



**Department of  
Environmental  
Conservation**

# **NY Watercraft Inspection Steward Program Application (WISPA)**

## **2020 Data Overview: Methods, Statistics, Analysis**

**Invasive Mussel Collaborative  
October 28, 2020**

# Aquatic Invasive Species Management Plan



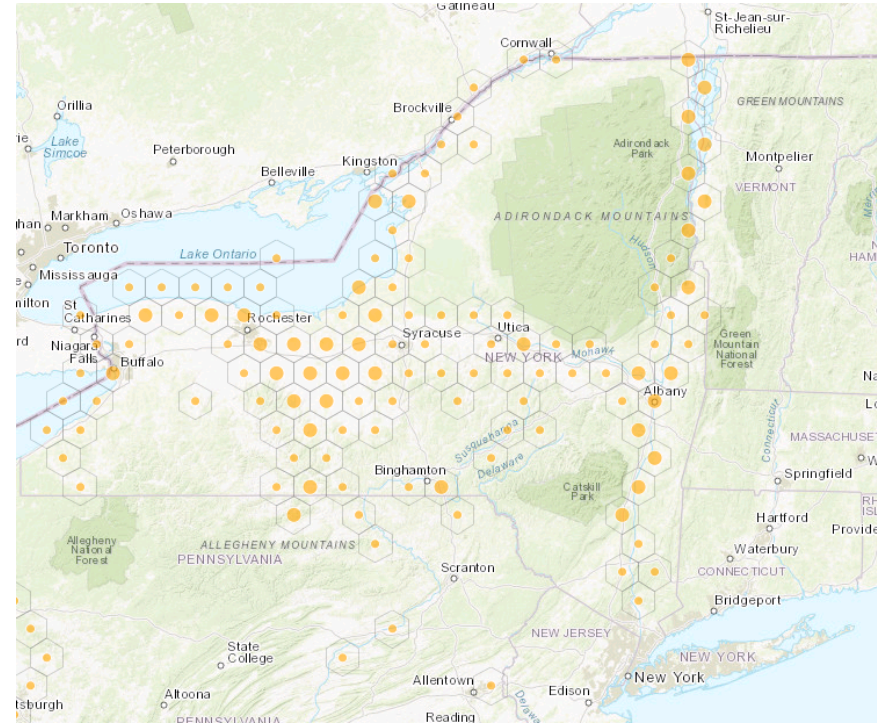
Stop the introduction and spread of aquatic invasive species into and within New York State's waters



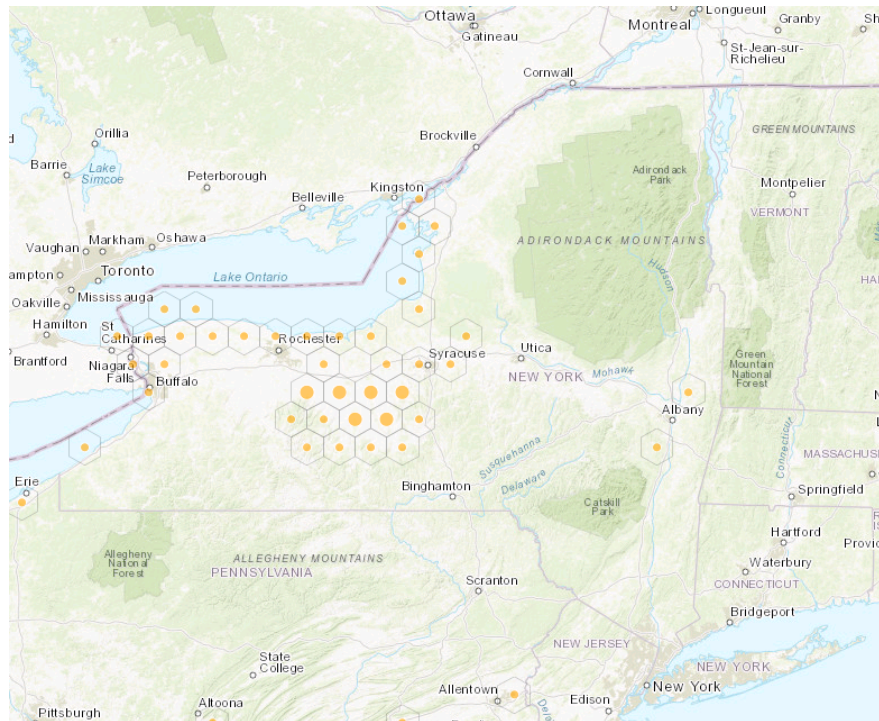
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# Zebra Mussels

