

# Detecting Invasive Species Through a Two-state, Coordinated AIS Snapshot Day

Maureen Ferry – Wisconsin Department of Natural Resources  
Paul Skawinski – University of Wisconsin Extension Lakes

Wisconsin Lakes Partnership Convention

Stevens Point, WI

April 19, 2018

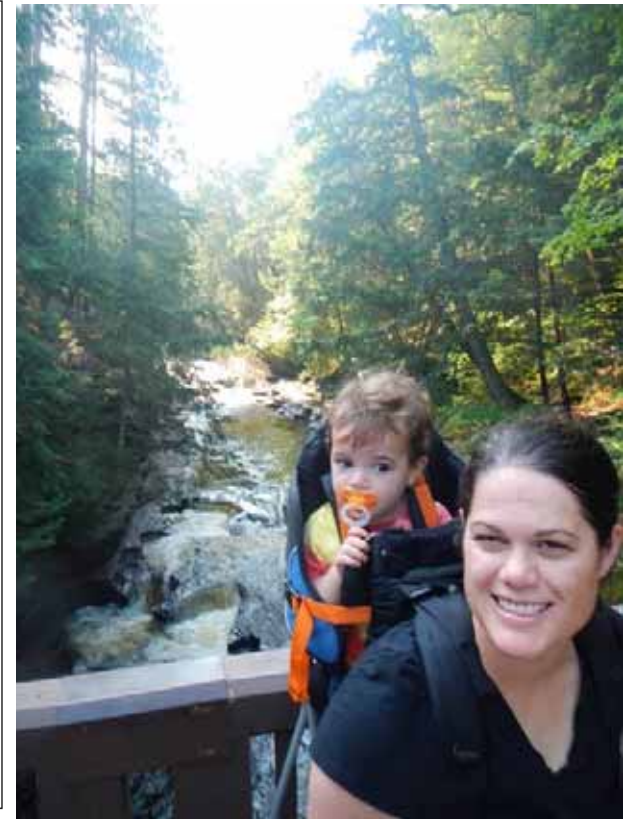
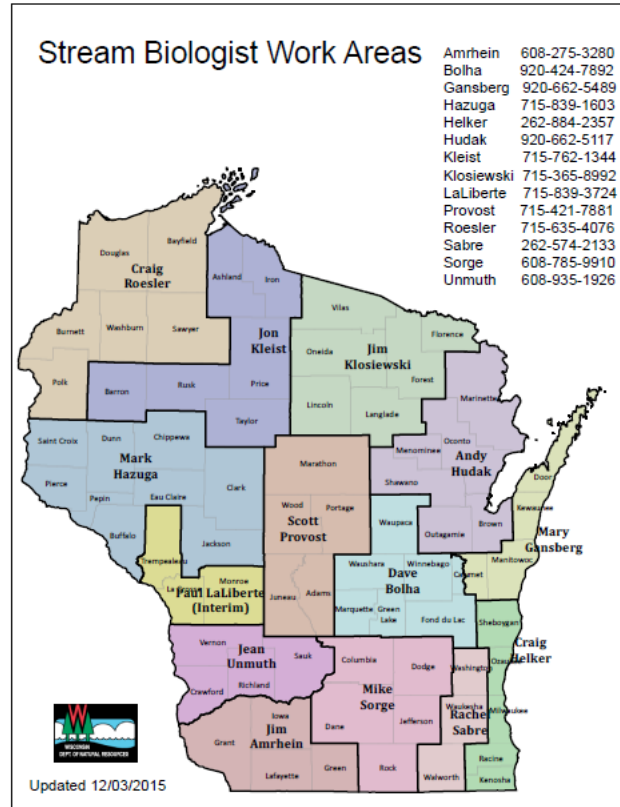


# Overview

- The beginning
- Targeting
- Expanding



# The Beginning



# The Beginning



# The Beginning

- DNR AIS monitoring protocol for streams
- Adapted for volunteers to target fall water garden releases at public access locations



Water hyacinth (*Eichhornia crassipes*)



Water lettuce (*Pistia stratiotes*)

# The Beginning

- Protocols & datasheet
- Webinar training for local coordinators
- Template PowerPoint
- Press & social media packet
- Flyers & handouts
- Social media



# The Beginning

- Local coordinator selects sites
- Recon on sites
- Recruits volunteers
- Prepares maps
- Trains volunteers ID and protocols in morning

