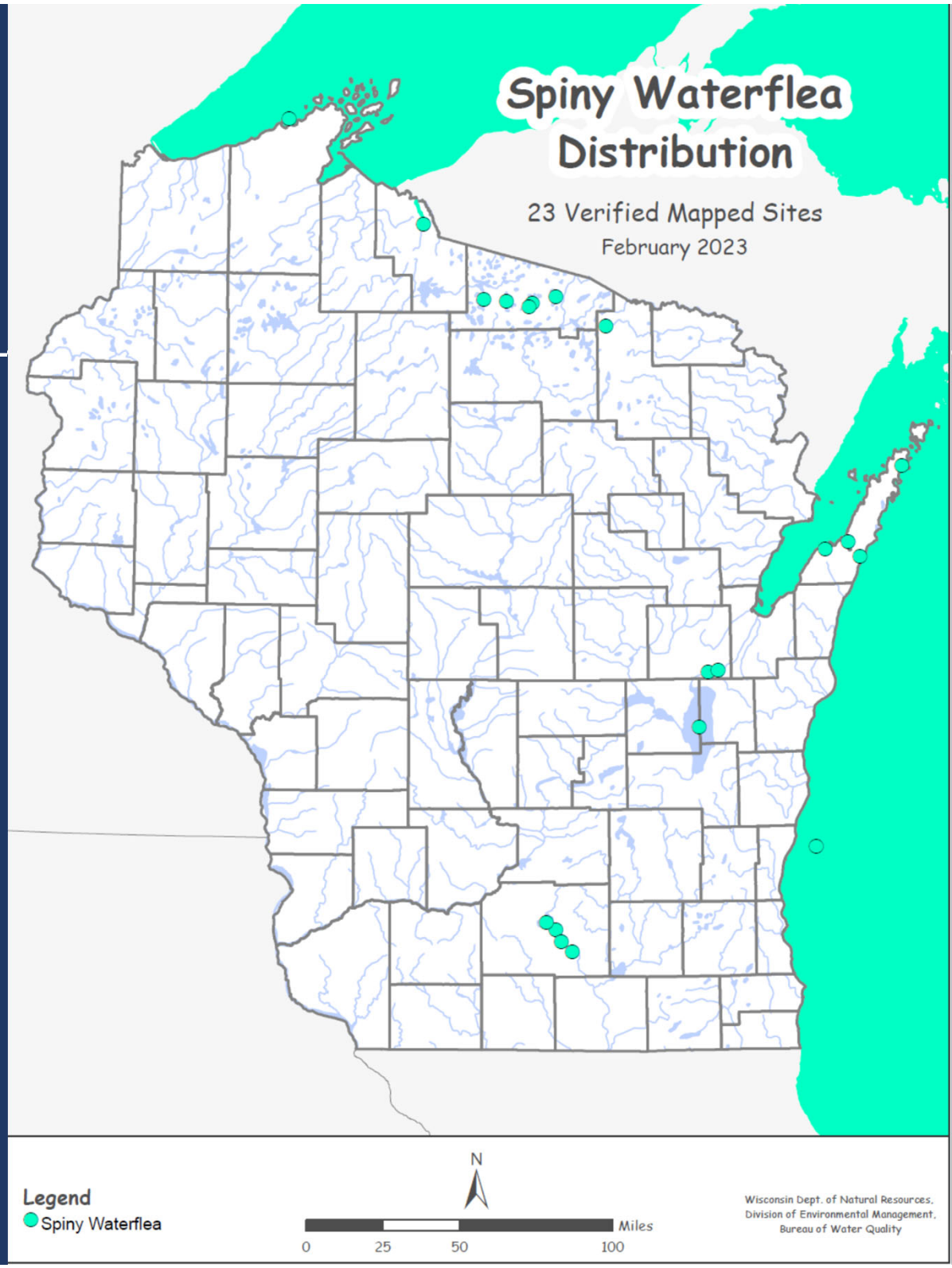
Spiny & Fishhook Waterfleas



- Ballast water introduction to Great Lakes in 1980s
- Found in 27 inland lakes & streams (March 2024)
- Eat zooplankton & harm native fish
- Foul fishing gear—form gummy clumps

Spiny Waterflea Distribution

[Insert specific waterbody names in region here.]



Hydrilla

- Native to Asia & Africa
- Not currently known to exist in Wisconsin
- Looks very similar to native *Elodea* species
- Forms very dense beds & outcompetes native species

Hydrilla

- Leaves have teeth on the edges and underneath
- Produces tubers in the sediments
- **NR40-Prohibited** species

Starry Stonewort

- *Nitellopsis obtusa*
- Native to Europe and Asia
- Documented in St. Lawrence River in 1974.
- Verified in 37 lakes (March 2024)

- Only male starry stonewort has been found in North America. No sexual reproduction (seed production) occurring.