- Found in Great Lakes, Hudson River, Mohawk River, Lake Champlain, Lake George
- Still moving inland to other lakes and rivers



# Quagga Mussels



- More recent invader that is making its way into New York's inland waterbodies
- Known to outcompete zebra mussels
- Can also inhabit colder and deeper waters than zebra mussels



# BMPs

- Only known control method for large, open waterbodies is containment



# Containment: Regulatory Efforts

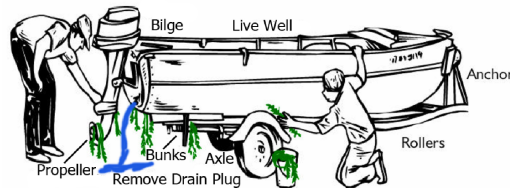
- Amendment to Article 3 of the Navigation Law – “AIS spread prevention signs at public boat launches”
- 6 NYCRR Part 59.4 (DEC) & 9 NYCRR Part 377.1 (Parks) – “AIS spread prevention regulations for boat launching/retrieving at DEC and Parks-owned sites”

## PROTECT YOUR WATERS!

**Prevent the Spread of Invasive Species**

*Invasive Plants and Animals Can Impact Boating, Fishing, Swimming and the Environment*

**REMOVE** any visible mud, plants, fish or animals before transporting equipment.



**ELIMINATE** water from equipment before transporting.

**CLEAN & DRY** anything that comes into contact with water (boats, trailers, waders, equipment, dogs, etc.).

**NEVER** release plants, fish or animals into a body of water unless they came out of that body of water.



**STOP AQUATIC  
HITCHHIKERS!**  
[www.ProtectYourWaters.net](http://www.ProtectYourWaters.net)

For further information scan this QR code with a smartphone, or visit:  
[www.dec.ny.gov/animals/48221.html](http://www.dec.ny.gov/animals/48221.html)



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# Containment: Regulatory Efforts

## 6 NYCRR Part 576

“Reasonable Precautions to Prevent Spread of AIS”



# Prevention:

- Watercraft inspection stewards becomes top priority for AIS management plan
- Preventing transport of AIS out of infested lakes and into uninfested lakes



J. Clayton, NYSDEC

# Prevention: Data standardization and centralized database (WISPA)

- Watercraft Inspection Steward Program application (WISPA)
- OPRHP, NYSDEC, and New York Natural Heritage Program (NYNHP) collaboration



# Prevention: Watercraft Inspection Steward Program (WISP)

2020

- Coverage at more than 200 locations
- More than 343,000 inspections and 19,000 interceptions



