



Department of
Environmental
Conservation

Hemlock Woolly Adelgid

Biology, Identification, and Management

January 27, 2018

What is Hemlock Woolly Adelgid (HWA)?

An invasive pest of hemlock trees.

Adelges tsugae

Family *Adelgidae* is closely related to aphids

(sometimes referred to as woolly conifer aphids)



Hemlock Woolly Adelgid: The Problem

Asexual reproduction (all females)

- **One individual** can start a new population
- **High Reproductive Potential**
 - 2 generations per year & up to 200 eggs/female, but generally less
 - $1 \times 100 \times 50 = 5,000$ potential progeny from 1 female/yr.

Native natural enemies are lacking in the Eastern US

- Classical biocontrol efforts are ongoing

No documented resistance by Eastern or Carolina hemlock



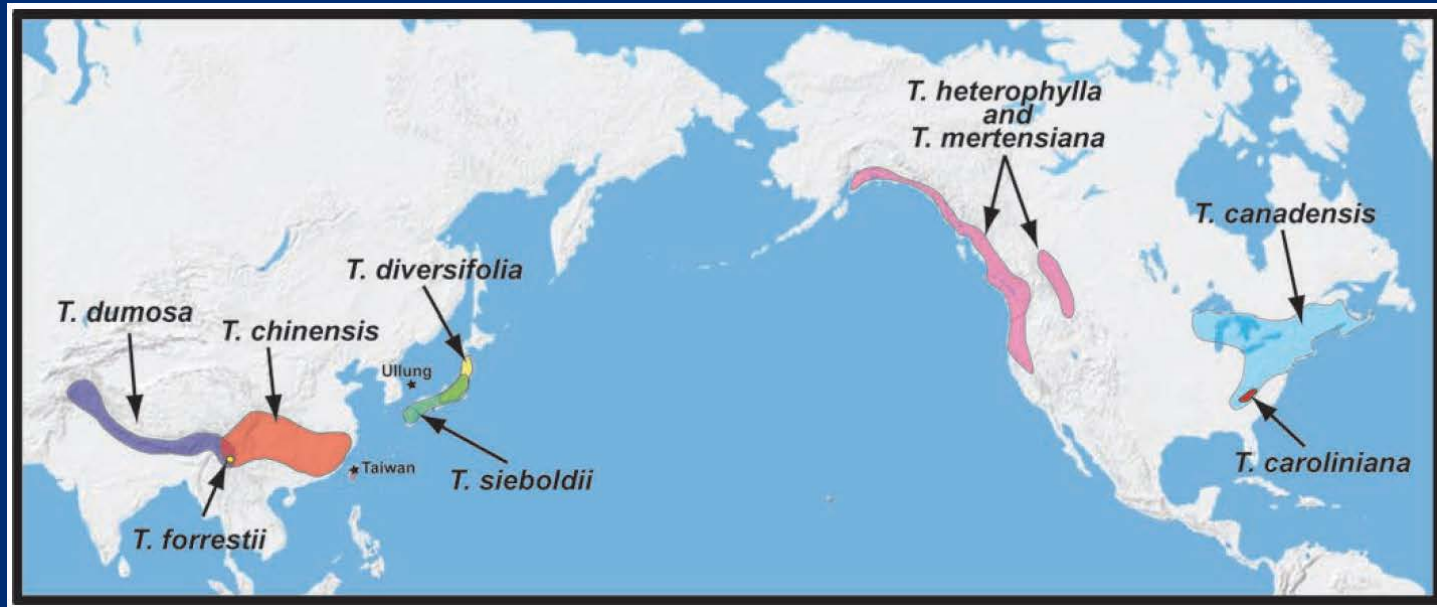


Adult

Kelly Oten, Bugwood.org



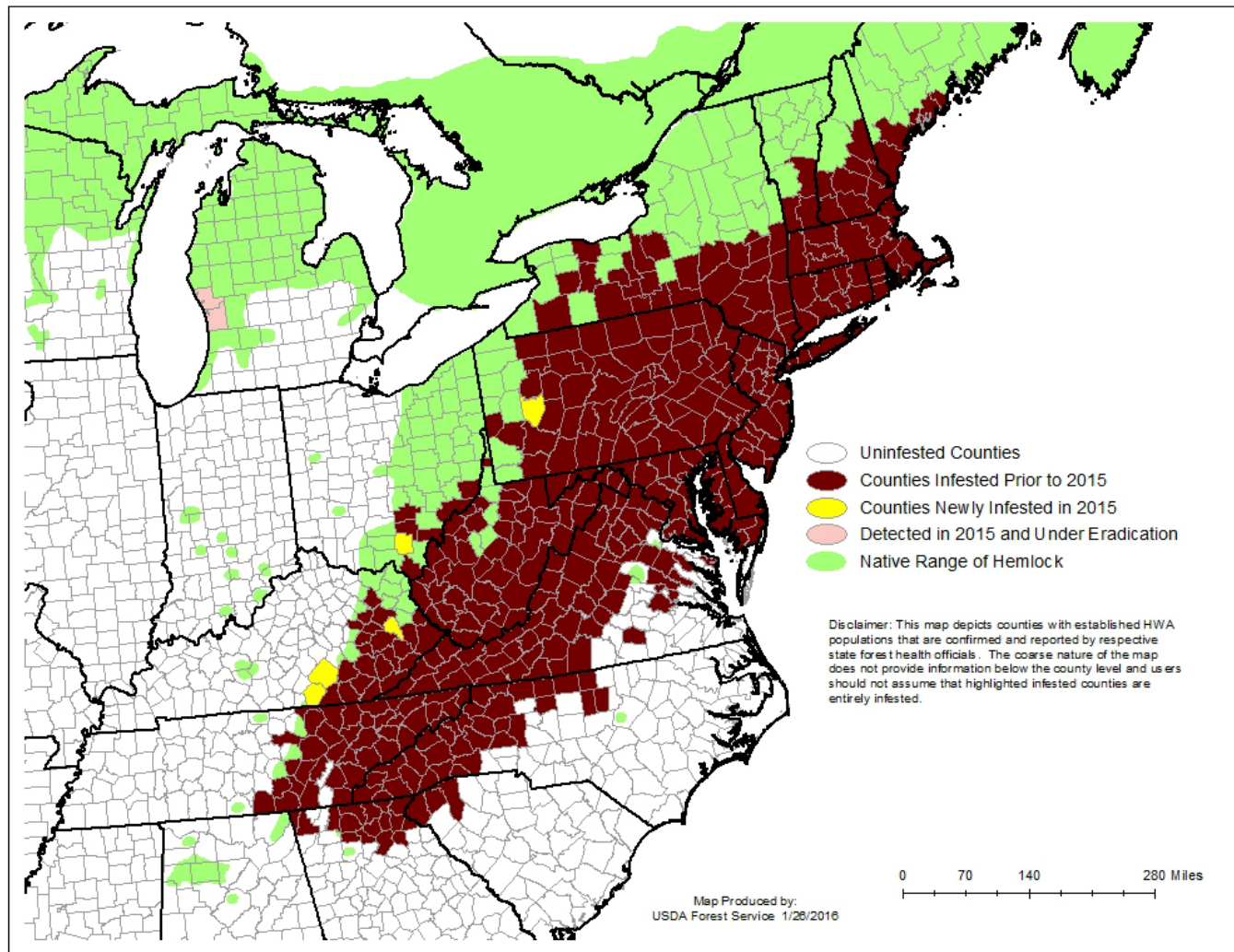
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Conservation



