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

An Intro to iMapInvasives

NYSFOLA Annual Conference–
May 9th, 2026

Douglas Knoph
Invasive Species Database Team
imapinvasives@dec.ny.gov

iMapInvasives
Sharing information for strategic management

New York
Natural Heritage
Program

Agenda

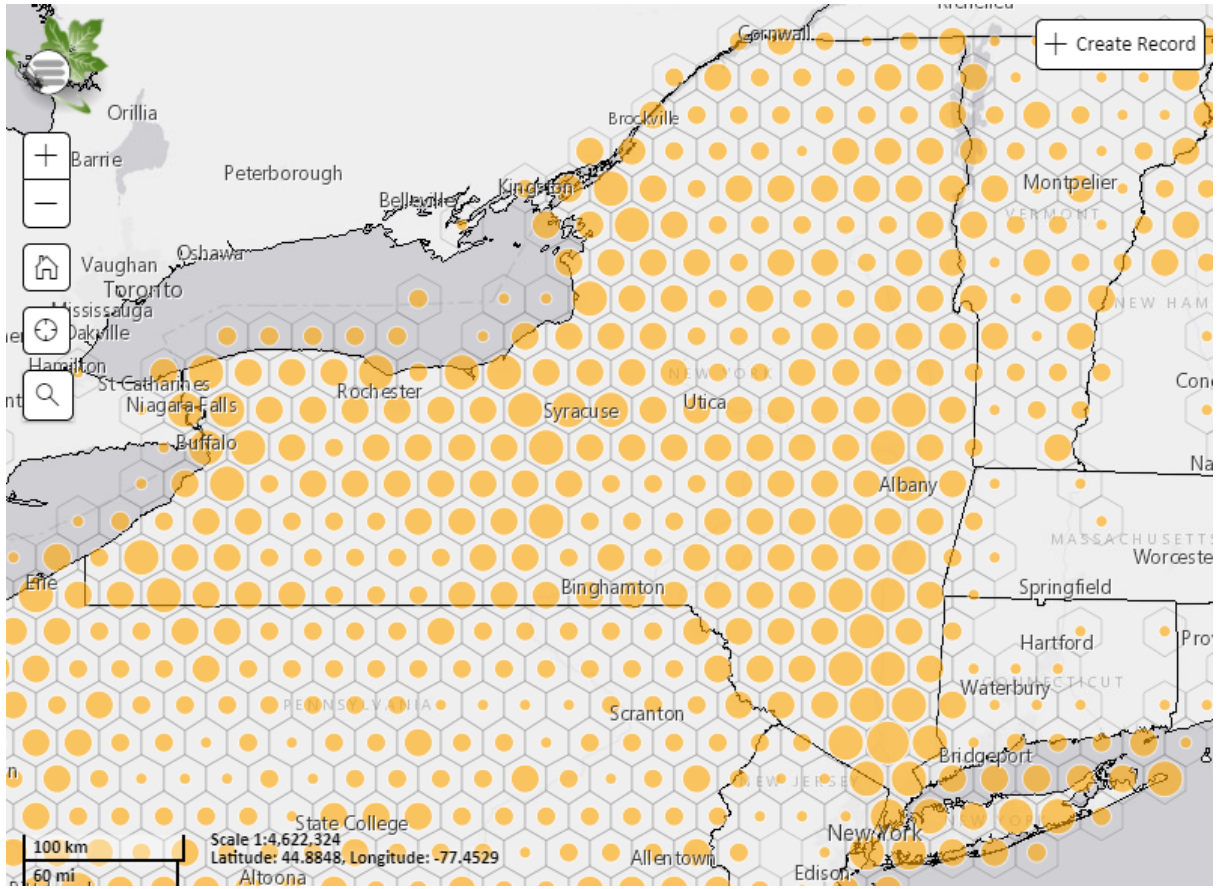
1. **Intro, overview, and role of iMapInvasives**
2. iMap Online
3. How data gets used
4. iMap Mobile App
5. Species overview
6. Reporting practice

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

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

Available on the App Store

Get it on Google play



*i*MapInvasives & 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

*i*MapInvasives

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

nyimapinvasives.org

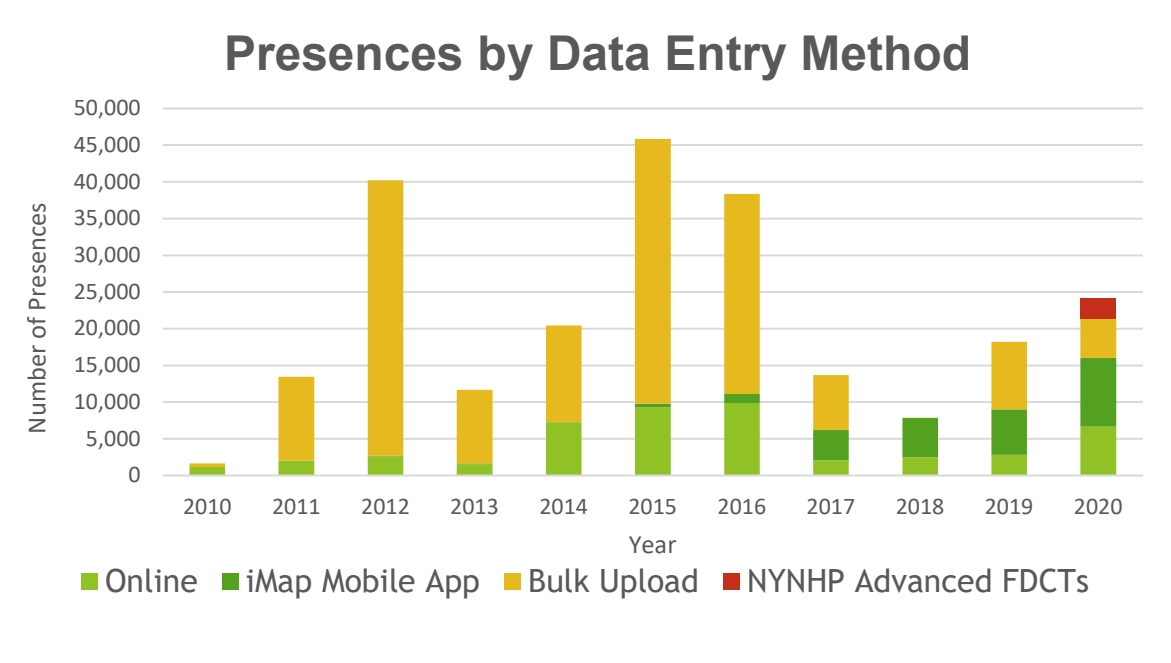
Invasive Species

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



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

- **Now**: Data entered by community scientists & professionals ***in real time***
  - Species ID confirmed by experts

NEW YORK STATE INVASIVE SPECIES MANAGEMENT

NEW YORK STATE HEMLOCK INITIATIVE — KEEPING THE LEGACY ALIVE

Adirondack ADK Mountain Club

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

NYSFOLA

RIT

Agriculture and Markets

NEW YORK STATE Parks, Recreation and Historic Preservation

The Nature Conservancy

UALBANY State University of New York

CCE Cornell Cooperative Extension

Adirondack Park Agency

SUNY Cobleskill

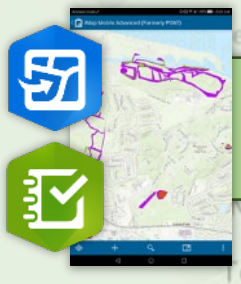
NEW YORK STATE OF OPPORTUNITY Department of Transportation

And you!

SIENAcollege

*i*MapInvasives 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.



Field Data Collection Tools

- Presence
- Not Detected
- Treatment

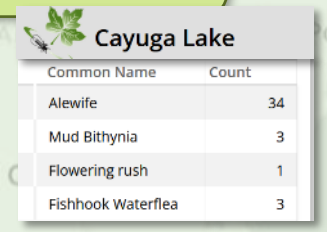
Community Scientists

Partner & Agency Data

Web Map Services

Email Alerts

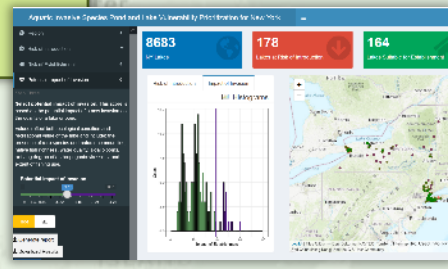
Report Tools



Spatial Prioritization Tools

Derivative Analyses

NYS Invasive Species Tiers



NEW YORK STATE OF OPPORTUNITY
Parks, Recreation and Historic Preservation
Department of Environmental Conservation
Agriculture and Markets
NEW YORK STATE INVASIVE SPECIES MANAGEMENT

