



nyimainvasives.org
Click **Login** to create
an account.

An Intro to iMapInvasives

NYSFOLA Annual Conference—
May 9th, 2026



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Agenda

1. Intro, overview, and role of iMapInvasives

2. iMap Online

3. How data gets used

4. iMap Mobile App

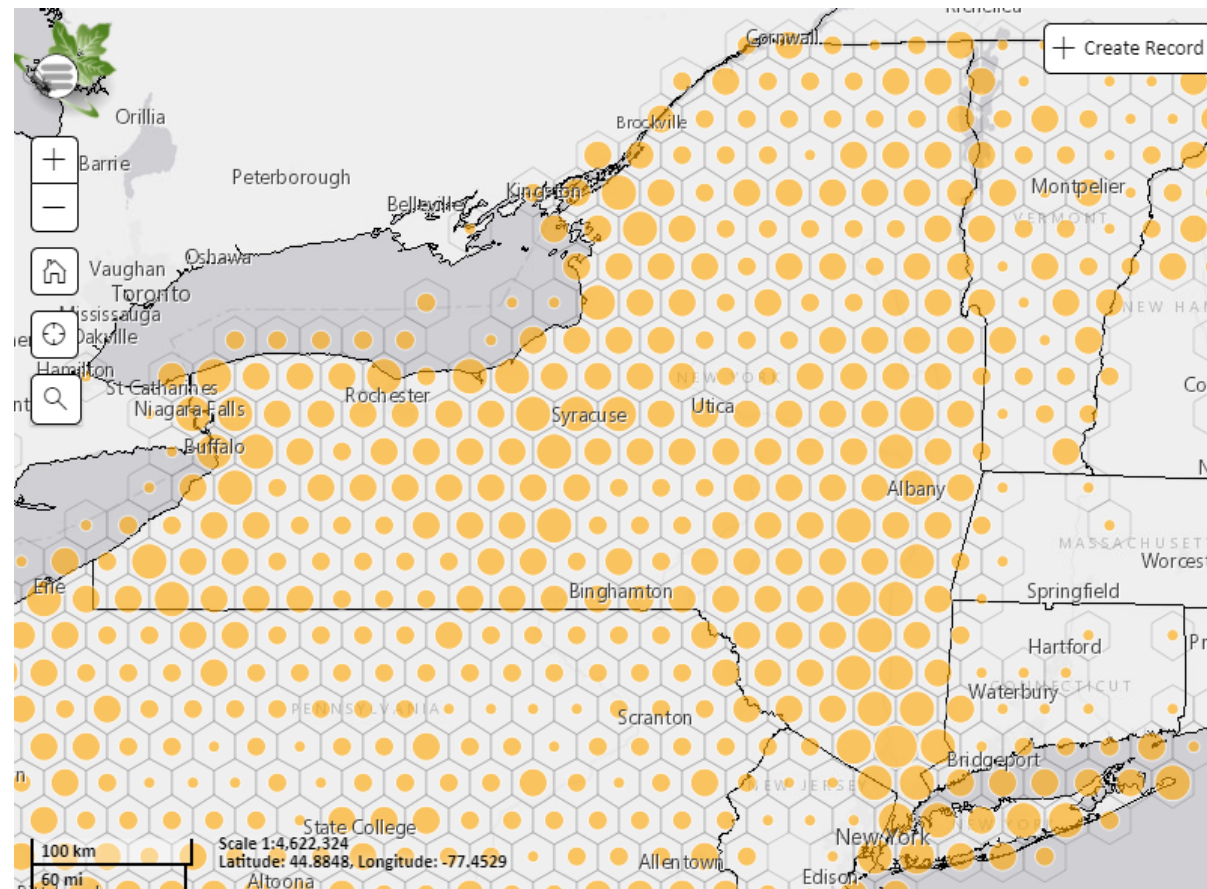
5. Species overview

6. Reporting practice



nyimainvasives.org Click **Login** to create an account.

Download app from Google Play or iOS App Store (search “imainvasives”)



iMapInvasives & Natural Heritage



New York
Natural Heritage
Program

Our mission is to **facilitate the conservation of New York's biodiversity** by providing comprehensive information and scientific expertise on rare species and natural ecosystems to resource managers and other conservation partners.

nynhp.org



Centralized invasive species database to support PRISMs, state agencies and other partners working to manage the negative impacts of invasive species on natural resources.

nyimainvasives.org

Invasive Species

Invasive species are species of plants, animals, insects, and pathogens that are:

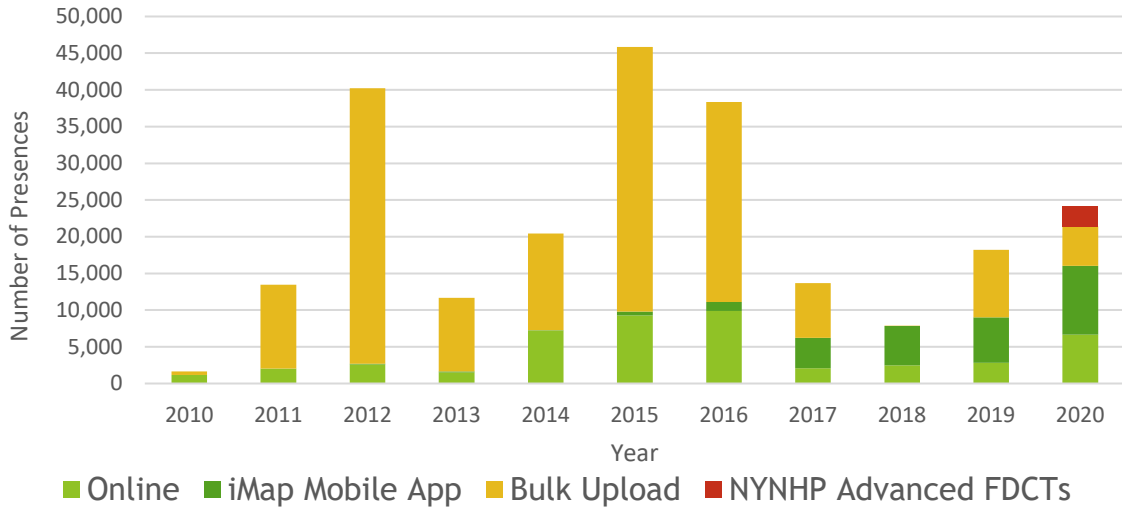
1. Non-native
2. Negatively impactful
 - Harm to environment, economy, and human health