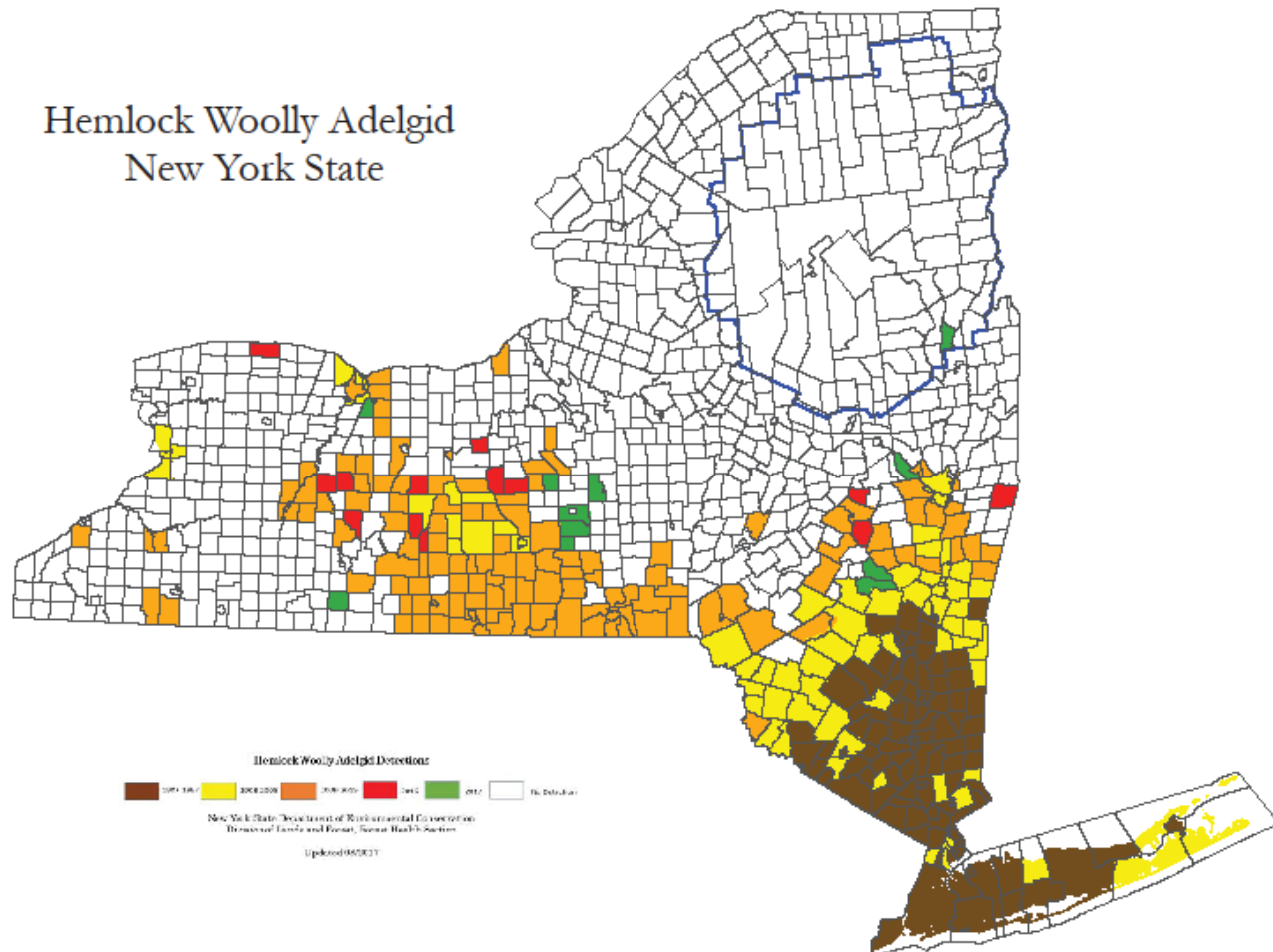
Worldwide distribution of HWA and *Tsuga* species.
Havill 2008.



Hemlock distribution/ density in New York

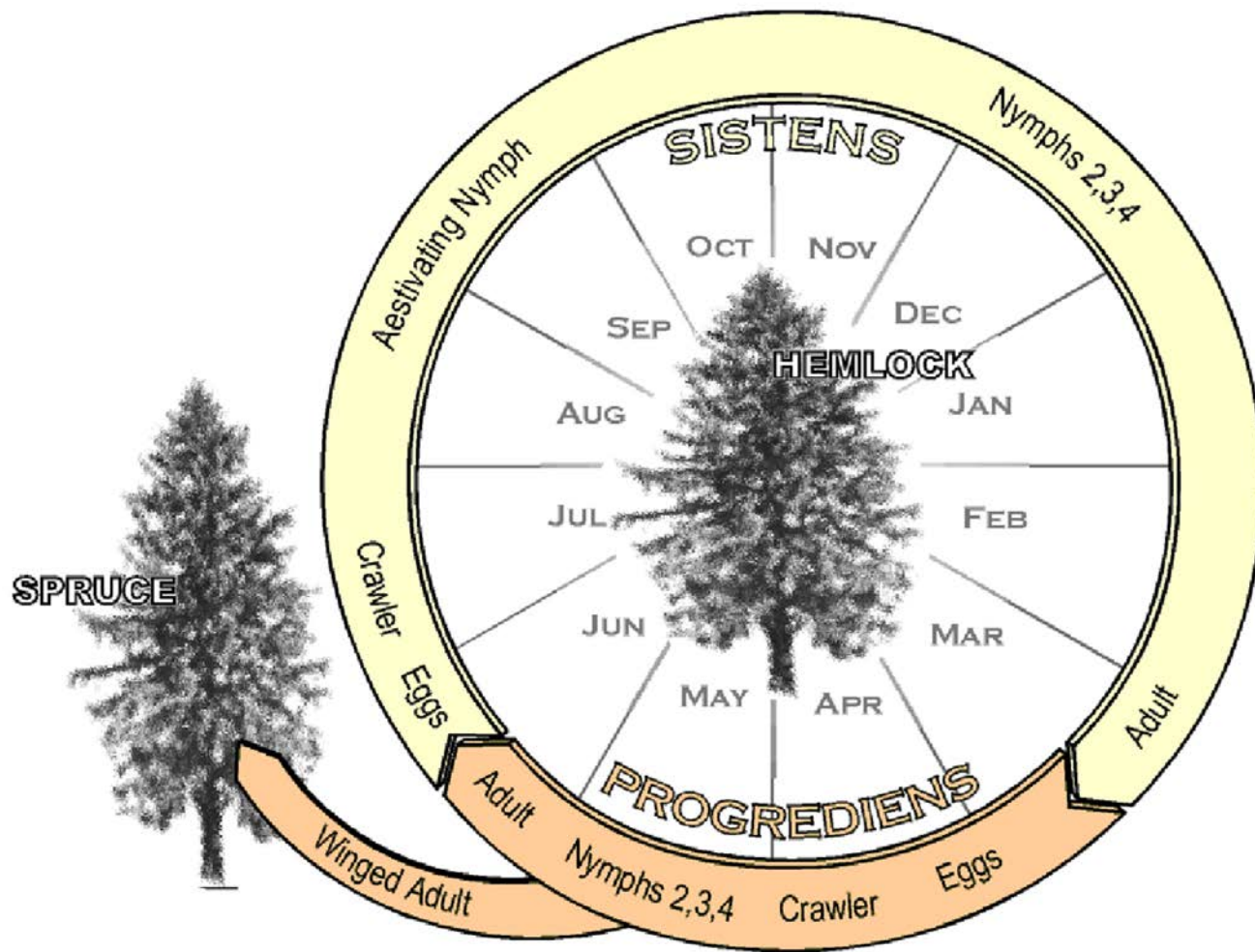


Hemlock Woolly Adelgid New York State



HWA range
(August 2017)

simplified life cycle





“crawlers” hatching from egg masses

March - June



Nymphs on new growth
Summer aestivation June-September



2nd-4th instar nyphs begin forming egg masses

September – February = ideal time to survey!