iMapInvasives
Sharing information for strategic management

New York Natural Heritage Program

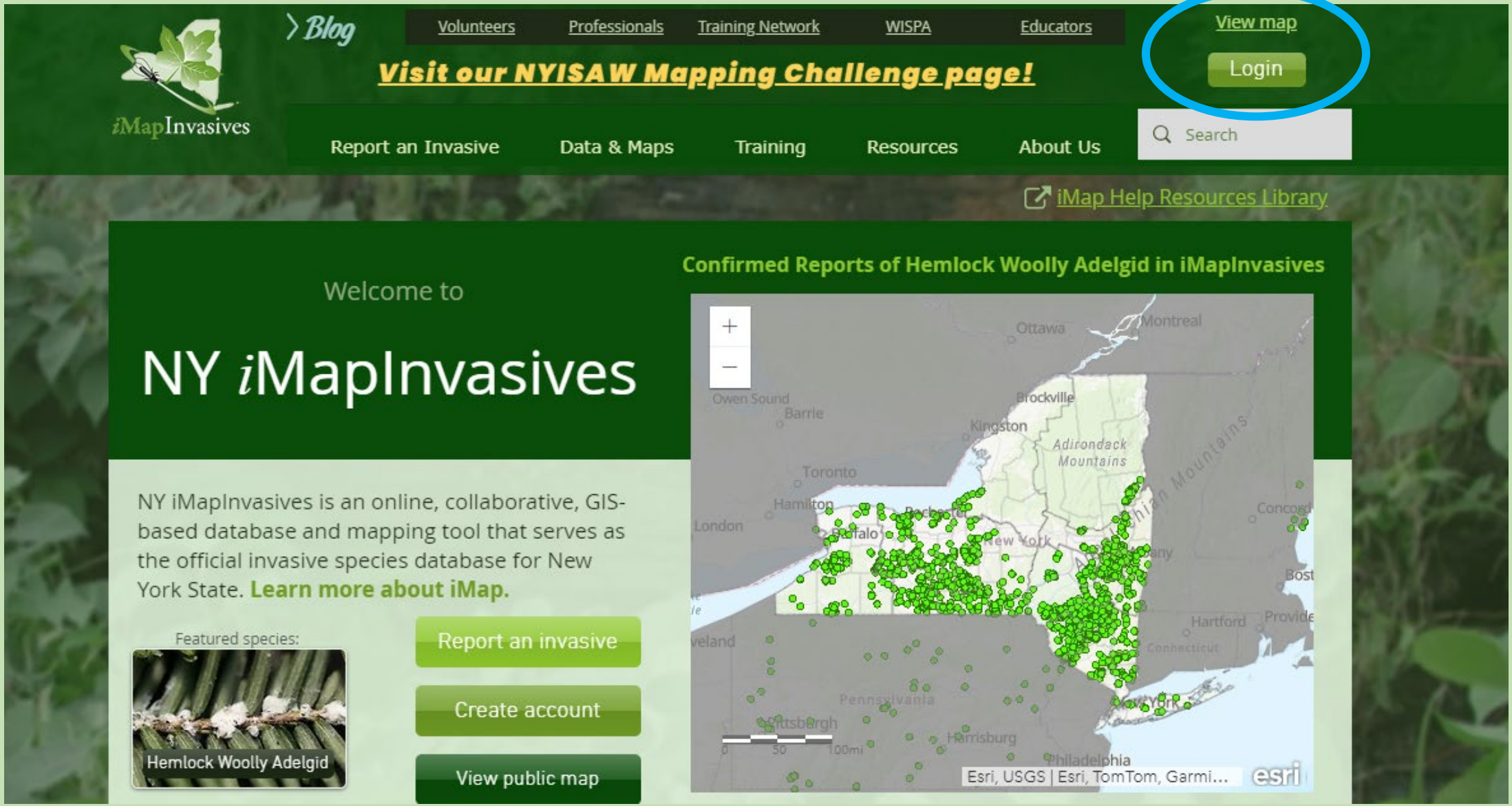
PRISMs

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

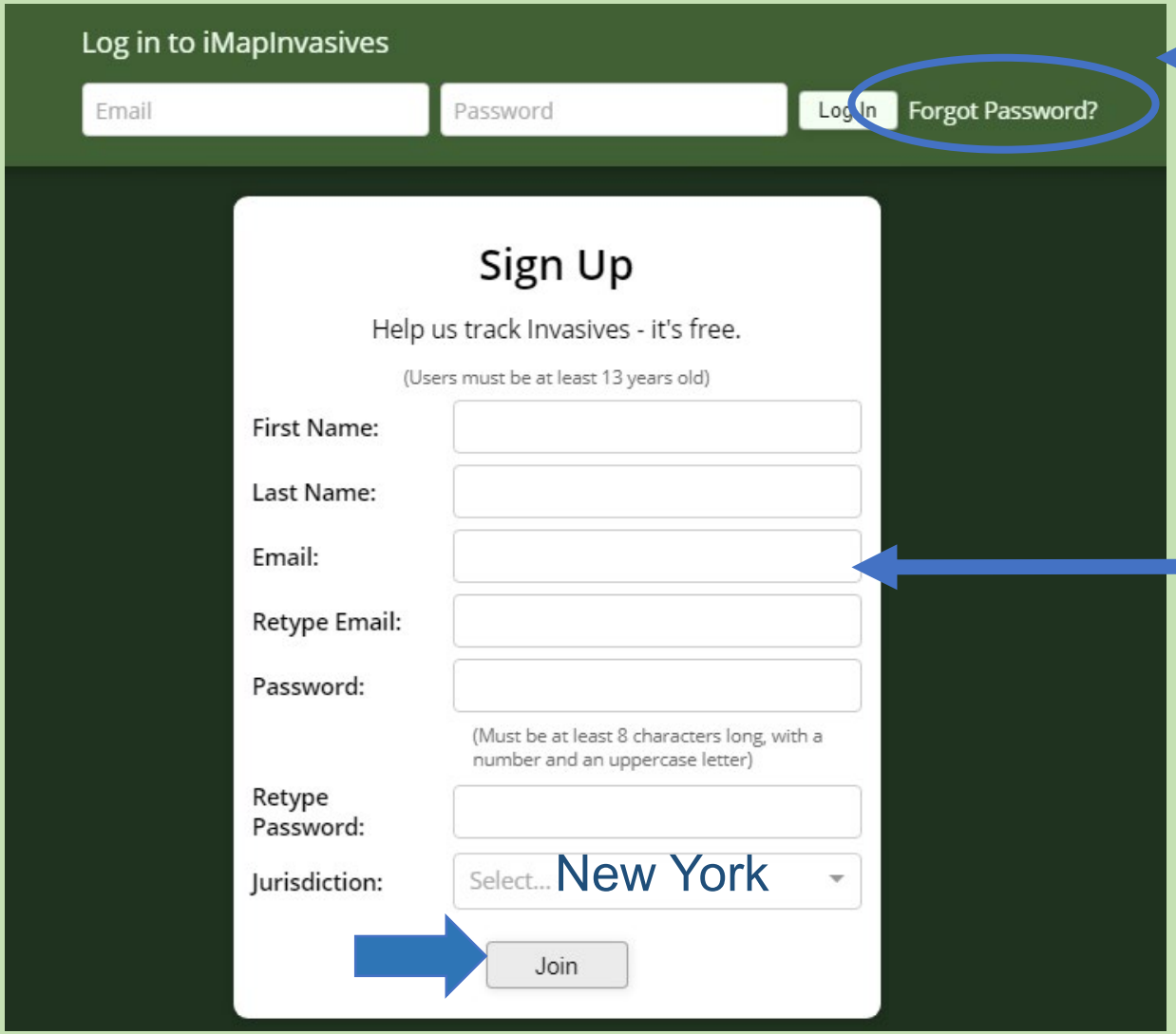
Learn more: nyis.info/prisms

Nyimapinvasives.org



Create Account/Login

imapinvasives.natureserve.org



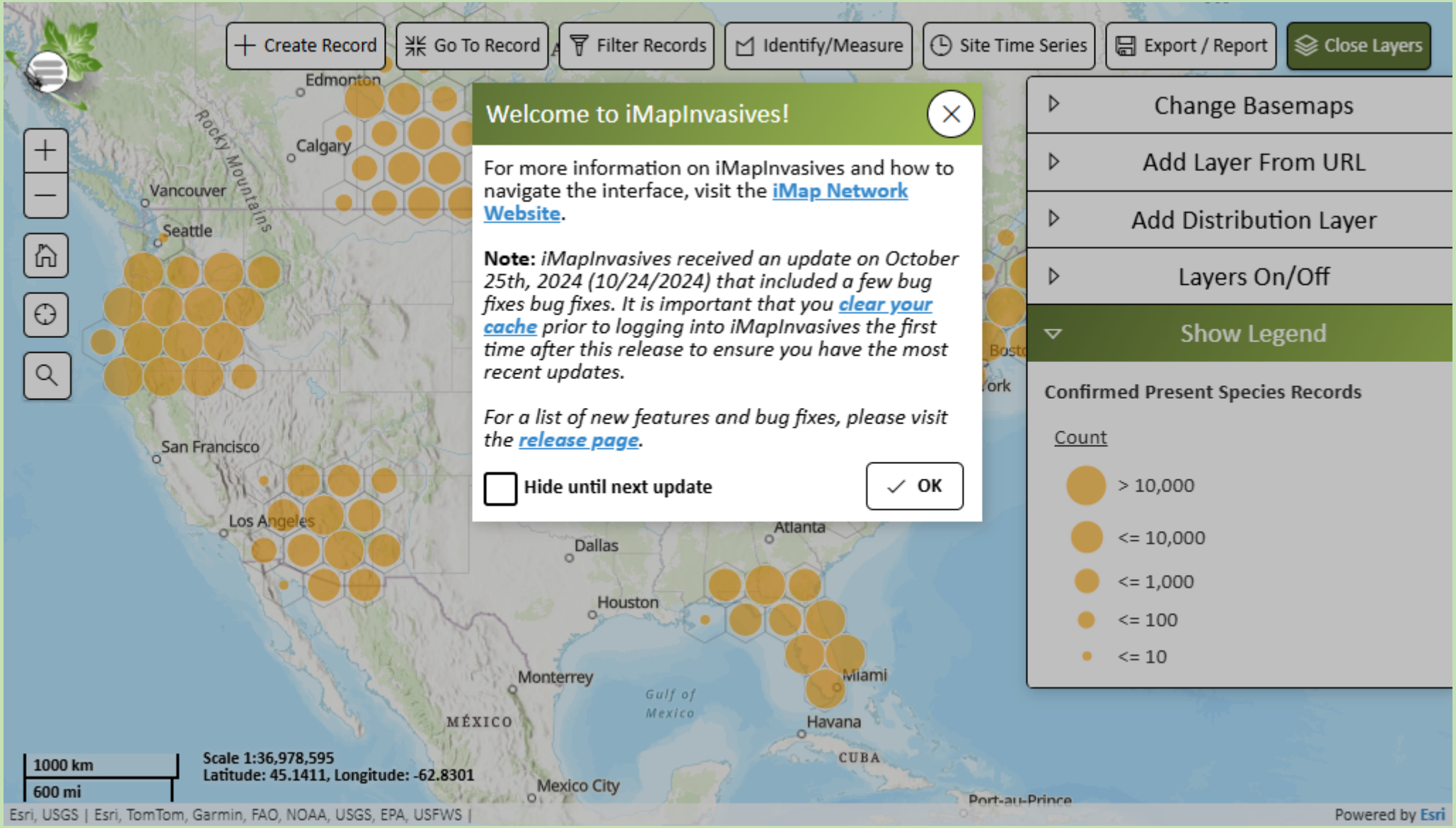
Login (if you have account)