J. Clayton, NYSDEC



# Invasive mussel interceptions 2020

Zebra mussel: < 3,000

Quagga mussel: <100



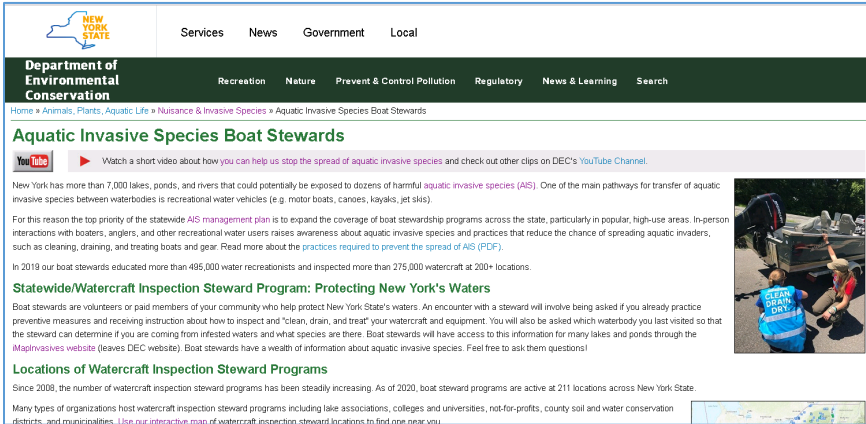
# Resources

## WISPA:

<https://www.nyimainvasives.org/wispa>

## NYS WISP:

<https://www.dec.ny.gov/animals/107807.html>



The screenshot shows the DEC website's navigation bar with links for Services, News, Government, and Local. Below this is the Department of Environmental Conservation header with sub-links for Recreation, Nature, Prevent & Control Pollution, Regulatory, News & Learning, and Search. The main content area is titled "Aquatic Invasive Species Boat Stewards" and includes a YouTube video player, a paragraph about the importance of boat stewardship, and a list of locations for watercraft inspection programs. A small map of New York State is visible in the bottom right corner of the page.

**NEW YORK STATE**


Services News Government Local

**Department of Environmental Conservation**

Recreation Nature Prevent & Control Pollution Regulatory News & Learning Search

Home » Animals, Plants, Aquatic Life » Nuisance & Invasive Species » Aquatic Invasive Species Boat Stewards

### Aquatic Invasive Species Boat Stewards

 Watch a short video about how you can help us stop the spread of aquatic invasive species and check out other clips on DEC's YouTube Channel.

New York has more than 7,000 lakes, ponds, and rivers that could potentially be exposed to dozens of harmful [aquatic invasive species \(AIS\)](#). One of the main pathways for transfer of aquatic invasive species between waterbodies is recreational water vehicles (e.g. motor boats, canoes, kayaks, jet skis).

For this reason the top priority of the statewide [AIS management plan](#) is to expand the coverage of boat stewardship programs across the state, particularly in popular, high-use areas. In-person interactions with boaters, anglers, and other recreational water users raises awareness about aquatic invasive species and practices that reduce the chance of spreading aquatic invaders, such as cleaning, draining, and treating boats and gear. Read more about the [practices required to prevent the spread of AIS \(PDF\)](#).

In 2019 our boat stewards educated more than 495,000 water recreationists and inspected more than 275,000 watercraft at 200+ locations.

#### Statewide/Watercraft Inspection Steward Program: Protecting New York's Waters

Boat stewards are volunteers or paid members of your community who help protect New York State's waters. An encounter with a steward will involve being asked if you already practice preventive measures and receiving instruction about how to inspect and "clean, drain, and treat" your watercraft and equipment. You will also be asked which waterbody you last visited so that the steward can determine if you are coming from infested waters and what species are there. Boat stewards will have access to this information for many lakes and ponds through the [MapInvasives website](#) (leaves DEC website). Boat stewards have a wealth of information about aquatic invasive species. Feel free to ask them questions!