Easy to see, little to no risk of accidental transport



Very heavy, late stage infestation

Slow growth to no growth

Buds die first as wound response stops movement of water & nutrients

Needle loss



Heavy infestation/ older, tattered egg mass remnants on older twigs

May still be visible for 2-3 years, but does weather off

Looking for & Identifying HWA





Hemlock Woolly Adelgid, Photograph credit: Chris Evans, The University of Georgia, <http://www.forestryimages.org/>









Other things you will see on hemlock twigs



Spider webbing, egg sacs
Various insects, pupal cases
Cottonwood fluff
Bird poop
Raindrops, snow



Elongate hemlock scale



*Photo by
Michael Masiuk*

Circular hemlock scale(s)



Spruce spider mites
(feeding damage)



Hemlock borer



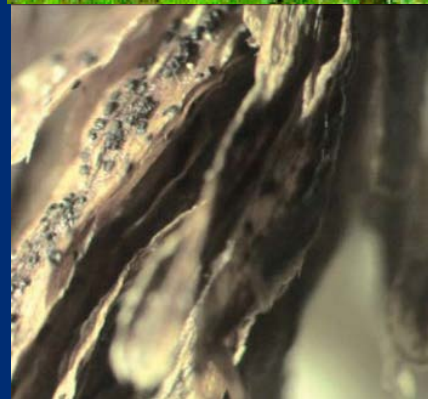
Fabrella needle blight



Hemlock twig rust



Sirrocooccus shoot blight



Management of HWA

Biological control

- Long term (generations)
- Large (landscape) scale

Chemical control

- Shorter term (months to years)
- Smaller scale



Predators can be divided into two basic groups:

Spring/Summer feeders: prey on progrediens eggs and nymphs as well as sistens eggs.

Sasajiscymnus, *Scymnus*, *Leucopis*



Photo Melody Keena, USFS

Winter/Spring feeders: prey on sistens nymphs through winter and progrediens eggs in spring

Laricobius



Photo Ashley Lamb, VT

Laricobius nigrinus



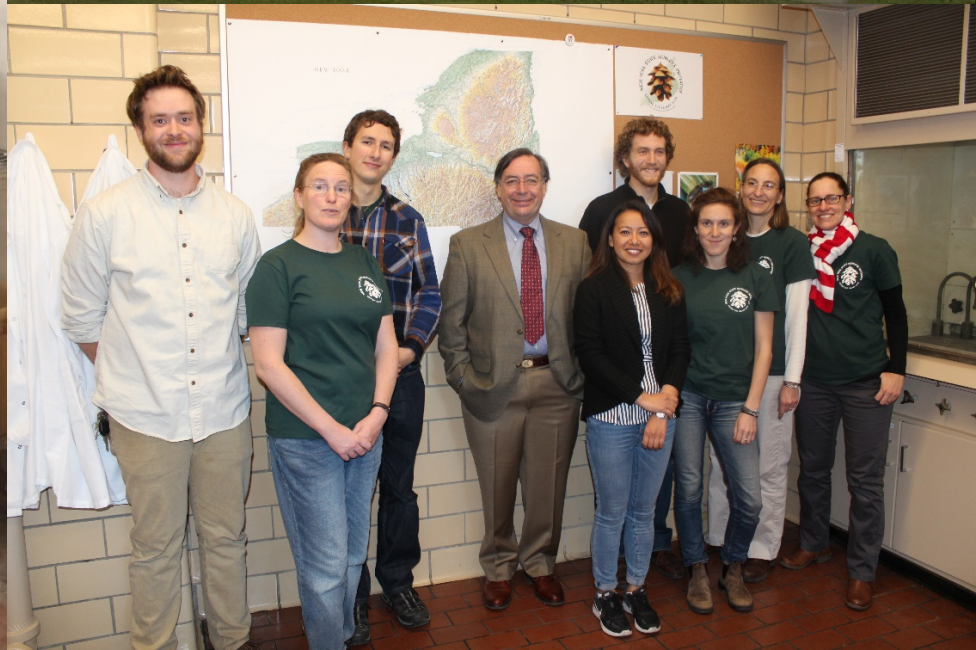
- Native to Pacific Northwest
- Good life cycle synchrony with HWA
- Released in 16 states on east coast since 2003.
- Establishment at many locations in the East.
 - Banner Elk, NC
 - Spread over 30 miles since first introductions in 2003
 - Over 12,000 collected in two weeks for release in 2013
 - Delaware Water Gap, Northern NJ and PA populations are growing since releases began in 2006

Leucopis argenticollis & piniperda

- Diptera: Chamaemyiidae
- May be the most abundant predator of HWA in the Pacific NW
 - Released at 3 NY sites in 2015
 - Released at 10 NY sites in 2017
- Larvae feed on both Progrediens and Sistens eggs.
- **Two or three generations a year?**



HWA Biocontrol Lab @ Cornell



SYSTEMIC INSECTICIDES

- Most effective and least costly treatment for HWA
- Treatment with systemic insecticides should be made in spring or fall when the soils are moist and hemlocks are actively growing



IMIDACLOPRID

ADVANTAGES - Can be effective for multiple years with just one application

DRAWBACK – Moves slowly through the tree, sometimes taking up to a year to reach the canopy. Older trees that may have compromised vascular systems or crown decline from HWA may not be able to move imidacloprid into the crown fast enough to survive

DINOTEFURAN

Under the trade name - Safari 20SG is used as a basal bark spray

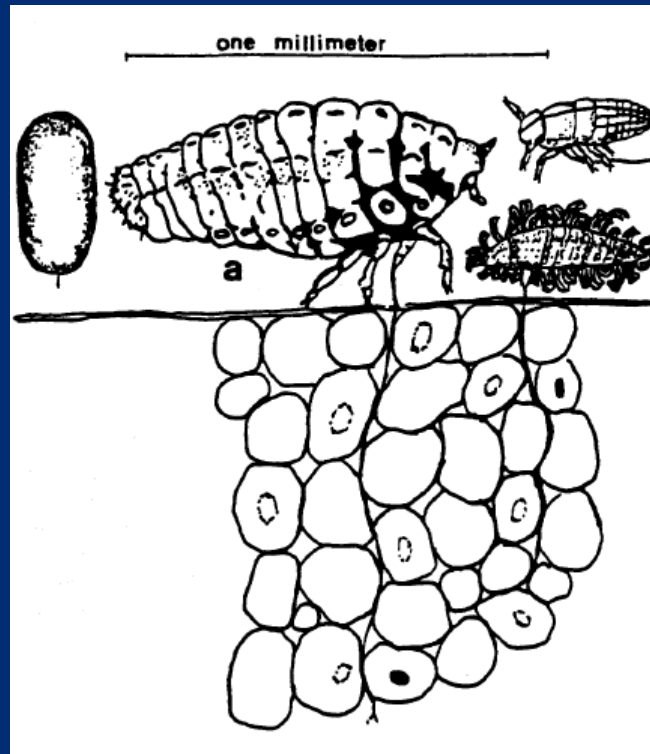
ADVANTAGES – Moves into the tree canopy much more rapidly than imidacloprid, usually within 2-3 weeks. Will rapidly reduce HWA so trees can recover