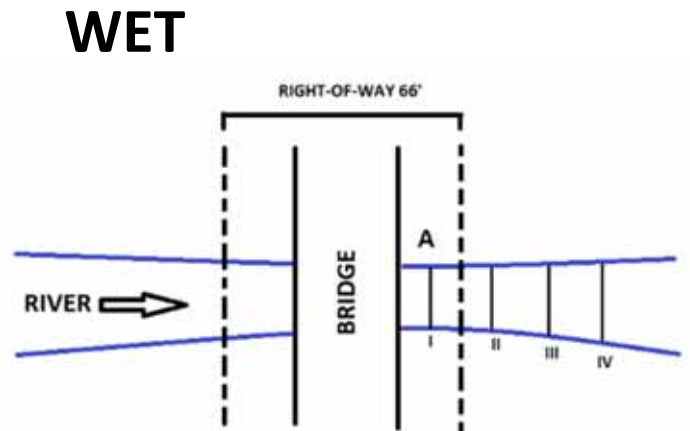
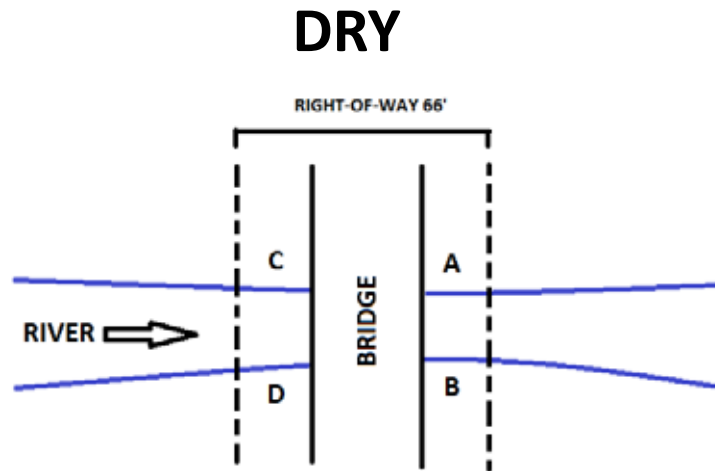
# Protocol Basics

- Dry or wet site
- Two Minutes per step/transect
  - Look
  - Rake
  - Scoop
- Collect
- Clean

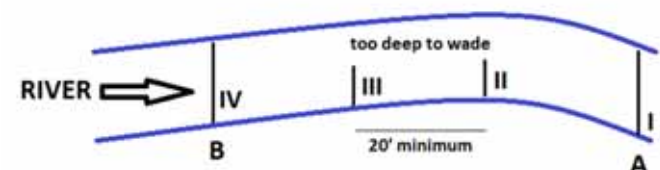
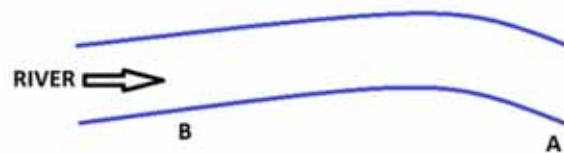




# BRIDGES



# SHORELINES



## BRIDGES

DRY



WET



## SHORELINES



# Example Datasheet

AIS Snapshot Day Datasheet

Date: 5/21/17

Site name: Murphy's Creek at Lalor Road		Names of Volunteers: <i>Amy Smith, Abigail White, Jeremy Black</i>	
Station ID: 10010964	Coordinates: 42.98346N, -89.36288W	Local Site Coordinator/Initial Verifier: Amanda Perdzoek	
Protocols (circle one): <input checked="" type="radio"/> Dry Bridge/Culvert <input type="radio"/> Wet Bridge/Culvert	<input type="radio"/> Boat launch <input type="radio"/> Dry Shoreline <input type="radio"/> Wet Shoreline	Did you use a handscoop? Yes <input type="radio"/> No <input checked="" type="radio"/> Did you use a rake? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Start Time: 10:05	End Time: 10:25		

List each aquatic invasive species observed, estimate the area and density of population, or indicate in the check box if none were observed.

Indicate whether you collected a sample and/or took a picture.

LOCAL COORDINATORS \*\*

Species	Estimated area (m <sup>2</sup> )	Density*	Sample Collected?		Picture taken?		Comments/Corrected Species ID	Initial Verification (y/n)	
			Y	N	Y	N		Initial ID Correct?	Submitting For Voucher?
<i>Curly leaf pond</i>	1	2	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		Y	Y
<i>Rusty crayfish</i>	4	1	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Native Crayfish, AP	N	N
EWM	2	3	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Already documented, AP	Y	N
			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			

\*Density Ratings 1: A few individuals (1-25) 2: Many small, scattered populations (25 - 500) 3: Dense population (> 500)

Check box if no aquatic invasive species were observed

Other observations/notes:

Who did you send your voucher specimens to?