Photo from iMap record 1344606

Data sources

Presences by Data Entry Method

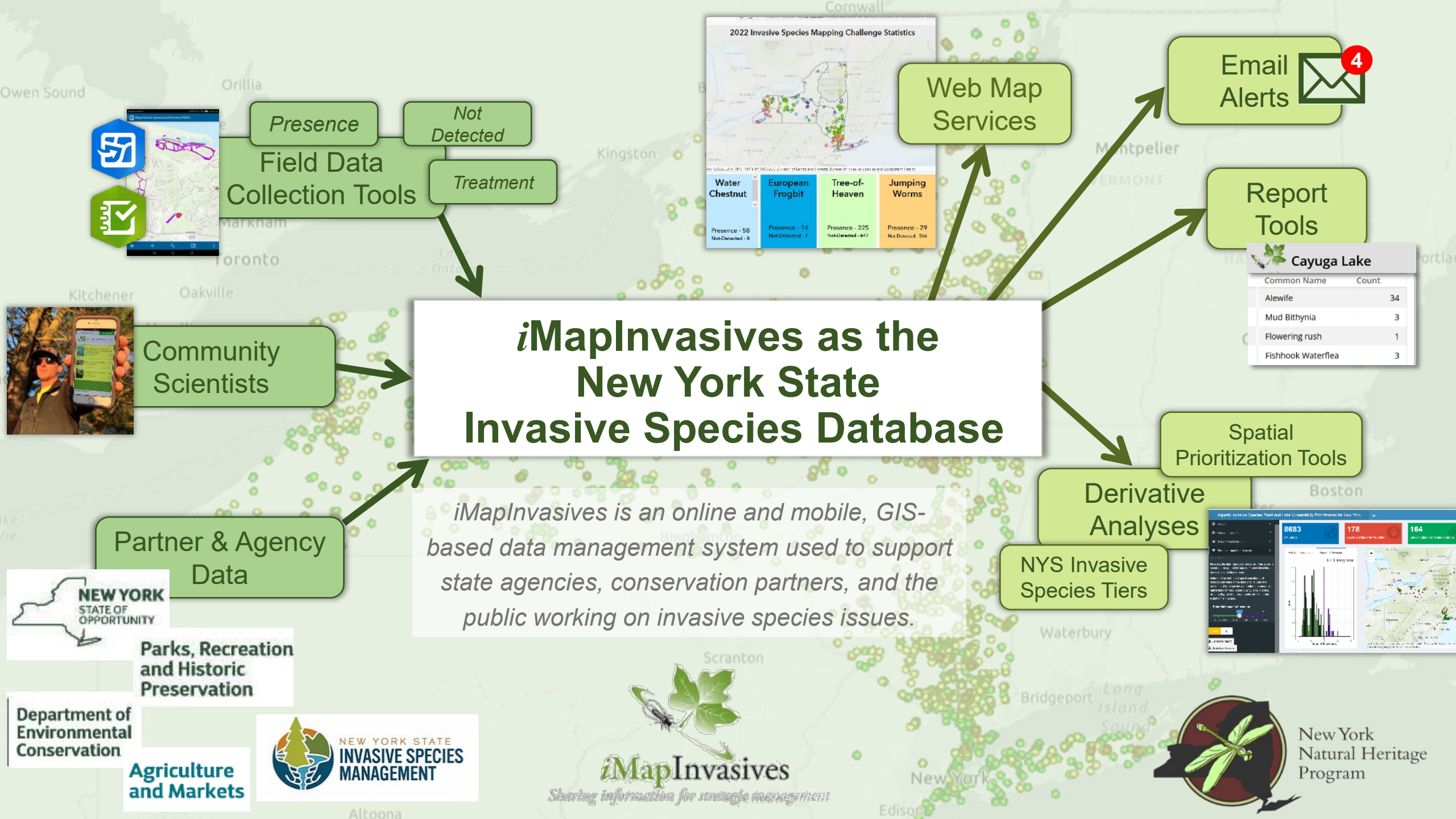


❖ **2010-2016:** Uploads of existing data from partner organizations

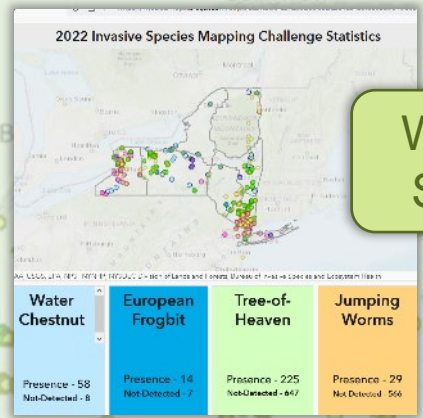
❖ **Now:** Data entered by community scientists & professionals *in real time*

- Species ID confirmed by experts





Presence
Not Detected
Treatment
Field Data Collection Tools



Web Map Services

Email Alerts

Report Tools

Cayuga Lake

| Common Name | Count |
|--------------------|-------|
| Alewife | 34 |
| Mud Bithynia | 3 |
| Flowering rush | 1 |
| Fishhook Waterflea | 3 |

iMapInvasives as the New York State Invasive Species Database

iMapInvasives is an online and mobile, GIS-based data management system used to support state agencies, conservation partners, and the public working on invasive species issues.

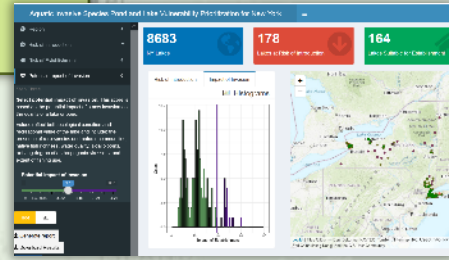
Community Scientists

Partner & Agency Data

Spatial Prioritization Tools

Derivative Analyses

NYS Invasive Species Tiers



Parks, Recreation and Historic Preservation

Department of Environmental Conservation
Agriculture and Markets



PRISMs

Partnership for Regional Invasive Species Management

- **APIPP** Adirondack Park Invasive Plant Program
- **Capital Region**
- **CRISP** Catskill Regional Invasive Species Partnership
- **Finger Lakes**
- **Lower Hudson**
- **LIISMA** Long Island Invasive Species Management Area
- **SLELO** Saint Lawrence and Easter Lake Ontario
- **Western NY**

Learn more: nyis.info/prisms



Nyimapinvasives.org



iMapInvasives

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[Professionals](#)

[Training Network](#)

[WISPA](#)

[Educators](#)

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[Login](#)

[Visit our NYISAW Mapping Challenge page!](#)

[Report an Invasive](#)

[Data & Maps](#)

[Training](#)

[Resources](#)

[About Us](#)

[iMap Help Resources Library](#)

Welcome to

NY iMapInvasives

NY iMapInvasives is an online, collaborative, GIS-based database and mapping tool that serves as the official invasive species database for New York State. [Learn more about iMap.](#)

Featured species:



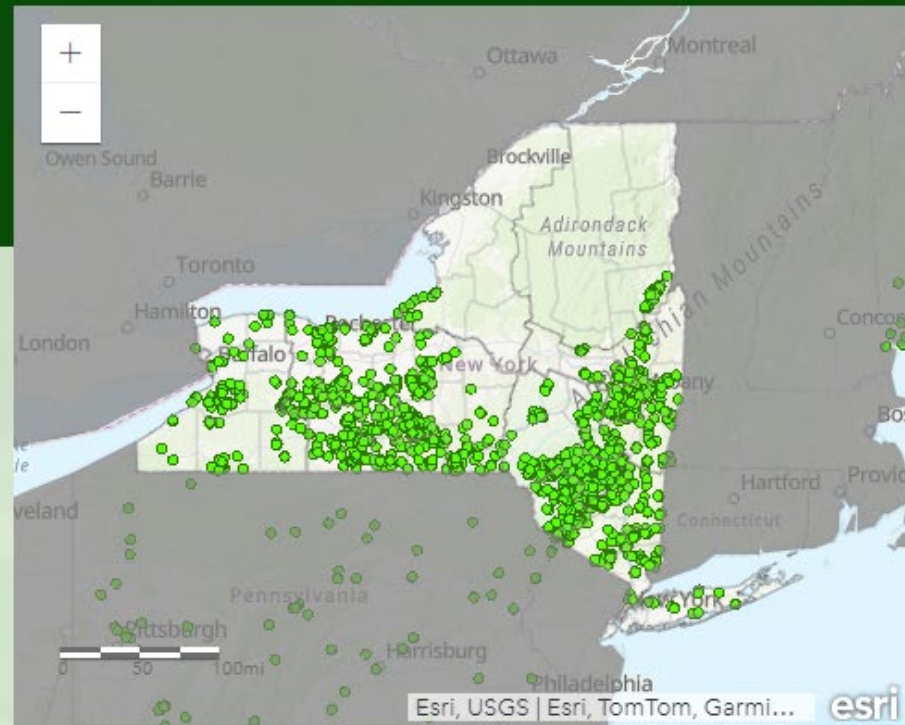
Hemlock Woolly Adelgid

[Report an invasive](#)

[Create account](#)

[View public map](#)

Confirmed Reports of Hemlock Woolly Adelgid in iMapInvasives



Create Account/Login

imapinvasives.natureserve.org

Log in to iMapInvasives

Email Password

Sign Up

Help us track Invasives - it's free.
(Users must be at least 13 years old)

First Name:

Last Name:

Email:

Retype Email:

Password:
(Must be at least 8 characters long, with a number and an uppercase letter)

Retype Password:

Jurisdiction: **New York**

Login (if you have account)

Create Account

Check email for link ("[click here](#)"),
click open the User Agreement.