DRAWBACK – efficacy is limited to 1 or 2 years



Balsam Woolly Adelgid

Adelges piceae



Balsam Woolly Adelgid

Adelges piceae

- Yet another parthenogenic Adelgid!
- 1930's Introduced into eastern Canada
- Spread to Pacific Northwest (BC, WA, OR)
- Thought to be restricted to coastal areas because temperatures are warmer
- 1980's detected inland – ADK's
- Now even on Mt. Washington
- Now distributed throughout NYS
- Slow decline restricted to crown on twigs
- Stem infestations kill



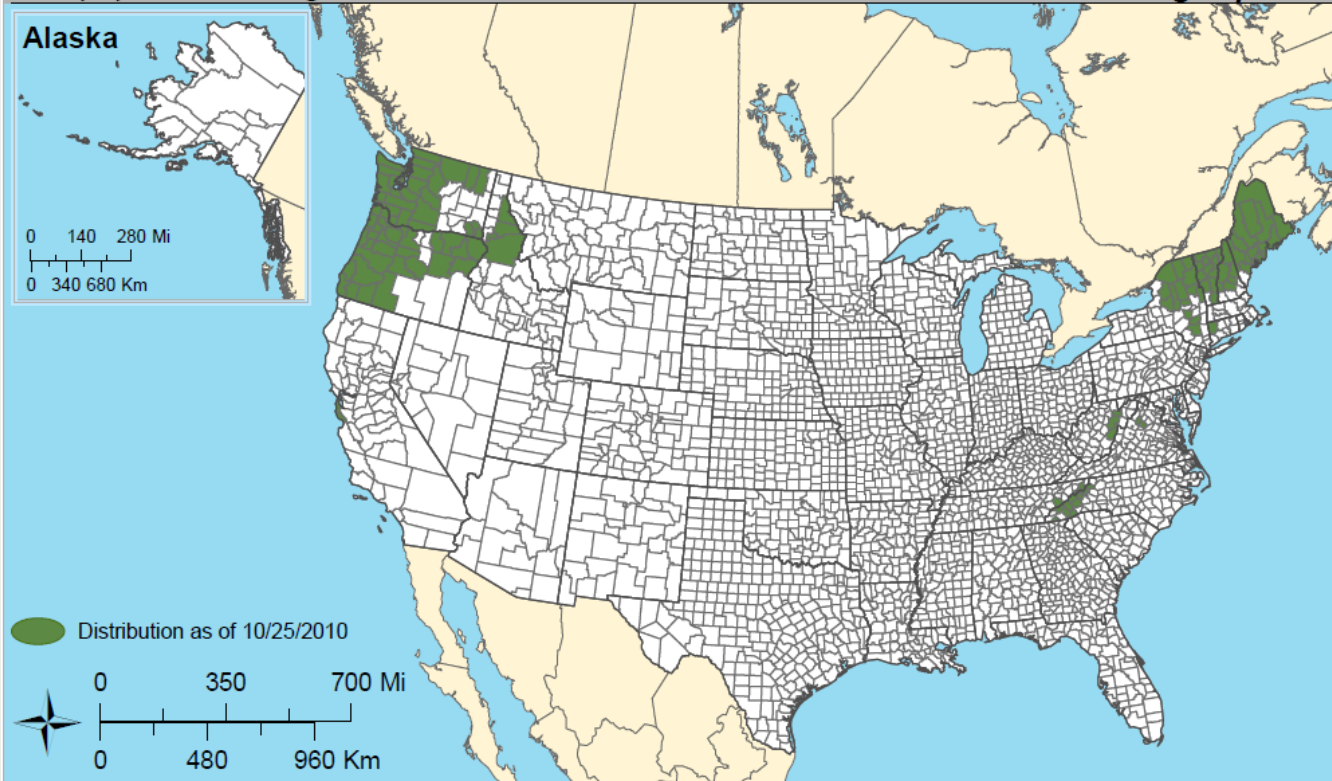


Alien Forest Pest Explorer

www.fs.fed.us/ne/morgantown/4557/AFPE/

Pest Distribution Map

Balsam Woolly Adelgid
Adelges piceae



USDA
Forest
Service



Northern
Research
Station



Eastern Forest
Environmental Threat
Assessment Center



Forest Health
Technology
Enterprise Team



Remote Sensing
Applications
Center

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- Two basic infestations:
 - Twigs – Gouting
 - Stems or main trunk of the tree
- Stem infestations can rapidly kill a tree
 - 3 to 10 years depending on tree vigor
- Twig infestations can linger for years
 - Apparent on trees in the understory
 - Can linger and disfigure crowns for many years – up to 30 years or more in some *Abies* species.



Persistent chronic crown decline



Balsam fir, *Abies balsamea*, in the Adirondack Mountains, NY

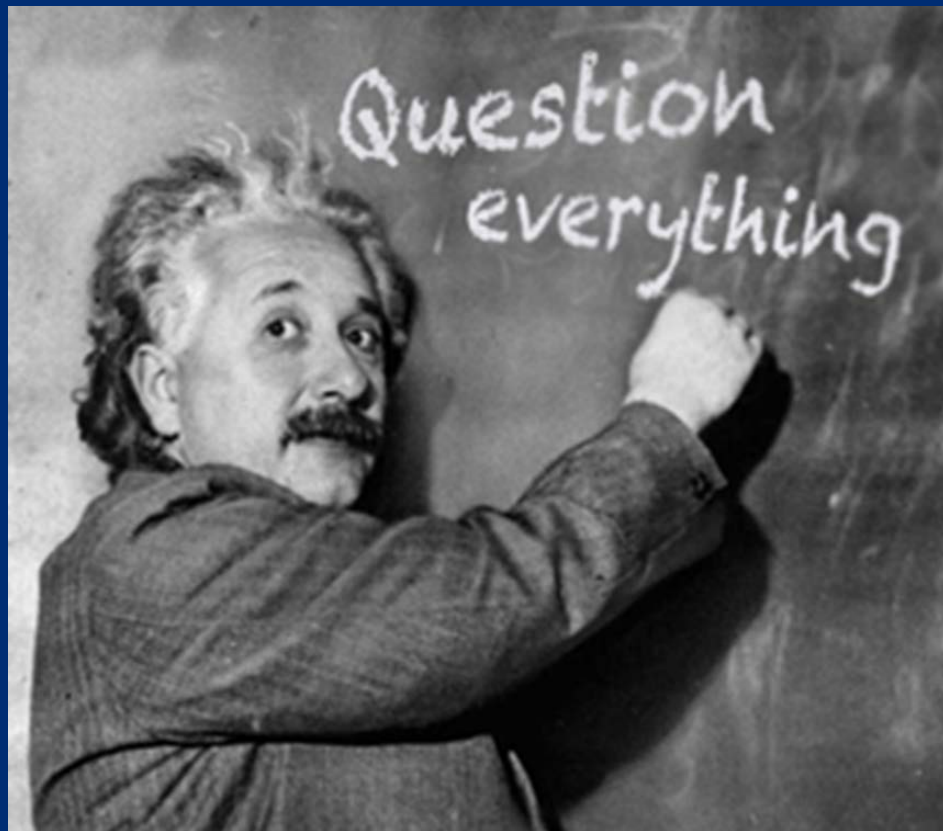


Low level crown decline

Persistent crown decline

Thank You

- Jason Denham,
Bureau of Invasive Species &
Ecosystem Health, Albany
- Jason.Denham@dec.ny.gov
- foresthealth@dec.ny.gov
- (518) 402-9410





iMapInvasives

Sharing information for strategic management

Username = iMap Username
first three letters of first name
& last name (in full)
EXAMPLE: johsmith
PASSWORD: "changeme2018"

iMapInvasives Mobile App Training

Help find small, manageable infestations

Meg Wilkinson

Invasive Species Database Program Coordinator

NY Natural Heritage Program



**Department of
Environmental
Conservation**





How Can iMap Help You?