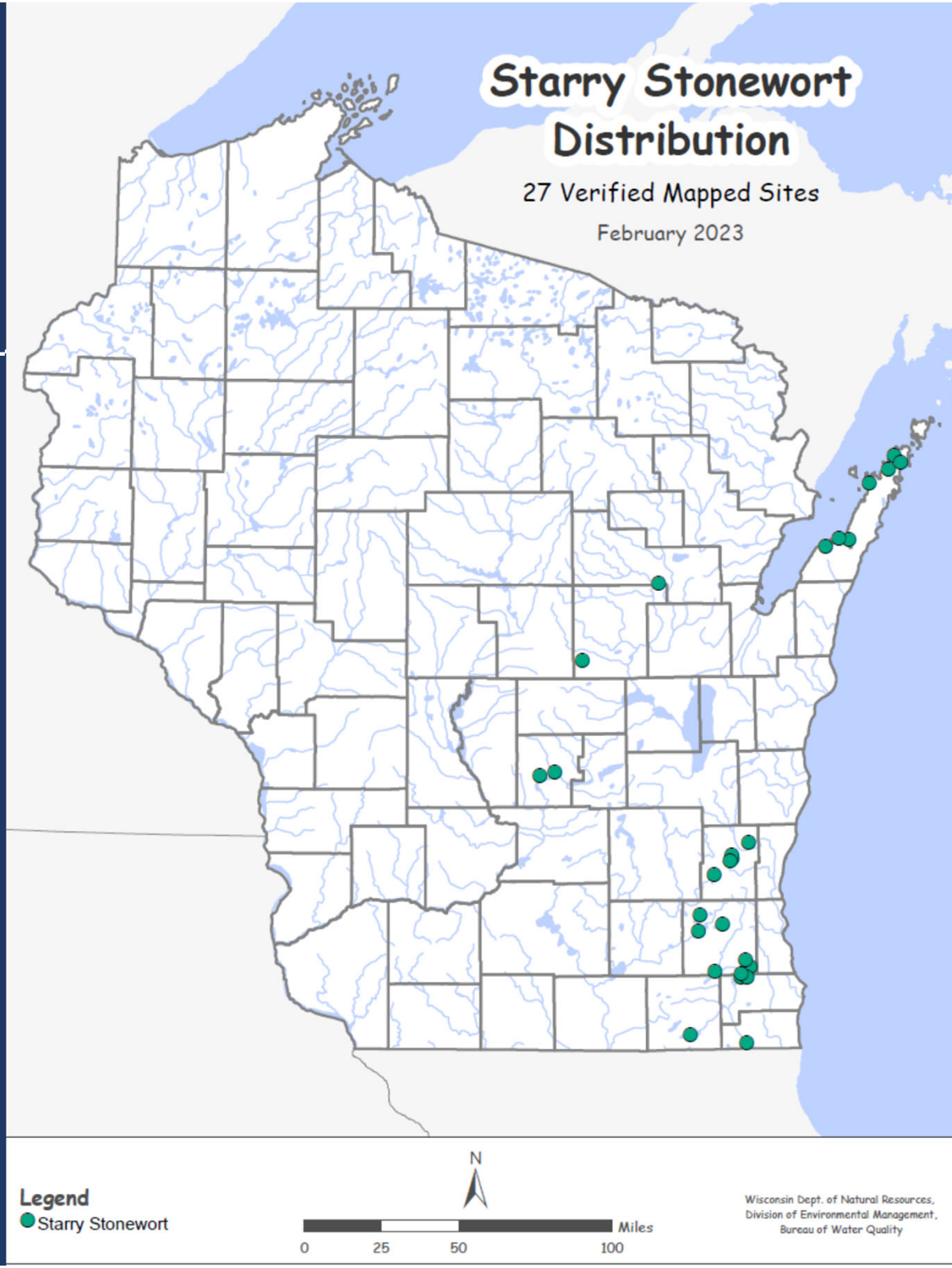

CLEAN
WATERS

Starry Stonewort

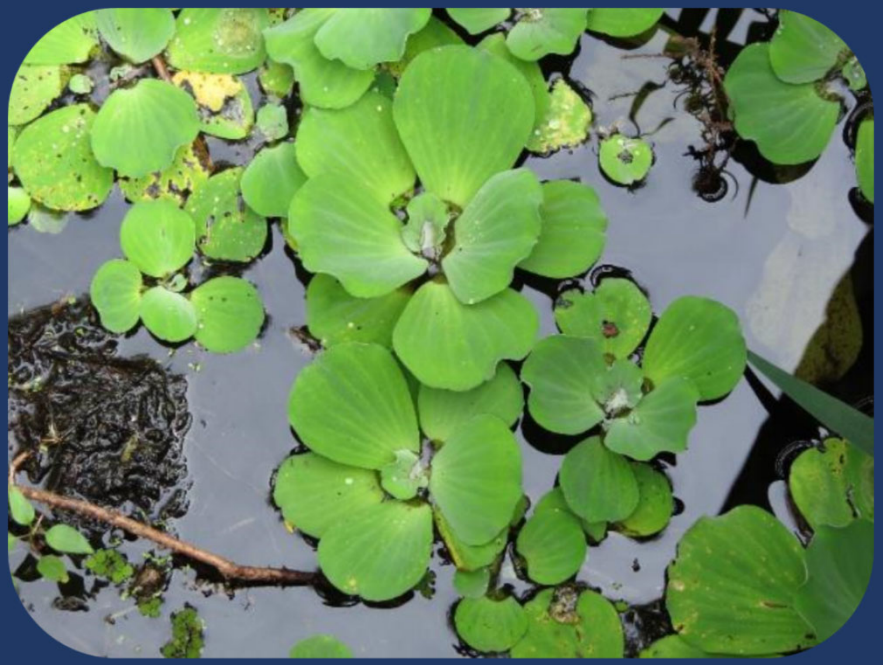
- Can be over 6 feet tall
- Whorls (rings) of branchlets (“leaves”) around the stem
- Asymmetrical forking of branchlets
- Produces star-shaped bulbils in the sediments

Starry Stonewort Distribution

[Insert specific waterbody names in region here.]



