Have you:

- Created an *i*MapInvasives account?
- Logged-in online?
- Downloaded the *i*MapInvasives Mobile app onto your smartphone or tablet?

*i*MapInvasives
Sharing information for strategic management

*i*MapInvasives training

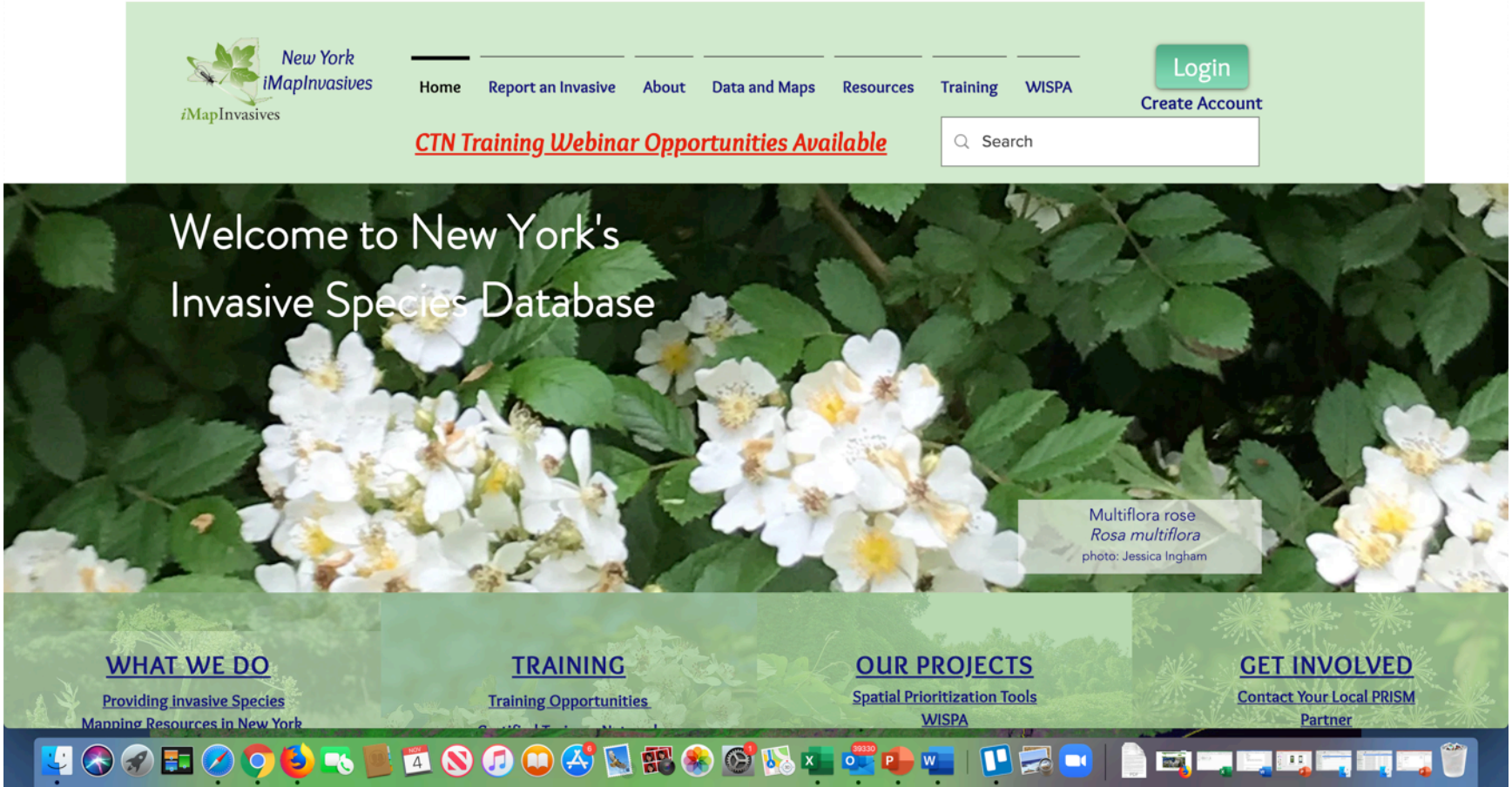
New York Natural Heritage Program

Meg Wilkinson
Invasive Species Database Program Coordinator
NY Natural Heritage Program

Wednesday November 13th, 2019

I. iMap3 Online
II. iMap Mobile App
III. iMap3 Web Map Services (WMS)

NYimapinvasives.org



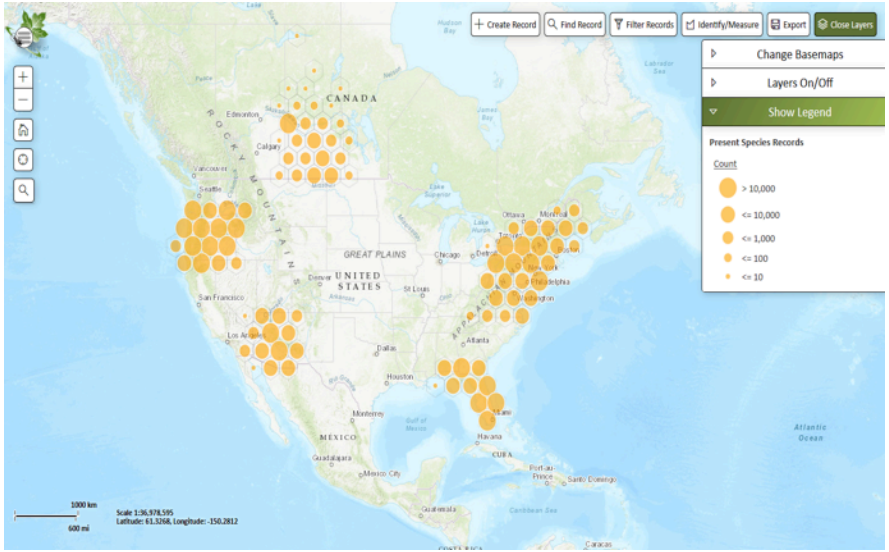
iMapInvasives

Sharing information for strategic management

NatureServe

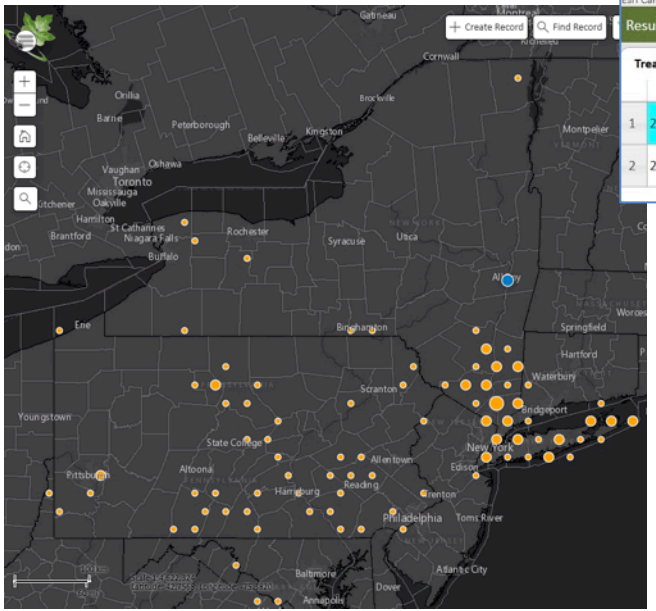
iMap3

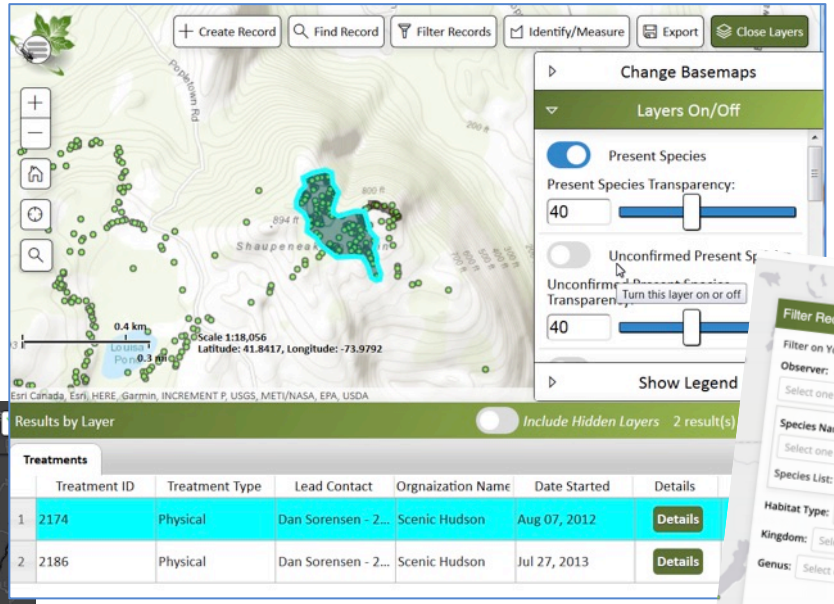
- Live in April
- With NatureServe
- US & Canada
- Map-centric

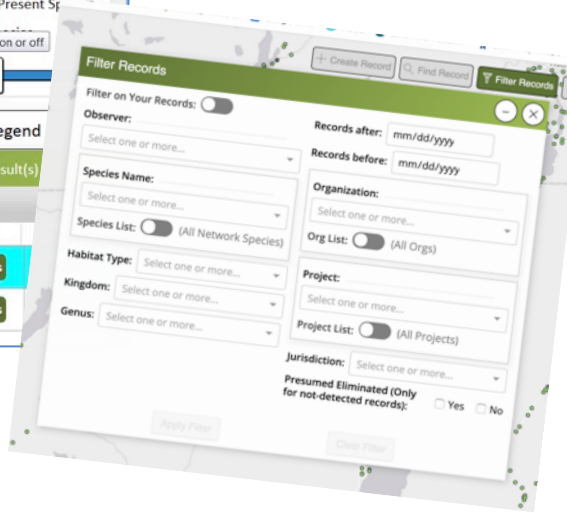


iMap3!

Launched April 18, 2019







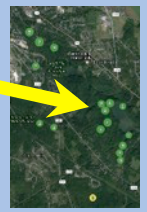
iMap3 Online:

- Maps
- Filters
- Submit data
- Export data
- Email alerts
- More!

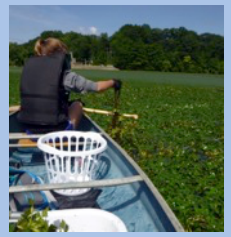
Email alerts

New York's Invasive Species Database

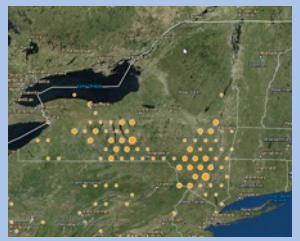
iMapInvasives
Sharing information for strategic management



Reporting tools and data uploads



Tracking Control Efforts and Results



Species Distributions and Reports

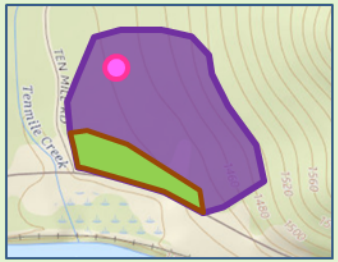
Early Detection Alerts

*i*MapInvasives – Data Types

Presence

What did you find?

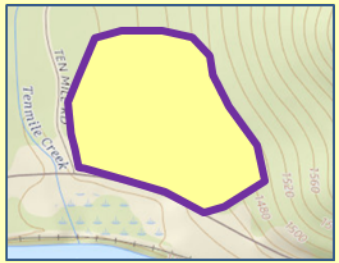
Location(s) (polygon, line, or point) that document one or multiple species present per location



Not Detected

What didn't you find?

One or more species looked for but not found.

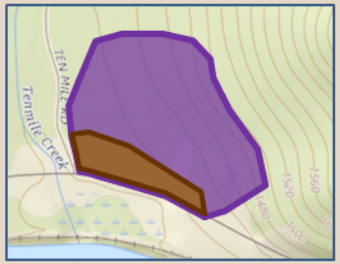


Treatment

What did you treat?

Polygon(s) within, or same area as, the parent Searched Area record

- mechanical, chemical, or biological

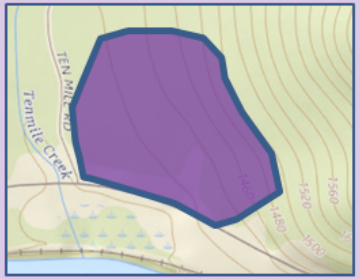


Searched Area

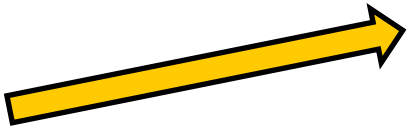
Where did you look?

Polygon showing the area covered that day, at that site, while looking for and/or treating invasive species.