#### Locations of Watercraft Inspection Steward Programs

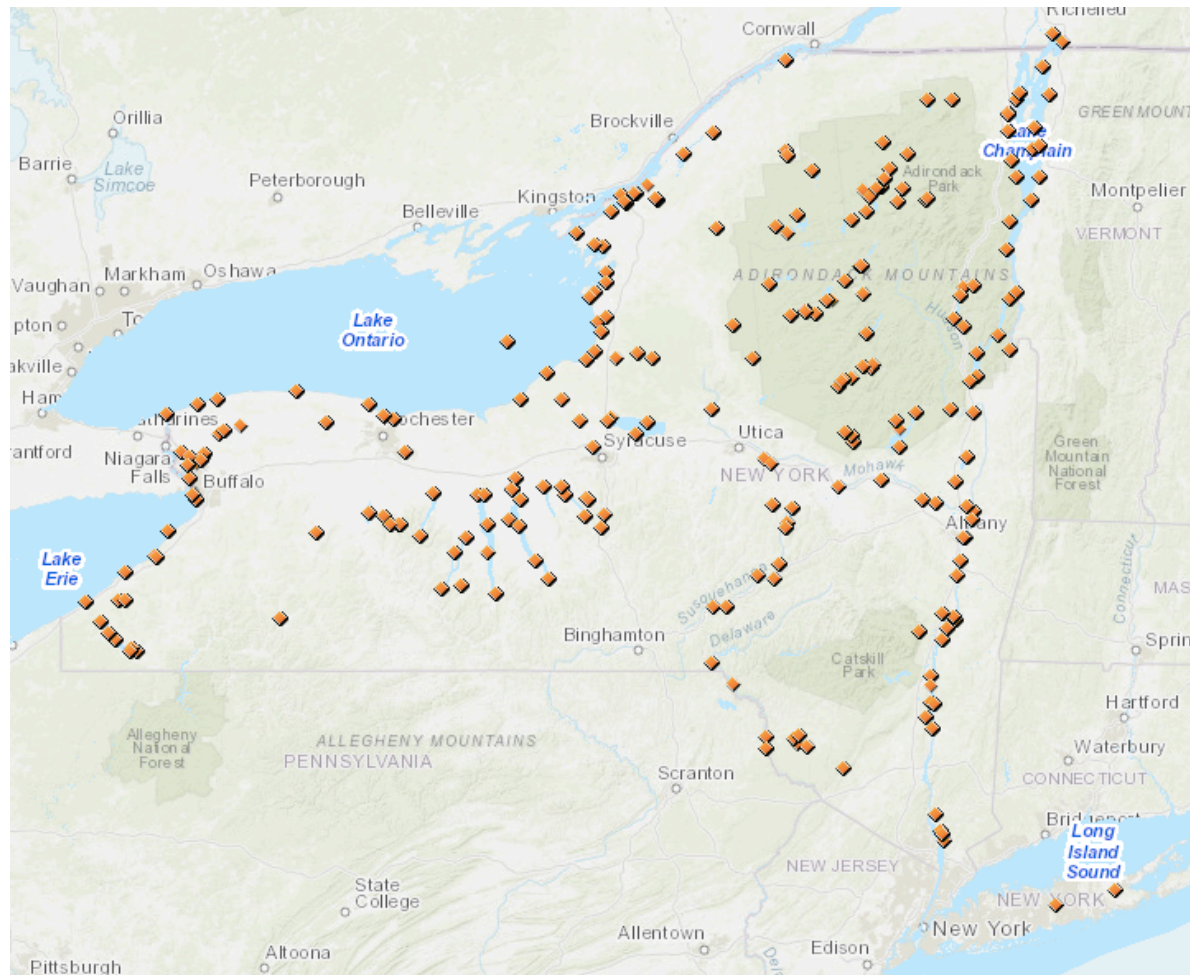
Since 2008, the number of watercraft inspection steward programs has been steadily increasing. As of 2020, boat steward programs are active at 211 locations across New York State. Many types of organizations host watercraft inspection steward programs including lake associations, colleges and universities, not-for-profits, county soil and water conservation districts, and municipalities. [View our interactive map of watercraft inspection steward locations to find one near you.](#)



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# More details about WISPA....





2020 WISPA  
Launch Location



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# What Data Is Collected?

- When did the inspection occur?
- Where the boat launch and the steward were located?
- Was the watercraft launching or retrieving?
- What type of watercraft was inspected?
- Did the operator agree to an inspection?
  - If so, were any species/debris detected (if so, which species)?
- Was a Watercraft Decontamination performed?