Create Account

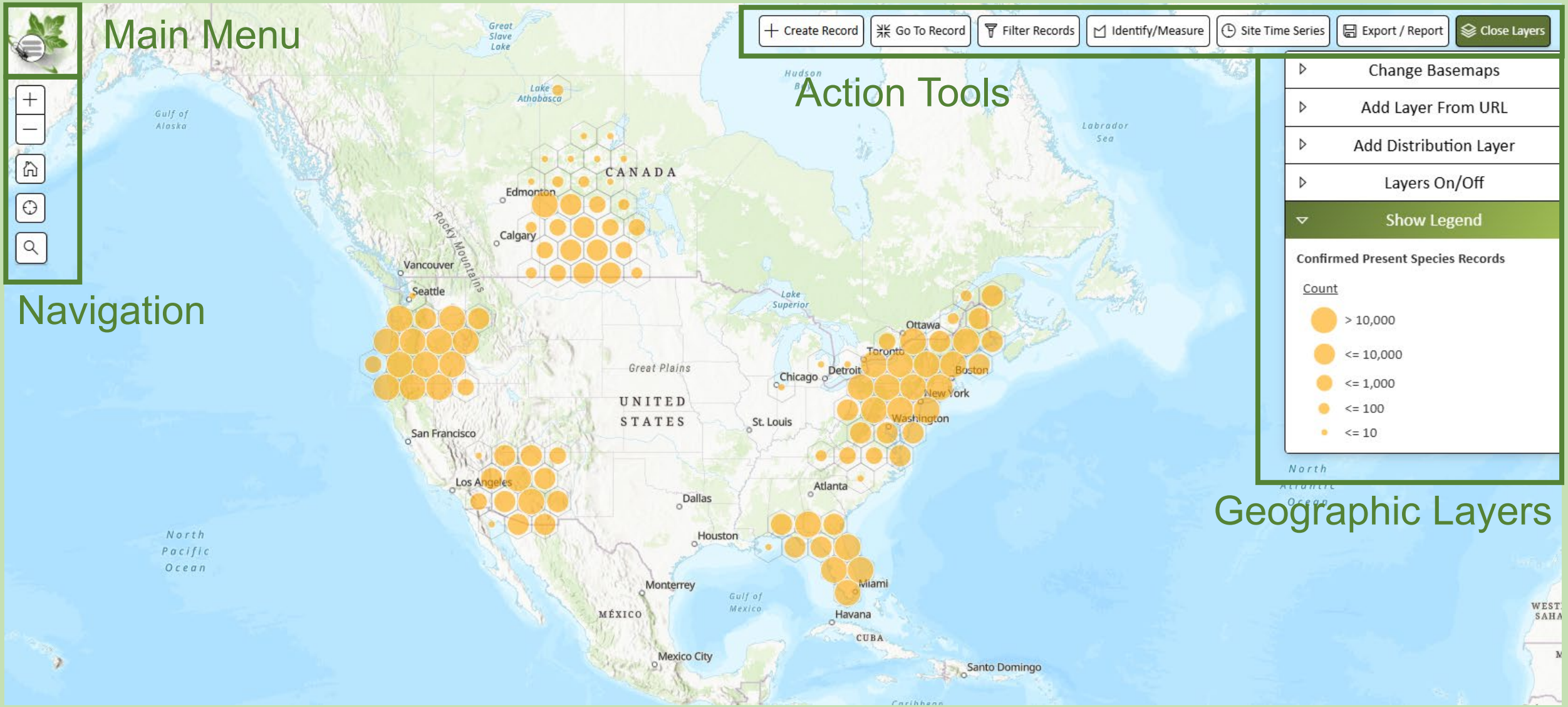
Check email for link ("click here"), click open the User Agreement.

Read User Agreement and accept

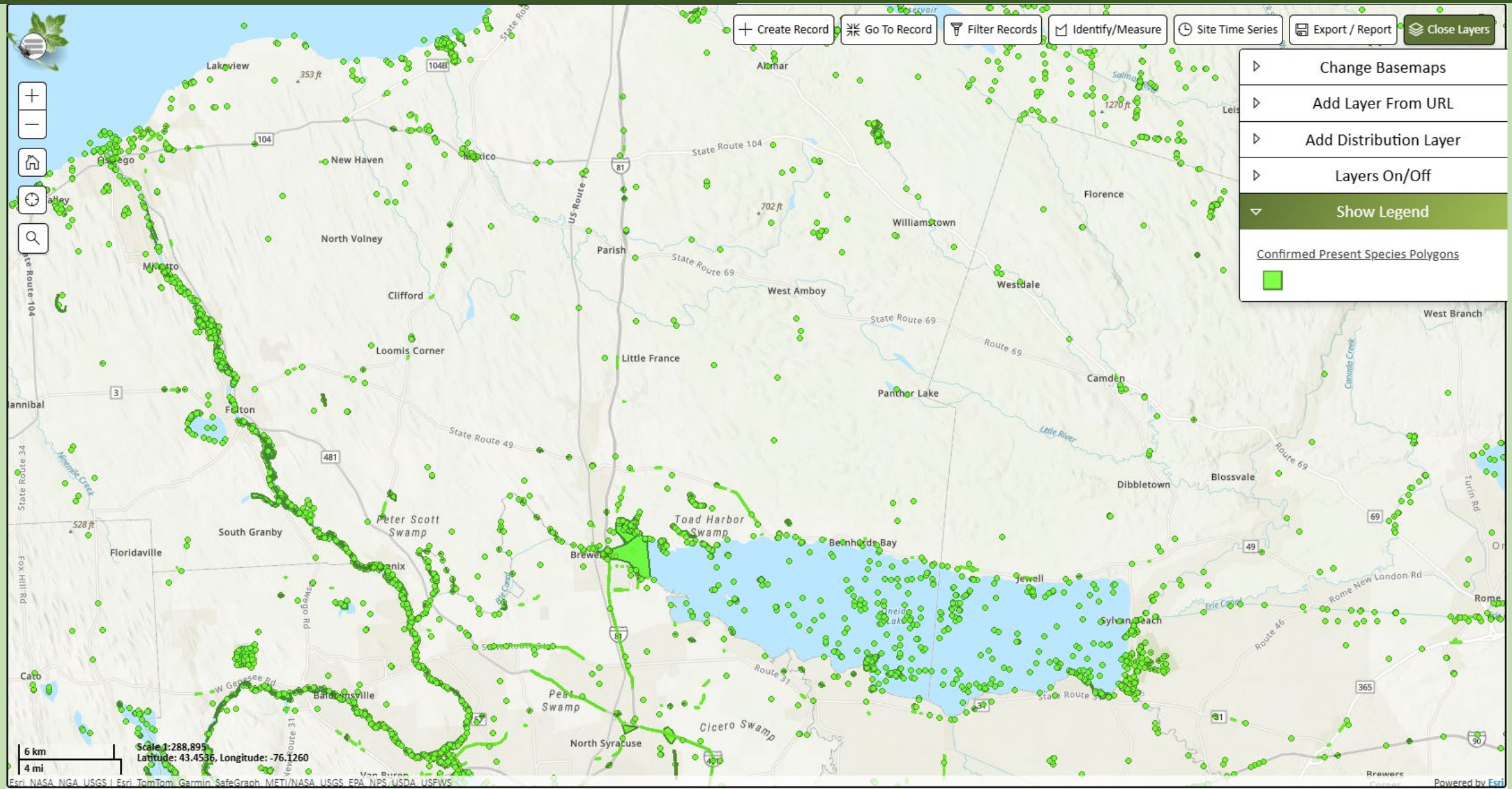
Login – map viewer



Map viewer


Main Menu
Navigation
Create Record
Go To Record
Filter Records
Identify/Measure
Site Time Series
Export / Report
Close Layers
Action Tools
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
CANADA
UNITED STATES
MÉXICO
CUBA
Edmonton
Calgary
Vancouver
Seattle
San Francisco
Los Angeles
Chicago
Detroit
Toronto
Ottawa
Boston
New York
Washington
Atlanta
St. Louis
Dallas
Houston
Monterrey
Mexico City
Miami
Havana
Santo Domingo
Great Slave Lake
Lake Athabasca
Lake Superior
Great Plains
Rocky Mountains
Gulf of Alaska
Hudson Bay
Labrador Sea
North Pacific Ocean
North Atlantic Ocean
Gulf of Mexico
Caribbean