Read User Agreement and accept

Login – map viewer

The screenshot displays the iMapInvasives map viewer interface. At the top, there is a navigation bar with buttons for 'Create Record', 'Go To Record', 'Filter Records', 'Identify/Measure', 'Site Time Series', 'Export / Report', and 'Close Layers'. The map shows North America with orange circles of varying sizes representing species records. A central dialog box titled 'Welcome to iMapInvasives!' provides information and a note about a recent update. The legend panel on the right shows 'Confirmed Present Species Records' with a count legend.

Welcome to iMapInvasives!

For more information on iMapInvasives and how to navigate the interface, visit the [iMap Network Website](#).

Note: iMapInvasives received an update on October 25th, 2024 (10/24/2024) that included a few bug fixes. It is important that you [clear your cache](#) prior to logging into iMapInvasives the first time after this release to ensure you have the most recent updates.

For a list of new features and bug fixes, please visit the [release page](#).

Hide until next update OK

Confirmed Present Species Records

| Count |
|----------|
| > 10,000 |
| ≤ 10,000 |
| ≤ 1,000 |
| ≤ 100 |
| ≤ 10 |

Scale 1:36,978,595
Latitude: 45.1411, Longitude: -62.8301

Esri, USGS | Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS | Powered by Esri

Map viewer



Main Menu



Navigation

Map Action Tools:

- + Create Record
- ✳ Go To Record
- 🔍 Filter Records
- 📄 Identify/Measure
- 🕒 Site Time Series
- 📄 Export / Report
- 📄 Close Layers

Action Tools

Geographic Layers

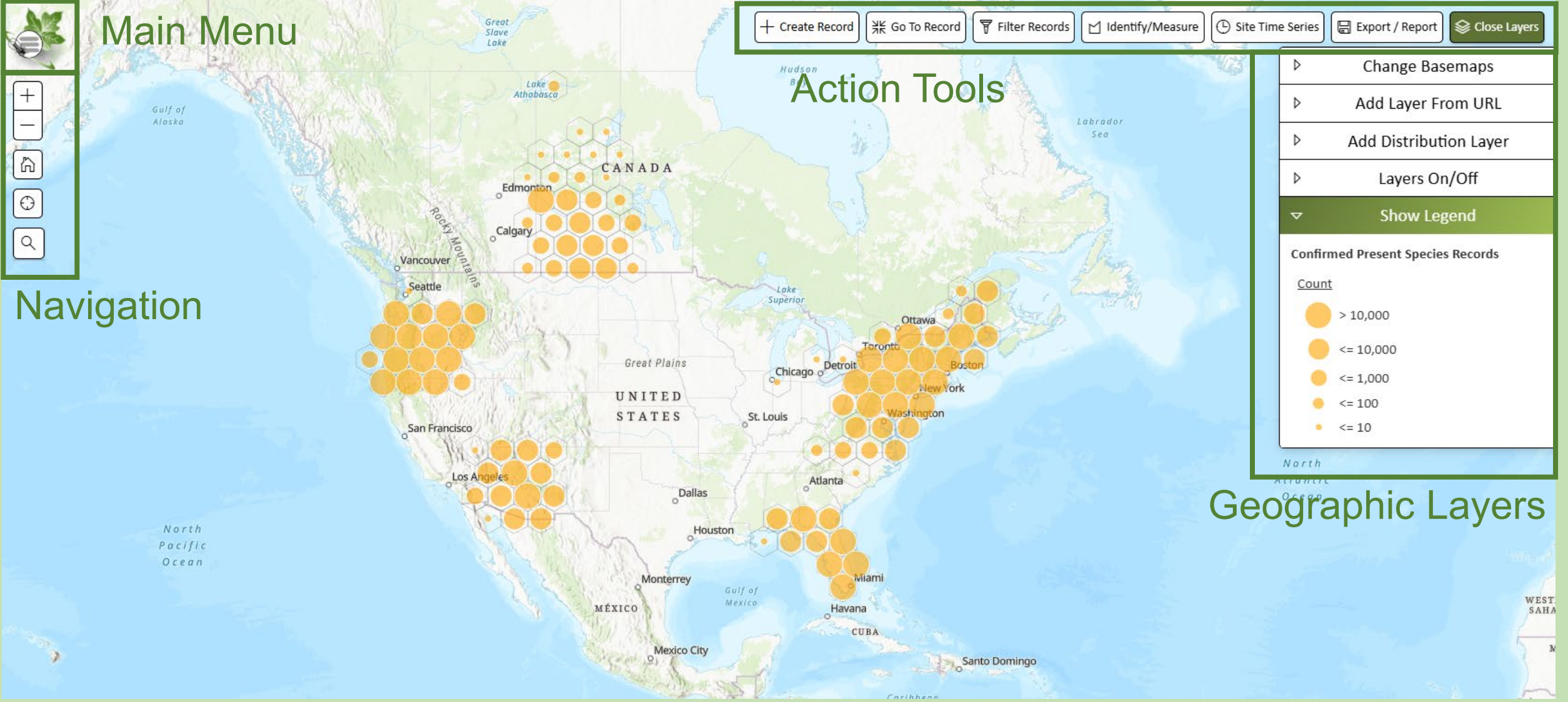
- ▷ Change Basemaps
- ▷ Add Layer From URL
- ▷ Add Distribution Layer
- ▷ Layers On/Off
- ▼ Show Legend

Confirmed Present Species Records

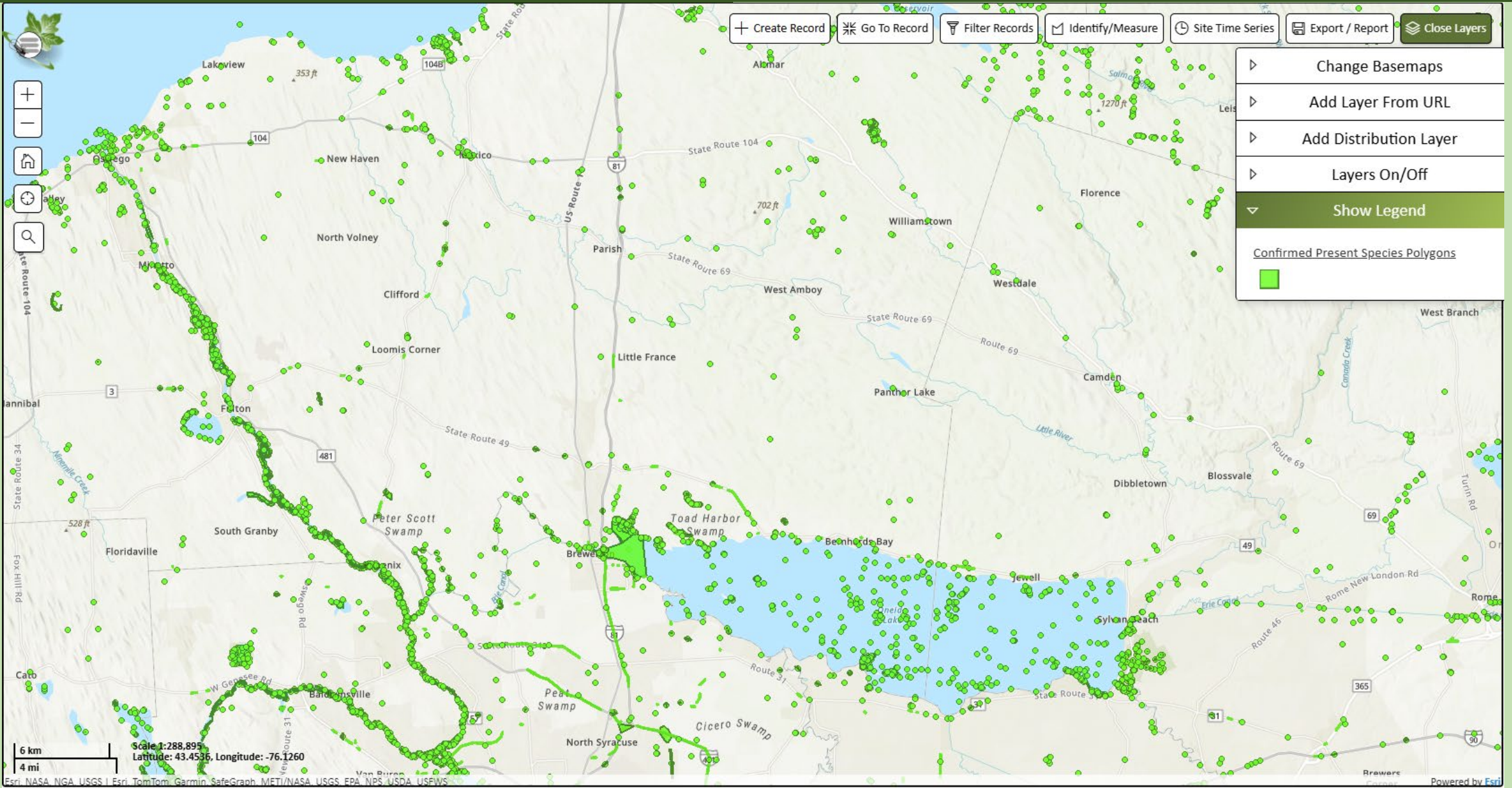
Count

- 🟠 > 10,000
- 🟡 ≤ 10,000
- 🟠 ≤ 1,000
- 🟡 ≤ 100
- 🟠 ≤ 10


Geographic Layers




Map viewer



Viewing records

 Presence Record [Delete](#) [Edit](#)