*Amanda Perdzoek*

\*\*Local Coordinators indicate if you can verify the sample and fill out the verify/voucher sheet if submitting to Regional DNR Staff

# The Beginning

- Volunteers bring back specimens in afternoon
- Local coordinator IDs and takes photos
- Data in SWIMS
- Submit to DNR

Wild Bridge Stream Day Worksheet  
September 10, 2016

Location: 1.5 mi E of Town of Green Bay, WI  
2.5 mi S of Highway 200, Green Bay, WI

Date/Time: 11:00 AM - 12:00 PM

Observer(s): Lynn Deppen Hess, Erik Larson-Deppen

Species	Abundance	Density*	Percent Collected	Percent Spotted	Comments
Spiky leaf	2	1	100%	100%	
Spiky leaf	1	2	100%	100%	
Spiky leaf	1	1	100%	100%	

\*Density: Spots: 1. A few individuals (1-10); 2. Many small, scattered populations (10 - 50); 3. Many small, scattered populations (50 - 100); 4. Many small, scattered populations (100 - 500); 5. Many small, scattered populations (500 - 1000)

# Clean



# The Beginning

- First few years very successful!
  - 2014: 135 sites
  - 2015: 126 sites
  - 2016: 145 sites
- Duplicate entries



Count of prohibited species within 15 miles

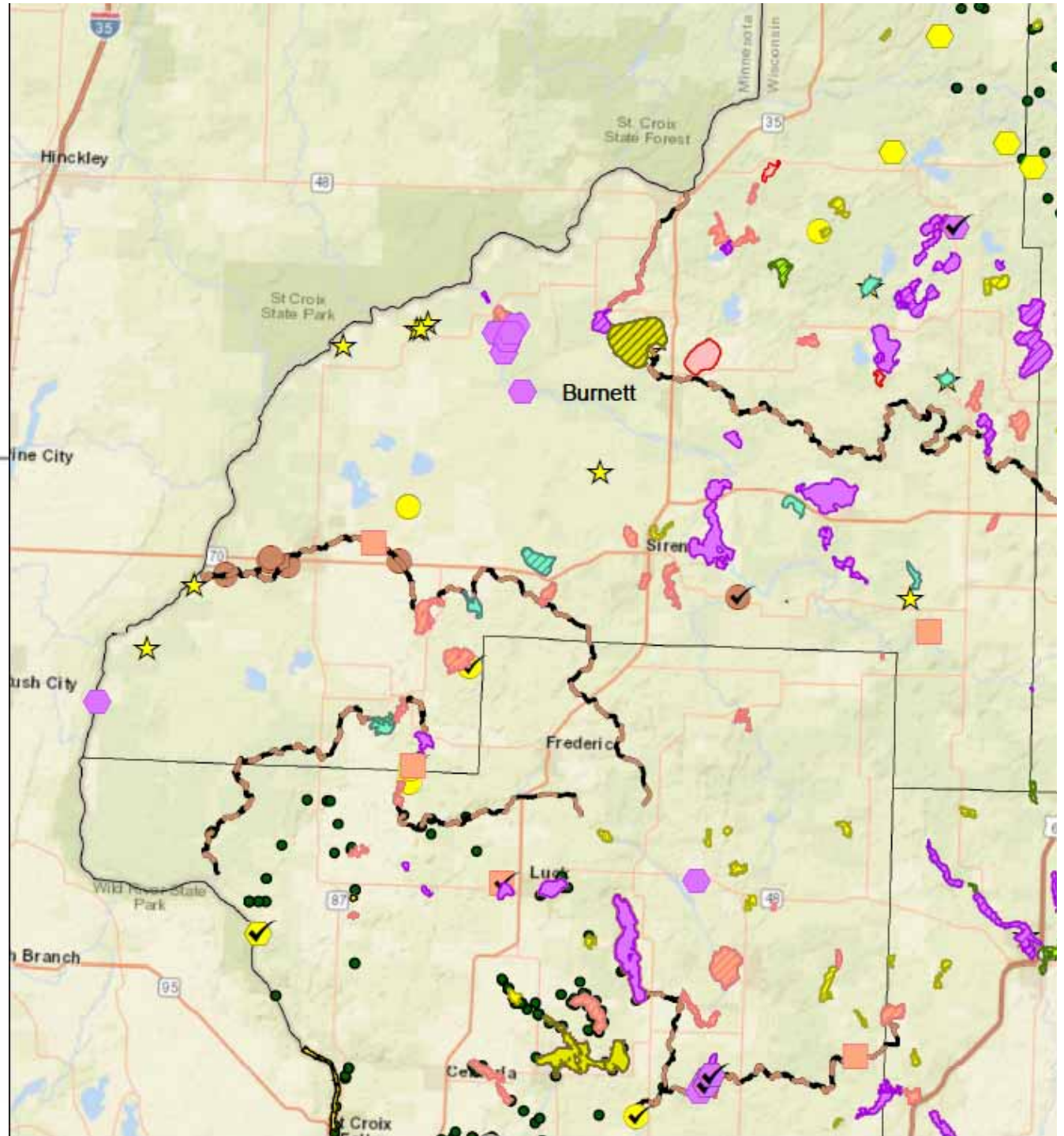
- ◆ 1 - 11
- ◆ 12 - 21
- ◆ 22 - 36
- ◆ 37 - 55
- ◆ 56 - 77