- *Base record to all other types.*



*i*MapInvasives – User Roles



Organization
(e.g., NYS DOT, Audubon, CCE, Lake Association)

All iMap Members can:
- Enter/view/export presence and Not Detected records
- View, but not enter, basic treatments
- Create personal projects

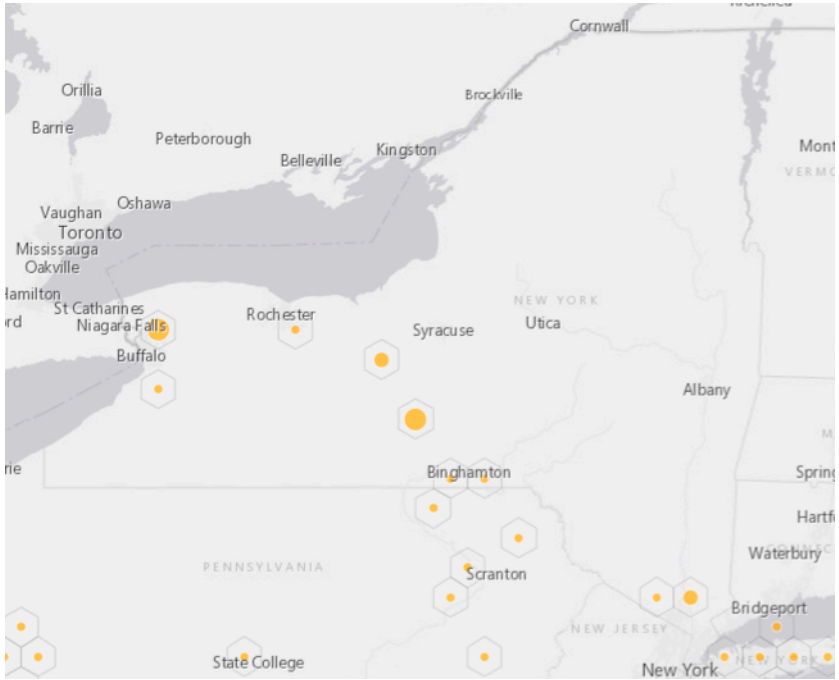
Active iMap states have:
Data manager/admin
Treatment tracking
Custom species list
Users into organizations

iMap Member
Everyone, everywhere

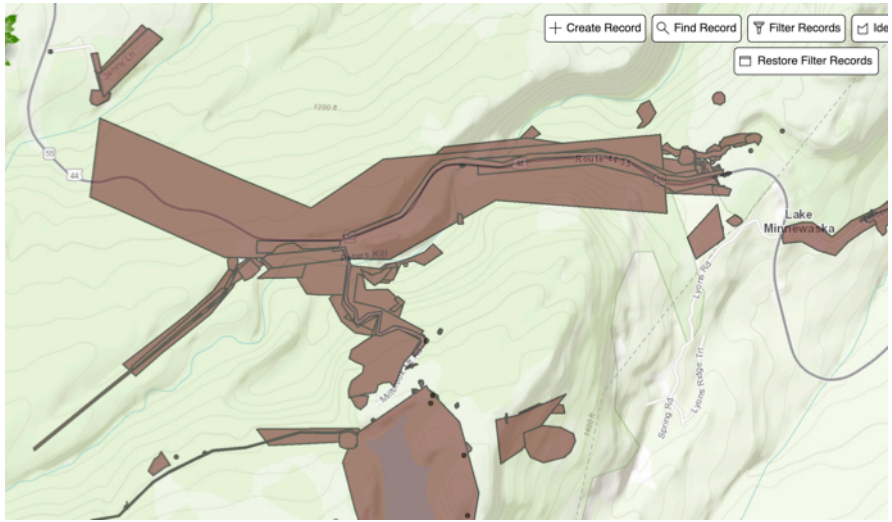
iMapInvasives

Scale

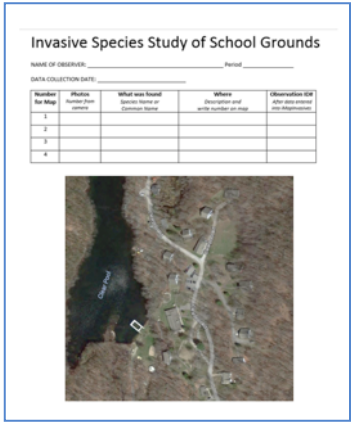
- State Level:
  - Email alerts
  - prioritization



- Local level:
  - Presence
  - Treatment work
  - Follow-up surveys
  - → Progress over time



Options for entering data into iMapInvasives



1 Collect on paper forms, then enter onto computer and upload photos

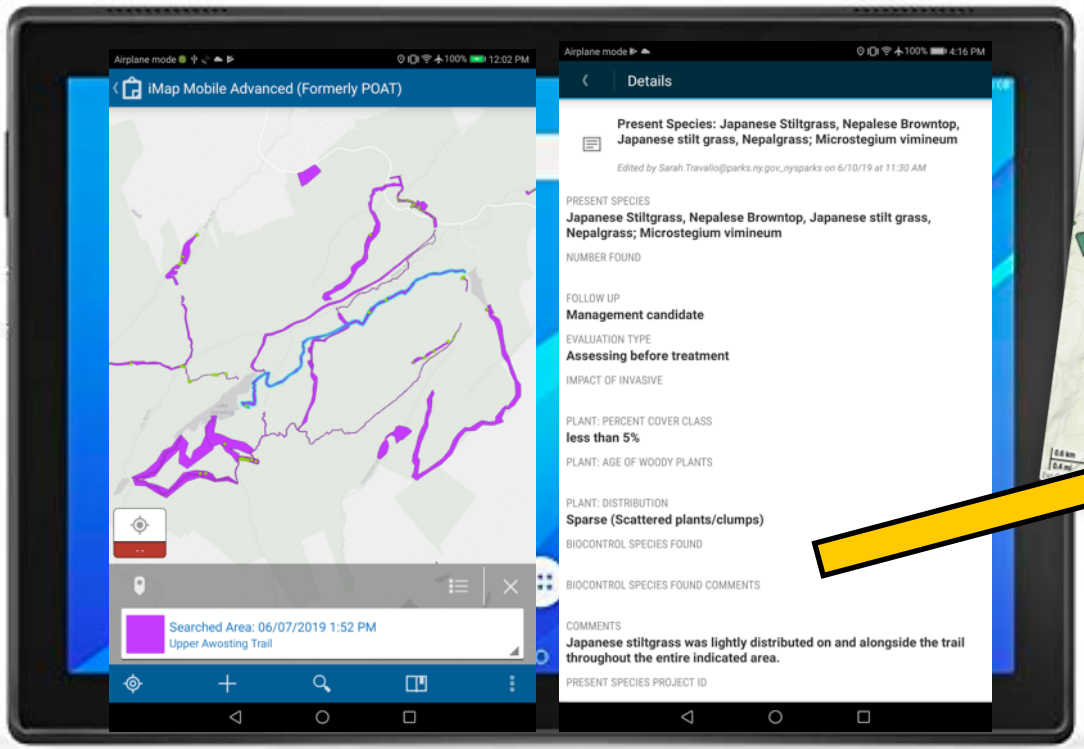
2 Enter online!

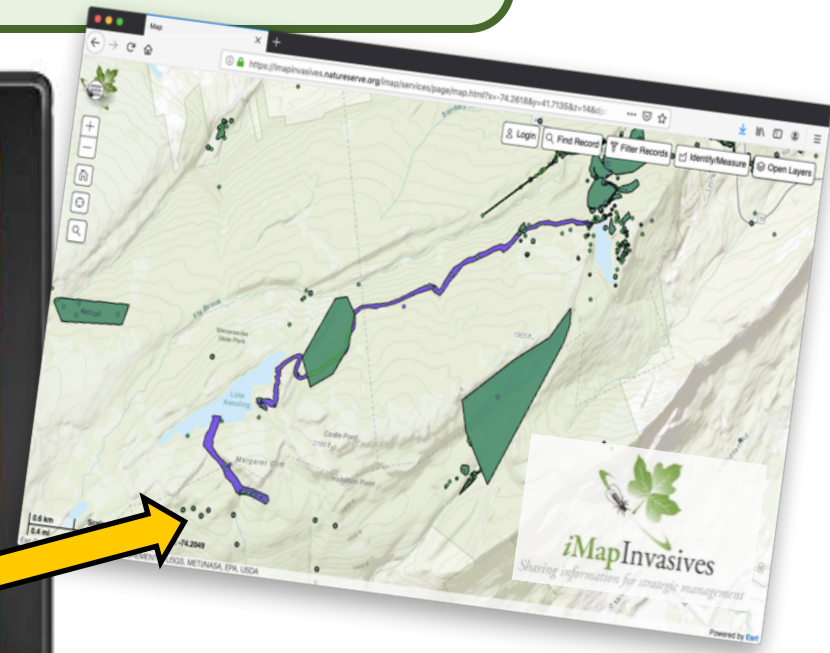
3 Collect photos and location with app, then upload into computer

#4

iMap Mobile Advanced: Connecting Field Work to iMap

Could the iMap Collector app be helpful for your agency/ organization?





5. Simple Aquatic Survey “SAS”

- Two rake tosses per record
- Aquatic-specific survey fields

Hydrilla

Water Chestnut

Brittle Naiad

Curly Pondweed

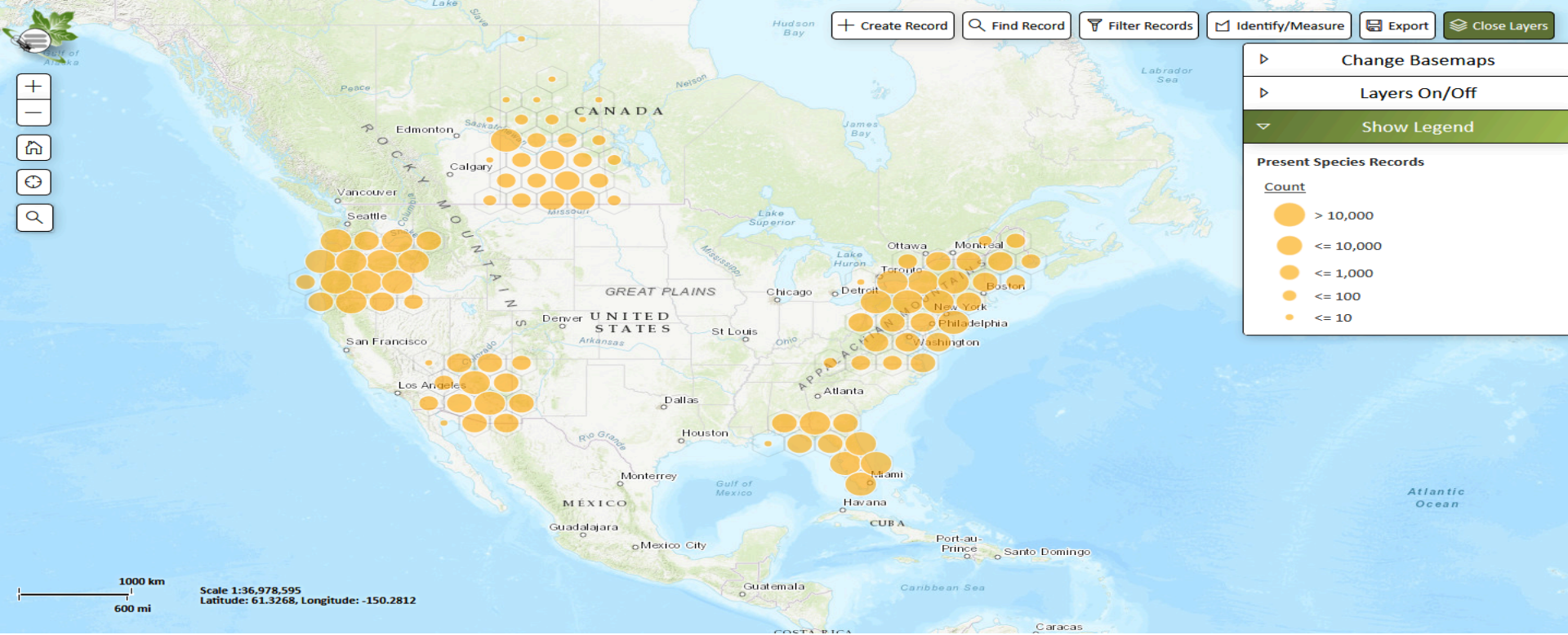
Eurasian Watermilfoil

Starry Stonewort

And: Lake Management Tracker app?

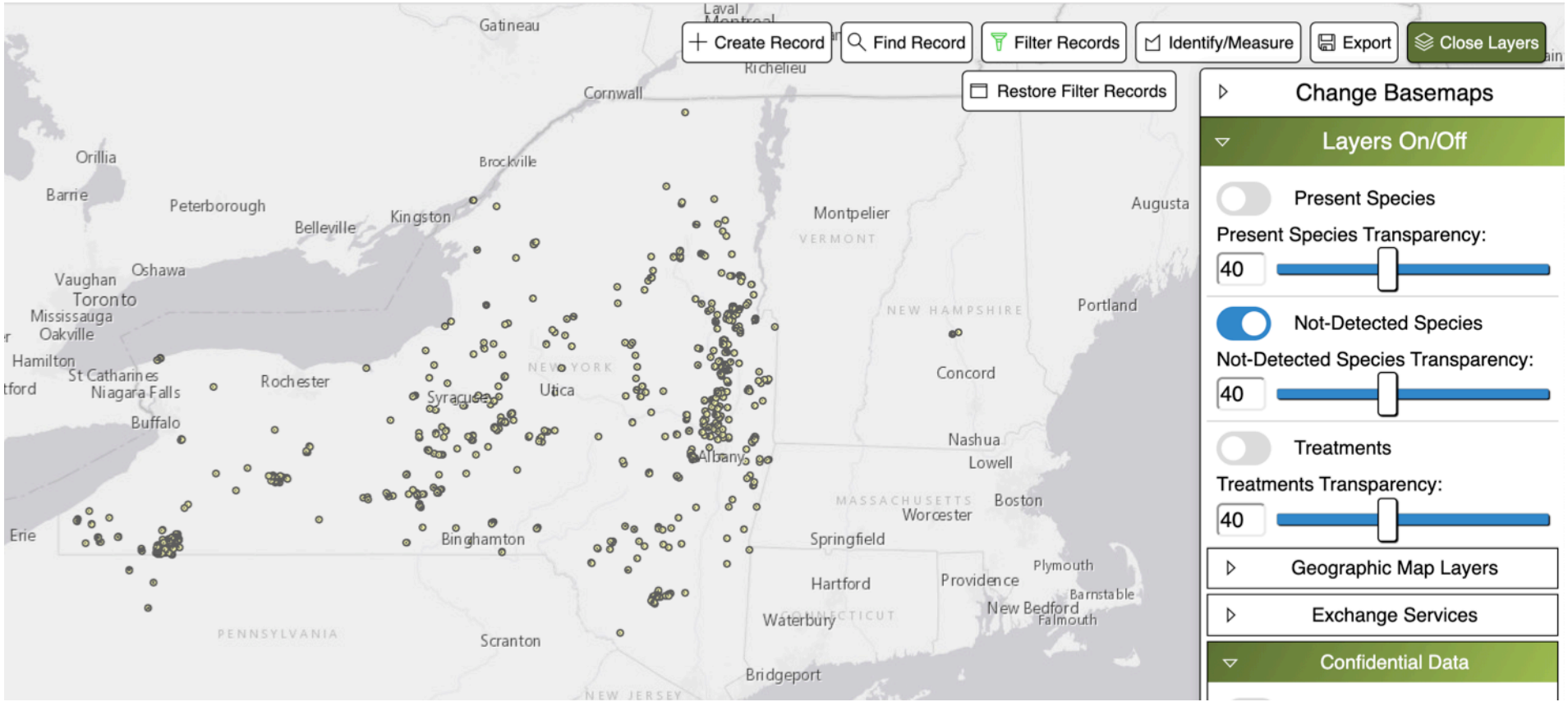
Developing your own Survey123 app?