Latitude: 42.68855° Longitude: -73.53999° [Go To Map](#)

Presence #1512310

Date: 9/10/2025

Observer: [Andrew Schwitzgebel - 35137](#)

Organization: Hudson Taconic Lands

Time Searched: Not Listed

Species Found: Japanese Stiltgrass

[Go to Searched Area page to enter/view more information](#)

[Geographical Information](#) ▾

1 Species Present

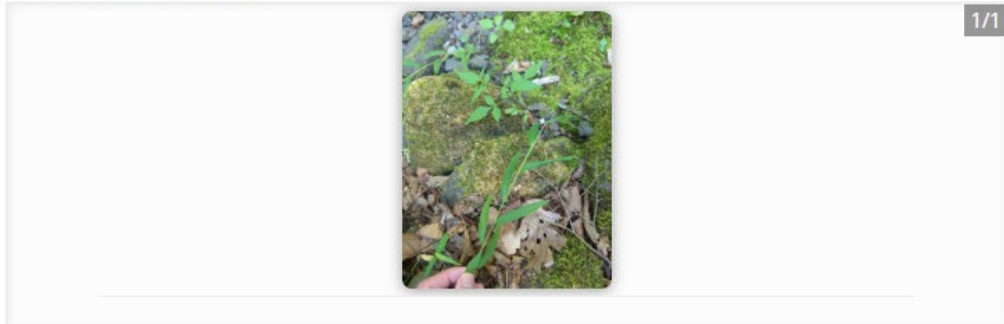
Japanese Stiltgrass

Microstegium vimineum
(Poaceae Family)

[See Less](#) ▲

[Review](#)

Photos of Present Species:



Comments:

⚠ Unconfirmed
🔒 Not Confidential

General Reference Info

Reference Photo:



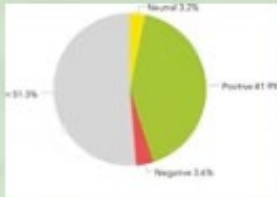
- View various data fields, photos, additional information
- Records are unconfirmed until reviewed by experts
- See what is in your area

Models & Tools



Aquatic Invasive Species Pond and Lake Vulnerability Prioritization: Allows users to select risk thresholds for invasive species introduction, establishment, and impact to help prioritize aquatic invasive species surveys and management efforts of lakes.

Invasive Species Tiers: Ranking system for high-impact invasive species based on iMap distribution data and expert opinion, for each PRISM and statewide. Results displayed in online table.



Management Outcomes Viewer: Evaluates the outcomes of invasive species management efforts by organizing data into management sites based on location and species, then assigning outcomes based on the data available for each site.



Terrestrial Invasive Species Prioritization Tool: Framework that scores the landscape based on ecological value, natural and protected areas, and risk of spread. Scores displayed in map viewer that managers can use to guide terrestrial surveys and management priorities.

Waterbody Lookup Tool (WaLT): Uses data from NY iMapInvasives to quickly provide a list of aquatic invasive species reported in a selected waterbody, or a list of waterbodies in which a selected species has been documented.

[nyimainvasives.org
/data-and-maps](http://nyimainvasives.org/data-and-maps)

Models & Tools – AIS Prioritization

Risk of introduction, risk of establishment, and potential impact

Aquatic Invasive Species Pond and Lake Vulnerability Prioritization for New York



- Region
- 1. Risk of Introduction
- 2. Risk of Establishment
- 3. Potential Impact of Invasion

Hide

Generate report Download Results

Reset

More Info

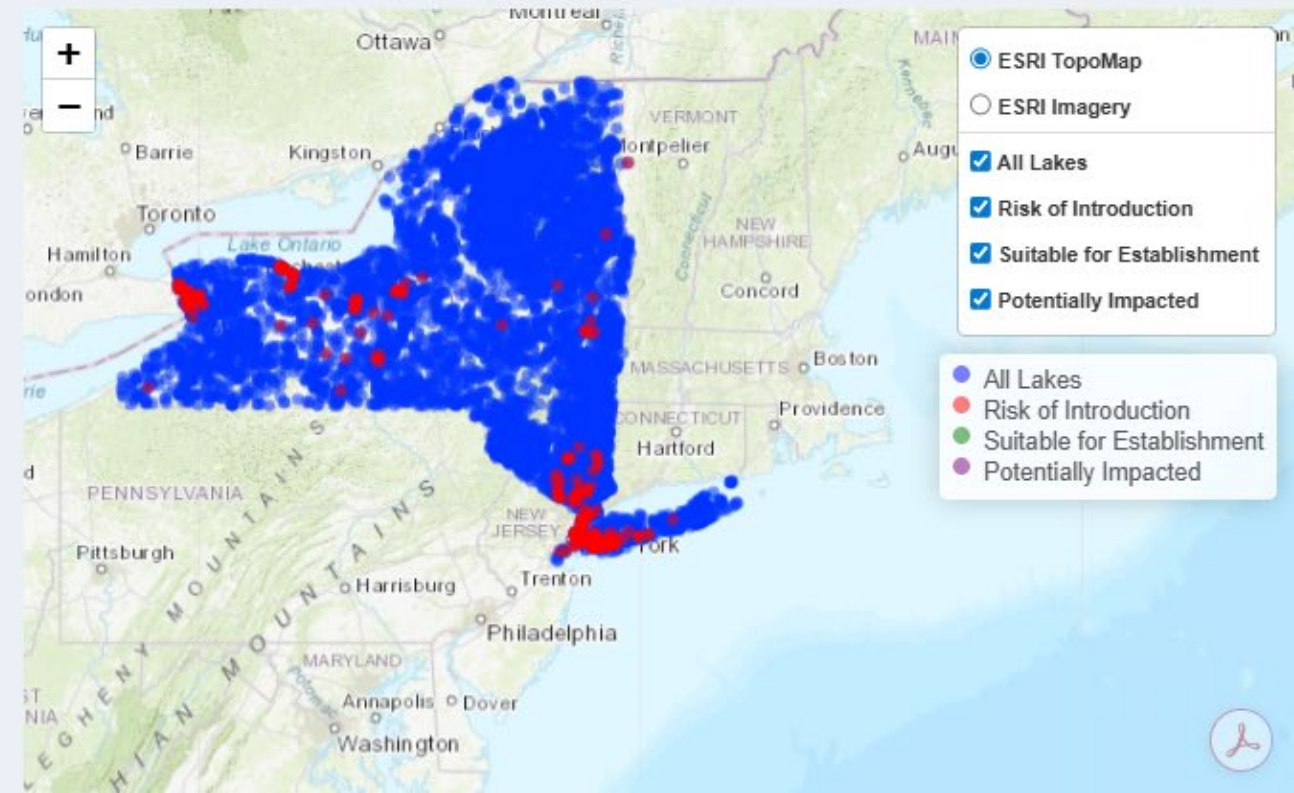
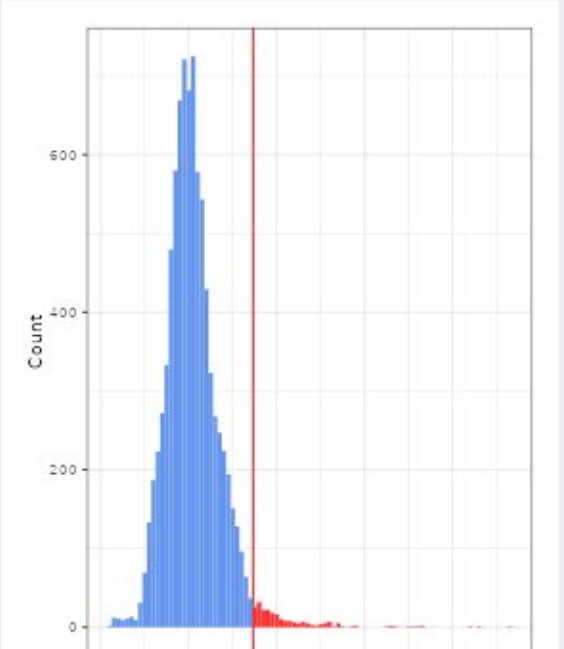
8683
NY Lakes