Water Lettuce



- Soft, velvety leaves with parallel ridges
- Resembles floating head of lettuce
- Very lightweight, floats high on surface
- Spreads by stolons
- Feathery roots dangle below
- **NR40-Prohibited** species

Water Hyacinth

- Floating plant native to South America
- Brought to New Orleans Cotton Exposition in 1884 & distributed to attendees
- Floating rosette of round, leathery leaves with swollen bases
- **NR40-Prohibited** species

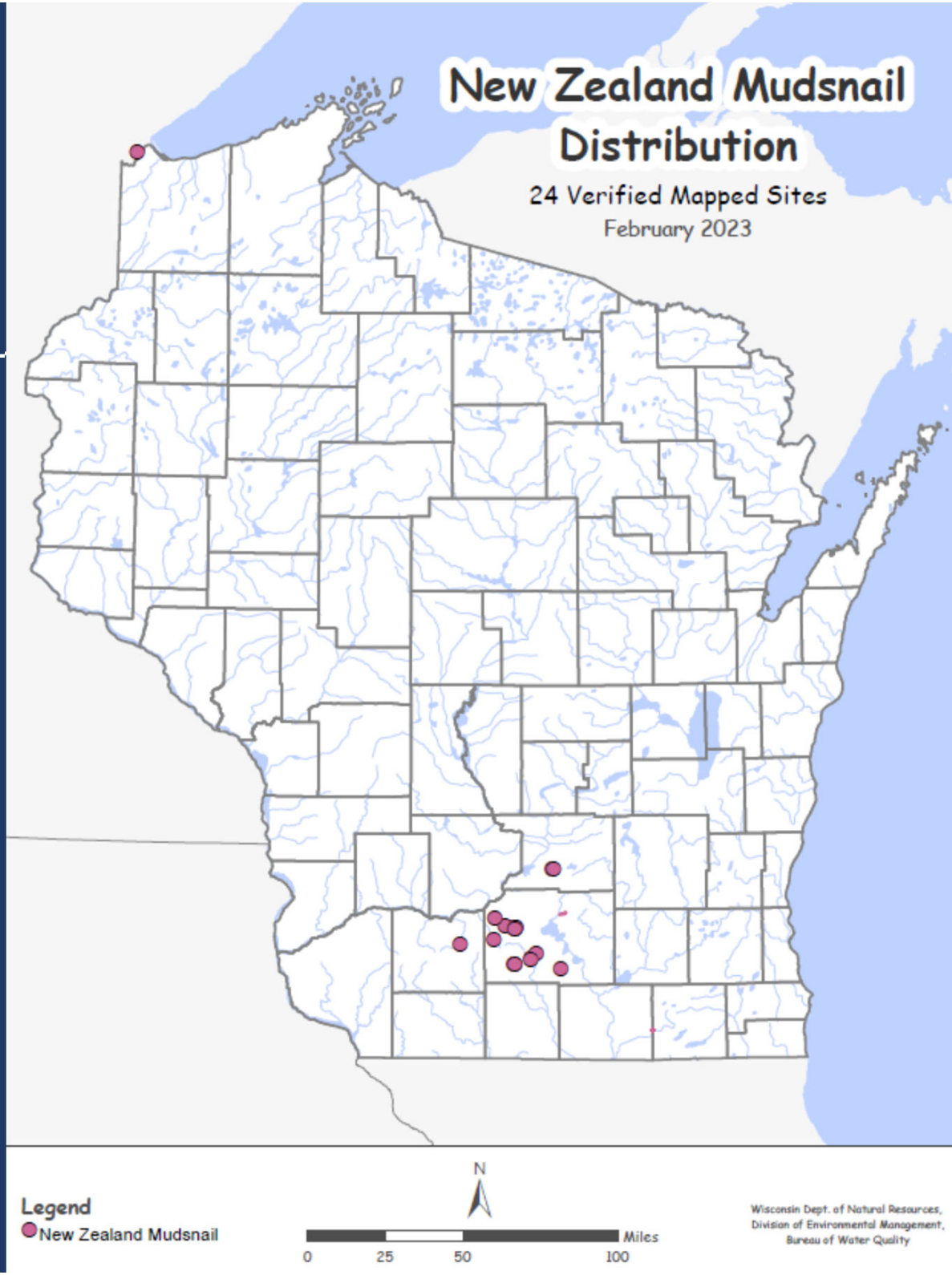
New Zealand Mudsnails

- 4-6mm long as adults, shell opens on the right side
- Can live out of water for 26 days or more
- All females. Reproduction is by cloning.
- **NR40-Prohibited** species

New Zealand Mudsnail Distribution

New Zealand Mudsnails have been verified in:

- Dane County
- Douglas County
- Columbia County
- Iowa County
- Walworth County

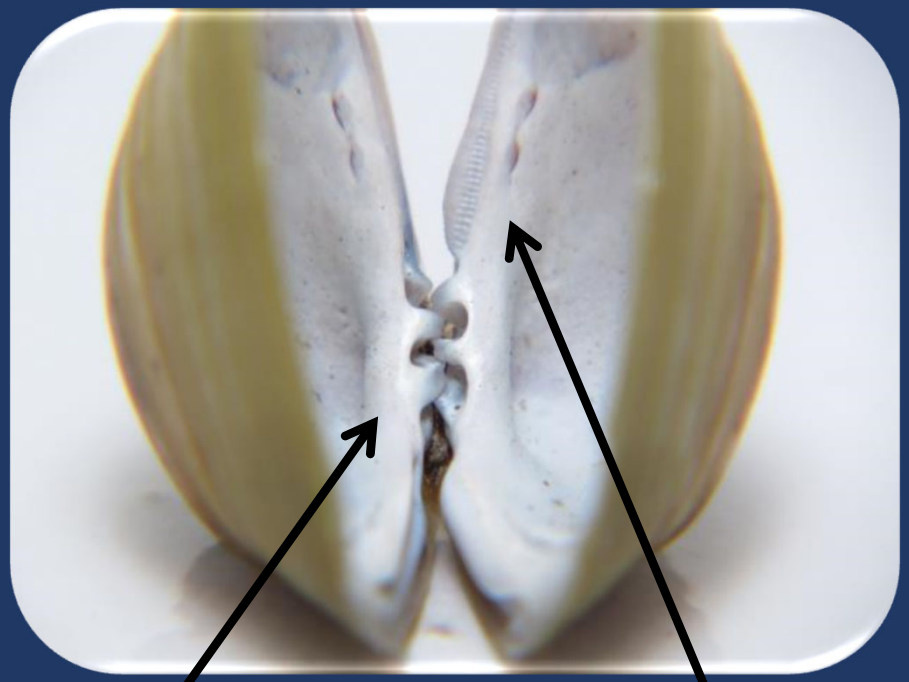


Chinese & Banded Mystery Snails

- Chinese – up to 3” tall, uniform brown color
- Banded – up to 1.5” tall, dark brown horizontal bands; rest of shell may be white (sun-bleached)
- Known from about 1300 waterbodies combined
- Impacts poorly understood

Freshwater Golden Clam

← Ridges pronounced & evenly spaced



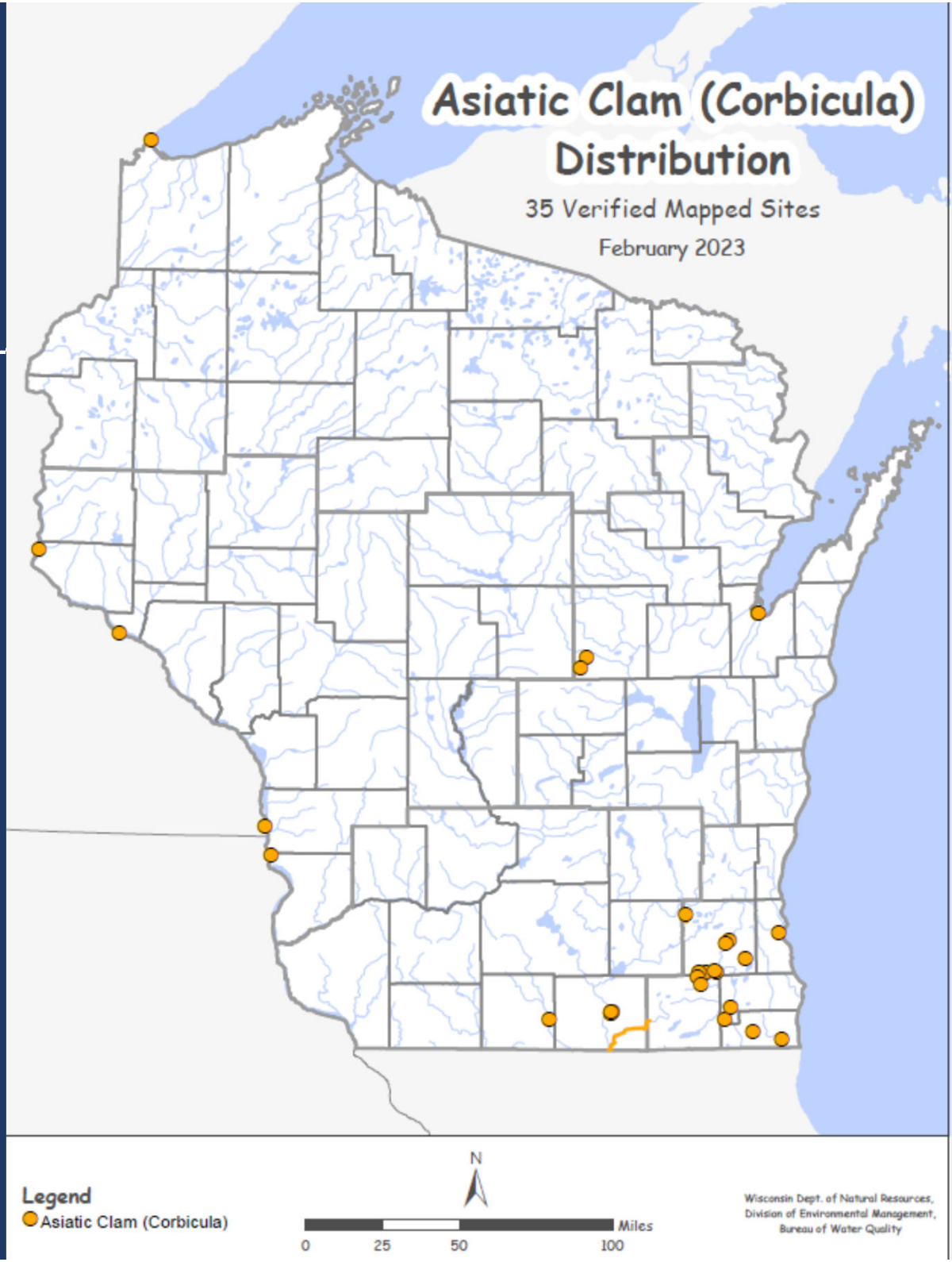
3 large hinge teeth

serrated lateral tooth

- Native to China, Korea, & southeastern Russia
- Likely introduced in ballast water or as food import
- Limited inland locations – in 37 waterbodies (March 2024)
- Microscopic in early life stages – can self-fertilize
- Clog water intake pipes & displace native species

Freshwater Golden Clam Distribution

[Insert specific waterbody names in region here.]