- Local Level:
 - Search for invasive species & enter observations
 - View nearby areas What is approaching the region?
 - Record treatment/management efforts
 - Great communication tool for organizations, especially over time
- State/PRISM Level:
 - iMap sends nightly emails to PRISM Leaders, and state experts of new observations submitted to iMap – aware of high priority “finds”; assist with confirmation process
 - Refer to iMap data when prioritizing summer crew work

Objective Today

- Learn how to login to **online** iMap:
 - View data on the map
 - View data in a table
 - Search/Query for data
- Learn how to submit invasive species data to online iMap using a smartphone with the **iMap Mobile app** & view online



Intro

- **PRISMs** *Partnerships for Regional Invasive Species Management*
- **Importance of Early Detection**

iMapInvasives Online

- **Online – Map & Table**
- **Online – Query/Report & Email Alerts**

iMapInvasives App

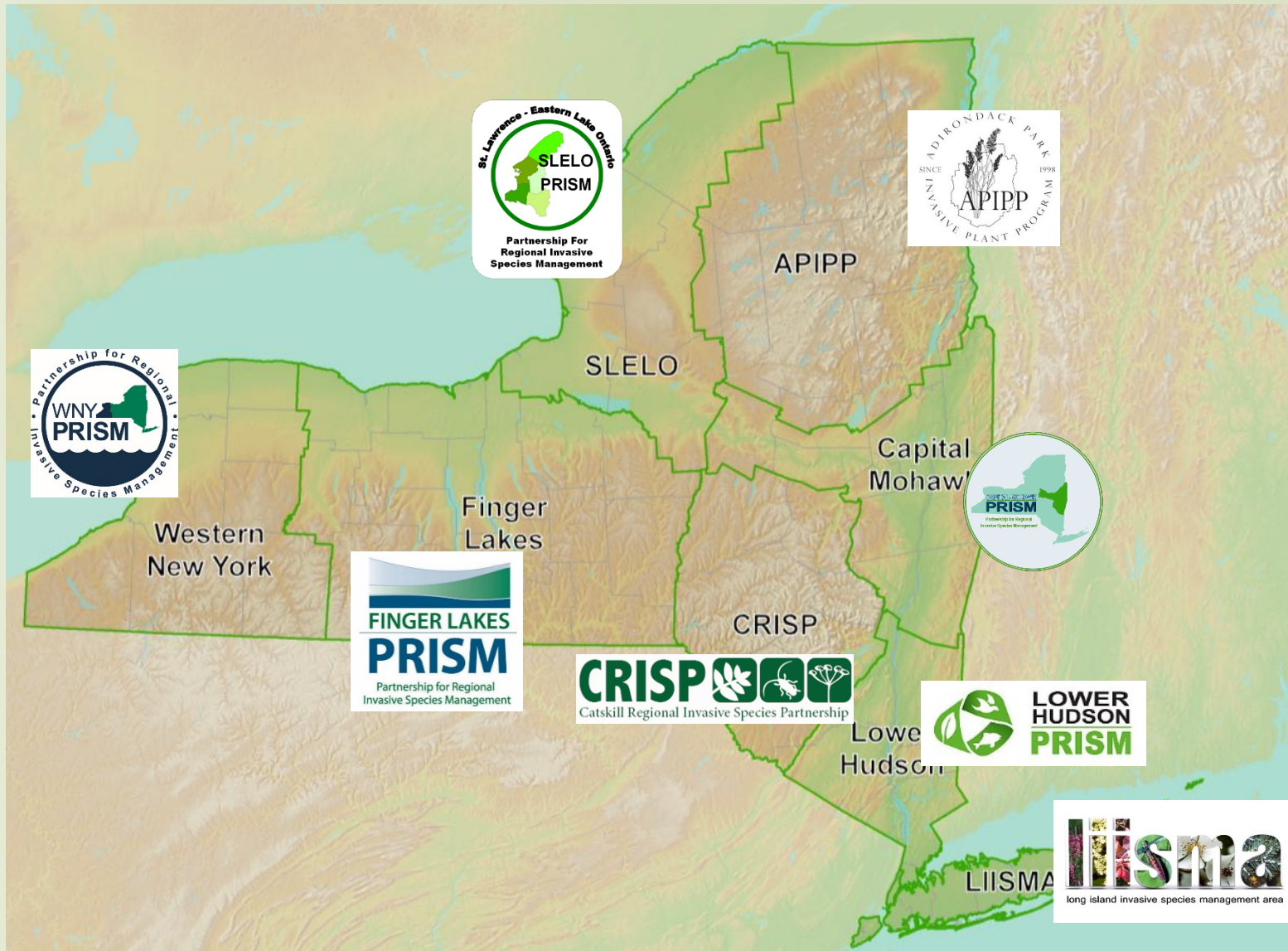
- **App – Download/Set Preferences**
- **App – Record an Observation**
- **App - Upload; Test & View Online**