227
Lakes at Risk of Introduction





0
Lakes Suitable for Establishment

0
Lakes Potentially Impacted

Risk of Introduction | Impact of Invasion
Histograms



Invasive Species Tiers

| | | Difficulty of Eradication / Cost of Control Abundance (in PRISM plus Buffer) | | | |
|-----------------------------|-------------------|---|---|--|---|
| | | None in PRISM | Low | Medium | High |
| Impact (current and future) | Very High or High | TIER 1 <i>Early Detection/Prevention</i> Highest level of early detection survey efforts. Should conduct delineation surveys and assign to appropriate Tier if detected.  <small>West Virginia Department of Commerce</small> | TIER 2 <i>Eradication</i> Eradication / Full containment may be feasible  <small>Photo by T. Bedner UGA2307160</small> | TIER 3 <i>Containment</i> Strategic management to contain infestations and slow spread in PRISMs  | TIER 4 <i>Local Control</i> Established / Widespread in PRISM; only strategic, localized management.  <small>theportugalnews.com</small> |
| | Unknown | X | TIER 5 <i>Monitor</i> Species that need more research, mapping, and monitoring to understand their invasiveness. | | |

Models & Tools - tiers

Filters

[Deselect All Filters](#)

Geography Statewide APIPP CRP CRISP Finger Lakes Lower Hudson LIISMA SLELO WNY **Select All Geographies**

Taxa Type **TP** Terrestrial Plant **TA** Terrestrial Animal **AA** Aquatic Animal **AP** Aquatic Plant **MS** Marine Species **MO** Microorganism & Other
 Select All Taxa Types

Tier Value 1 2 3 4 M (Blank) **Select All Tier Values** In **any** selected geography In **all** selected geographies

| Species Information | | | Invasiveness Ranks | | Regulatory Status | State Tier | PRISM Tier | | | | | | | |
|---|---------------------------------|-----------|--------------------|------------------------|-------------------|------------|------------|----------------|-------|--------------|--------------|--------|-------|-----|
| Common Name | Scientific Name | Type | Ecological | Socio-Economic | NYS Part 575 | NYS | APIPP | Capital Region | CRISP | Finger Lakes | Lower Hudson | LIISMA | SLELO | WNY |
| Brazilian elodea, Brazilian Waterweed ↗ | <i>Egeria densa</i> | AP | High | Insignificant Negative | Prohibited | 3 | 1a | 1a | 1a | 1 | 2 | 3 | 1 | 2 |
| Brittle Naiad ↗ | <i>Najas minor</i> | AP | Moderate | Significant Negative | | M | 3 | 4 | 2 | 4 | 3 | 3 | 4 | 4 |
| European Frogbit; Common Frogbit ↗ | <i>Hydrocharis morsus-ranae</i> | AP | Very High | Insignificant Negative | Prohibited | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 4 |
| European Water Fern; European Waterclover ↗ | <i>Marsilea quadrifolia</i> | AP | Moderate | Insignificant Negative | | | | 1a | | M | 2 | M | | |
| Fanwort ↗ | <i>Cabomba caroliniana</i> | AP | High | | Prohibited | 3 | 2 | 1a | 2 | 2 | 2 | 4 | 2 | 1a |

Filter by taxa, region, tier

Models & Tools - WaLT

- Quickly pull the number of species and records in a waterbody, waterbodies in a county with a certain species, etc.

The image displays three sequential screenshots of the WaLT interface, illustrating the filtering process. Each screenshot shows a sidebar with three main filter sections: 'Select a waterbody', 'Select a county', and 'Select a Species'. The first screenshot shows the 'Select a waterbody' section with a search bar and a list of waterbodies including Accobonac Harbor, Adirondack Lake, Ag-Tech Lake, Akron Reservoir, Alcove Reservoir, Algonquin Park Ponds, Allegheny Reservoir, Allegheny River, Allen Lake (Allegheny), and Allen Lake (Otsego). The second screenshot shows the 'Select a county' section with a search bar and a list of counties including Addison (VT), Albany, Allegany, Bradford (PA), Bronx, and Broome. The third screenshot shows the 'Select a Species' section with a search bar and a list of species including Alewife (Alosa pseudoharengus), Allegheny Crayfish (Faxonius obscurus), American Water Lotus (Nelumbo lutea), and Asian Clam (Corbicula fluminea). Each section includes a 'Reset' button and a 'Select all' button.

NYS iMapInvasives Waterbody Lookup Tool
(Updated 6/6/24)

| Select a waterbody No waterbody selected | Species Name | Presence Records |
|---|--|------------------|
| Select a county No county selected | Alewife (Alosa pseudoharengus) | 627 |
| Select a Species No species selected | Allegheny Crayfish (Faxonius obscurus) | 16 |
| | American Water Lotus (Nelumbo lutea) | 9 |
| | Asian Clam (Corbicula fluminea) | 217 |
| | Asian Shore Crab (Hemigrapsus sanguineus) | 192 |
| | Banded Mysterysnail (Viviparus georgianus) | 108 |
| | Big-eared Radix (Radix auricularia) | 5 |
| | Bitterling (Rhodeus sericeus) | 7 |
| | Bloody-red Shrimp (Hemimysis anomala) | 54 |
| | Quagga Mussel (Dreissena polymorpha) | 15 |
| | Waterbodies (if searching by species) | |
| | Accobonac Harbor | |
| | Adirondack Lake | |
| | Ag-Tech Lake | |
| | Akron Reservoir | |
| | Alcove Reservoir | |

Waterbody, county, and species filters

Mobile App

1. Setup Account and App



Connectivity required

2. Record invasive species



*Connectivity **NOT** required*

3. Upload records to iMap



Connectivity required

Mobile App Setup

Preferences

Jurisdiction Species List:
(Select the jurisdiction in which you will collect data)

New York ▾

iMapInvasives Username (Your Email Address):
(Enter the email address associated with your iMapInvasives account)