- Talk with us ahead of time
- Align fields
- → Backend Crosswalk into iMap

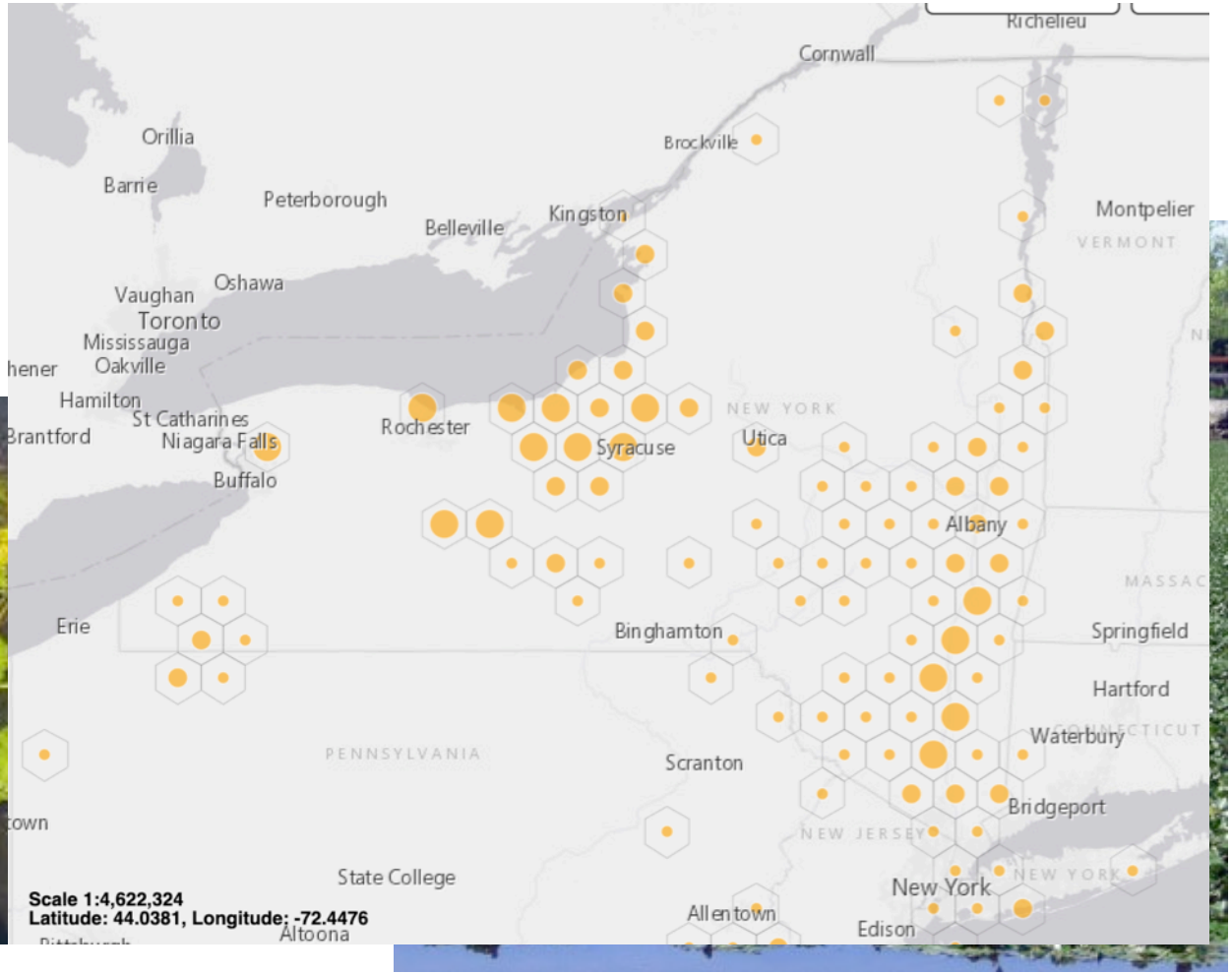


*i*MapInvasives Online
www.nyimapinvasives.org

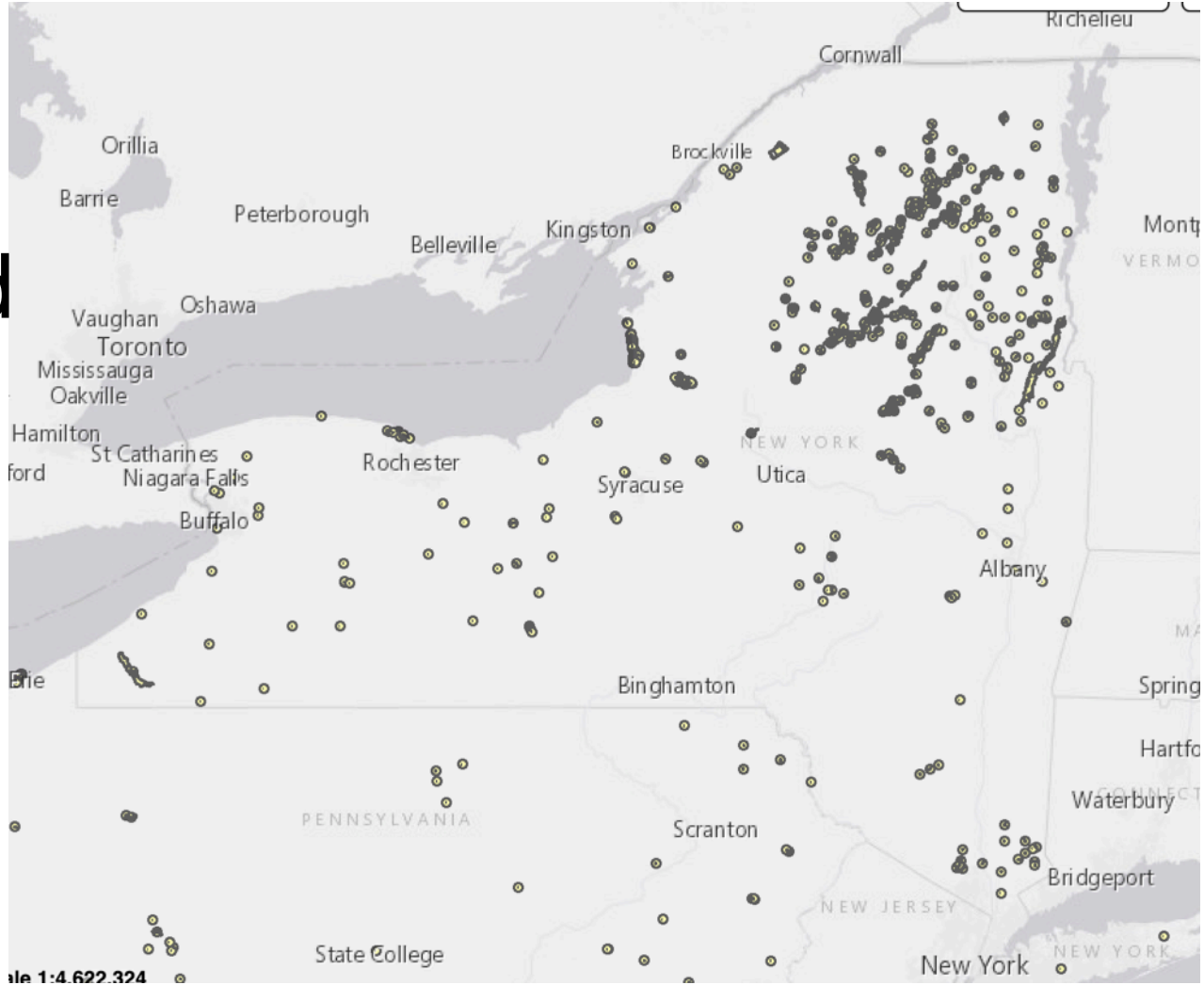
HWA – Not-Detected



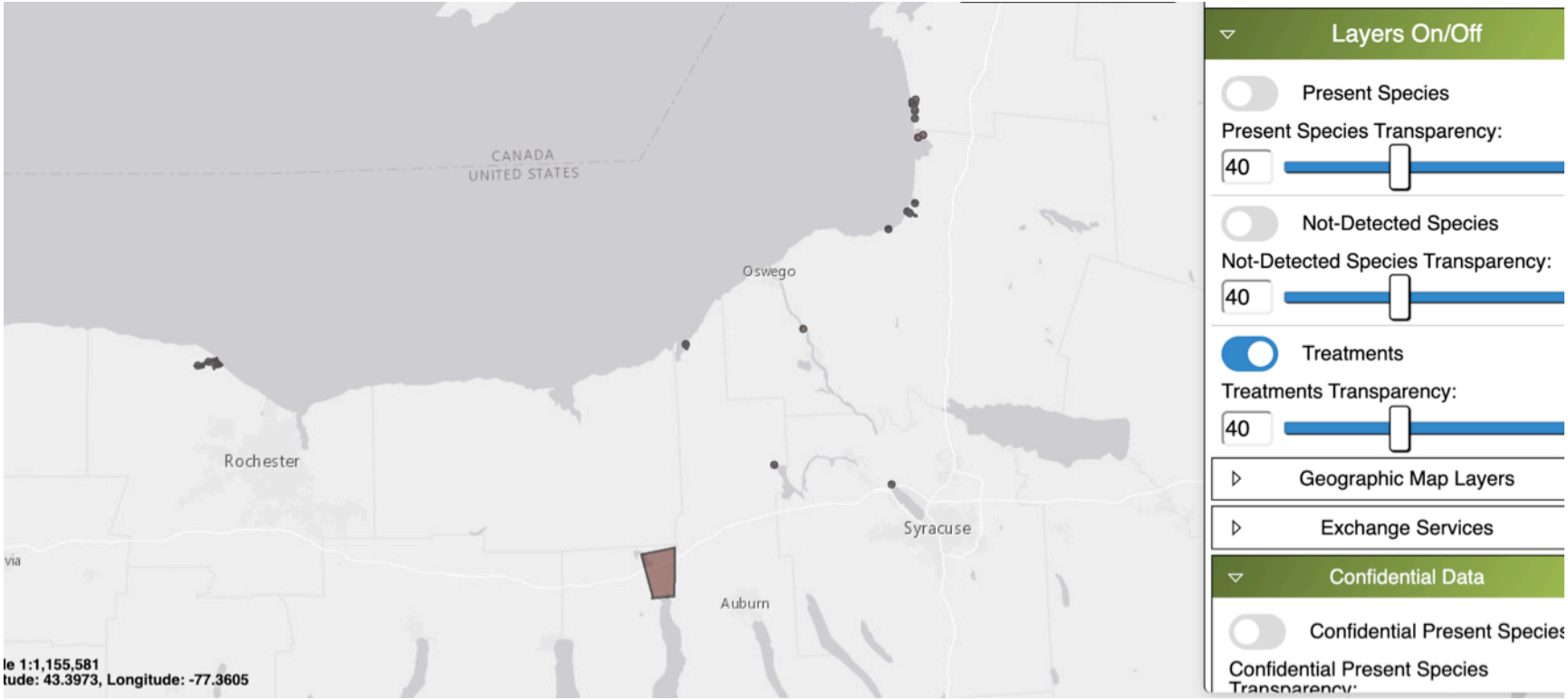
Water Chestnut - Present



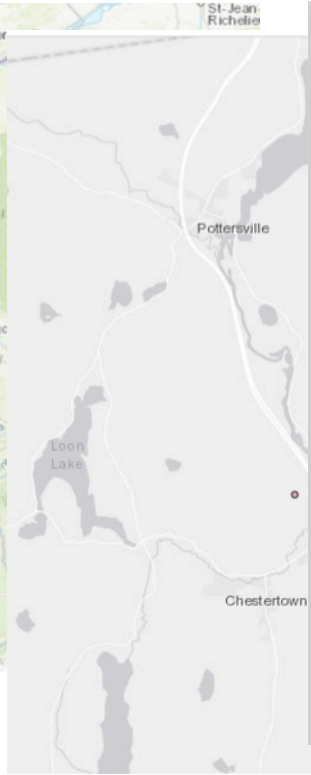
Water Chestnut – Not-Detected



Water Chestnut – Treatment



Jumping Worm – good photos important



https://modernfarmer.com/2019/03/meet-the-asian-jumping-worm-the-farmers-new-threat/

Tree-of-Heaven and Spotted Lanternfly

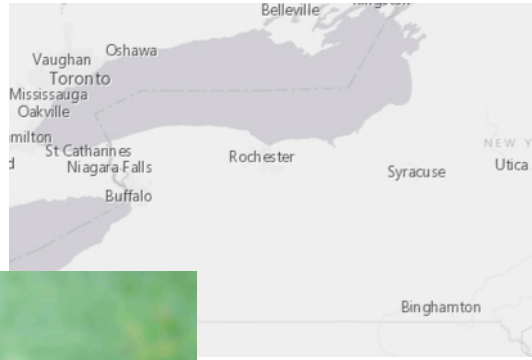
Adult spotted lanternfly
Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org

This Invasive Bug Could Hurt Pa. Beer and Wine Production

The spotted lanterfly feeds on more than 65 species of plants (including vegetables) and is a threat to timber, tree fruit orchards, grape, stone fruit and berry production — plus, researchers are now saying that it can kill hops. Read: It's threatening to hurt Pennsylvania beer and wine production.