Map viewer


Create Record
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Close Layers
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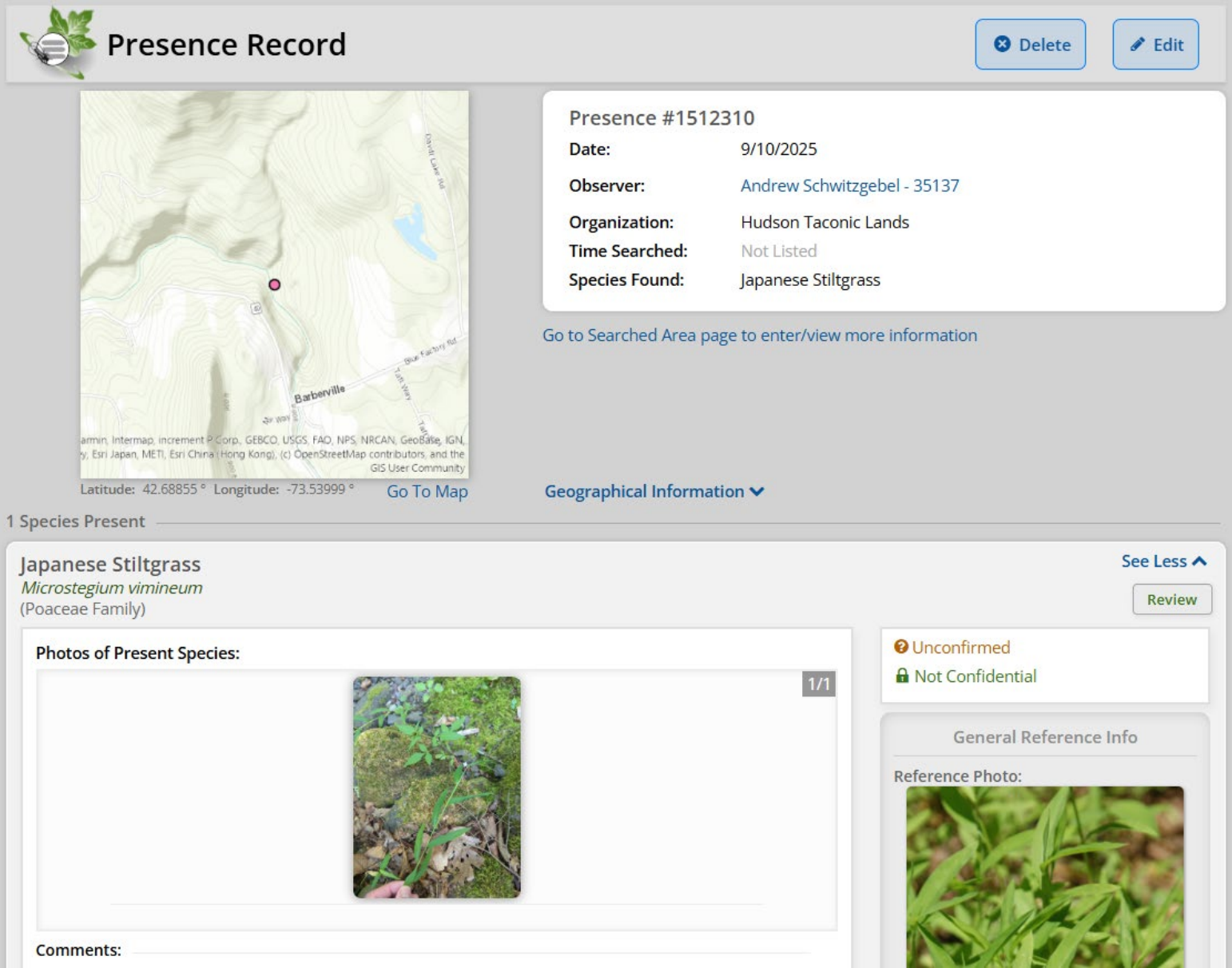
Show Legend
Confirmed Present Species Polygons
Lakeview
New Haven
North Volney
Clifford
Loomis Corner
Little France
Parish
West Amboy
Williamstown
Florence
Westdale
Camden
Panther Lake
Dibbletown
Blossvale
West Branch
Rome
Sylvan Beach
Jewell
Bennetts Bay
Brewerton
Fulton
South Granby
Floridaville
Cato
North Syracuse
Peter Scott Swamp
Toad Harbor Swamp
Peat Swamp
Cicero Swamp
State Route 104
State Route 69
State Route 49
Route 69
Route 31
Rome New London Rd
6 km
4 mi
Scale 1:288,895
Latitude: 43.4536, Longitude: -76.1260
Esri, NASA, NGA, USGS | Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS
Powered by Esri

Viewing records



- 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 of 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.

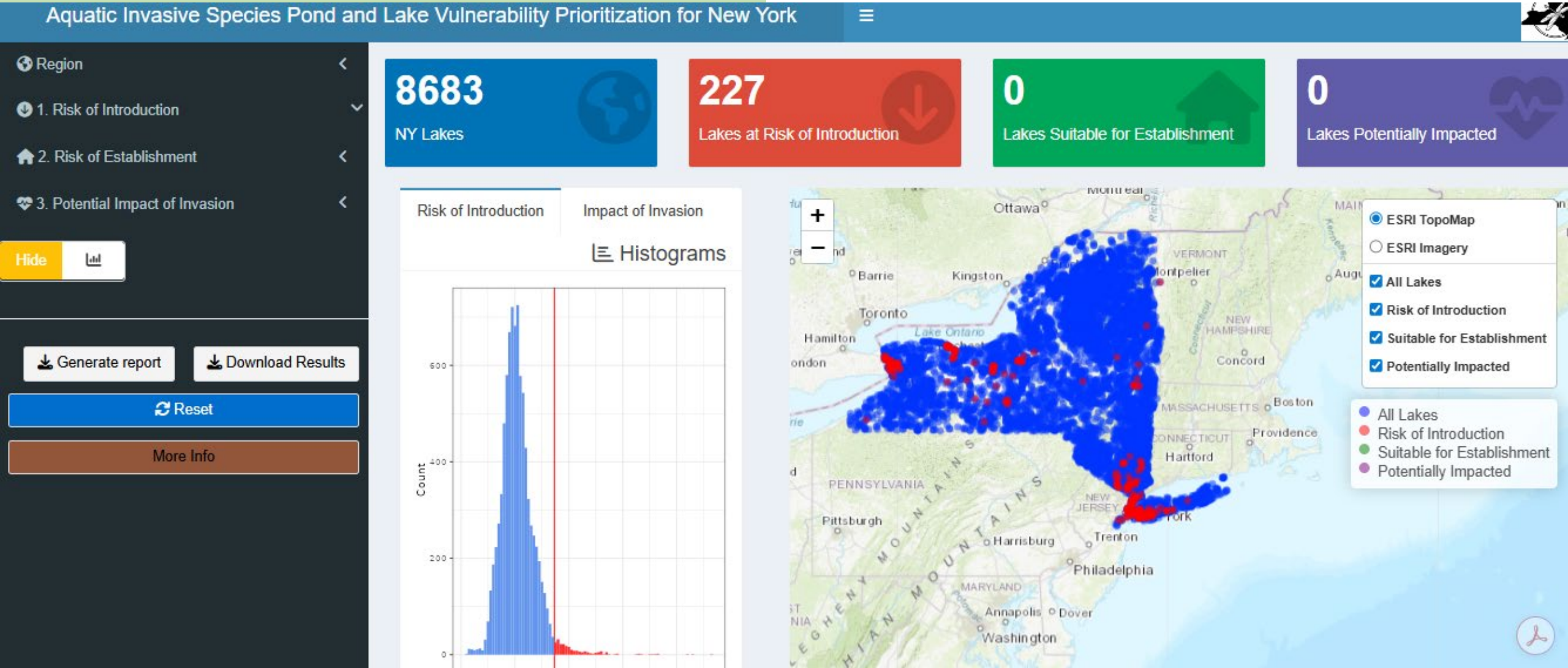
Terrestrial Invasive Species Prioritization Tool: Framework that scores the landscape based on ecological value, natural and protected areas, and risk of spread. Scores displayed in map viewer that managers can use to guide terrestrial surveys and management priorities.

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.