# How Does WISPA Work?

- Field data collection survey application (Survey123)
  - Requires internet connectivity for setup
  - Works offline once configured for data collection
  - Internet connectivity required for data upload
- Central GIS database (ArcGIS Online)
- Data Dashboard (ArcGIS Online)
- Data Editor Maps (ArcGIS Online)



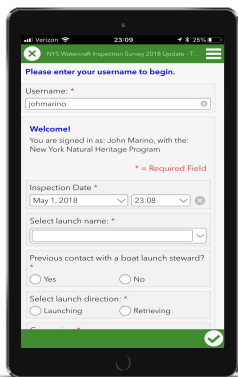


# How WISPA Works

## WISPA Data Collection

### Survey123

- Tool which boat launch stewards use to collect and upload data

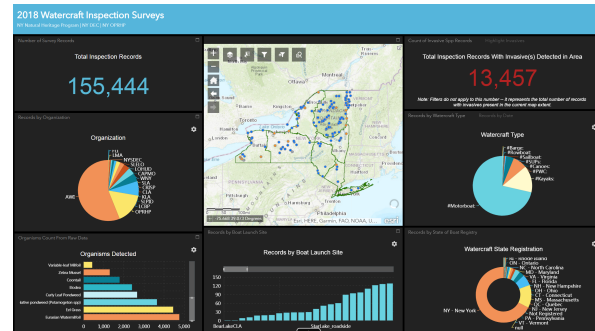


iPad Photo Credit: Wikimedia Commons user Netspy

ArcGIS  
Online  
NYSDEC

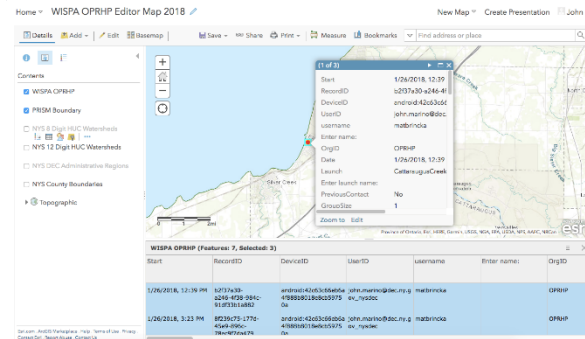
### Dashboard

- Visible to program coordinators
- Allows for view-only of all state data



### Editor Map

- Configured for each organization
- Allows for data editing of own organization's data



# Preliminary WISPA Data Results 2020

As of October 2020

- 348,689 records collected
- 38,389 records with organisms detected (11.0% of total)



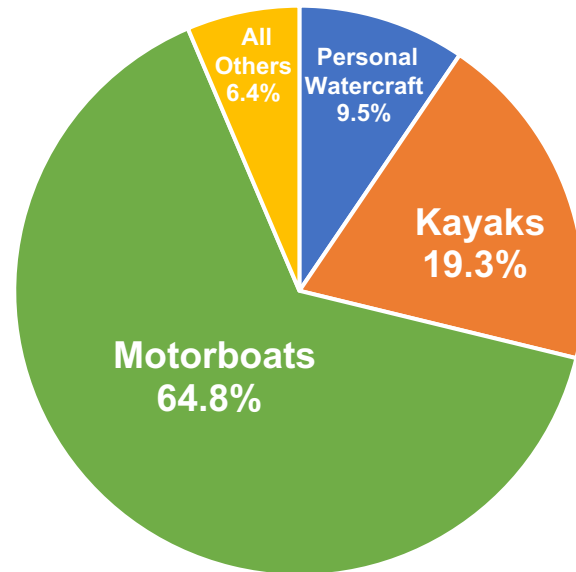
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# Preliminary WISPA Data Results 2020

As of October 2020

## Watercraft Type

Watercraft Type	Number	Percent of Total
Personal Watercraft	37,762	9.5%
Kayaks	76,312	19.3%
Motorboats	256,576	64.8%
All Others	25,171	6.4%
<i>Total</i>	<i>395,821</i>	