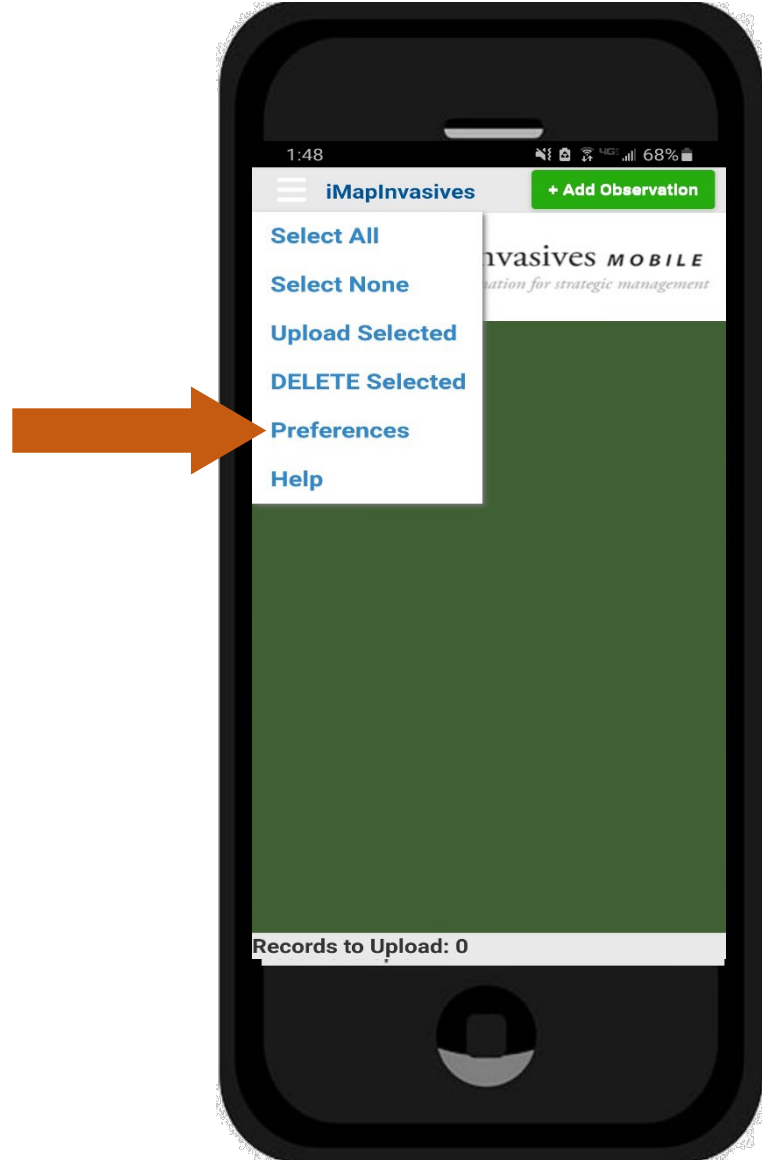
emailaddress@example.com

iMapInvasives Password:
(Must match your iMapInvasives password)

.....

[Create Account or Reset Password](#)

Retrieve iMap Lists



Mobile App Setup

Preferences

Jurisdiction Species List:
(Select the jurisdiction in which you will collect data)

New York

iMapInvasives Username (Your Email Address):
(Enter the email address associated with your iMapInvasives account)

emailaddress@example.com

iMapInvasives Password:
(Must match your iMapInvasives password)

.....

[Create Account or Reset Password](#)

Retrieve iMap Lists

Species Name Display:

Scientific **Common**

Customize Species List

Picture quality:

25% 50% **100%**

Save Photos Taken In iMapInvasives
 App To Device Photo Library
(If Permitted By Device)

Default Basemap Type:

Road **Satellite**

Default Map Zoom:

14

Measurement System:

US Customary (feet/acres)

Default Project:

iMap 3 Projects associated with your account appear in this list (after being retrieved). Select a Project here to automatically associate each new record with it (optional).

Default Organization:

iMap 3 Organizations associated with your account in this list (after being retrieved). Select an Organization here to automatically associate each new record with it (optional).

Show Welcome Instructions

Save Cancel

Last iMap Lists Refresh: Jun 12, 2021

Preferences

Jurisdiction Species List:
(Select the jurisdiction in which you will collect data)

New York

iMapInvasives Username (Your Email Address):
(Enter the email address associated with your iMapInvasives account)

emailaddress@example.com

iMapInvasives Password:
(Must match your iMapInvasives password)

.....

[Create Account or Reset Password](#)

Retrieve iMap Lists

iMap Data Retrieval Successful

Your iMapInvasives data was retrieved successfully (which includes your Species, Project, and Organization lists).

OK

Save Photos Taken In iMapInvasives App To

- Username and password Must match iMap account online
- Sometimes iPhone's add space after password

Preferences - optional

Preferences

Jurisdiction Species List:
(Select the jurisdiction in which you will collect data)

New York

iMapInvasives Username (Your Email Address):
(Enter the email address associated with your iMapInvasives account)

emailaddress@example.com

iMapInvasives Password:
(Must match your iMapInvasives password)

.....

[Create Account or Reset Password](#)

Retrieve iMap Lists

Species Name Display:
Scientific **Common**

Customize Species List

Picture quality:
25% 50% 100%

Save Photos Taken In iMapInvasives App To Device Photo Library
(If Permitted By Device)

Default Basemap Type:
Road **Satellite**

Default Map Zoom:
14

Measurement System:
US Customary (feet/acres)

Default Project:
iMap 3 Projects associated with your account appear in this list (after being retrieved). Select a Project here to automatically associate each new record with it (optional).

Default Organization:
iMap 3 Organizations associated with your account in this list (after being retrieved). Select an Organization here to automatically associate each new record with it (optional).

Show Welcome Instructions

Save **Cancel**

Last iMap Lists Refresh: Jun 12, 2021

Species Name:
Scientific **Common**

Customize Species List

Picture quality:
25% **50%** 100%

Save Photos Taken In iMapInvasives App To Device Photo Library
(If Permitted By Device)

Default Basemap Type:
Road **Satellite**

Default Map Zoom:
12

Measurement System:
US Customary (feet/acres)

View lists as scientific or common names

Optional – Make a short list of species you know, are interested in, and expect to survey for in your area

Select Your Species

- A Fake Species (for testing)
- A land snail (species unknown)
- Alewife
- Allegheny Crayfish
- Alligator-weed
- Allium Leaf Miner
- American Water Lotus
- Amur Corktree
- Amur Honeysuckle
- Amur Maple