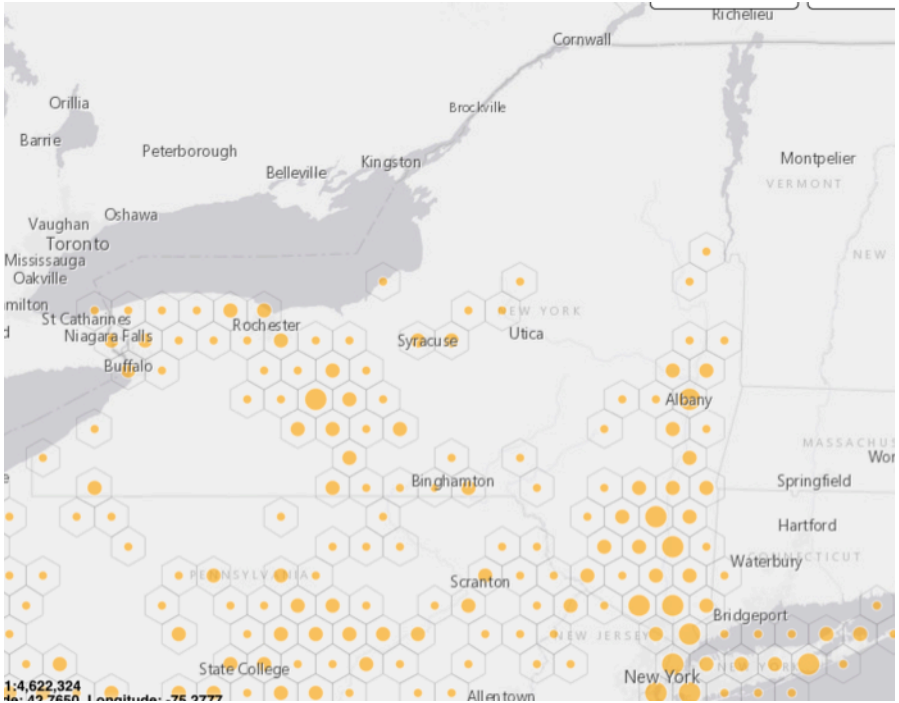
https://www.phillymag.com/news/2018/08/23/spotted-lanternfly-wine-beer/

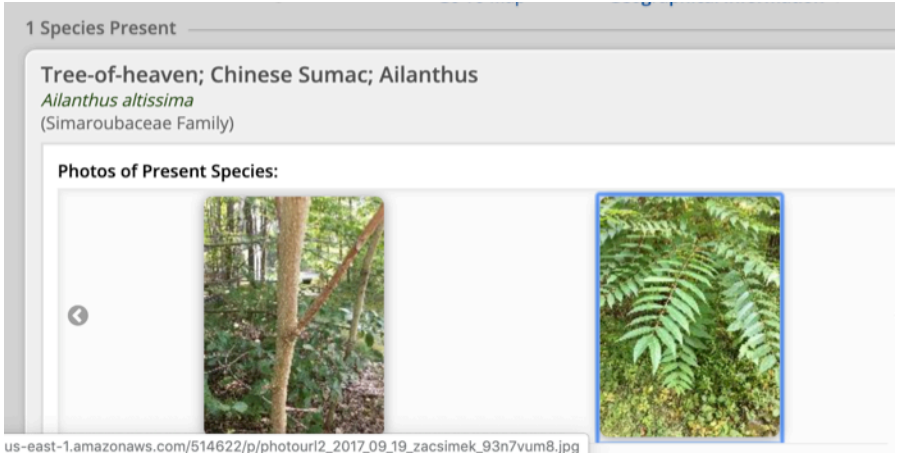
SLF - *Confidential*



Adult spotted lanternfly
Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org