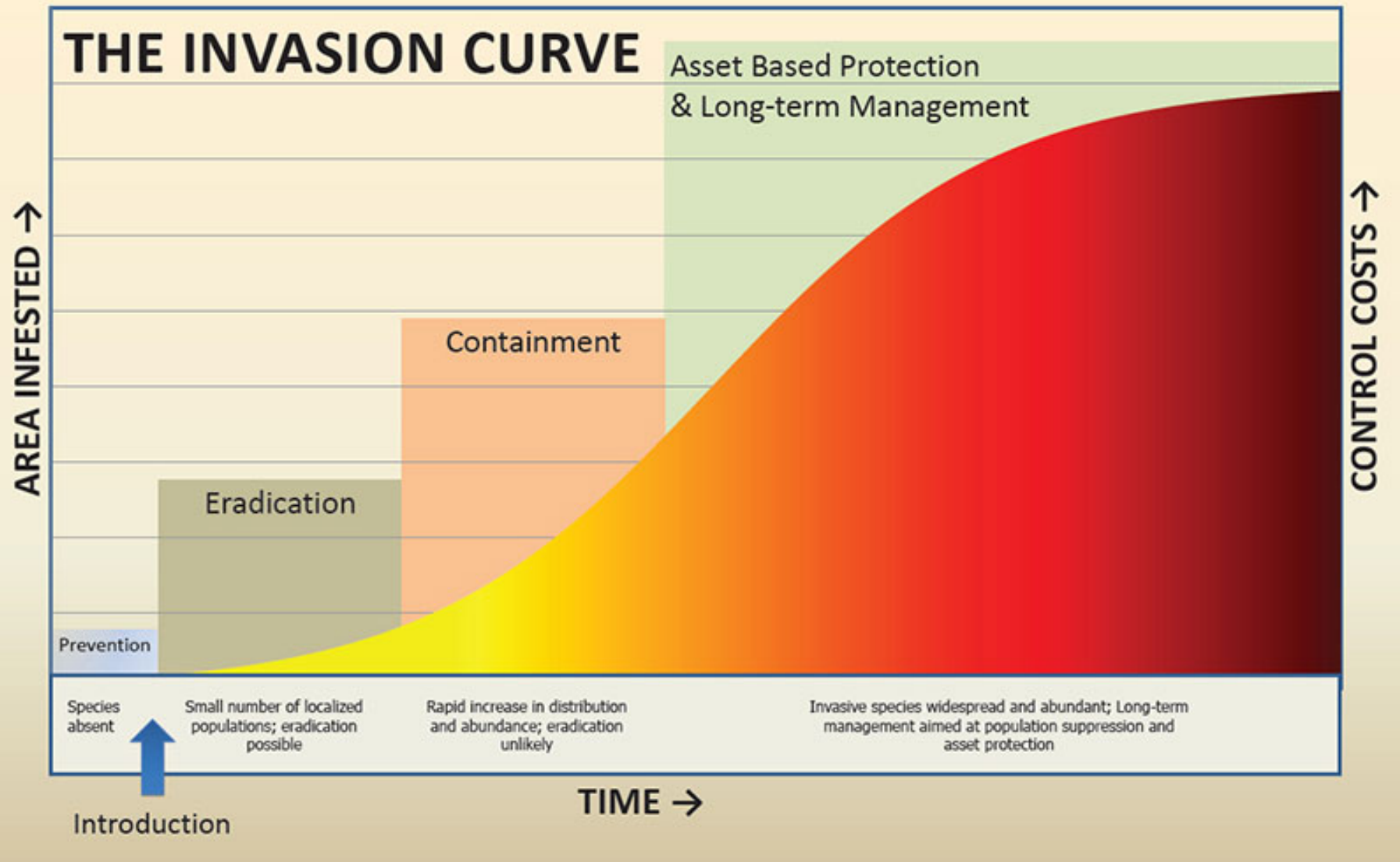
Wrap-Up

- **8 Things You Can Do – *by Megan Phillips***
- **Questions**



Partnerships for Regional Invasive Species Management







Water chestnut
Trapa natans



Intro

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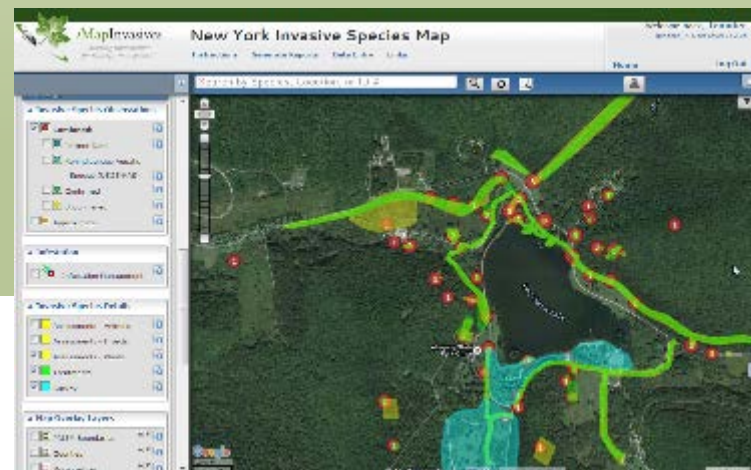


New York Natural Heritage Program

Our mission is to facilitate 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.

Partnership between NYS DEC and SUNY ESF

A collaborative GIS-based, online
tool for invasive species
management



New York State Invasive Species Database

2010: Live in New York!



iMapInvasives
tracking invasive exotic species

New York Invasive Species Map

[Instructions](#) [Generate Reports](#) [Data Entry](#) [Links](#)

Welcome back, **Jennifer**
(jendean_admin)
[Home](#) [Log Out](#)

Map Tools

- ☐ Google Aerials
- ☐ Google Terrain Layer
- ☐ USGS Topographic
- ☐ No Base Layer

Overlays

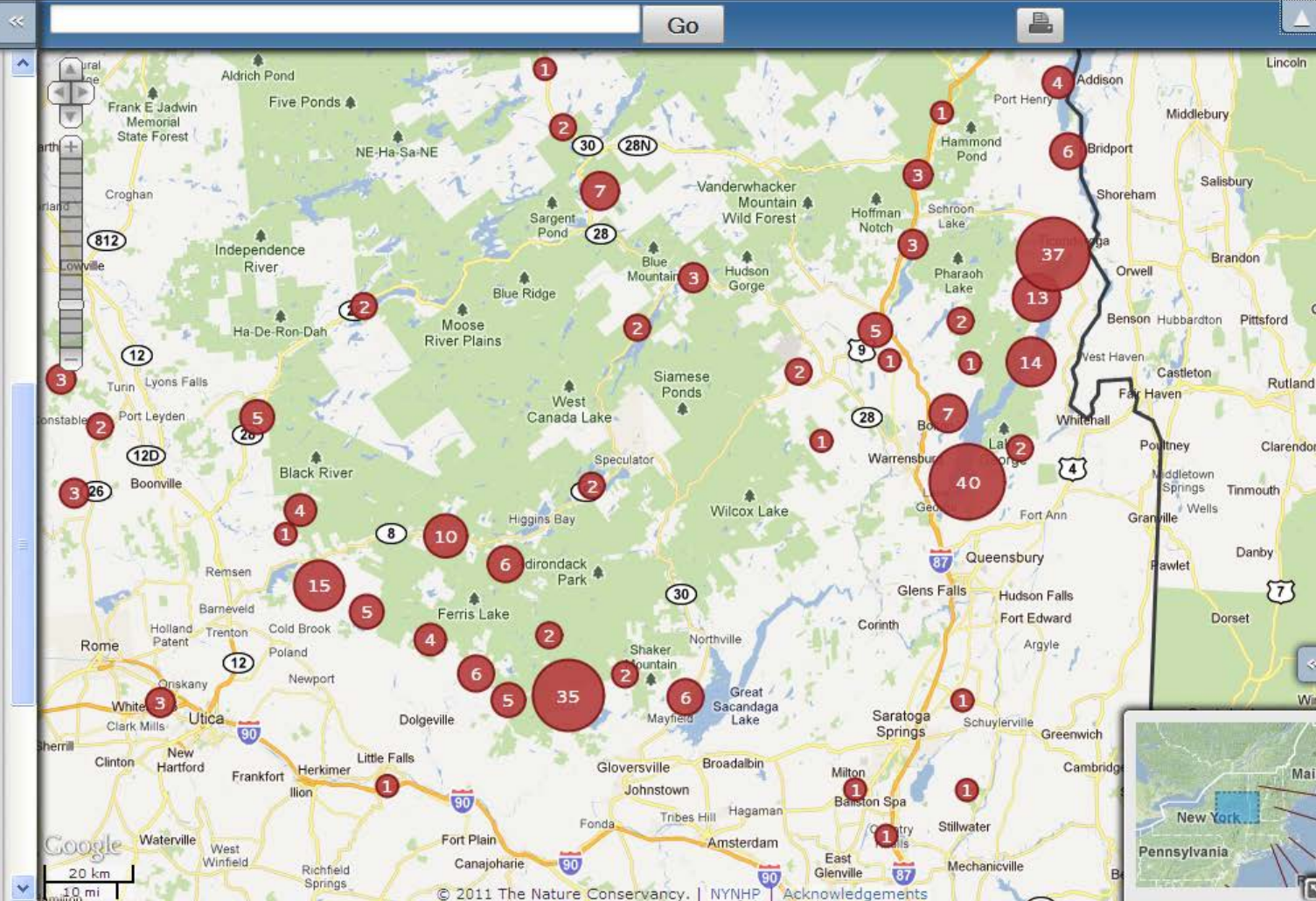
▲ Invasive Species Observations

- ☒ Combined
- ☐ Partner Data
- ☐ NAS
- ☐ Confirmed
- ☐ Unconfirmed
- ☐ Problem
- ☐ Deleted

▼ Invasive Species Details

▲ Map Overlay Layers

- ☐ Counties
- ☐ Towns
- ☐ PRISM Boundaries
- ☐ Public Access Lands
- ☐ Adirondack Park
- ☐ Watershed (HUC 6)



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Where does the data come from?