# Preliminary WISPA Data Results 2020

- Top species detected

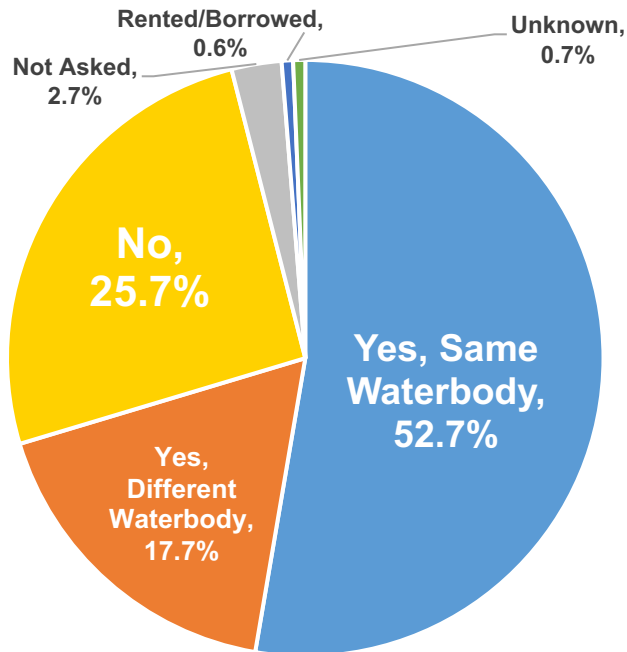
1. Eel Grass/Water Celery (*Vallisneria americana*)
2. Eurasian Watermilfoil  
(*Myriophyllum spicatum*)
3. Native pondweed (*Potamogeton* spp.)
4. Elodea (*Elodea* spp.)
5. Curly Leaf Pondweed  
(*Potamogeton crispus*)



# WISPA Data Results 2020

## Previous Waterbody for Launching Watercraft

Was the watercraft in the water in the past two weeks?



	Number	Percent of All Launching Watercraft
Yes, In Same Waterbody As Connected to Boat Launch	114,715	52.7%
Yes, In Different Waterbody Than Connected to Boat Launch	38,473	17.7%
Different Waterbody in NY	33,962	15.6%
Different Waterbody Outside NY	4,510	2.1%
No	55,868	25.7%
Not Asked	5,901	2.7%
Rented/Borrowed	1,344	0.6%
Unknown	1,421	0.7%



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# WISPA Data Analysis

- Mid- and end-of- season reports
- Spider Diagrams
- “Leads in Need of Observations” Analysis
- *Others, at organization level*