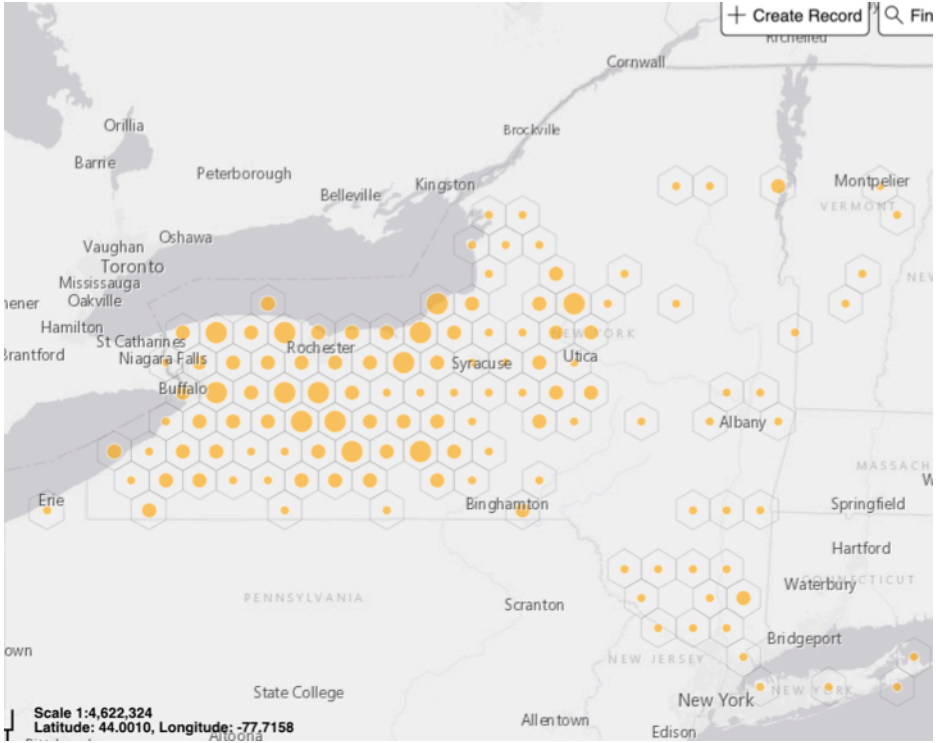
Tree of Heaven





Future

Giant Hogweed → Change over Time

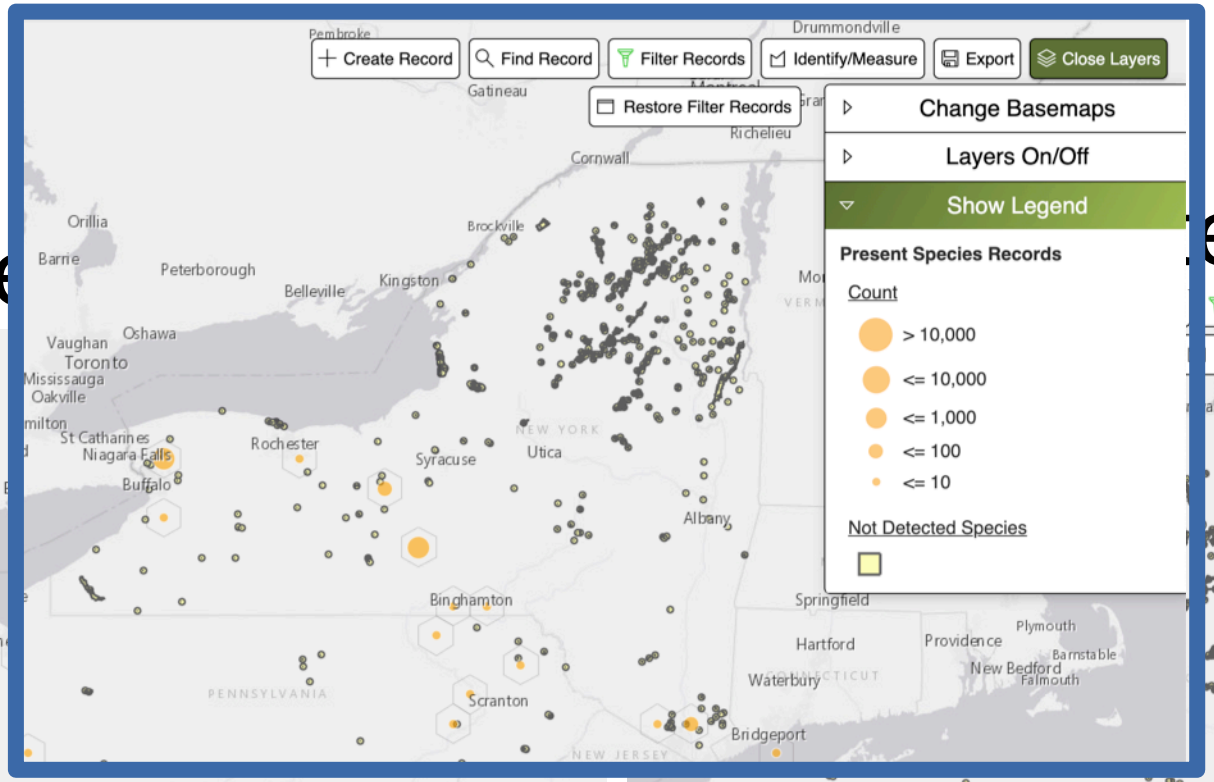


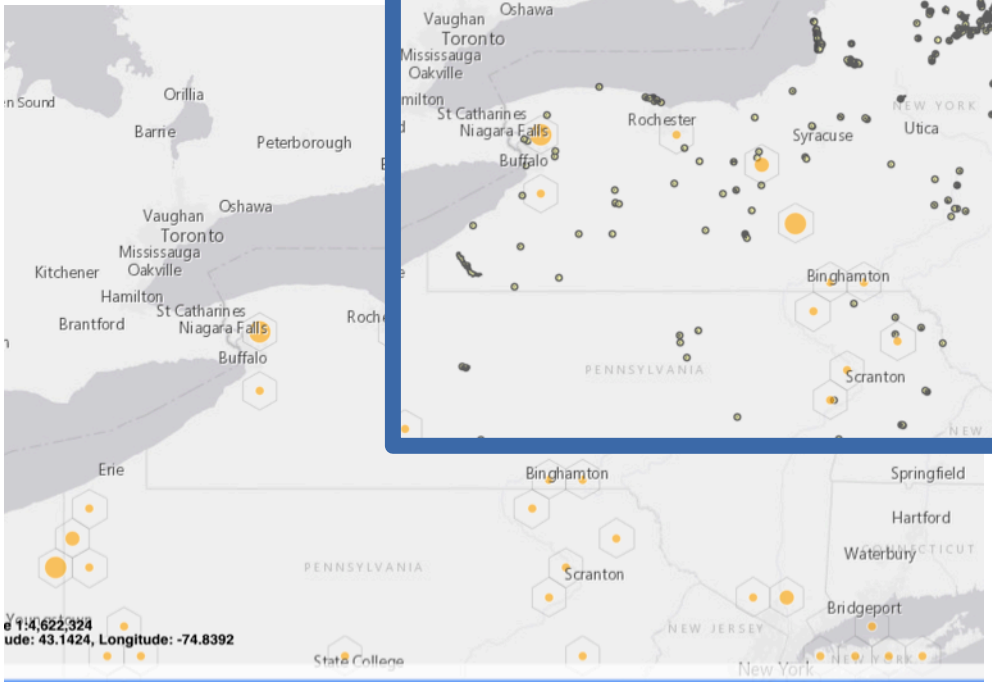
- ❑ Treatment
- ❑ Presumed Eliminated

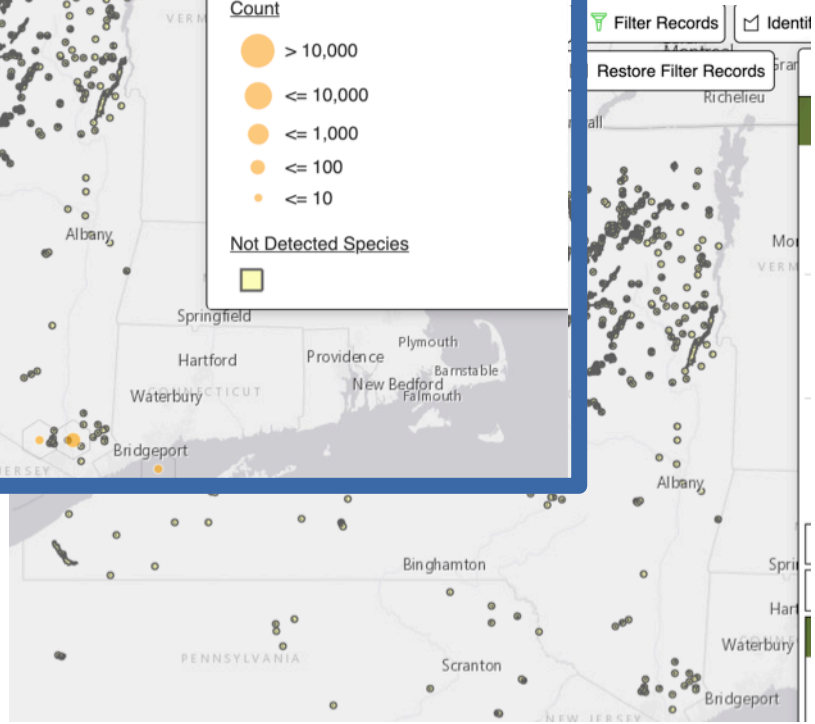
Hydrilla

Presence

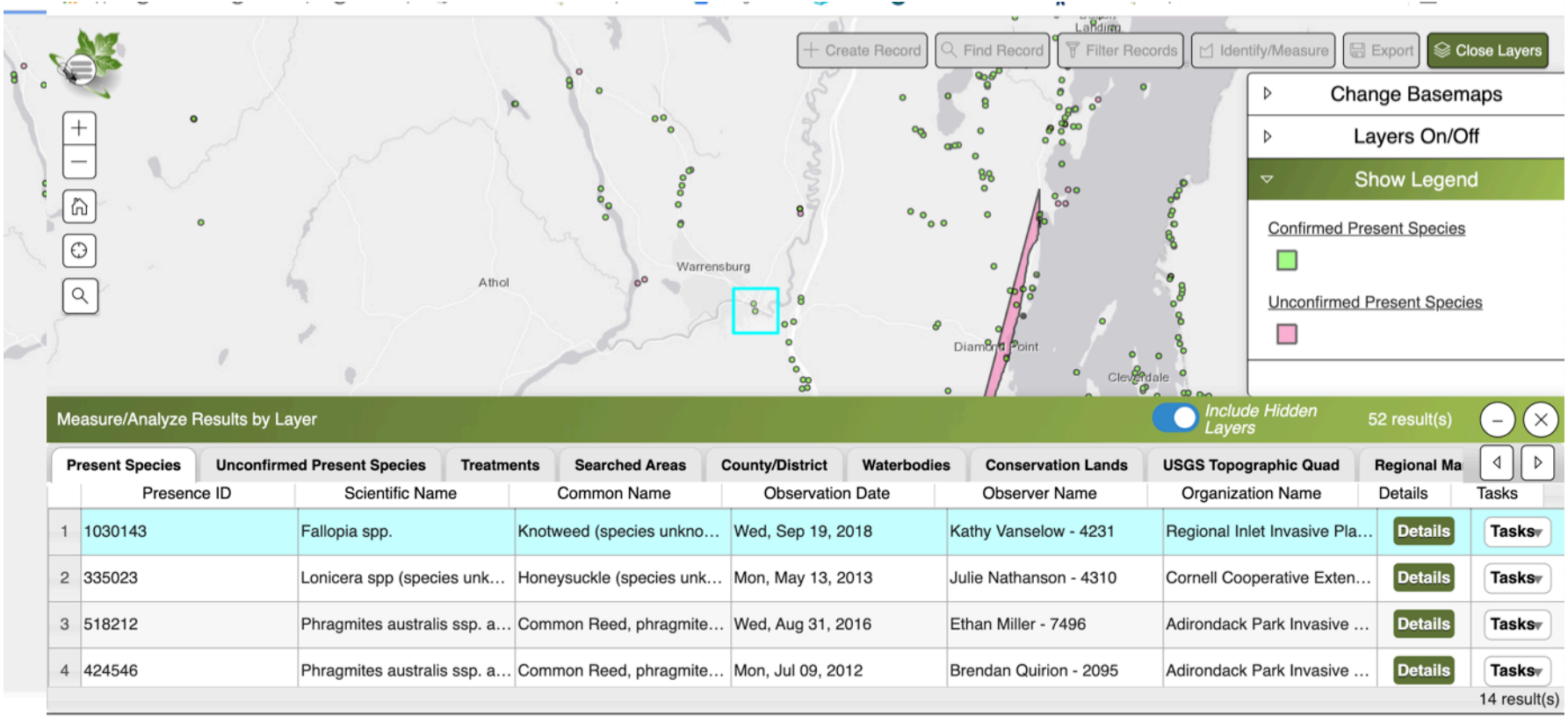
ected

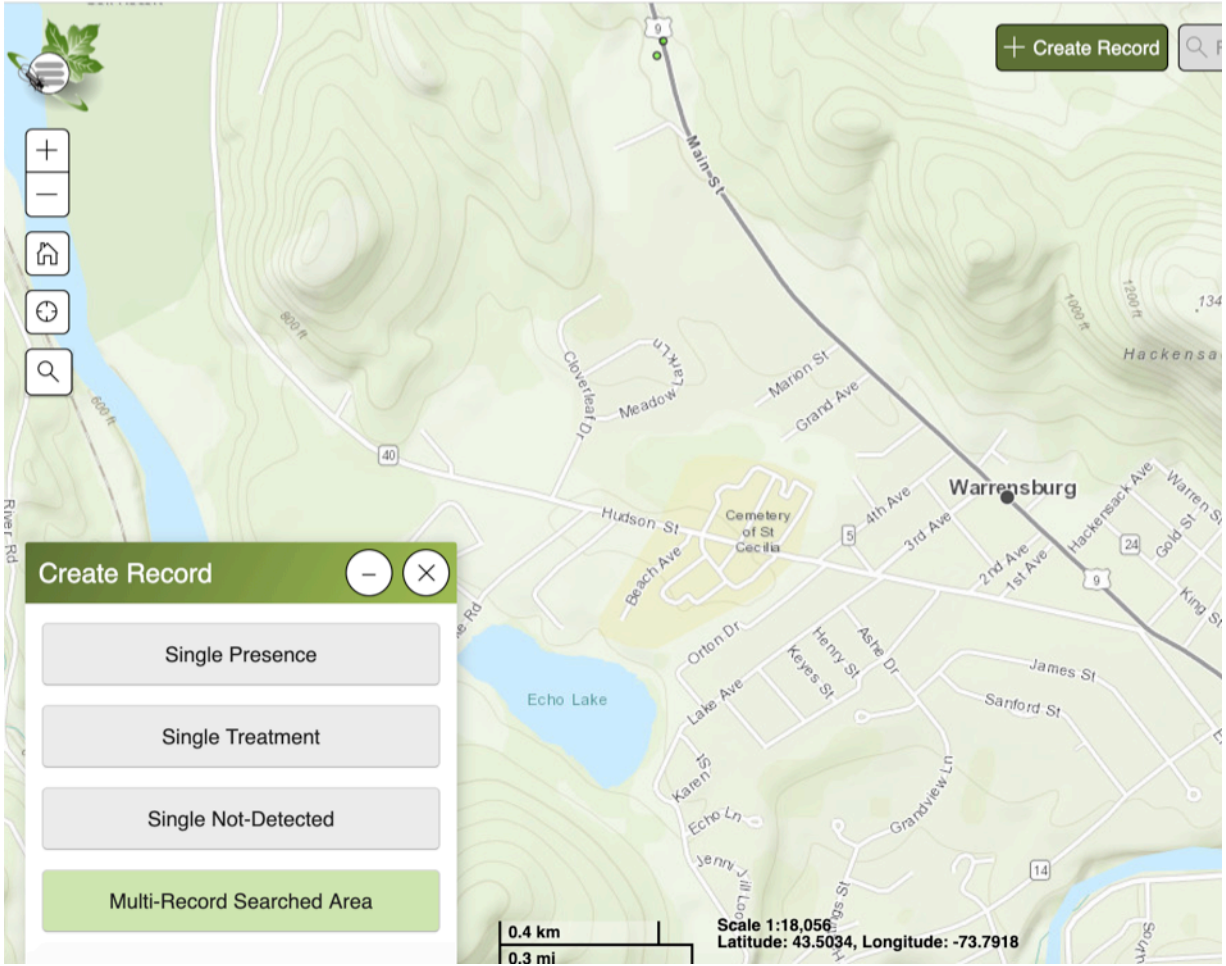


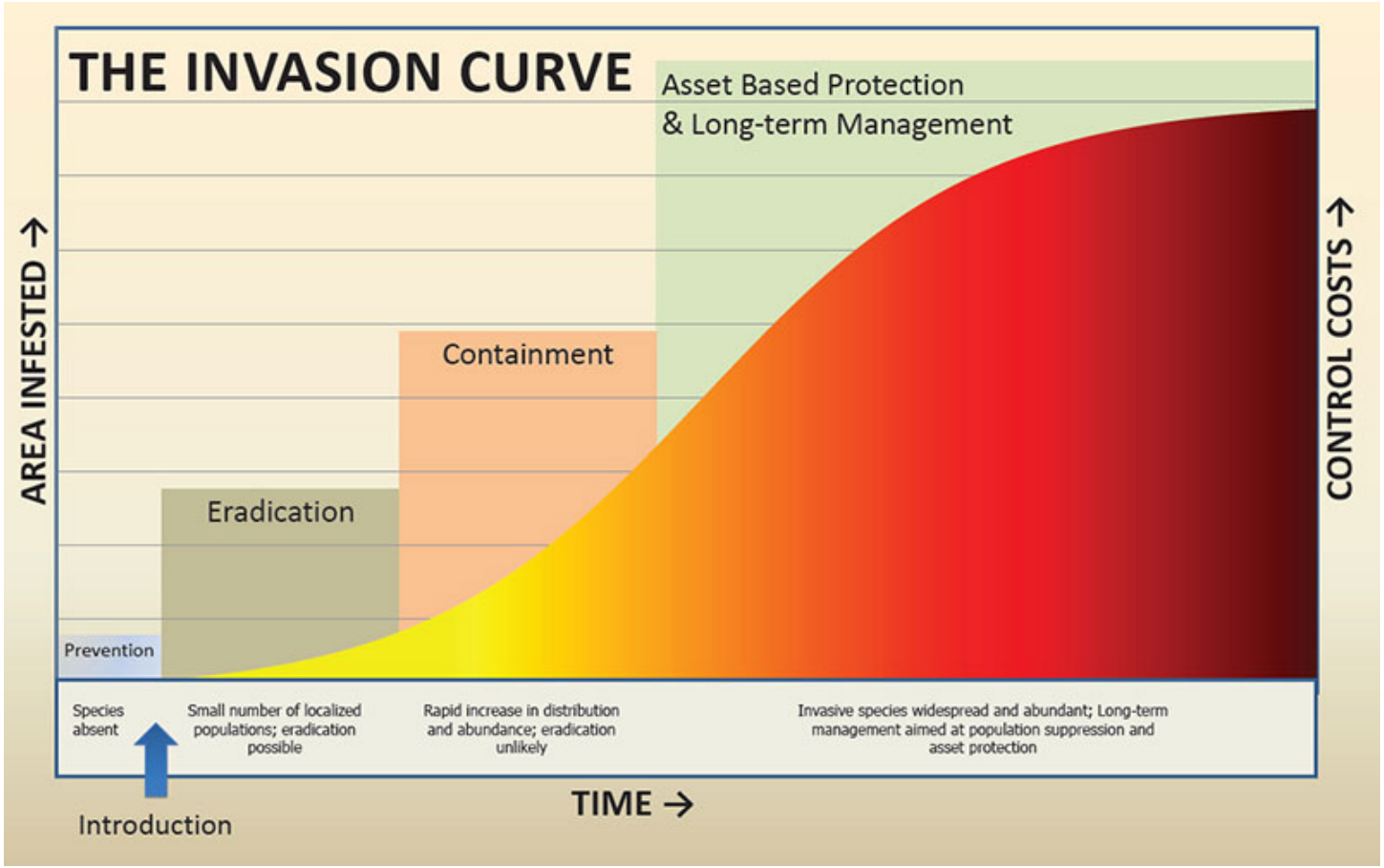




“Lasso Tool”


Create Record
Find Record
Filter Records
Identify/Measure
Export
Close Layers
Change Basemaps
Layers On/Off
Show Legend
Confirmed Present Species
Unconfirmed Present Species
Athol
Warrensburg
Diamond Point
Cleverdale
Measure/Analyze Results by Layer
Include Hidden Layers
52 result(s)
Present Species
Unconfirmed Present Species
Treatments
Searched Areas
County/District
Waterbodies
Conservation Lands
USGS Topographic Quad
Regional Ma
Presence ID
Scientific Name
Common Name
Observation Date
Observer Name
Organization Name
Details
Tasks
1 1030143 Fallopia spp. Knotweed (species unkno… Wed, Sep 19, 2018 Kathy Vanselow - 4231 Regional Inlet Invasive Pla… Details Tasks
2 335023 Lonicera spp (species unk… Honeysuckle (species unk… Mon, May 13, 2013 Julie Nathanson - 4310 Cornell Cooperative Exten… Details Tasks
3 518212 Phragmites australis ssp. a… Common Reed, phragmite… Wed, Aug 31, 2016 Ethan Miller - 7496 Adirondack Park Invasive … Details Tasks
4 424546 Phragmites australis ssp. a… Common Reed, phragmite… Mon, Jul 09, 2012 Brendan Quirion - 2095 Adirondack Park Invasive … Details Tasks
14 result(s)


Create Record
Create Record
Single Presence
Single Treatment
Single Not-Detected
Multi-Record Searched Area
Main St
Warrensburg
Hudson St
Cemetery of St Cecilia
Echo Lake
Lake Ave
Beach Ave
Orton Dr
Henry St
Keyes St
Astre Dr
James St
Sanford St
Grandview Ln
Echo Ln
Karen St
Jenny Jill Loop
Marion St
Grand Ave
Meadow Ln
Cloverleaf Dr
4th Ave
3rd Ave
2nd Ave
1st Ave
Hackensack Ave
Warren St
Gold St
King St
River Rd
0.4 km
0.3 mi
Scale 1:18,056
Latitude: 43.5034, Longitude: -73.7918


THE INVASION CURVE
Asset Based Protection
& Long-term Management
Containment
Eradication
Prevention
AREA INFESTED →
CONTROL COSTS →
Species absent
Small number of localized populations; eradication possible
Rapid increase in distribution and abundance; eradication unlikely
Invasive species widespread and abundant; Long-term management aimed at population suppression and asset protection
Introduction
TIME →

Email Alerts

"APIPP - JK & Bohemian & Giant" Daily Alert

Active

Email Settings:

Alert Name: APIPP - JK & Bohemian & Giant

Frequency: Daily

Send an email digest every day at: 7:00 AM

Criteria:

Alert on: New/modified records, including unconfirmed

Species: Species Name

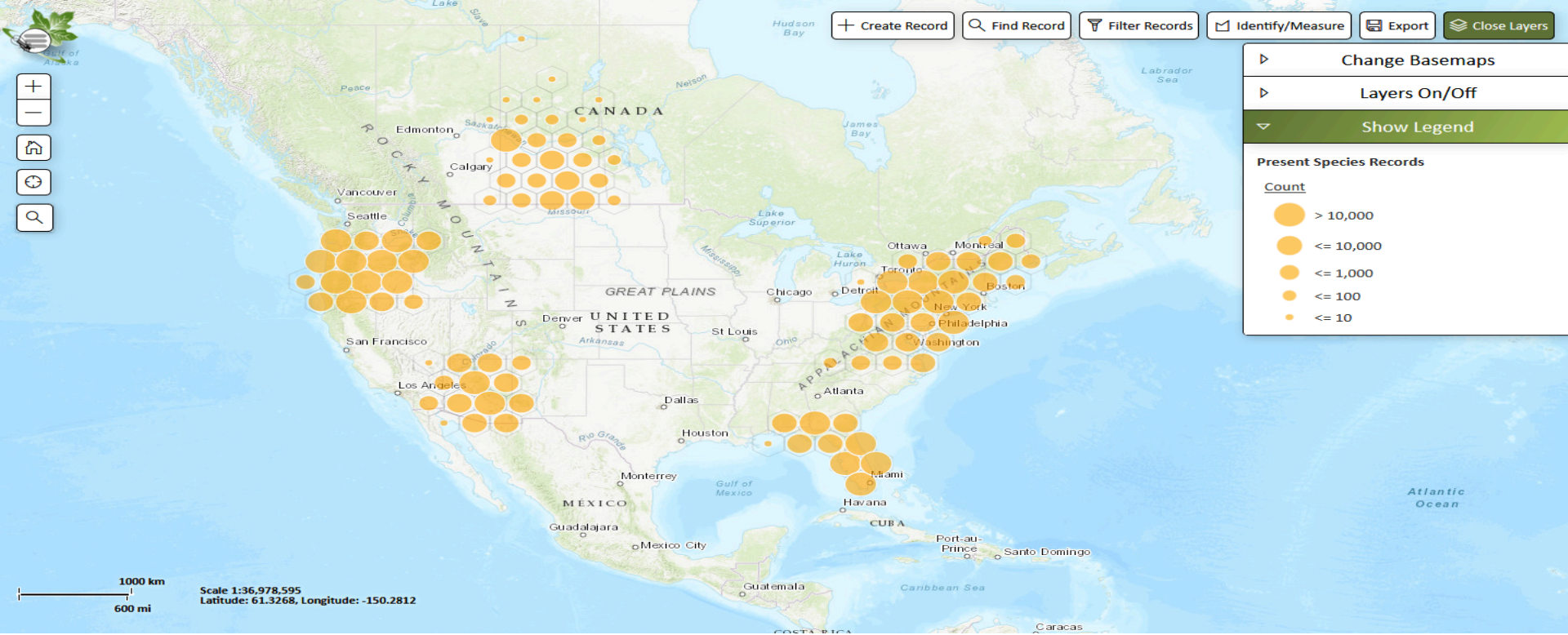
Location: Geography Type

Species Names: Japanese Knotweed (Polygonum cuspidatum), Giant Knotweed (Fallopia sachalinensis), Bohemian knotweed (Polygonum x bohemicum)