Native Watermilfoil Weevil

- NATIVE to North America
- Feeds on native watermilfoils and EWM
- Larvae do the most damage
- Requires natural shorelines to be effective

Wisconsin's AIS Program

Prevent introduction and limit the spread of aquatic invasive species

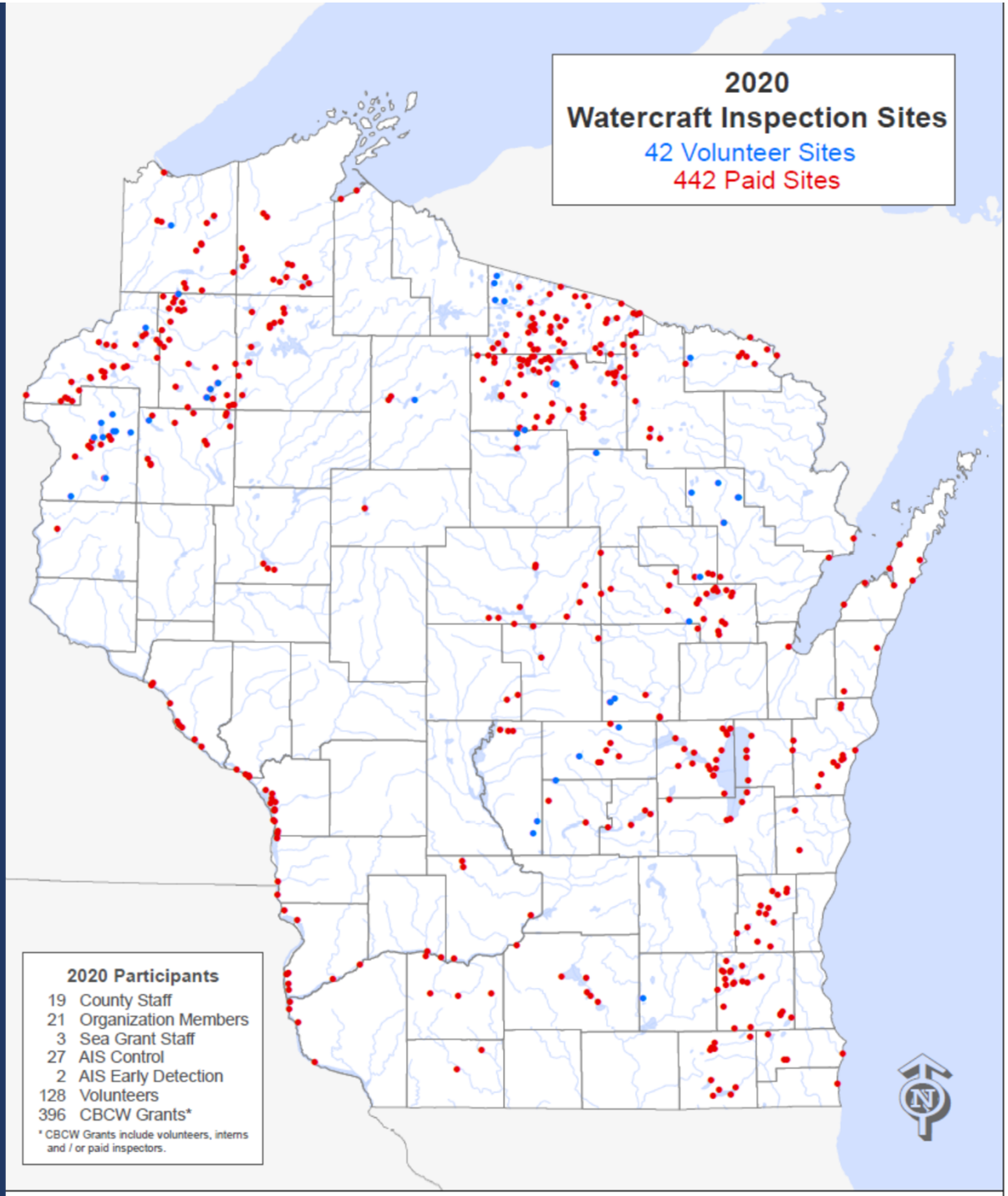
Program Goals

- Focus on containment
- Increase AIS awareness & responsible behaviors
- Strengthen partnerships

AIS Program Elements

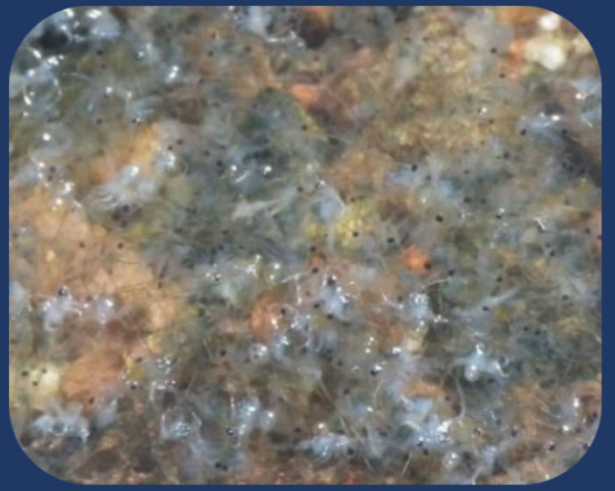
- Education & Outreach
- Watercraft Inspection
- Citizen Lake Monitoring
- Purple Loosestrife Biological Control
- Aquatic Invasive Species Grants
- Research
- Rules to Prevent Spread

Why watercraft inspection?