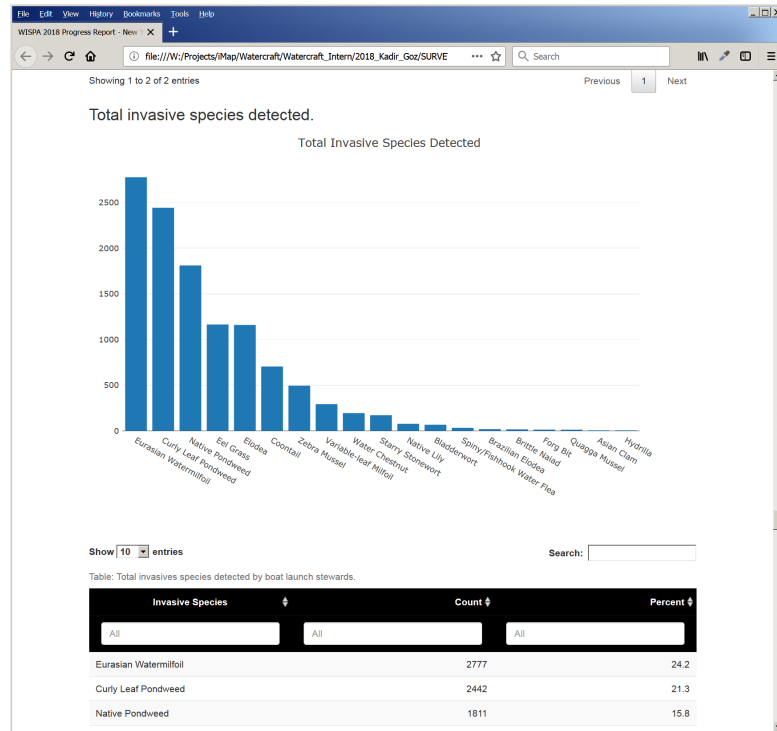




# WISPA Data Analysis

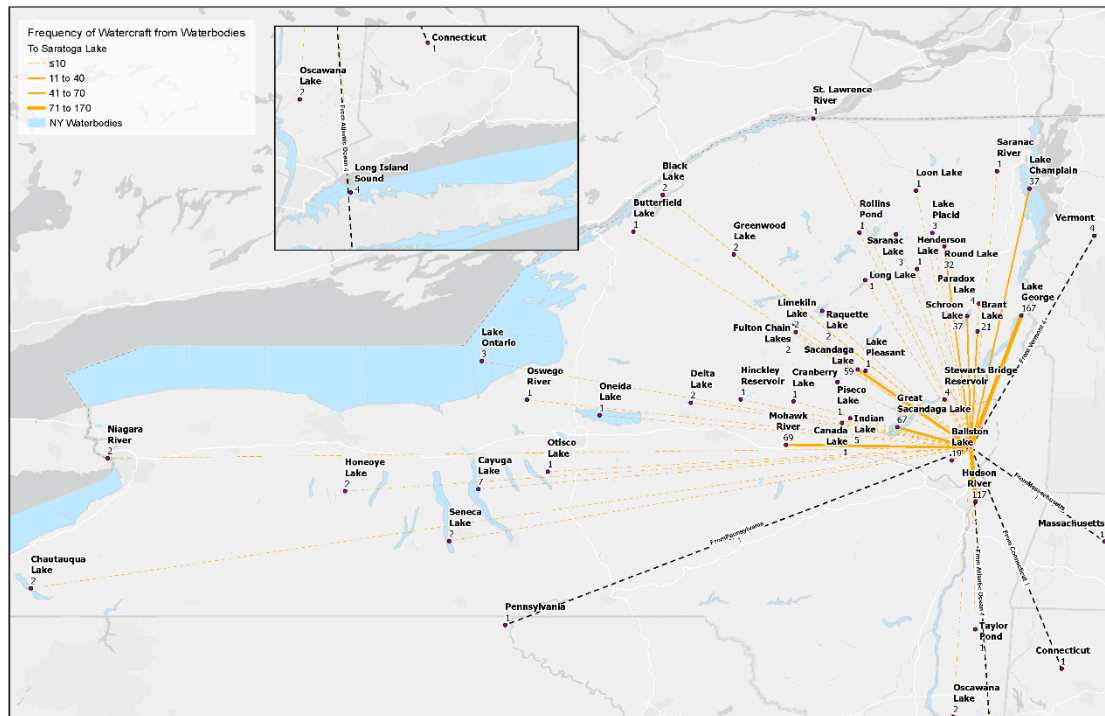
## Reports Using R

- Custom automated reporting tools for performing basic analysis and generating charts/graphs from WISPA data exports
- Desired more advanced reporting capabilities than out-of-the-box Survey123 analysis tools
- Reports provided to program coordinators mid-way through season and post-season



# WISPA Data Analysis

## “Spider” Maps



Visualization of the waterbodies survey takers reported as last visiting.

Created using ArcGIS Pro.