Geography Type: Regional Management Partnership

Regional Management Partnership: APIPP

Created On: 7/1/2019 Last Updated On: 9/16/2019



*i*MapInvasives Online
www.nyimapinvasives.org

NOW

Web Application

The whole Database: On the web

Browser-based interface for your desktop or mobile phone, *with connectivity*

Next "#3"

Mobile App

Collecting Simple Data: iMap Mobile app

Download to your mobile phone or tablet, *no connectivity needed to collect data*

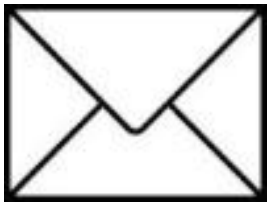
iMap Online to do list:

- ❑ Open your web browser via smart phone or tablet
- ❑ Type in www.nyimapinvasives.org
- ❑ Login
- ❑ View map and check out tools (i.e. zoom function, find my location, search, etc.)
- ❑ Change base maps (i.e. topographic, satellite, etc.)
- ❑ Use the lasso tool
- ❑ Create record – “fake species”

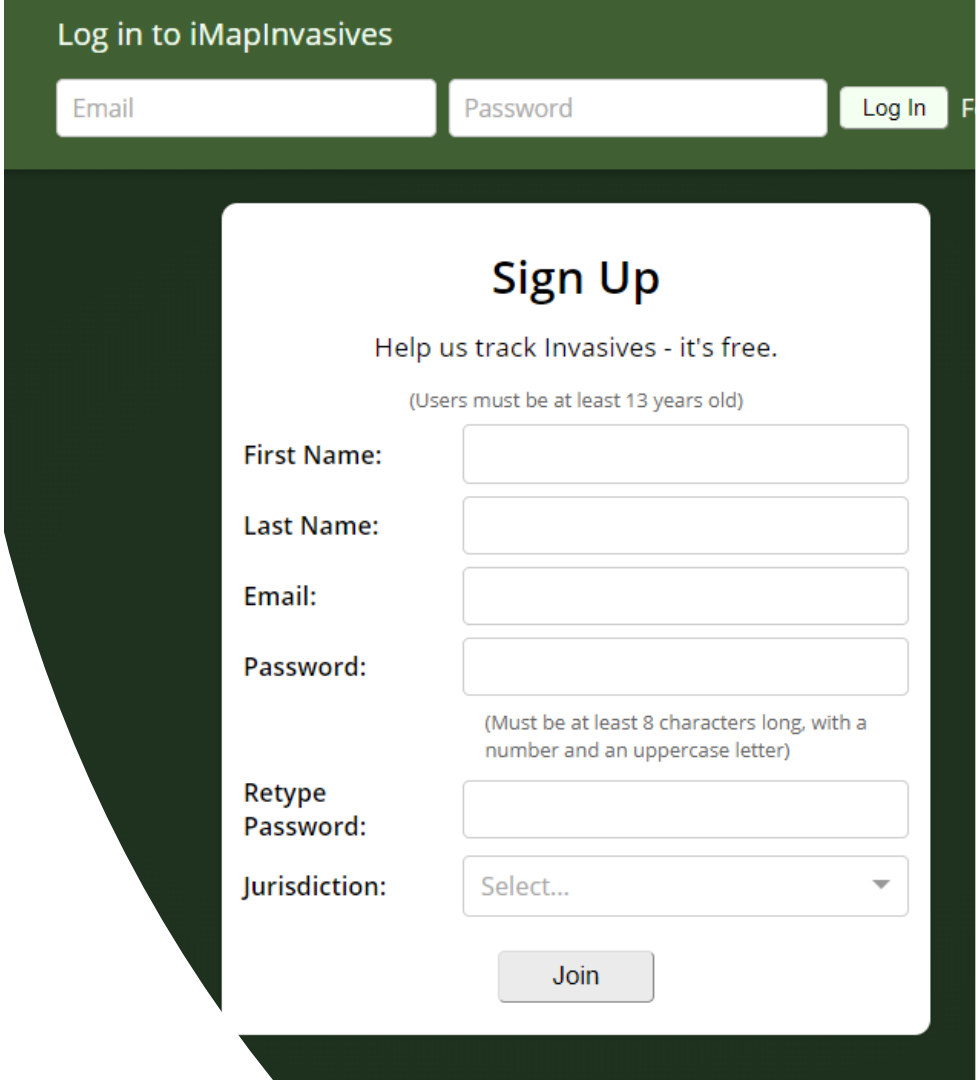
Create an *i*MapInvasives Account at:

www.imapinvasives.org

*Pick your home state



Check your email for the activation link!



iMap Online to do list:

(Completed?)

- ❑ Open your web browser via smart phone or tablet
- ❑ Type in www.nyimapinvasives.org
- ❑ Login
- ❑ View map and check out tools (i.e. zoom function, find my location, search, etc.)
- ❑ Change base maps (i.e. topographic, satellite, etc.)
- ❑ Use the lasso tool
- ❑ Create record – “fake species”

"Connectivity Sandwich"

- WITH connectivity: Download & Initialize
- In the Field: NO connectivity required
- WITH connectivity: Upload data to iMap

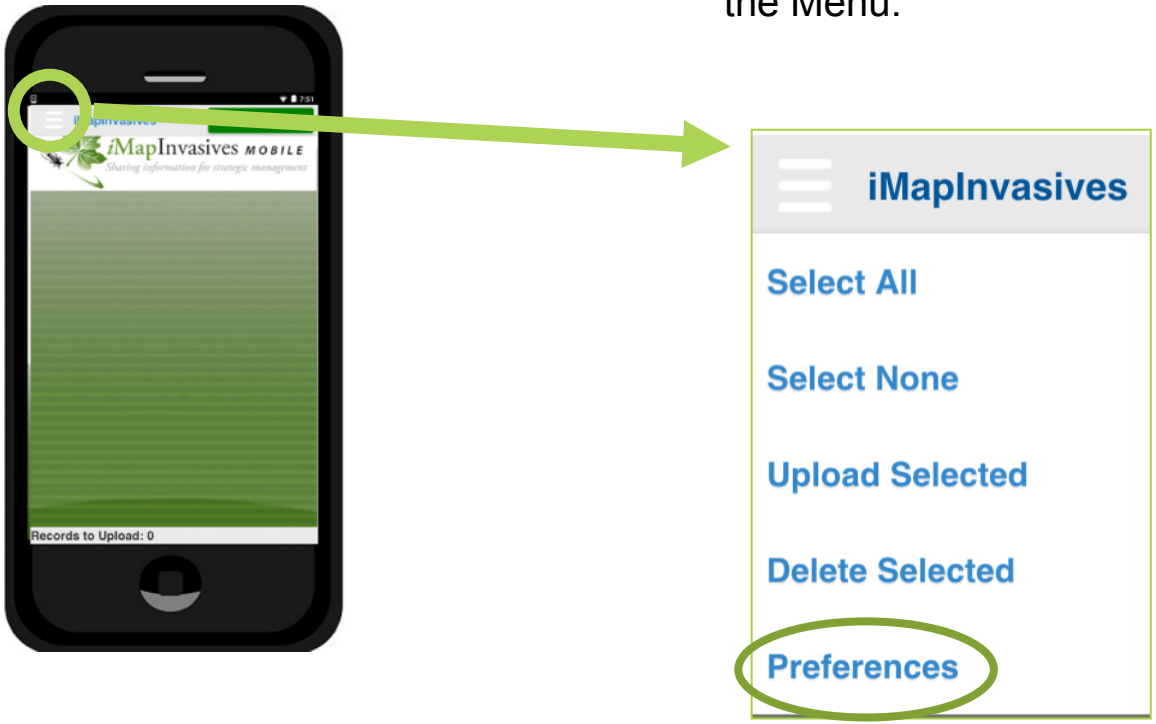
Mobile Application

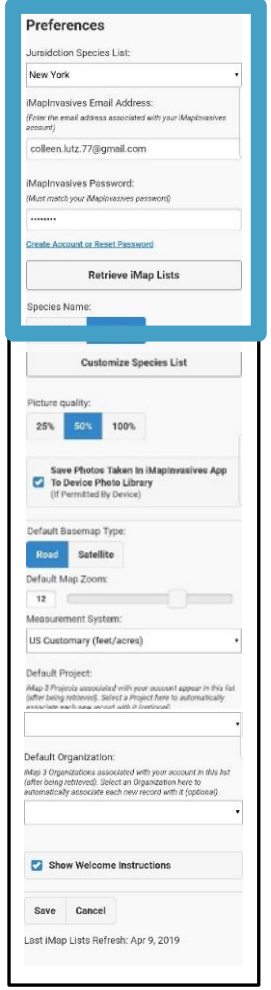
iMap Mobile App to do list:

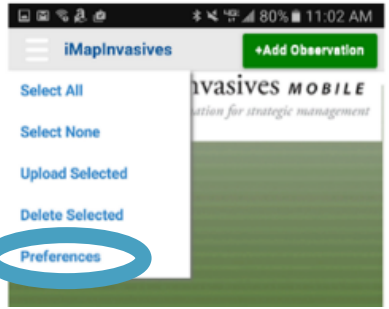
- ❑ Login
- ❑ Set preferences
  - NY
  - Username – email address
  - Password; iMap3 password; must set online
  - Retrieve Lists
  - Create Custom species list
- ❑ Add an observation for “Fake Species”
- ❑ Select and upload the “Fake Species” Record
- ❑ Check online – zoom to location, then:
  - Identify/Measure Tool (aka the “Lasso Tool”)
  - “See what’s here”

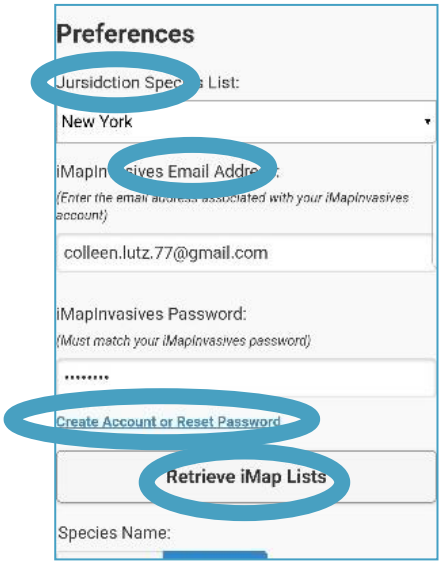
Home Page

From the home page users can add a new observation record, view records already collected and access all other functionality via the Menu.









Preferences

"Preferences" are your customized user settings. You will need to fill in your iMapInvasives account information to upload reports to the database.

1. Select Jurisdiction: New York; used across North America

2. User ID: Email (must match online account!)

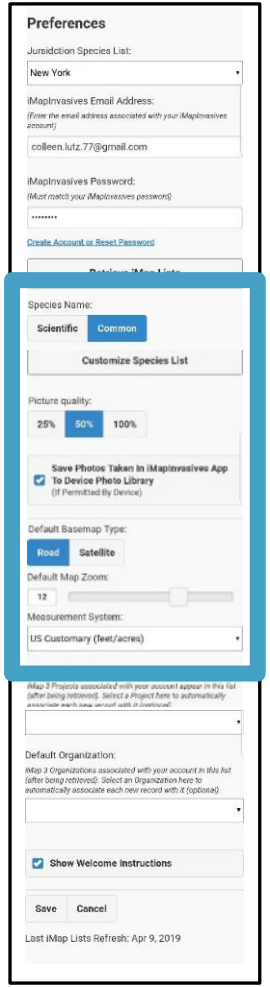
3. Password: Make sure you reset if you had iMap2 account

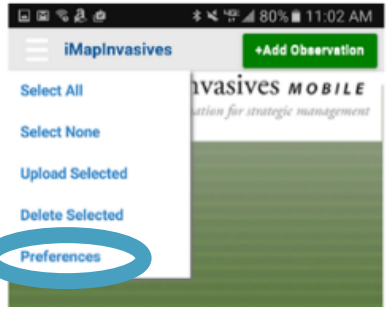
4. Create Account or Reset password
   → Opens web browser!

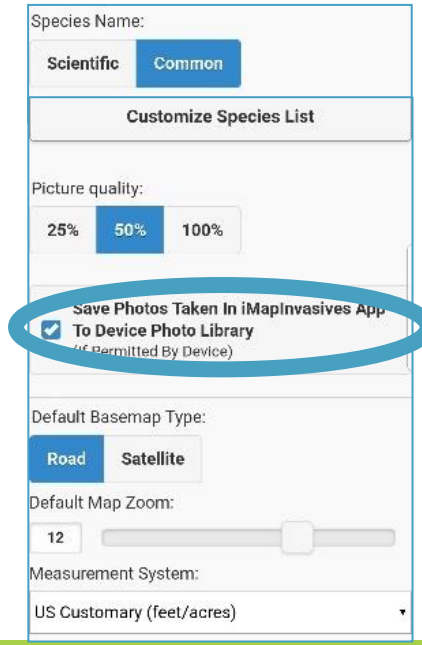
1. Retrieve iMap Lists (for your Jurisdiction)
   App will notify you once completed

Preferences

“Preferences” are your customized user settings. You will need to fill in your iMapInvasives account information to upload reports to the database.