As of May 2021

same prevention methods



AIS Prevention Message

- **INSPECT** boats, trailers, and equipment.
- **REMOVE** all attached plants and animals.
- **DRAIN** all water from boats, vehicles, and equipment.
- **NEVER MOVE** plants or live fish away from a waterbody.
- **BUY** minnows from a WI bait dealer. Use leftover minnows only under certain conditions.

Current AIS Regulations

NR 40

- Classification of invasives into two categories: Prohibited or Restricted

- Preventive measures required
  - INSPECT
  - REMOVE
  - DRAIN
  - NEVER MOVE

Current AIS Regulations (cont'd)

Live Bait Regulations

- All water must be drained from boats and equipment – up to 2 gal may be used for minnows.
- You may take leftover minnows away from any state water and use them again on that same water, or on other waters, but only if no lake or river water, or other fish were added to their container.
- You may not transport any live fish or fish eggs away from any state waters.


MILFOIL AND ZEBRA MUSSELS!!
AQUATIC INVASIVE SPECIES
DAVE GRANLUND © www.davegranlund.com

What you really need to know about AIS…

Inspectors DO make a difference!

How it all began…

Clean Boats, Clean Waters

- Trains volunteers, citizens, and staff to conduct boater education campaigns in their communities

- Over 2,500 people trained since 2004

Volunteers

DNR Staff

Student Interns

DWD Young Adults

Recruiting Volunteers

- Commit volunteers with: newsletters, phone calls, personal visits
- Develop a recruiting/training packet
- Appoint a coordinator to schedule & organize volunteer hours
- Select optimum days & high use landing sites

Long Lake Preservation Association

Retaining Volunteers

- Generous thank-you!
- Offer supplies
  - T-shirt & hat
  - Water
  - Sun tan lotion
  - Bug spray
- Publish volunteer names
- Advertise accomplishments
- Awards and certificates
- Celebrate!

Turtle Lake Chain Association

Preparing for Inspections

- Visit landings ahead of time: identify layout, traffic flow, unsafe areas
- Determine emergency contacts
- Make inclement weather plan
- Pack water, snacks, & sunscreen

✓CBCW T-shirt or sticker

✓ Clipboard & pencil

✓ Select handouts: landing script, prompts handout, check points list, violation form

✓ Watercraft Inspection form

✓SAH brochures & stickers

✓ List of lakes identified with AIS

✓ Cell phone & local law contacts

Getting Started: Inspector Duties

- Inform and educate boaters
- Perform watercraft inspections
- Collect and report watercraft data

Boat Landing Message

- Discuss prevention steps
  - **INSPECT** boats, trailers, and equipment.
  - **REMOVE** all attached plants and animals.
  - **DRAIN** all water from boat, vehicles, and equipment.
  - **NEVER MOVE** plants or live fish away from a waterbody.

Boat Landing Message

- Discuss the AIS preventive actions (which are now law)
- Perform a watercraft check – Involve boater!
- Offer a SAH sticker - commitment and prompt

State of Wisconsin
Department of Natural Resources
Wisconsin Lakes Partnership

Watercraft Inspection Report

Form 3200-120 (R 03/23)

Notice: Information is collected under s. 33.02, Wis. Stats. Personally identifiable information, including names of volunteers, will be broadly distributed in conjunction with lakes data.

Inspector Name(s)	Date	Start Time ◯am ◯pm	End Time ◯am ◯pm	Total Hours Spent: Paid: _____ Volunteer: _____

Waterbody Name	County	Landing Location

Boat Was...		Questions to Ask Boater								Number of People Contacted
		Have you been contacted by a watercraft inspector this season?		Are you willing to answer a few questions?		Was boat used during the past 5 days on a different waterbody?				
								If YES, where?		
Entering	Leaving	Y	N	Y	N	Y	N	Waterbody Name / County / State	Don't know	
TOTALS: Enter the totals & waterbody information into SWIMS at https://apps.dnr.wi.gov/swims										

Discuss Following Prevention Steps with Boater

WI Law requires boaters to take the following steps when leaving a boat landing:

Steps 1 & 2: **Inspect** boat, trailers and equipment and **remove** any attached plants/animals.

» Have you heard of this before? (see prompt)

Step 3: **Drain** all water from **boats**, vehicles and equipment.

» Do you have any questions? (see prompt)

If angler, state following steps:

Step 4: **Drain** water from **livewells** and containers holding your catch.

» This is a relatively new law. Were you aware that this is required? (see prompt)

Do you use live bait? (If YES, share message below.)