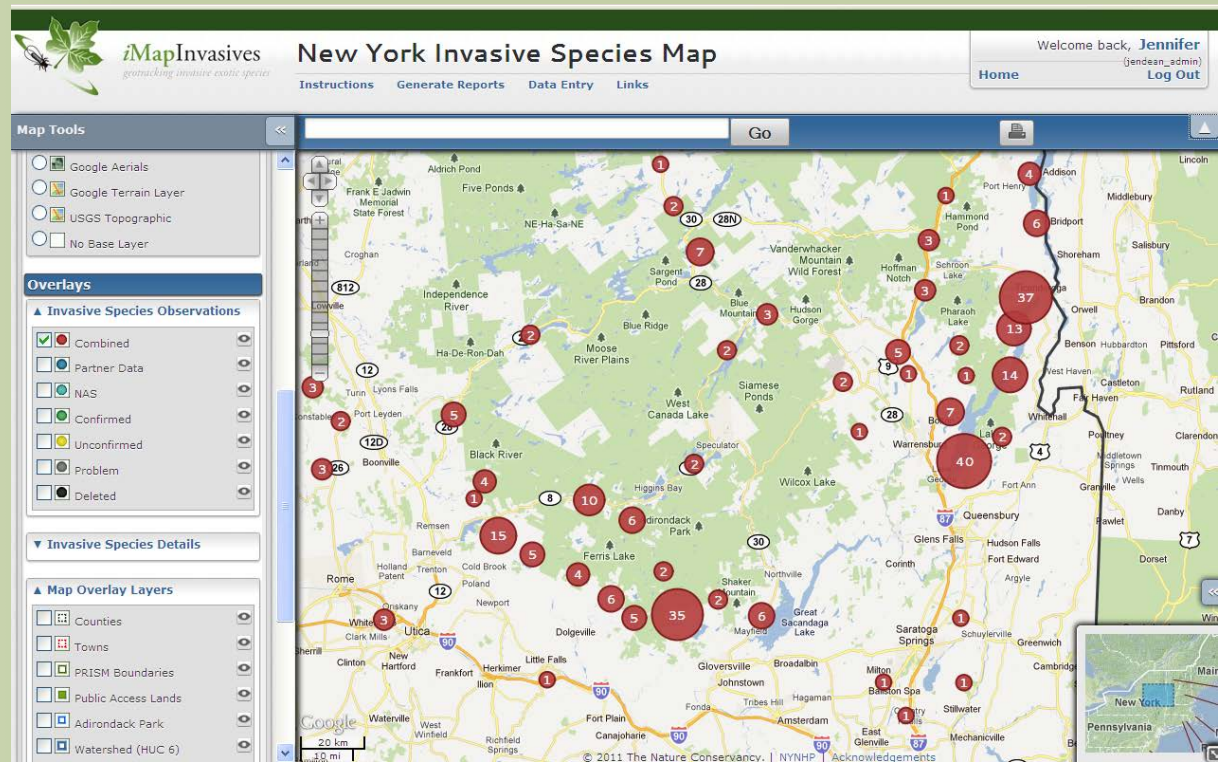
1) Bulk uploads from partner organizations

Local, State, and Federal Agencies

Land/ Water Managers

Researchers

Museum Data



Where does the data come from?

2) User data entry for observations

Online (computer)

App (smartphone: Droid, iPhone)



Step 3 What (Species)

What Species Was Observed?

Species Type

☐ Animal ☒ Insect ☐ Plant

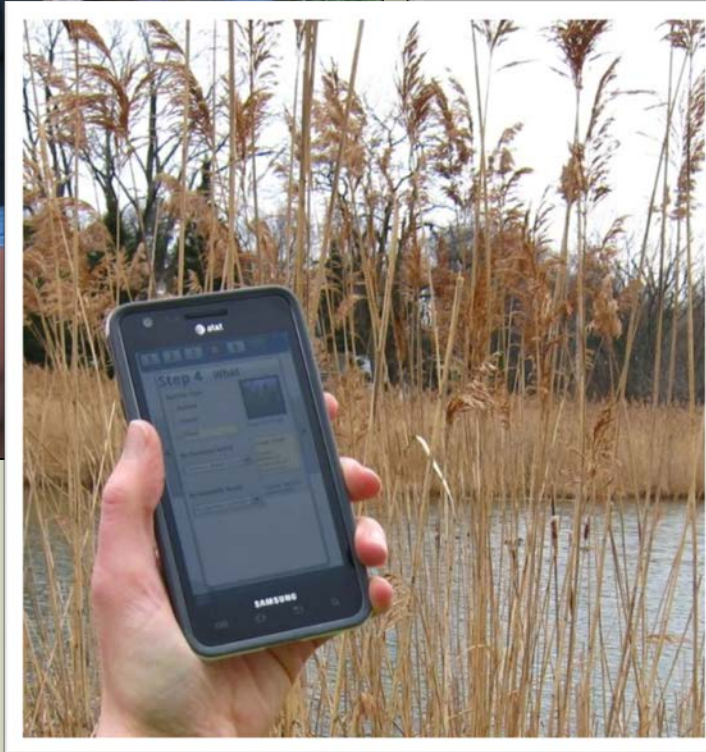
By Common Name

Asian Long-horned Beetle

Image Credit

Kenneth R. Law, USDA APHIS PPQ, Bugwood.org

[Further Species Information](#)



Step 5 Where

Coordinate System

Enter Coordinate

Lat / Lon Decimal

Longitude: -73.93833 Latitude: 41.26721

Drag Map to Update Location

Map showing the location of the observation, with a circular marker indicating the specific site. The map includes labels for various states and cities, such as New York, Massachusetts, Connecticut, and Rhode Island.



Data from professionals and citizen scientists

OBSERVATIONS

Organization Bulk Uploads: 150,000

Online Data Entry: 36,000

Mobile App (since Fall 2015): 8,470

TOTAL: 194,000

Trained iMap Users

>3,000 since 2010

Species type	Observations
Aquatic Animals	14,393
Aquatic Plants	23,527
Insects	7,660
Terrestrial Animals	472
Terrestrial Plants	150,161



Key Reports

Jumps & Anomalies



Managing a Geography

- NYS DEC Invasive Species Program Staff
- PRISM Leaders
- HWA Initiative
- NYS Parks
- Lake Associations
- Town/County staff

www.NYimapinvasives.org

New York iMapInvasives

Search this site



Sharing information for strategic management

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Data and Maps

Resources

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[iMapInvasives Spring Training Schedule & Registration](#)

Join us for the 7th annual spring training blitz in your PRISM!

[*NEW* iMapInvasives User Manual](#)

Created by the iMapInvasives Network

Welcome to iMapInvasives, New York's Online Invasive Species Database and Mapping System!

Login Now





iMapInvasives
Sharing information
for strategic management.

New York Administrator Tools

Location: **My iMapInvasives**

Welcome back, **Meg**
(megwilkinson, User Level 10) 2:12
[Home](#) [Log Out](#)

[Show Your iMap Stats](#)

My iMapInvasives

Resources

Data Management

System Management

Enter Data



- Observation
- Survey
- Treatment
- Infestation Management

View the Map



- View the Map
- Not using a high-speed internet connection?