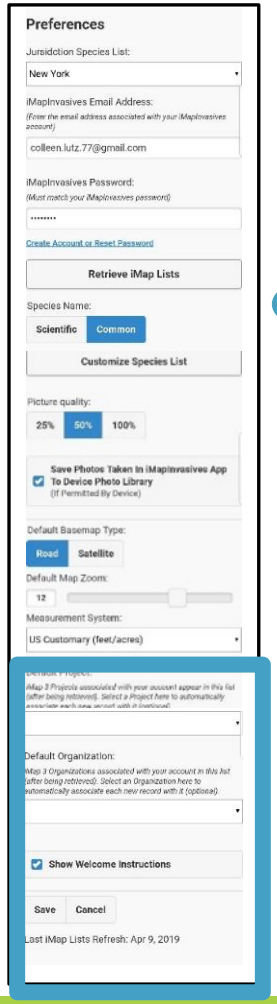


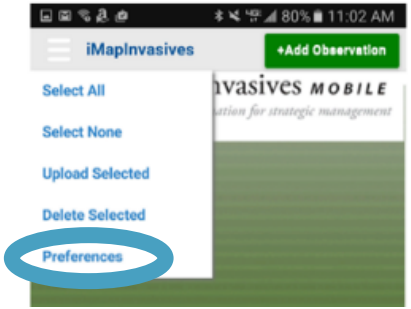


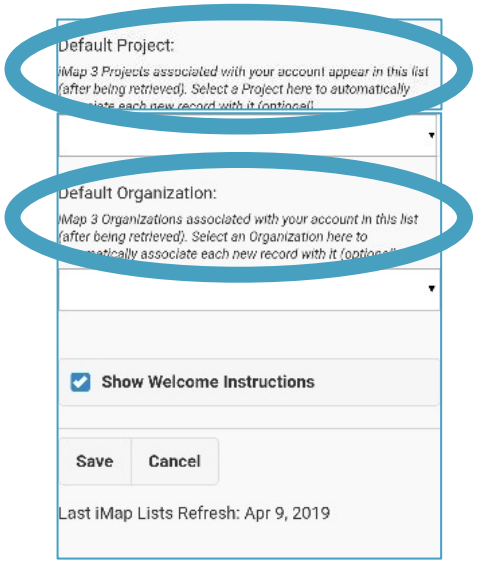
1. Species name: View lists as scientific or common names
2. Create a custom list (optional)
   Can base on what you know, what’s in your region
   Makes creating species observations faster
3. Picture Quality: Size of photo being uploaded
   Recommend 100% for best quality ☺
4. Save your picture to your devices photo library
   This requires permission from the device

Preferences

“Preferences” are your customized user settings. You will need to fill in your iMapInvasives account information to upload reports to the database.







1. Default project
   Only projects users has been added to will appear
   PROJECT LEADERS:
   - Check your projects
   - Ensure your users have been added
   - Or email them as a group and have them check ☺
2. **Default organization**
   Must set-up online
3. Remember to save your changes!

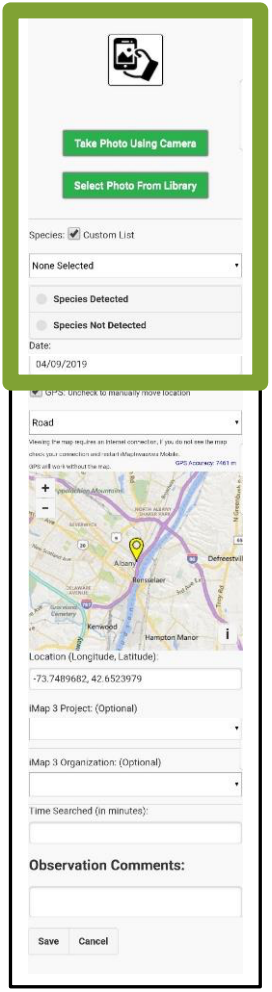
Home Page

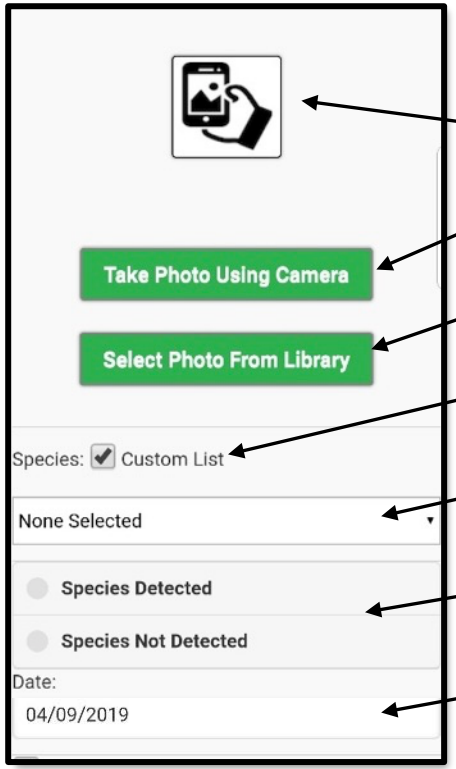
From the home page users can add a new observation record, view records already collected and access all other functionality via the Menu.

+Add Observation

Observation Record

Make new reports of invasive species and edit existing records here!





Take photo with camera

Upload photo from library

Toggle species list: Custom or Full

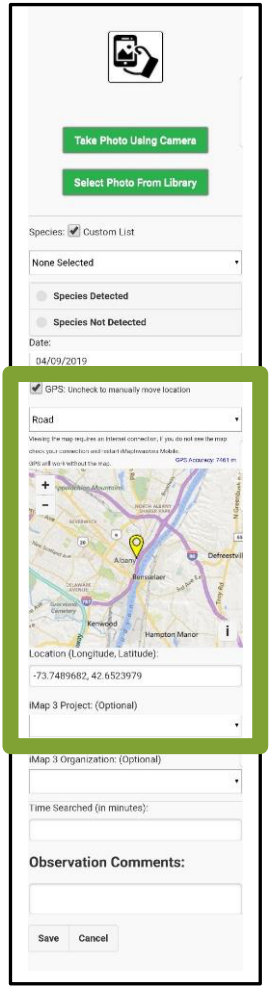
Select Species

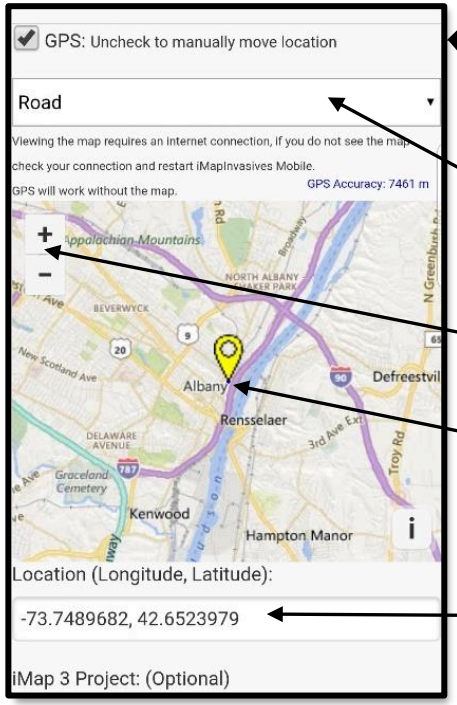
Select Detected or Not Detected

Date - auto

Observation Record

Make new reports of invasive species and edit existing records here!





Checked to automatically track location

To manually edit location, uncheck the GPS box, touch and hold the map push pin. Drag it to the location of the invasive.

Change basemap view

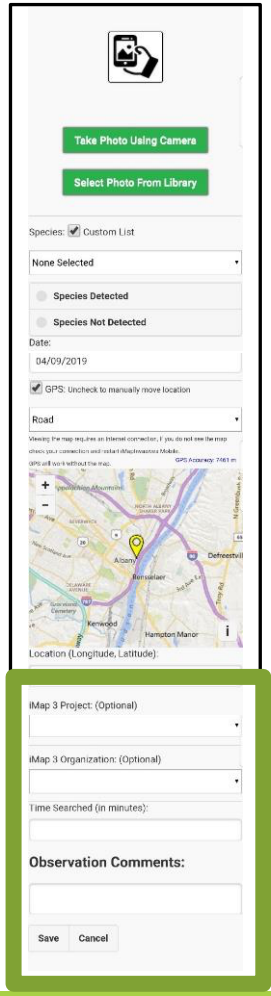
Zoom In or Out

Your location

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

Observation Record

Make new reports of invasive species and edit existing records here!



Select your project

Select your organization

Enter the approximate time you were searching for invasive species

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

Remember to save your changes!

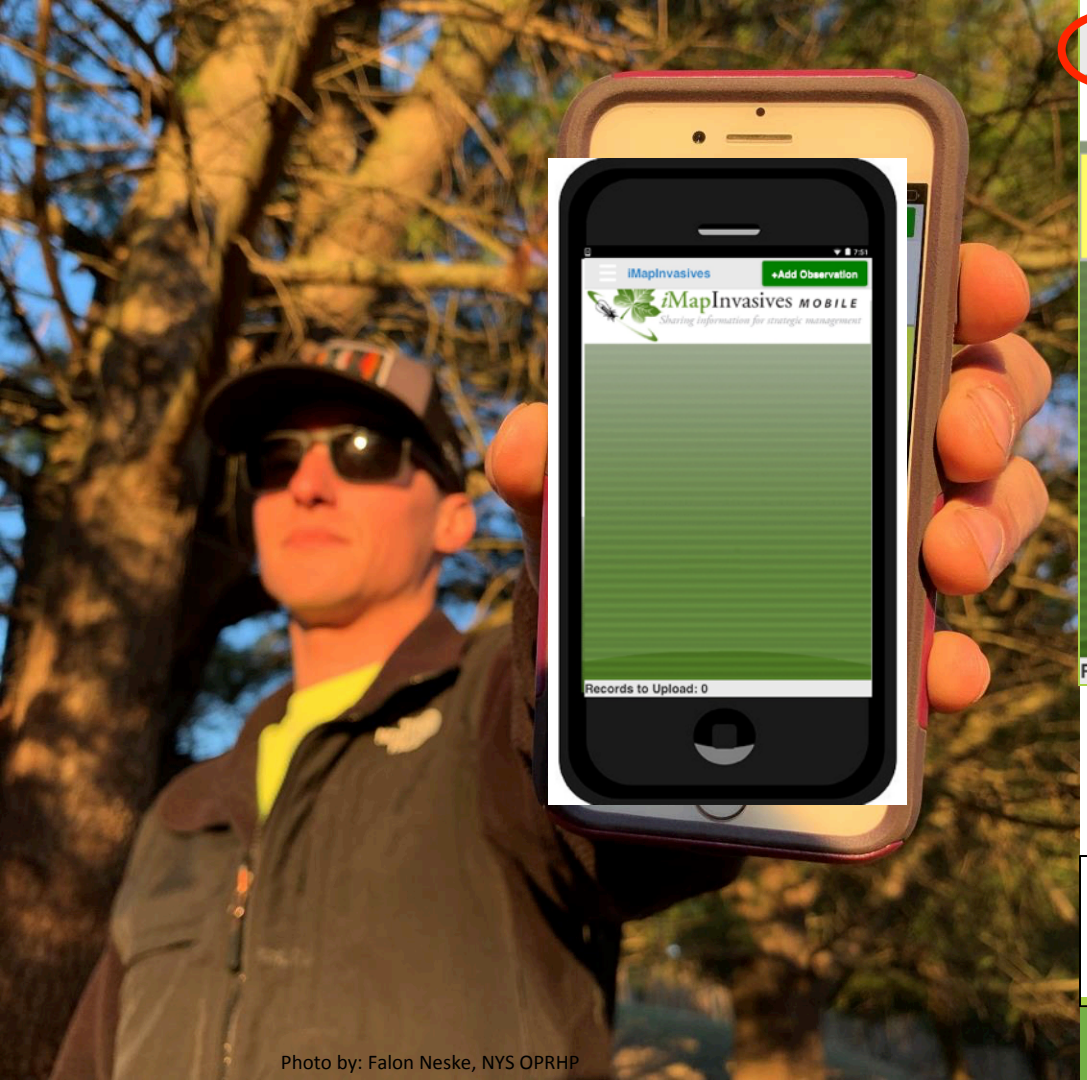
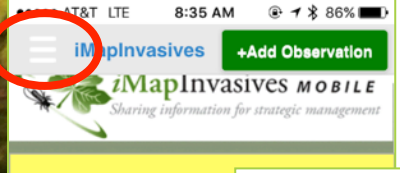
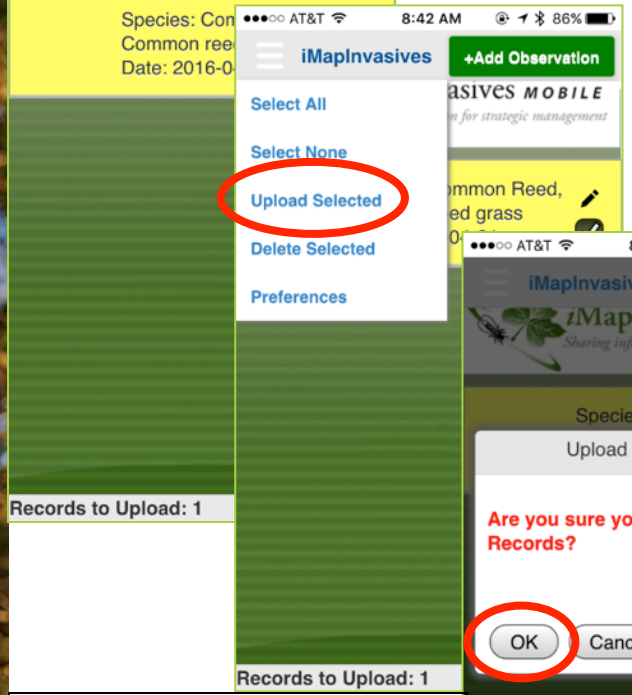
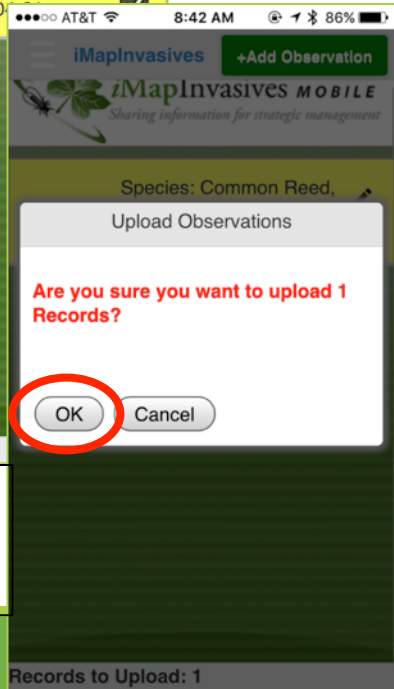