Unverified archive records

- ★ Bohemian Knotweed
- ★ Common Reed
- ★ Japanese Knotweed
- ★ Reed Mannagrass

Lakes and AIS Mapping Tool records

- Invasive Invertebrates
  - Asiatic Clam (*Corbicula fluminea*)
    - Verified (Asiatic Clam)
      - Verified Asiatic Clam Points
      - Verified Asiatic Clam Lines
      - Verified Asiatic Clam Areas
    - Observed (Asiatic Clam)
      - Observed Asiatic Clam Points
      - Observed Asiatic Clam Lines
      - Observed Asiatic Clam Areas
    - No Longer Observed (Asiatic Clam)
      - No Longer Observed Asiatic Clam Points
      - No Longer Observed Asiatic Clam Lines
      - No Longer Observed Asiatic Clam Areas



# 2017 – A Broader Effort

Partner with CLMN to add lakes to Snapshot Day

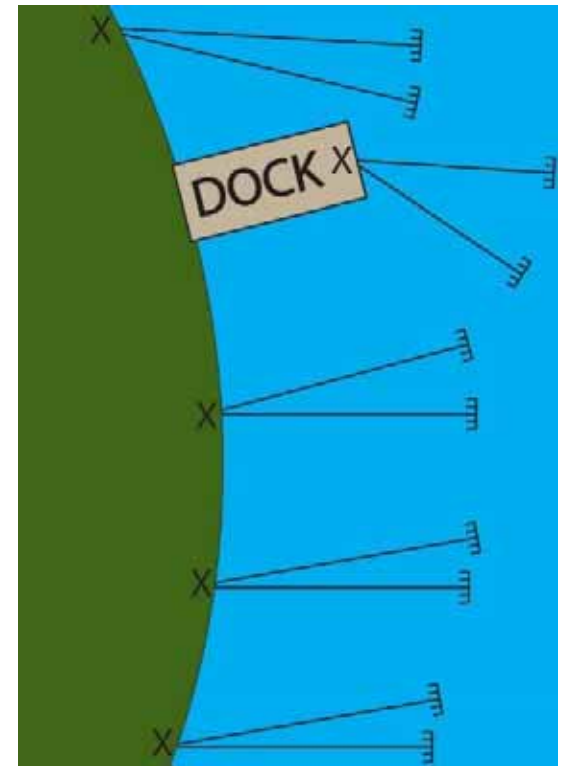
Partner with University of Minnesota 'Starry Trek' to create a two-state event