Bait Message: If live bait comes in contact with lake/river water, it can only be used on that same waterbody or discarded in trash. (bait=minnows/leeches/worms)

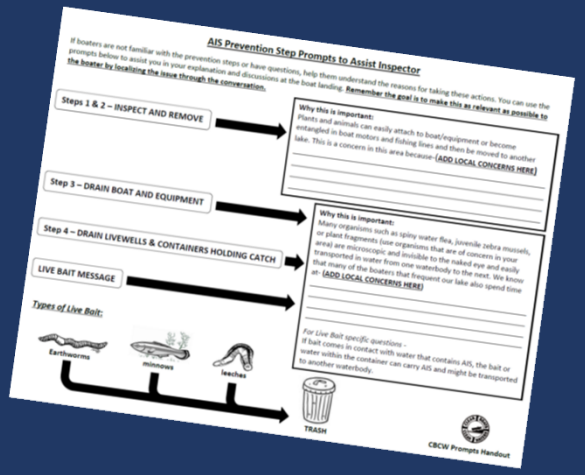
» Do you have any questions on this law as it can be a little confusing? (If yes, see Prompt and offer bait sticker/brochure)

Comments:

Sheet _____ of _____

Prompts Handout

- Resource for inspector
  - ✓ Reminder of why steps important
  - ✓ Leads to discussion rather than just information
  - ✓ Local concerns addressed
- Diagram layout simple & easy to read
- Quick visual reminder for live bait



AIS Prevention Step Prompts to Assist Inspector

If boaters are not familiar with the prevention steps or have questions, help them understand the reasons for taking these actions. You can use the prompts below to assist you in your explanation and discussions at the boat landing. **Remember the goal is to make this as relevant as possible to the boater by localizing the issue through the conversation.**

Steps 1 & 2 – INSPECT AND REMOVE

Why this is important:
Plants and animals can easily attach to boat/equipment or become entangled in boat motors and fishing lines and then be moved to another lake. This is a concern in this area because-(**ADD LOCAL CONCERNS HERE)**

_____

_____

_____

_____

Step 3 – DRAIN BOAT AND EQUIPMENT

Step 4 – DRAIN LIVEWELLS & CONTAINERS HOLDING CATCH

LIVE BAIT MESSAGE

Why this is important:
Many organisms such as spiny water flea, juvenile zebra mussels, or plant fragments (use organisms that are of concern in your area) are microscopic and invisible to the naked eye and easily transported in water from one waterbody to the next. We know that many of the boaters that frequent our lake also spend time at- **(ADD LOCAL CONCERNS HERE)**

_____

_____

_____

_____

For Live Bait specific questions -
If bait comes in contact with water that contains AIS, the bait or water within the container can carry AIS and might be transported to another waterbody.

***Types of Live Bait*:**

Earthworms

minnows

leeches

TRASH

CBCW Prompts Handout

Collecting Data

- Determine traveling patterns of recreational users
- Useful data for lake planning grants, local ordinance reviews

Efforts for 2023:

154,087 boat inspections

301,676 people contacted

83,049 hours spent (3/24)