Photo by: Falon Neske, NYS OPRHP







Manually select each box or Menu; Select All

Completed?

iMap Mobile App to do list:

- ❑ Login
- ❑ Set preferences
  - NY
  - Username – email address
  - Password; iMap3 password; must set online
  - Retrieve Lists
  - Create Custom species list
- ❑ Add an observation for “Fake Species”
- ❑ Select and upload the “Fake Species” Record
- ❑ Check online – zoom to location, then:
  - Identify/Measure Tool (aka the “Lasso Tool”)
  - “See what’s here”

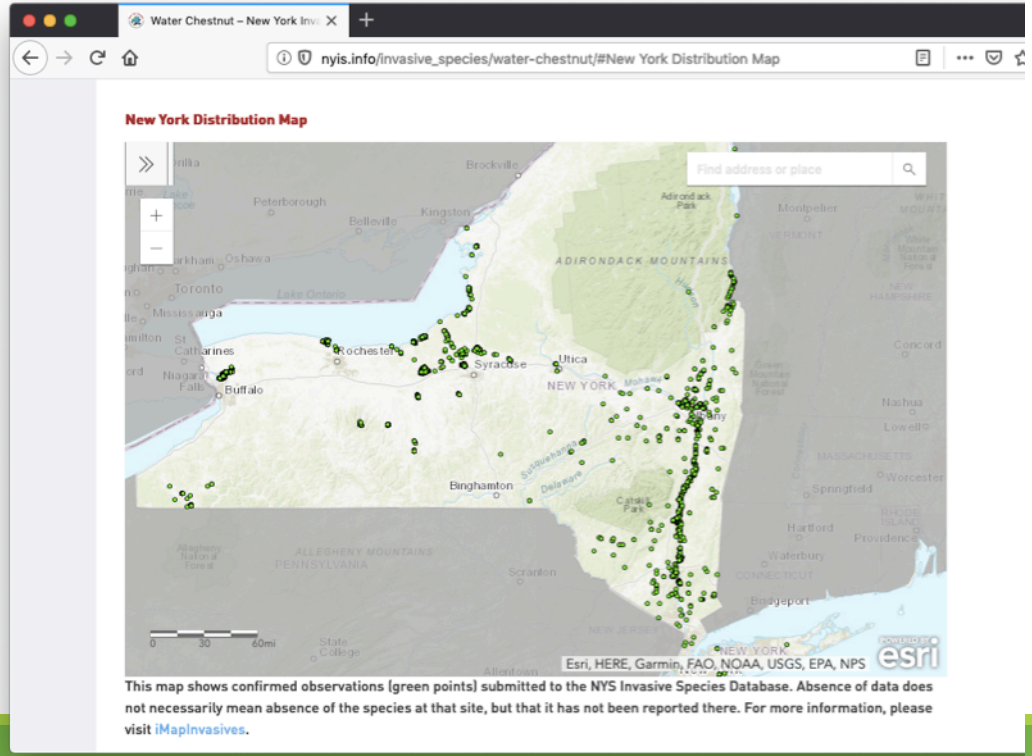
Can you identify this species?
What are some key features in the photos?
How could you improve the photos?

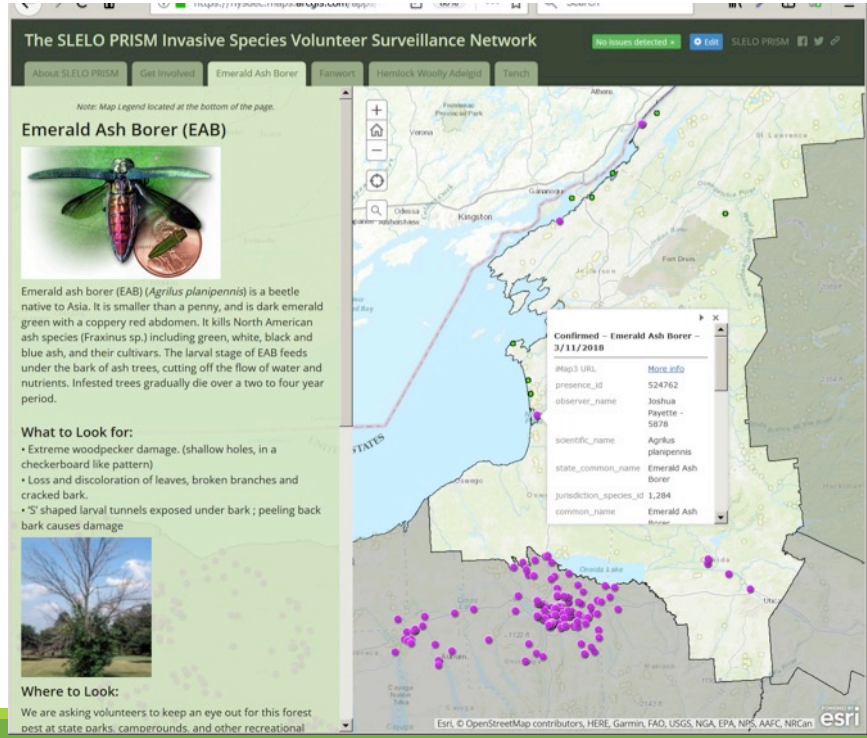
Not-so-Great Photos!

I. iMap3 Online
II. iMap Mobile App
III. → iMap3 Web Map Services (WMS)

Web Map Services (WMS)

→ *Custom Views of iMap data*





Development and Assessment of the iMapInvasives Certified Trainers Network

To become a Certified Trainer, individuals were required to

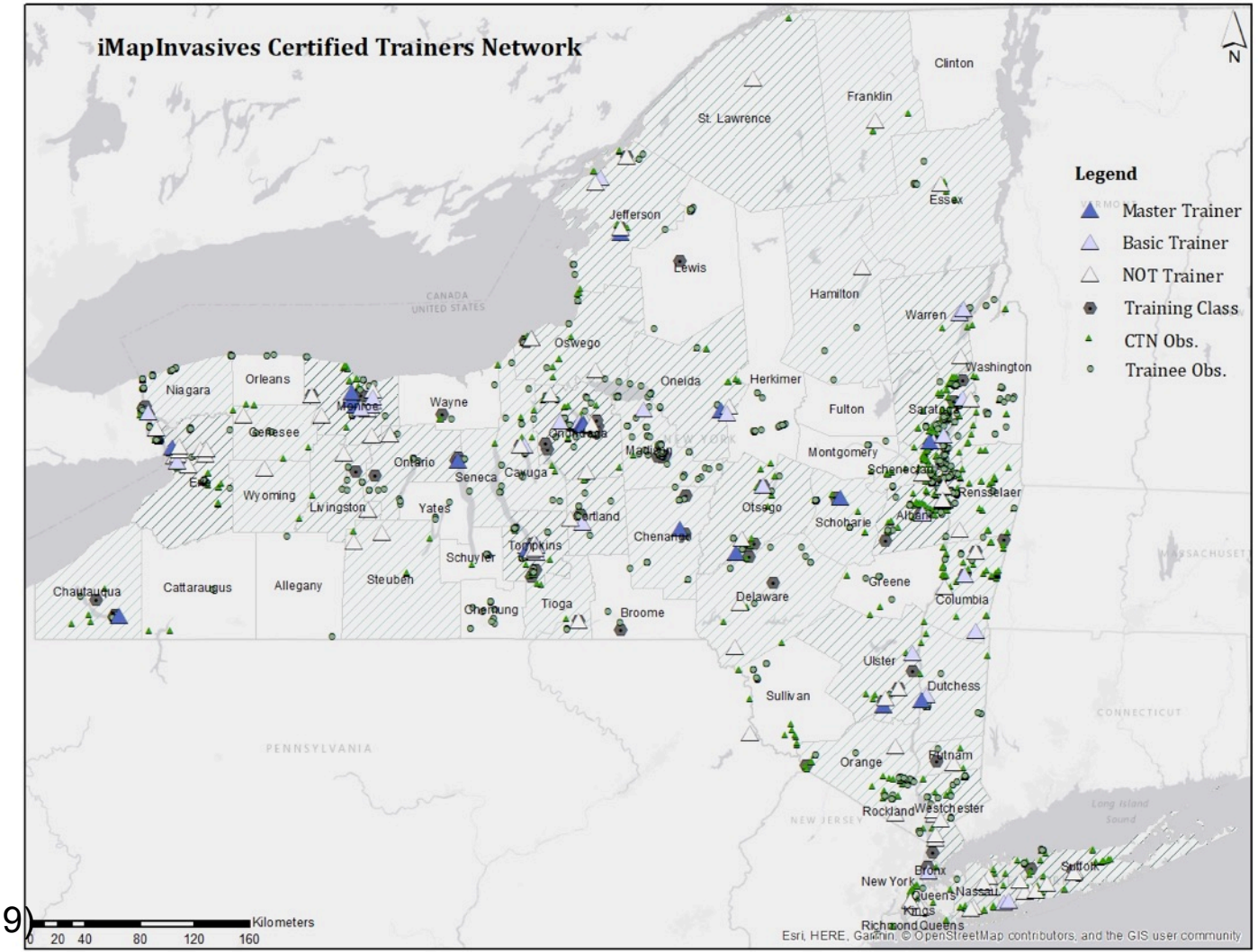
1) attend a standardized initial training webinar
2) submit a certification plan
3) host their first training.

- ***Basic Trainer:***
  - Host 1+ trainings in your community
  - Host 1+ training per year
- ***Master Trainer:***
  - Host 3+ trainings in your community
  - Host 2+ training per year

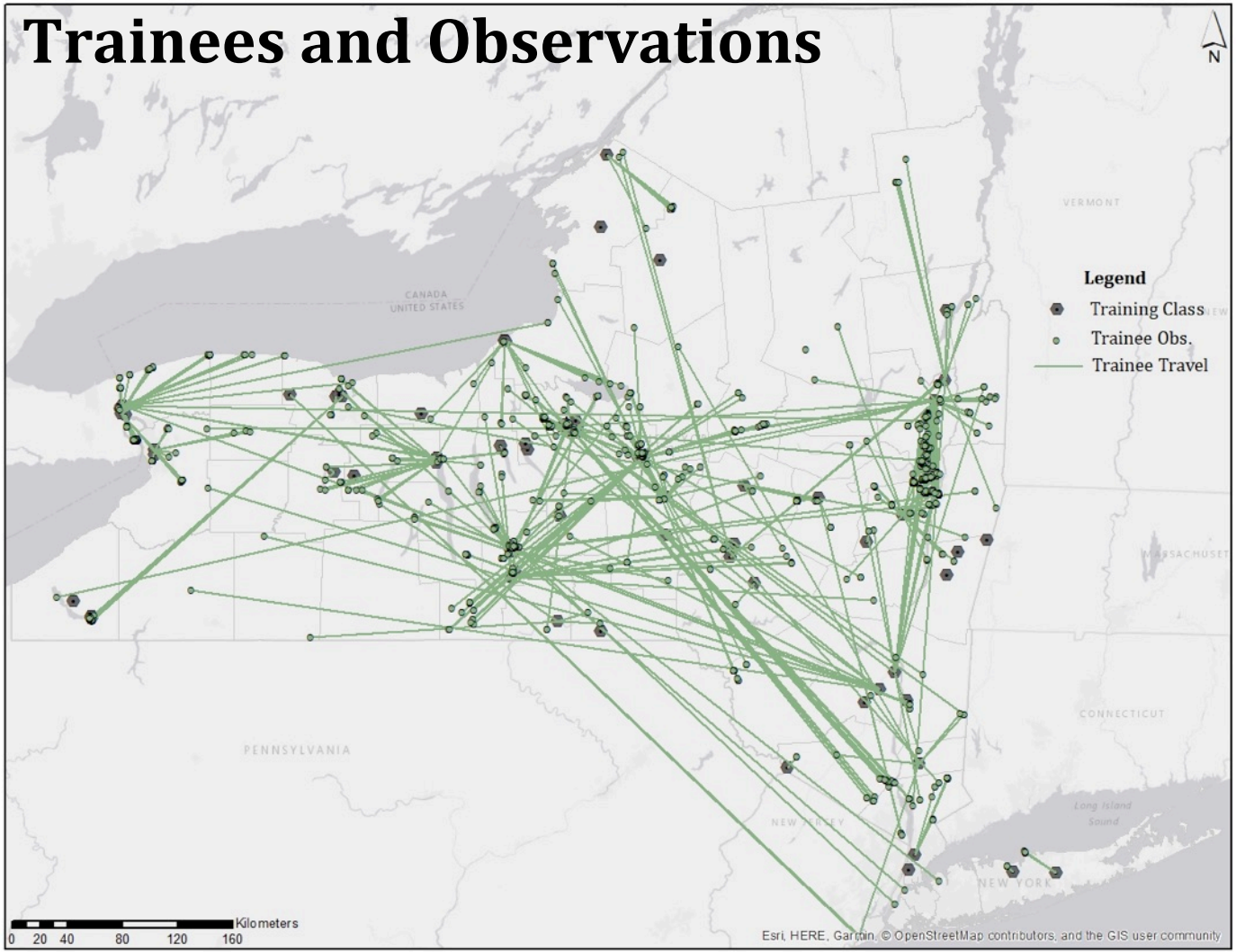
Trainers Network:

131 Members
53 Trainers
77 Trainings
1,020 Trainees

(October 2017-March 2019)



Trainees and Observations



1,020 Trainees
24.1 % Reporters
2,942 Total Obs.

Travel:
Minimum: .06 km
Maximum: 482 km

Average: 39.7 km

Questions? *Thank You!!*

*i*MapInvasives Help Resources

iMap Network help documents
www.imapinvasives.org/help

New York iMap Resources
www.nyimapinvasives.org

iMap Email
iMapInvasives@dec.ny.gov

YouTube **iMapInvasives 3.0 Webinar Training Series**