nyimapinvasives.org
/data-and-maps

Models & Tools – AIS Prioritization

Risk of introduction, risk of establishment, and potential impact



Invasive Species Tiers

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

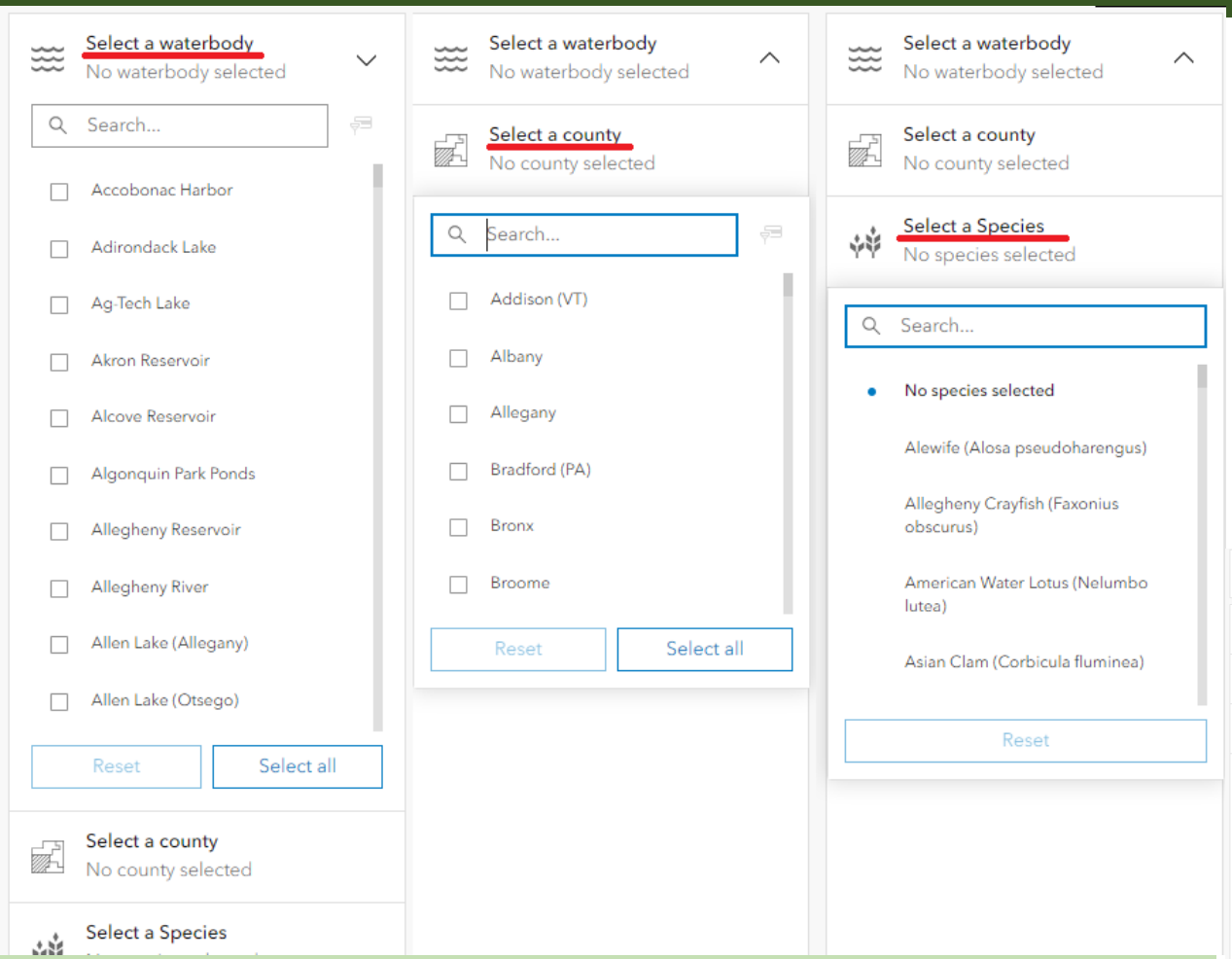
Taxa Type ☐ TP Terrestrial Plant ☐ TA Terrestrial Animal ☐ AA Aquatic Animal ☑ AP Aquatic Plant ☐ MS Marine Species ☐ MO Microorganism & Other
☐ **Select All Taxa Types**

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	*Egeria densa*	AP	High	Insignificant Negative	Prohibited	3	1a	1a	1a	1	2	3	1	2
Brittle Naiad	*Najas minor*	AP	Moderate	Significant Negative		M	3	4	2	4	3	3	4	4
European Frogbit; Common Frogbit	*Hydrocharis morsus-ranae*	AP	Very High	Insignificant Negative	Prohibited	4	3	3	2	3	2	3	4	4
European Water Fern; European Waterclover	*Marsilea quadrifolia*	AP	Moderate	Insignificant Negative				1a		M	2	M		
Fanwort	*Cabomba caroliniana*	AP	High		Prohibited	3	2	1a	2	2	2	4	2	1a

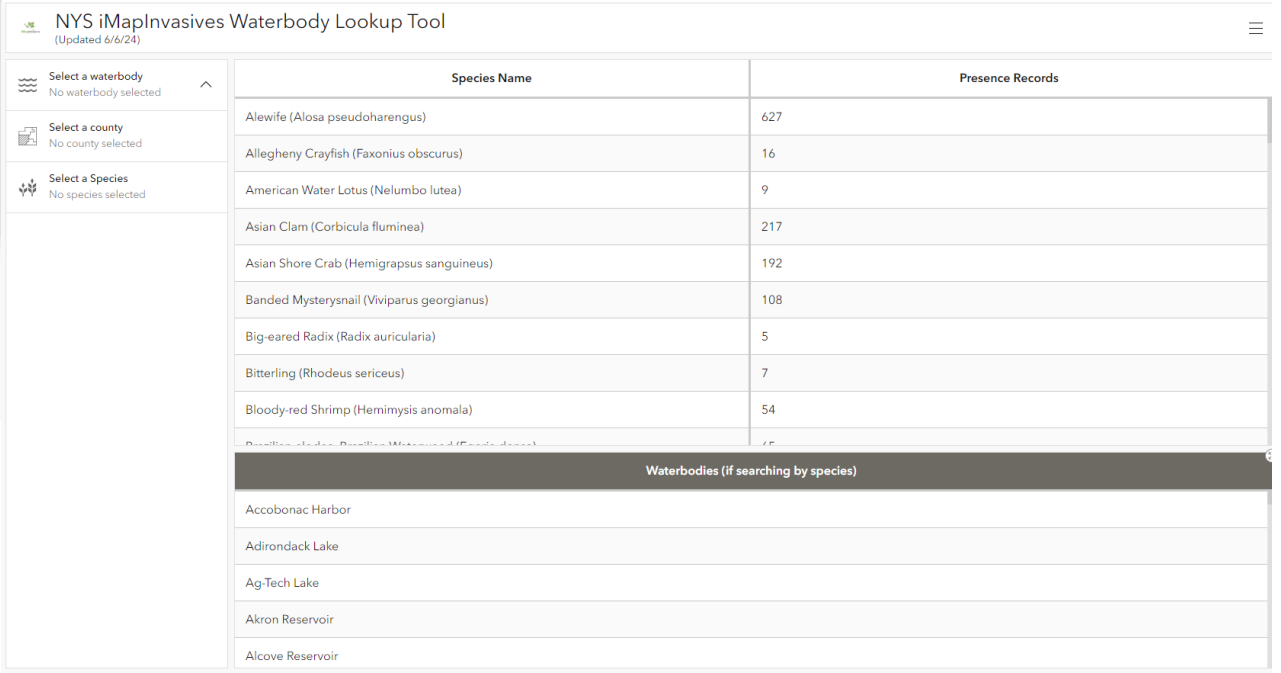
Filter by taxa, region, tier

Models & Tools - WaLT



Waterbody, county, and species filters

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



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:

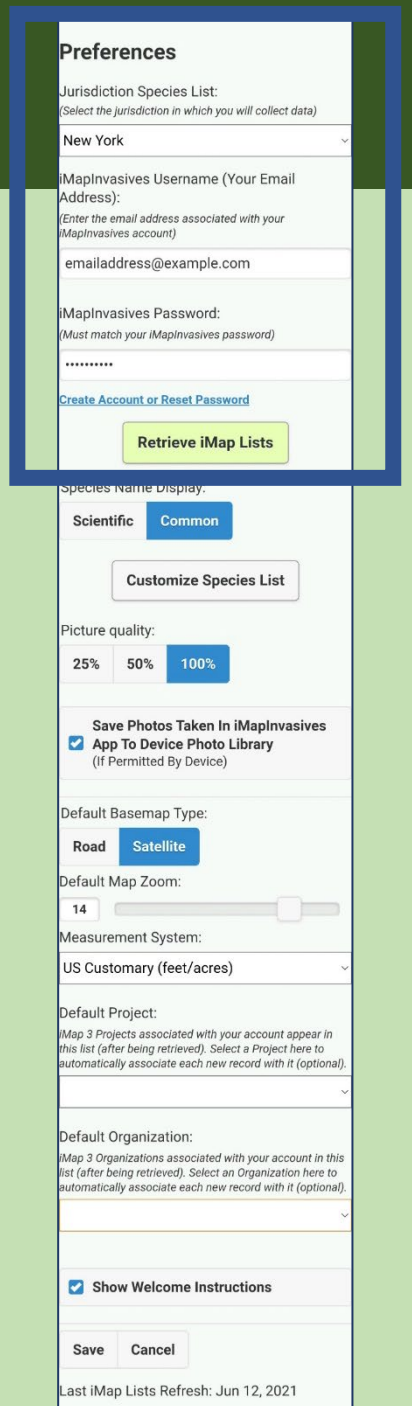
(Must match your iMapInvasives password)