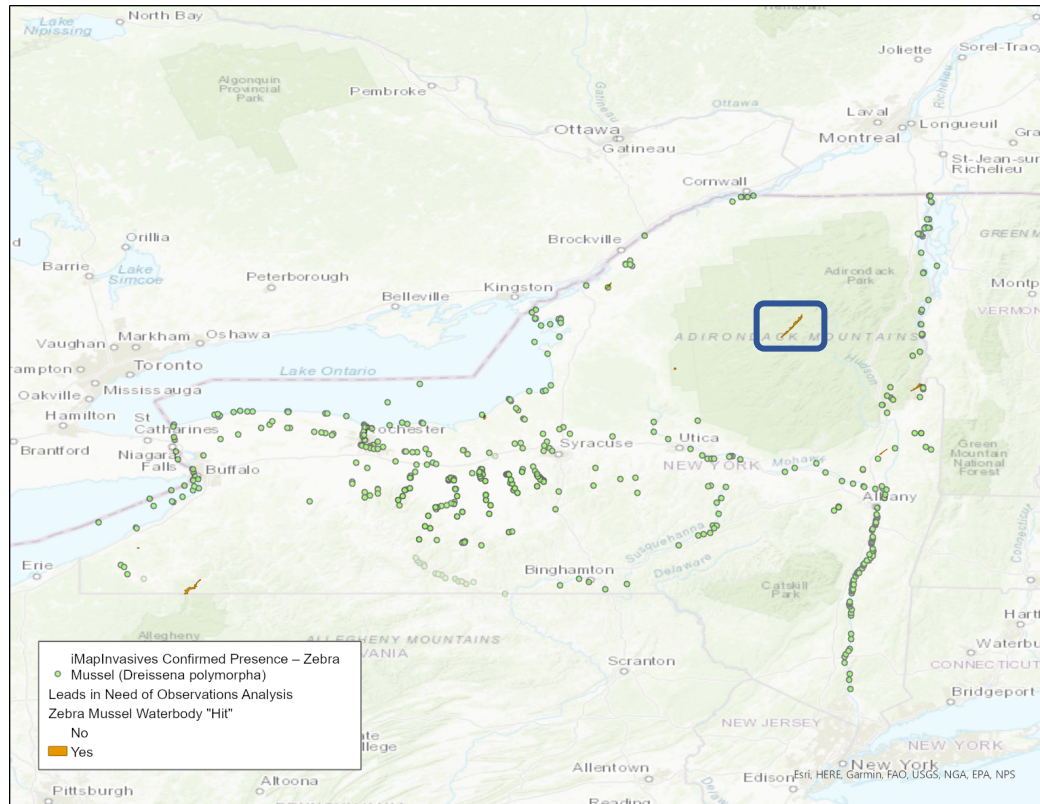
# WISPA Data Analysis

## “Leads in Need of Observations” Analysis

- Opportunity to join iMapInvasives data to WISPA data
- Highlights areas in which aquatic invasive species are potentially under-surveyed
- Identifies bodies of water which have watercraft exiting with attached invasive species not known to that waterbody



# WISPA Data Analysis



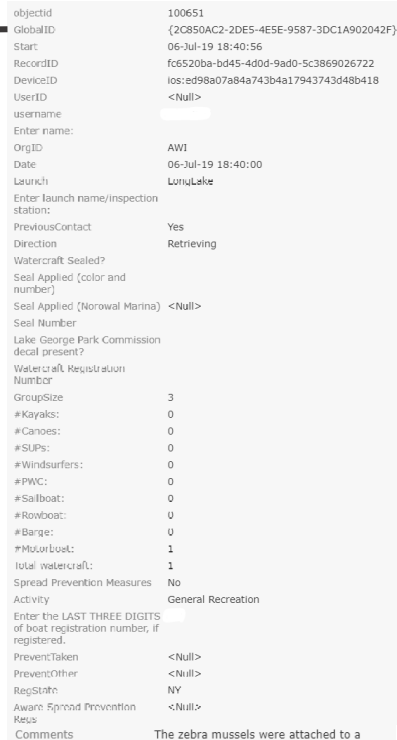
Example “Lead In Need of Observations” analysis output

Zebra Mussel

*Dreissena polymorpha*



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# Thank you!



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*Special thanks to the following individuals for their contributions:*  
 Kadir Goz, former intern and SUNY ESF M.S. Candidate  
 Forest Swaciak, current intern and SUNY Albany M.S. Candidate

*The NY Natural Heritage Program is a partnership between the NYS Department of Environmental Conservation (NYSDEC) and the State University of New York College of Environmental Science and Forestry (SUNY ESF).*



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