Watercraft Inspection Results

Location: Statewide

Aquatic Invasive Species

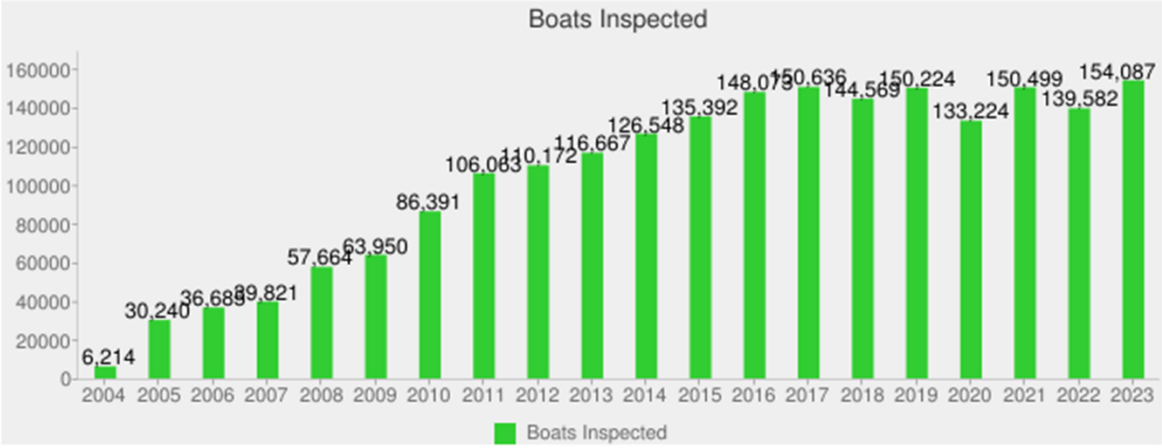
Contact information

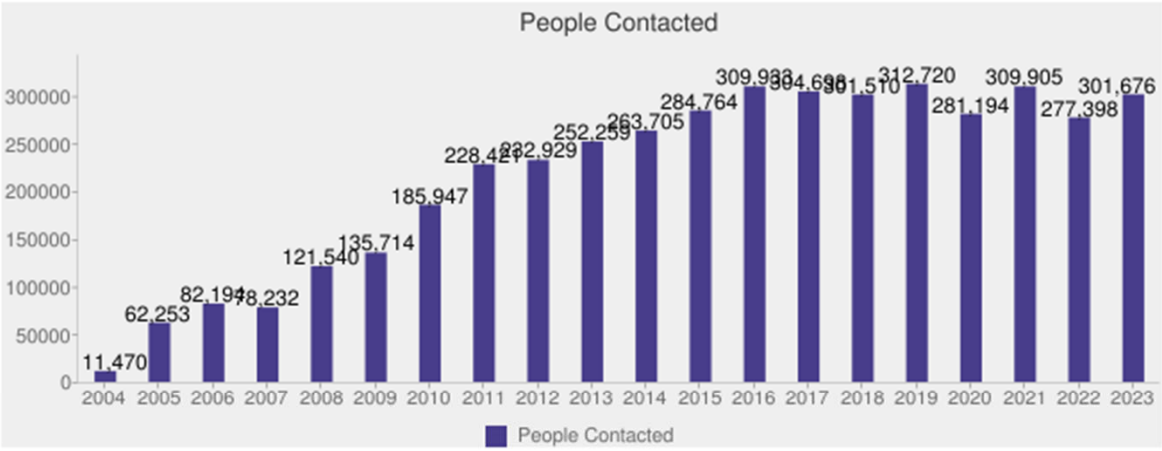
For information on Lakes in Wisconsin, contact:

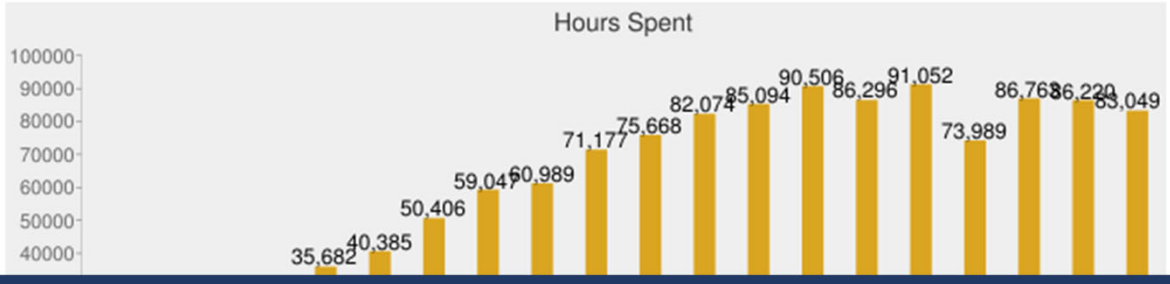
DNR SWIMS
Division of Water
Bureau of Water Quality

Clean Boats, Clean Waters Contacts

Watercraft Inspection Efforts | **Boater Statistics** | **Projects** | **Landings**







https://apps.dnr.wi.gov/lakes/invasives/WatercraftSummary.aspx

Handling a Violation

Do your homework beforehand…

Staying Safe During Inspections

- Tools to be prepared for unpredictable situations
  - ✓ **Unity**

    - Strength in numbers
    - Unified front
    - Easier to diffuse situations when together
  - ✓ **Boundaries**: can be mental, emotional, material, conversational, time, physical…

    - Know your personal boundaries and when to address them

Credit: Kelsey Bockelman, MSU Extension

Staying Safe During Inspections

- Tools to be prepared for unpredictable situations
  - ✓ **Language**

    - Use even tones when engaging
    - Word choice matters
    - Redirect conversation back to topic
  - ✓ **Know When to Leave**

    - Some situations cannot be defused
    - Be aware of surroundings & when to help a teammate leave

Credit: Kelsey Bockelman, MSU Extension

Take a moment to think about one or more of the scenarios below. Using the tools, what might be the best way to react?

- Scenario 1: A group of intoxicated boaters has just come off the water. They begin harassing you and your fellow inspectors and make lewd comments.

- Scenario 2: A boater, whose day has gone wrong from the start, approaches the launch. When he sees the busy landing, he automatically assumes it your fault. He comes over to your group to voice his frustration.

- Scenario 3: An angler, who associates your group with the DNR and thus blames you for stock choices and “poor fishing”, begins yelling at your group with aggressive hand signals and it begins to escalate.

Credit: Kelsey Bockelman, MSU Extension


eppo.net
YOU OVERPOPULATE THE LAND AND DESTROY EVERYTHING!!!
OIL
SURE...
Seppo Leinonen 2011/Seppo

How to Change Boater Behavior

- Educational materials
- Prompts (decals, stickers)
- Personal contacts
- Modeling behavior
- Social diffusion

Steps for an Effective Watercraft Inspection Program

- Determine boat landing ownership & have up-to-date AIS signage!
- Maintain effective inspection hours
- Develop a plan to recruit, train, and retain inspectors
- Wear Clean Boats, Clean Waters t-shirts or stickers
- Develop an accurate and concise message

Steps for an Effective Watercraft Inspection Program

- Know what educational materials are available and who to contact
- Keep and report watercraft inspection records
- Report any suspect specimens
- Encourage others!


The major influence on our attitudes and behavior is not the media, but rather our contact with other people.
"Fostering Sustainable Behavior" Doug McKenzie-Mohr, William Smith

CBCW Resources & Gear

- **Resources**
  - Watercraft Inspection Manual
  - CBCW kit
  - Video scenarios
  - Website: **uwsp.edu/uwexlakes**

- **Gear – order online!**
  - T-shirts
  - Aprons
  - Hats
  - Stickers

Please Contact Me!

- For more information contact:
  Erin McFarlane
  715-346-4978
  erin.mcfarlane@uwsp.edu

- To download materials & presentations, visit our website: uwsp.edu/uwexlakes


Thank you!