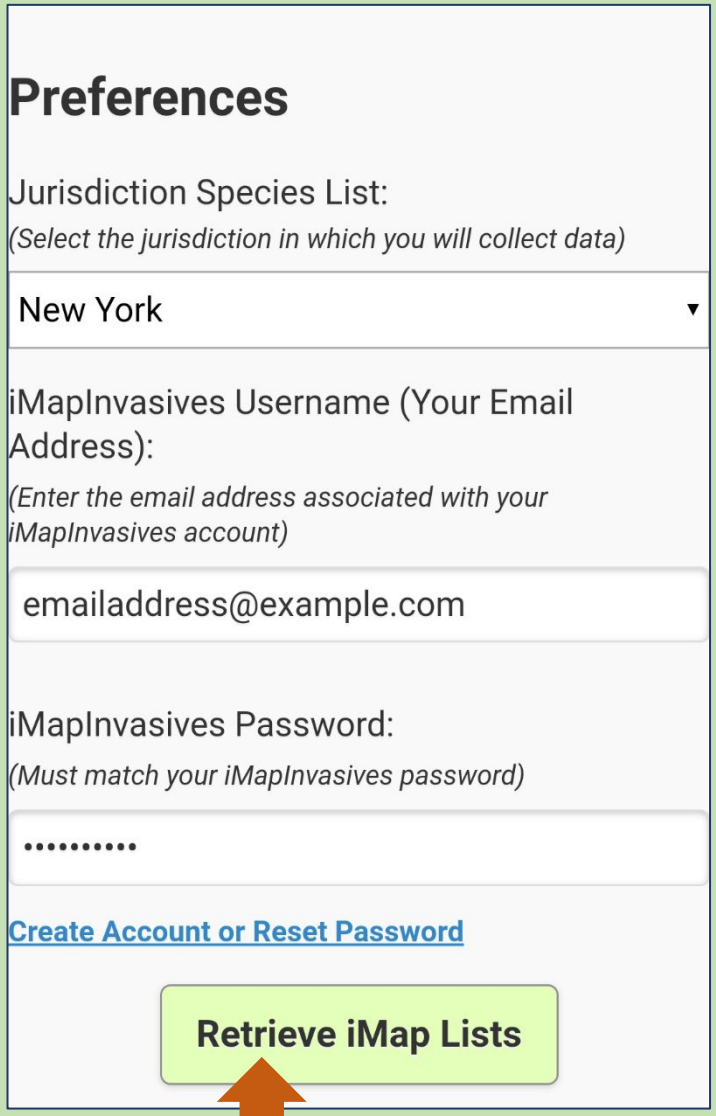
••••••••••

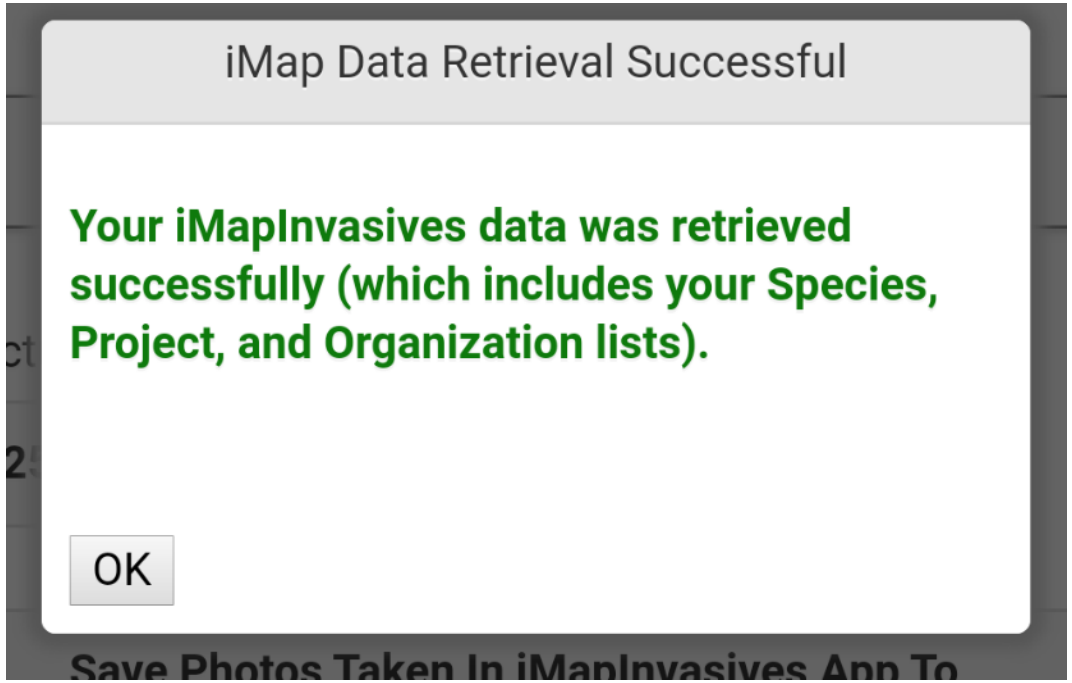
Create Account or Reset Password

Retrieve iMap Lists

Mobile App Setup

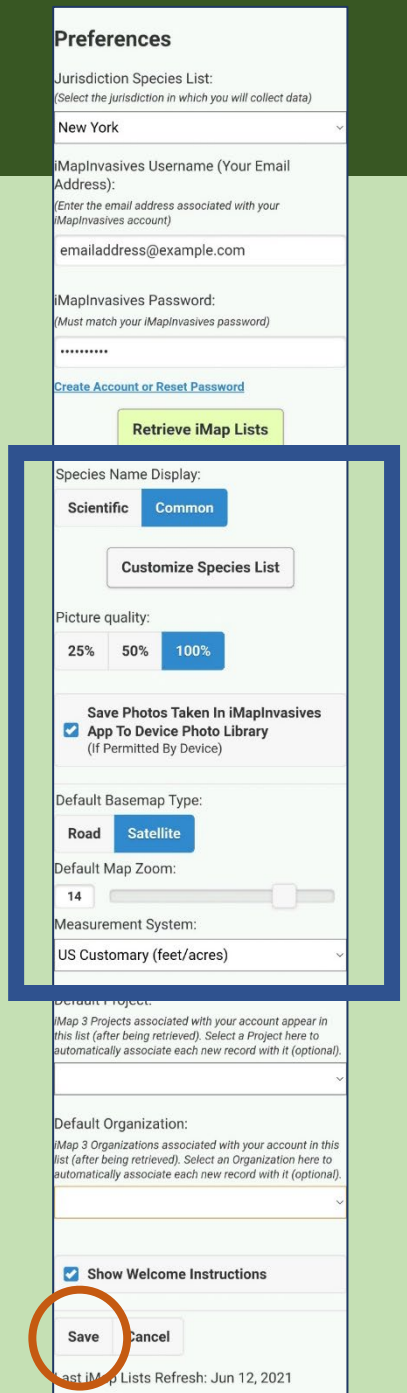


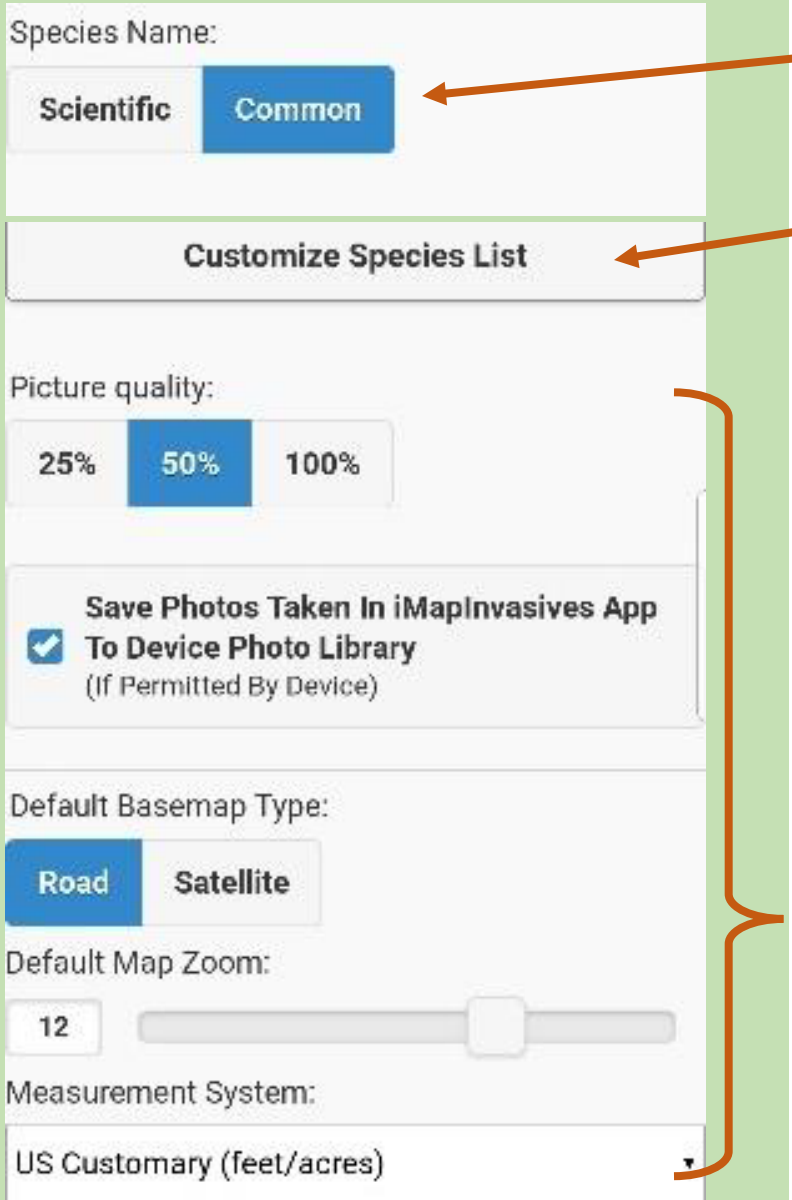




- Username and password Must match iMap account online
- Sometimes iPhone's add space after password