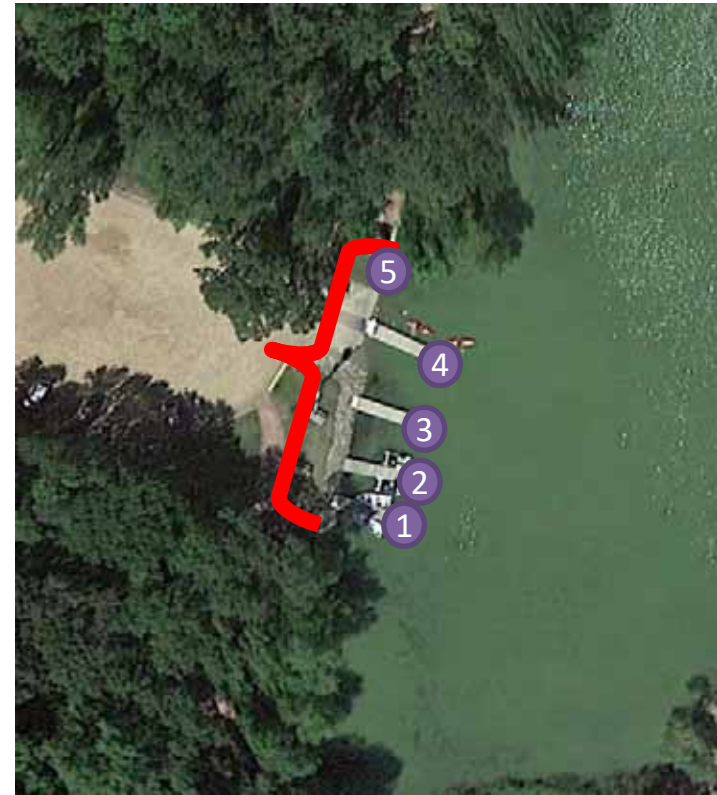


# Monitoring Protocol: Site Arrival

1. Identify boundaries of public access
2. Search begins at one end and ends at the other
3. Plan 5 equally spaced locations within public access boundaries
  - Note if there is a dock or pier, make that one of the locations
    - Sample off any side, but try to focus on area(s) boats frequently travel through



# Monitoring Protocol: Site Arrival



# Sampling Procedure

At each sampling location:

1. SCAN the area for 30 seconds
  - Spend more time if needed (e.g. areas of heavy vegetation)
  - Include plant fragments and shells on shore & plants and animals in the water
  - Use polarized sunglasses (if available)



# Sampling Procedure

2. TOSS the sampling rake into the water

- Aim for concentrations of plants or anything suspicious from the scan
- Be sure to hang onto one end of the rope



# Sampling Procedure

3. EXAMINE material attached to the rake

Use provided ID resources to help identify suspicious organisms



# Return To Base

Volunteers return to the local training site (“rendezvous site”) to examine anything suspicious with the local coordinator. 57 lake sites sampled on August 5<sup>th</sup>, 2017!



# Sampling Procedure

## 4. REPORT new invasive species populations

Local coordinator enters data and photographs specimens on datasheet

AIS Snapshot Day Datasheet Date: August 5<sup>th</sup>, 2017

Site name: Stratton Lake  
 Station ID: 10018551 Coordinates: 44.287826, 89.180775

Names of Volunteers: Adam Halfon, Ann Oser, Chris Horvath  
 Local Site Coordinator/Initial Verifier: Paul Skawinski

Protocols (circle one):  Bin/Lunch  
 Dry Bridge/Culvert:  Dry Shoreline  Wet Bridge/Culvert:  Wet Shoreline  
 Did you use a handscoop?  Yes  No  
 Did you use a rake?  Yes  No

Start Time: 10:35 End Time: 11:10

List each aquatic invasive species observed, estimate the area and density of population, or indicate in the check box if none were observed. Indicate whether you collected a sample and/or took a picture. Coordinators will email photos and datasheets to [DNRInvasivePhotos@wisconsin.gov](mailto:DNRInvasivePhotos@wisconsin.gov)

Species	Estimated area (m <sup>2</sup> )	Density*	Sample Collected?		Picture taken? (include form or photos)		Comments/Corrected Species ID	Local Coordinator Initial Verification (y/n)	
			Y	N	Y	N		Initial ID Correct?	Submitting For Voucher?
French Fly	Unknown	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Y	
Asian Clam	1m <sup>2</sup>	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	W/ of boat being used	Y	Y
Crayfish			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Native (PS)	-	N
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

\*Density Ratings: 1: A few individuals (1-25) 2: Many small, scattered populations (25-500) 3: Dense population (>500)

Check box if no aquatic invasive species were observed

Other observations/notes:

Who did you send your voucher specimens to?  
 Paul Skawinski

# The Beginning

- First few years very successful!
  - 2014: 135 sites
  - 2015: 126 sites
  - 2016: 145 sites
  - **2017: 154!**





# 2017 Snapshot Day Survey

**90%** of participants are “likely” or “very likely” to participate again in 2018.

**67%** rated the quality of their Snapshot Day experience as “very good”,  
**33%** as “good”.

**98%** felt comfortable identifying AIS after participating in Snapshot Day.



# Welcome to the team, Natalie!



# Questions/Comments

Paul Skawinski

Wisconsin CLMN Coordinator

UW-Extension Lakes Program

715-346-4853

[Paul.Skawinski@uwsp.edu](mailto:Paul.Skawinski@uwsp.edu)

Natalie Dutak

Watershed Groups Manager

River Alliance of Wisconsin

608-257-2424 x 111

[ndutak@wisconsinriversr.org](mailto:ndutak@wisconsinriversr.org)

Maureen Ferry

AMS Monitoring Coordinator

WI Department of Natural Resources

(608) 261-6450

[Maureen.Ferry@Wisconsin.gov](mailto:Maureen.Ferry@Wisconsin.gov)