OK **Cancel**

Defaults are typically fine

Mobile App

1. Setup Account and App



Connectivity required



2. Record invasive species



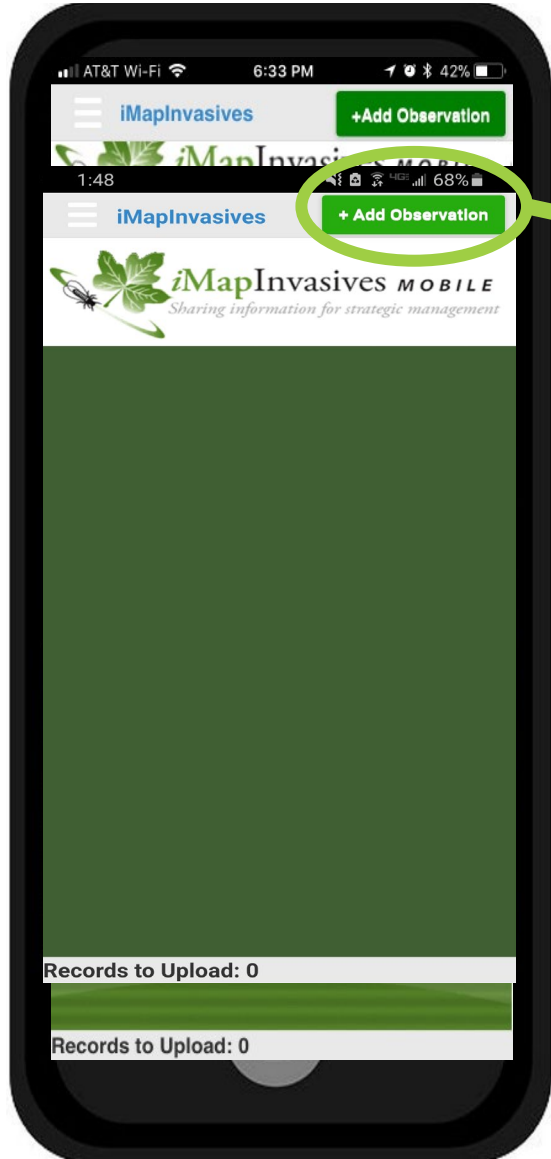
*Connectivity **NOT** required*

3. Upload records to iMap



Connectivity required

Recording an observation

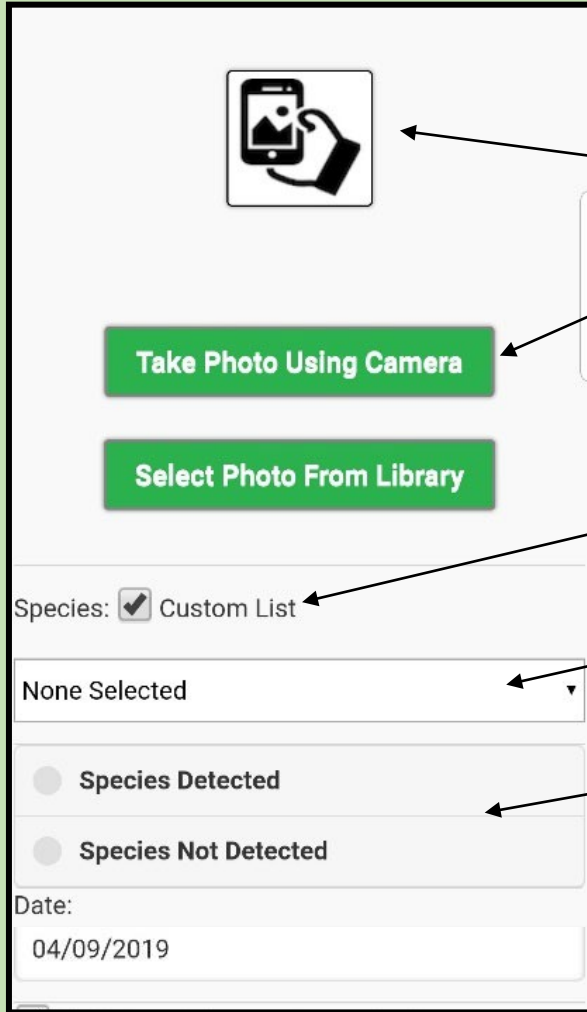
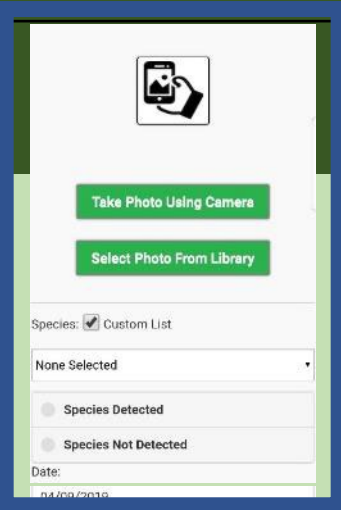


+Add Observation

- Please follow along
- Submit a record “A Fake Species”

A screenshot of the iMapInvasives observation recording form. At the top, there's a camera icon and two green buttons: 'Take Photo Using Camera' and 'Select Photo From Library'. Below these are several form fields: 'Species: Custom List', a dropdown menu showing 'None Selected', radio buttons for 'Species Detected' and 'Species Not Detected', 'Date: 04/09/2019', a checked checkbox for 'GPS: Uncheck to manually move location', a dropdown menu for 'Road' showing 'Road', a map view of Albany, New York, with a yellow location pin, and a text field for 'Location (Longitude, Latitude): -73.7489682, 42.6523979'. Below the map are optional dropdown menus for 'iMap 3 Project' and 'iMap 3 Organization', a text field for 'Time Searched (in minutes):', and a text area for 'Observation Comments:'. At the bottom, there are 'Save' and 'Cancel' buttons.

Add Observation



Take photo with camera

Enable your custom species list

Select Species – **A Fake Species**

Select Detected or Not Detected

***Note: If you select photo from library, the iMap app will pull the location and date metadata from the photo (assuming your camera is set to capture metadata, and the appropriate permissions are available

Add Observation



Take Photo Using Camera

Select Photo From Library

Species: Custom List

None Selected

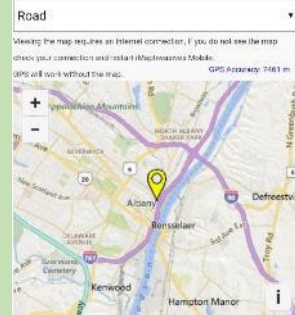
Species Detected

Species Not Detected

Date:

04/09/2019

GPS: Uncheck to manually move location



Location (Longitude, Latitude):

-73.7489682, 42.6523979

iMap 3 Project: (Optional)

iMap 3 Organization: (Optional)

Time Searched (in minutes):

Observation Comments:

Save Cancel

GPS: Uncheck to manually move location

Road

Viewing the map requires an internet connection, if you do not see the map check your connection and restart iMapInvasives Mobile.
GPS will work without the map. GPS Accuracy: 7461 m

Location (Longitude, Latitude):

-73.7489682, 42.6523979

iMap 3 Project: (Optional)

Note: Map will be blank when out of connectivity

Your location

Your coordinates: If 0,0 is displaying in the Location box, make sure your GPS is enabled on your device

Add Observation



Take Photo Using Camera

Select Photo From Library

Species: Custom List

None Selected

Species Detected

Species Not Detected

Date:

04/09/2019

GPS: Uncheck to manually move location

Road

Viewing the map requires an internet connection. If you do not see the map check your connection and install iMacros on a Mobile. GPS Accuracy: 7.661 m
GPS will work without the map.



Location (Longitude, Latitude):

iMap 3 Project: (Optional)

iMap 3 Organization: (Optional)

Time Searched (in minutes):

Observation Comments:

Save

Cancel

iMap 3 Project: (Optional)
My Default Project

iMap 3 Organization: (Optional)
My Default Organization

Time Searched (in minutes):

Observation Comments:

Save Cancel

Enter the approximate time you were searching for invasive species (very helpful)

Add any comments that may enhance the quality of your observation report

Don't forget to save your changes!