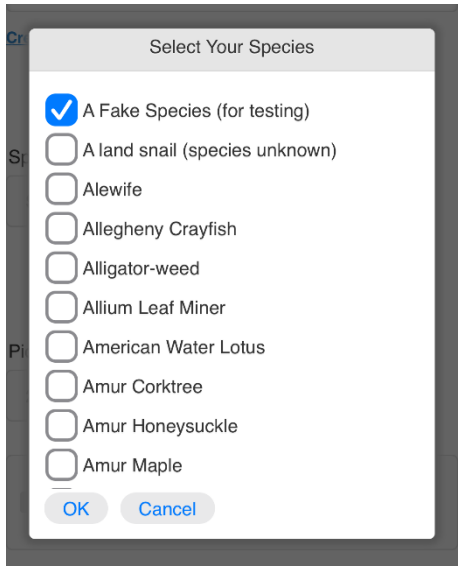
Preferences - optional





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



Defaults are typically fine

Mobile App

1. Setup Account and App

Connectivity required

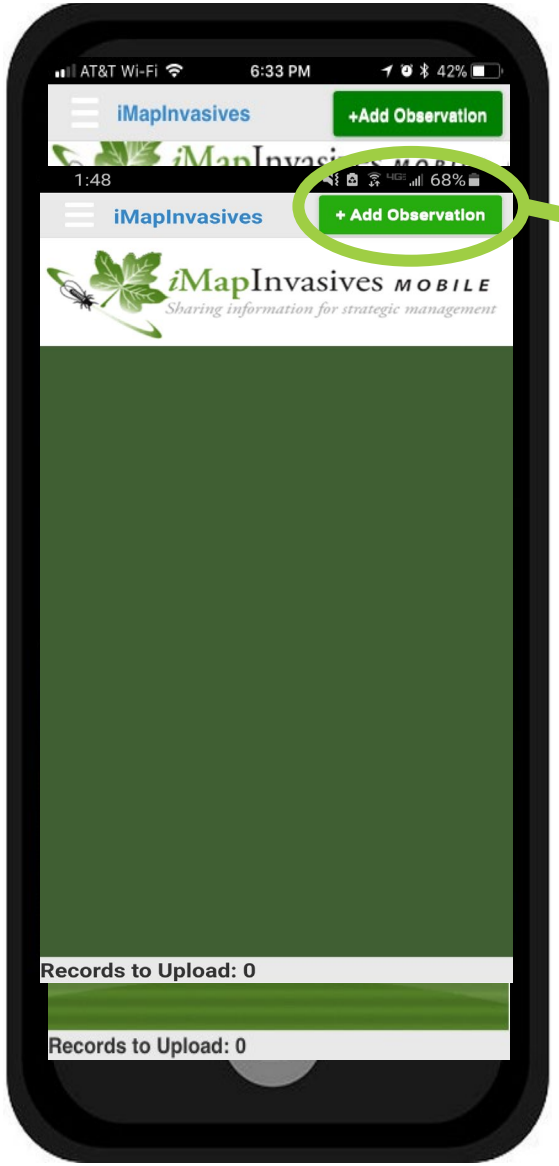
2. Record invasive species

Connectivity **NOT** *required*

3. Upload records to iMap

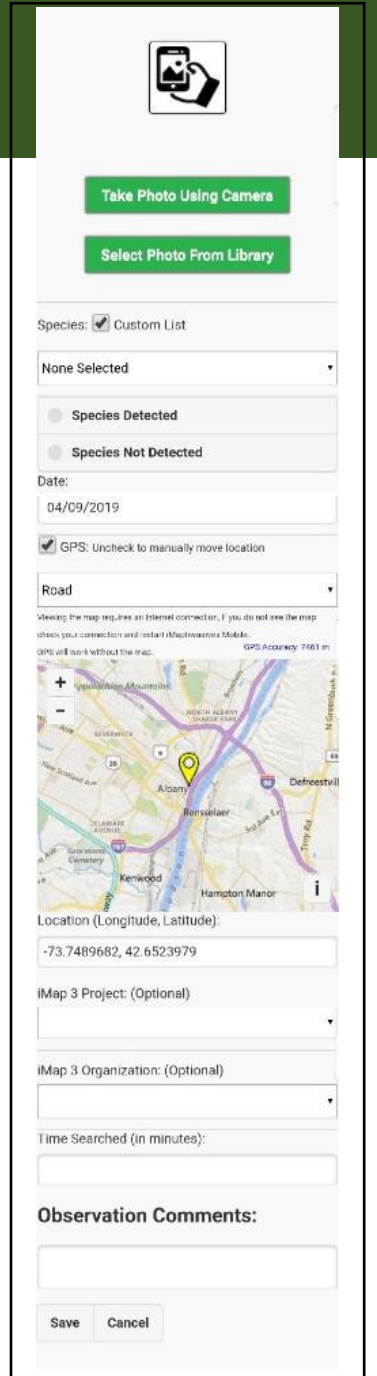
Connectivity required

Recording an observation

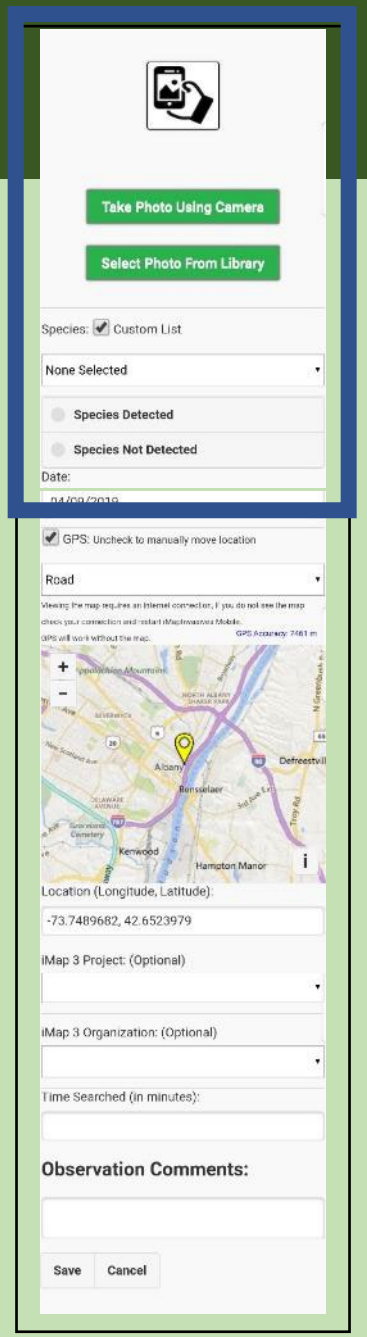


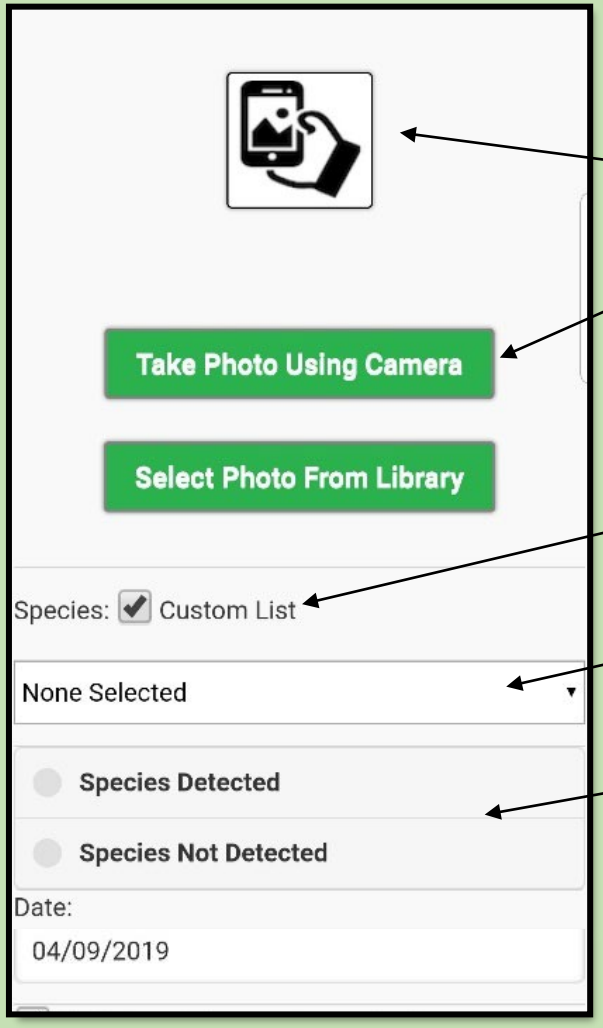
+Add Observation

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



Add Observation





Take photo with camera

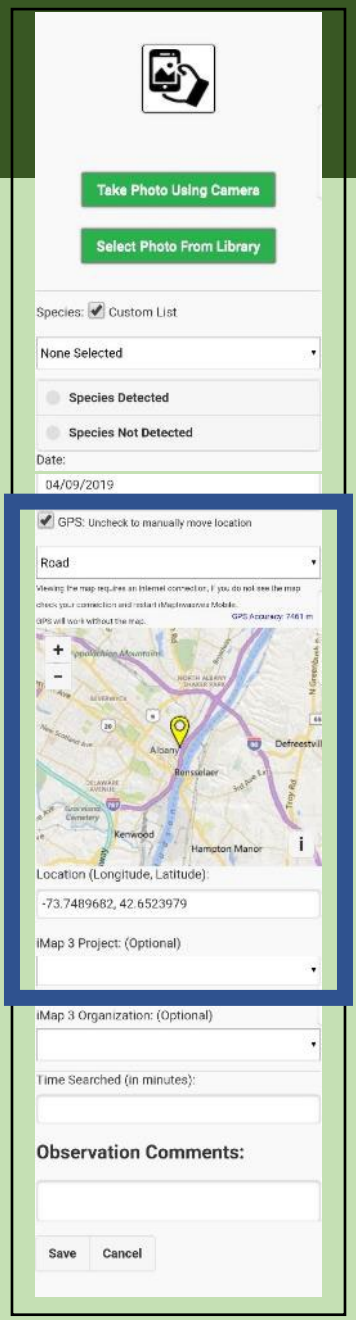
Enable your custom species list

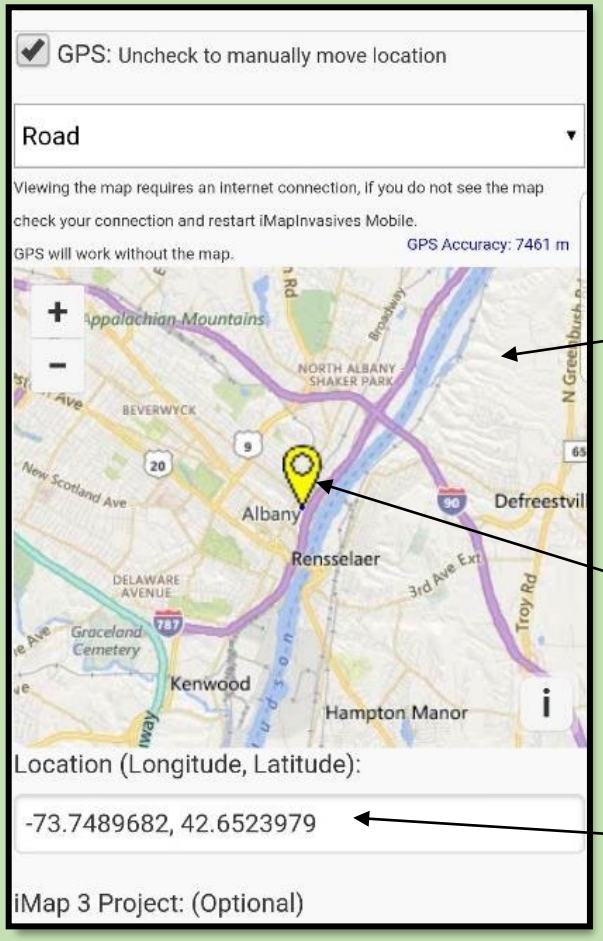
Select Species – **A Fake Species**

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