Mobile App

1. Setup Account and App



Connectivity required



2. Record invasive species



*Connectivity **NOT** required*

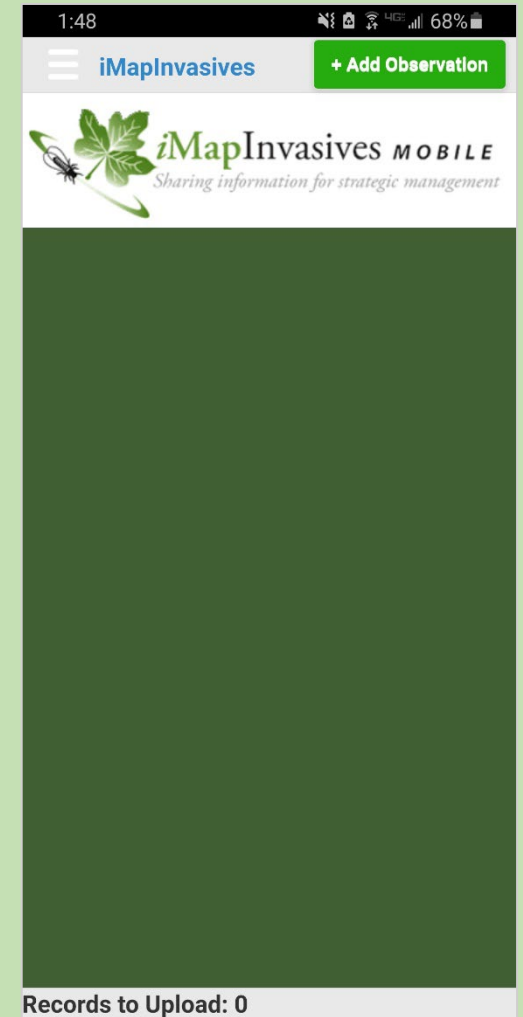
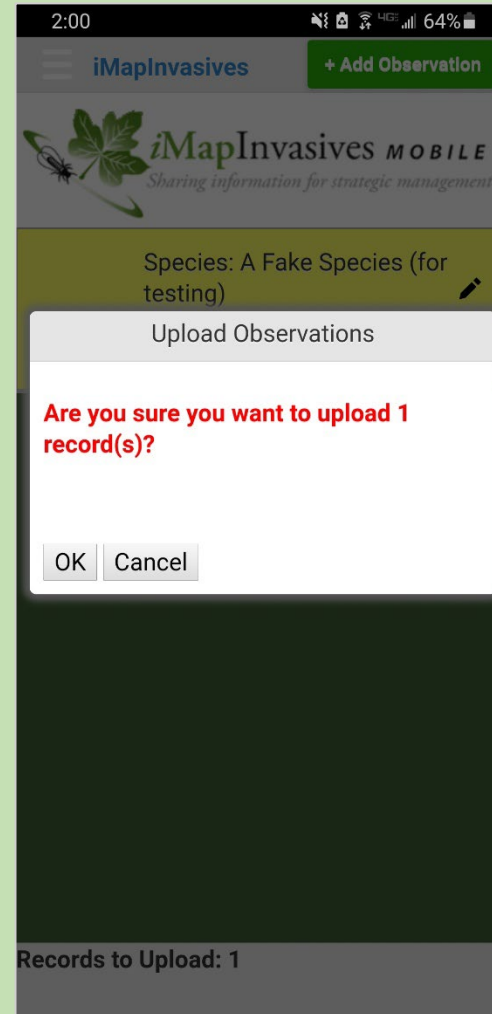
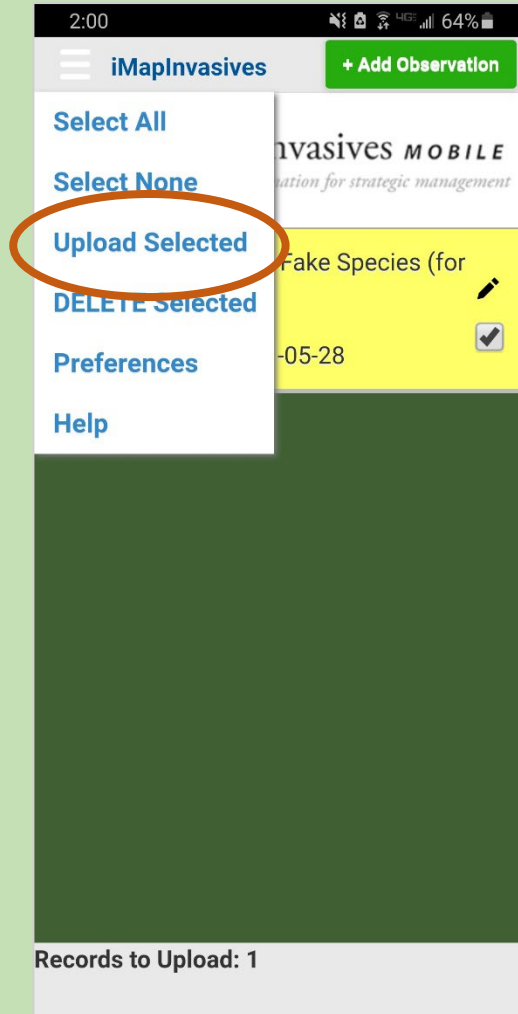
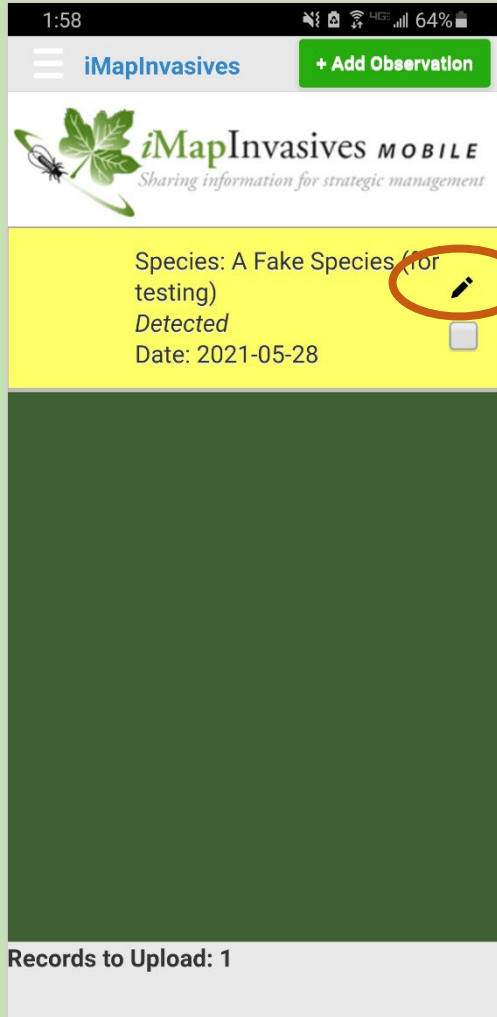


3. Upload records to iMap



Connectivity required

Uploading Records



Species Identification

- Some species are difficult to tell apart without distinct characteristics (buds, flowers, etc).
- iMap groups these species by genus so they can be reported at any time
- Review common groups, some other priority species
- Visit your local PRISMs website for full species profiles



Reynoutria sp. – the knotweeds

- 3 species
 - Japanese knotweed – *R. japonica*
 - Giant knotweed – *R. sachalinensis*
 - Bohemian knotweed – *R. x bohemica*

- Bamboo-like stems (hollow, segmented)
- Leaves spade/heart shaped (size varies)
- Dead stalks stand through winter
- White flowers upright or drooping
- Seeds mostly non-viable

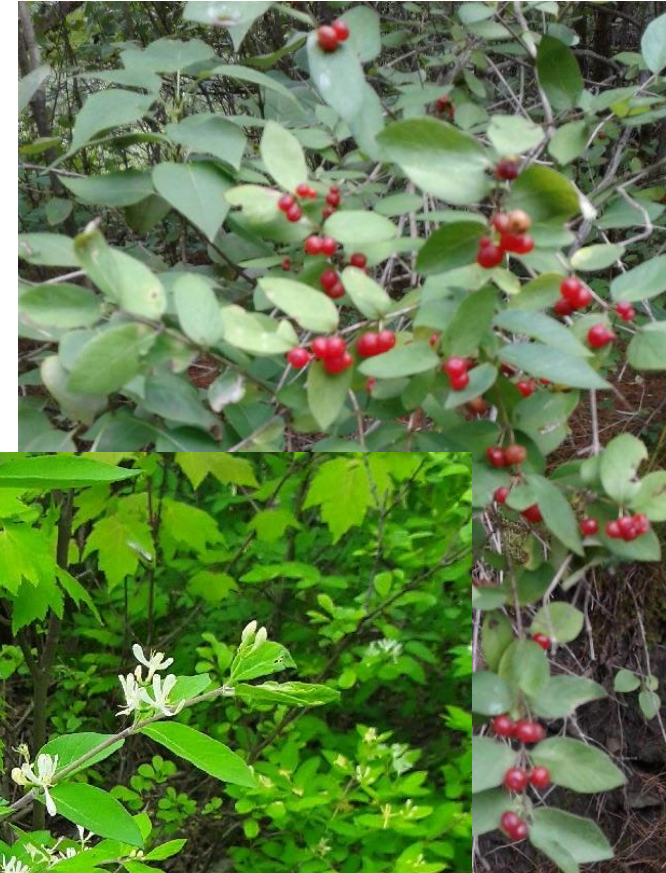


Lonicera sp. – the honeysuckles

➤ 8 species!

- Amur – *L. maackii*
- European Fly – *L. xylosteum*
- Bell's – *L. x bella*
- Morrow's – *L. morrowii*
- Standish – *L. standishii*
- Tartarian – *L. tartarica*
- Winter – *L. fragrantissima*
- Japanese – *L. japonica* – this one's a vine!

- Woody shrub, 1st to leaf out in spring
- Flower color varies (white, yellow, red, etc)
- Fruit color also varies, usually red/orange
- **Hollow pith**



Other species – the rest of the groups

➤ 21 different species groups - you may find:

- Bamboo
- Barberry
- Honeysuckle
- Knapweed
- Knotweed
- Privet
- Teasel
- Swallowwort
- Wisteria
- Silvergrass
- Lionfish
- Jumping worms
- Planarians
- Mystery snails

➤ Tracking 'wild' species, not ornamental



Reporting invasives – aquatic plants

- Photographing ‘in water’ vs ‘in water’
- Lighting – beware the glare
- Object for scale



Eurasian water milfoil



Identifying characteristics – aquatic plants

- Many plants are not rigid, 'melt' out of water



Eurasian water milfoil



Identifying characteristics – aquatic plants

- Floating, submerged, rooted
 - Leaf shape
 - Opposite, alternate, whorled
 - Distance between whorls
 - Number of leaves
 - Margins (smooth, serrate)
- Flowers, seeds, buds, roots, etc.
- Timing – things break down faster in water

Curly pondweed



Eurasian water milfoil



Thank you!



Any questions?

Self-guided training materials, and
upcoming webinars and events:

nyimapinvasives.org/training



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