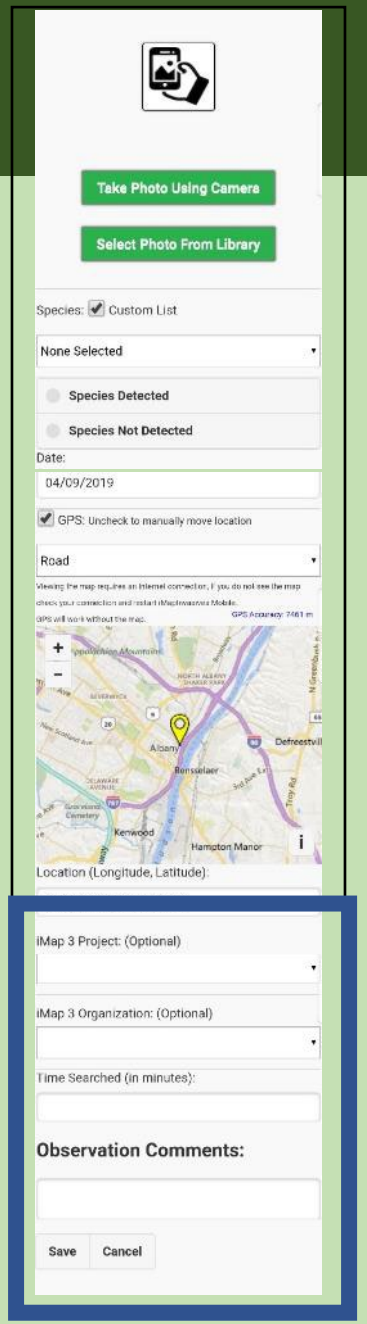


Note: Map will be blank when out of connectivity

Your location

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

Add Observation



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

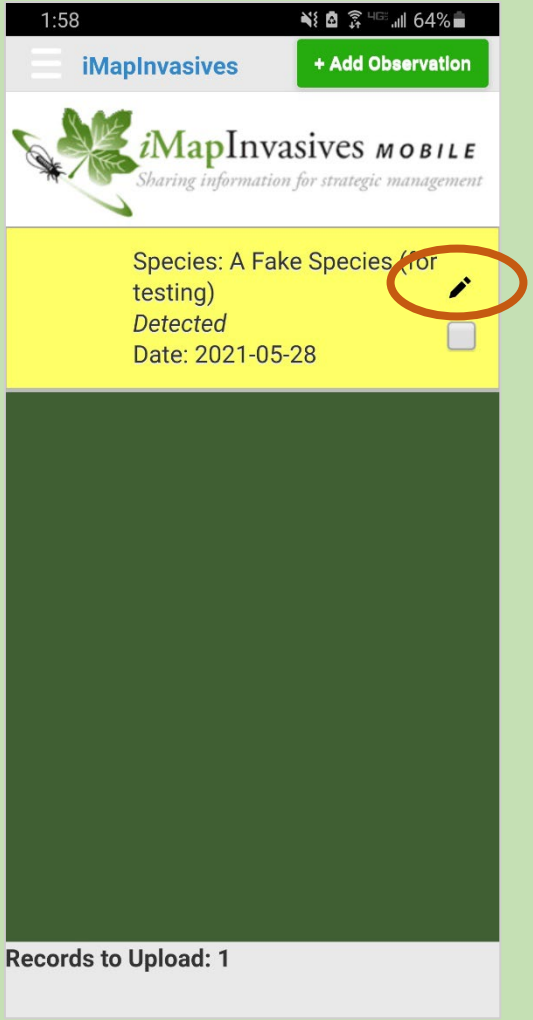
2. Record invasive species

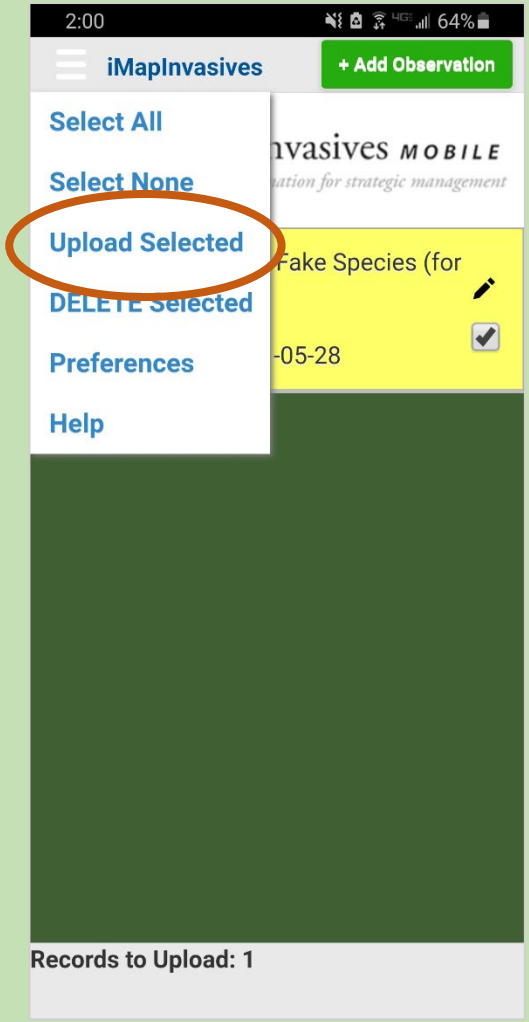
Connectivity **NOT** *required*

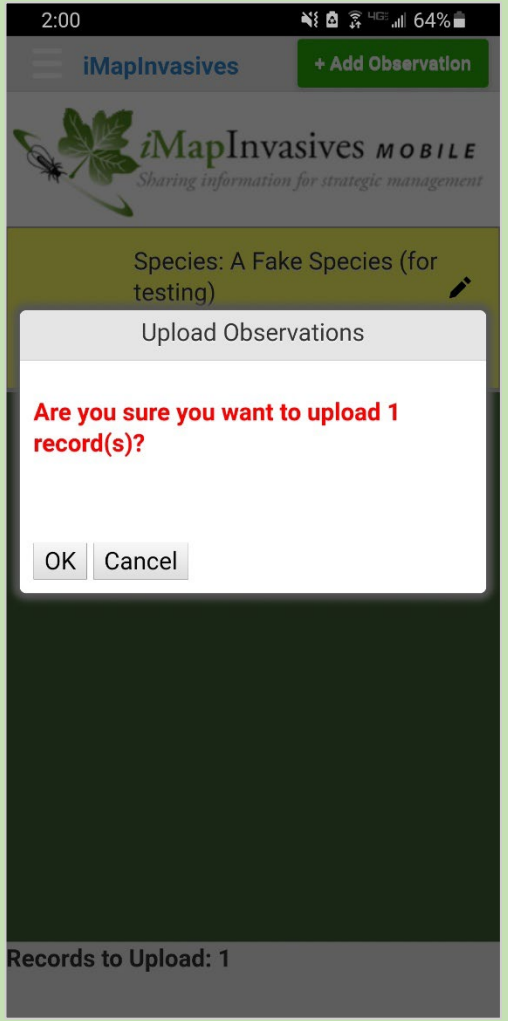
3. Upload records to iMap

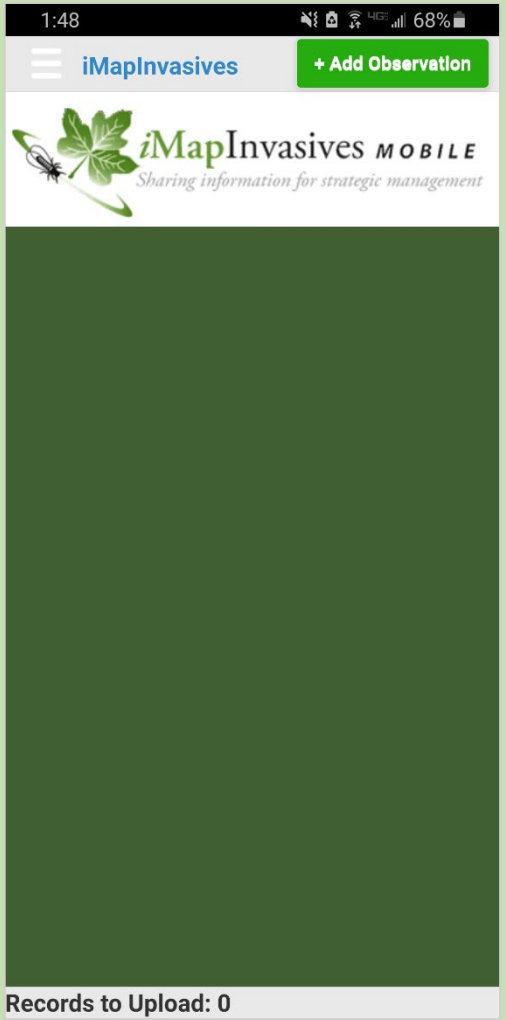
Connectivity required

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 ones 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

New York Natural Heritage Program

iMapInvasives
Sharing information for strategic management

@nyimapinvasives

Email: imapinvasives@dec.ny.gov
Website: nyimapinvasives.org