View Table



- All Observations
- Surveys
- Treatments
- Infestation Management
- Assessments
 - Animals
 - Insects
 - Plants
- IPMDAT Shared Results

Query and Reports



- Custom Observation Query**
- All Data Summary Report
- All Species by County:
 - Report
 - Table
- Infested Lakes:
 - Table
 - Report
- Report with Observation IDS
- Active Projects:
 - All Projects
 - My Projects with Details
 - Admin: Summary Report

My Personal Information

My Profile

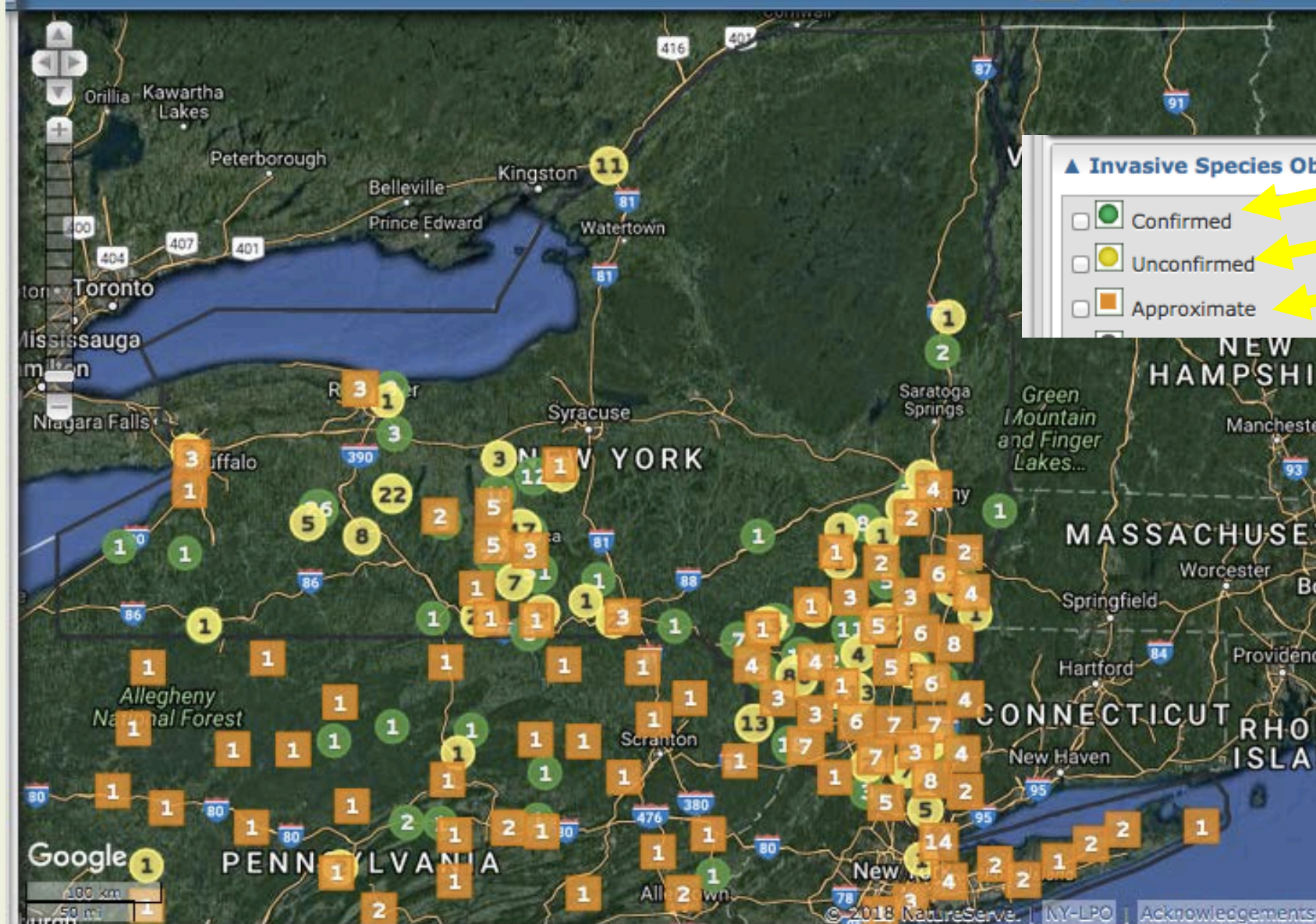
- [Edit My Profile](#)

E-Mail Alerts

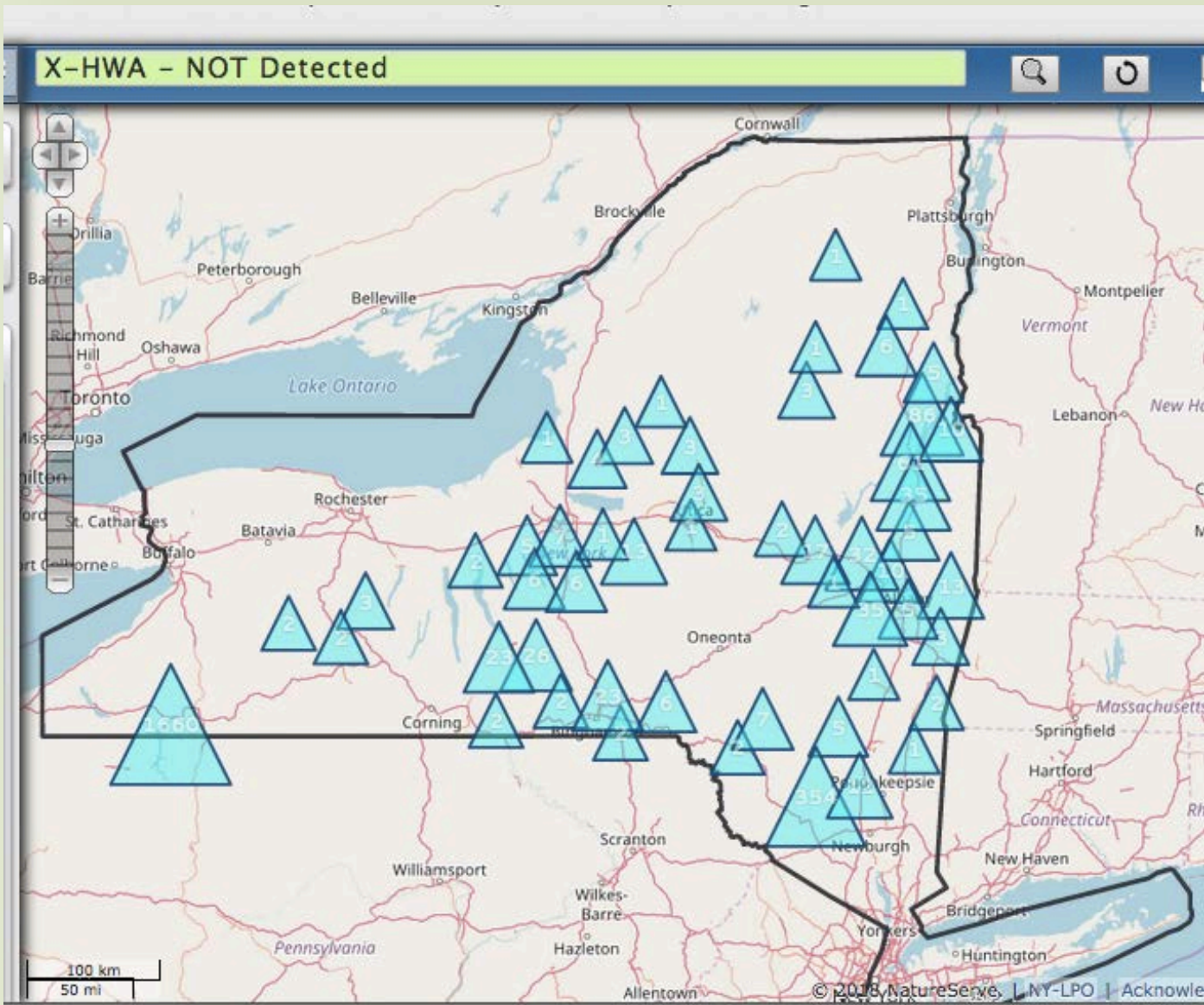


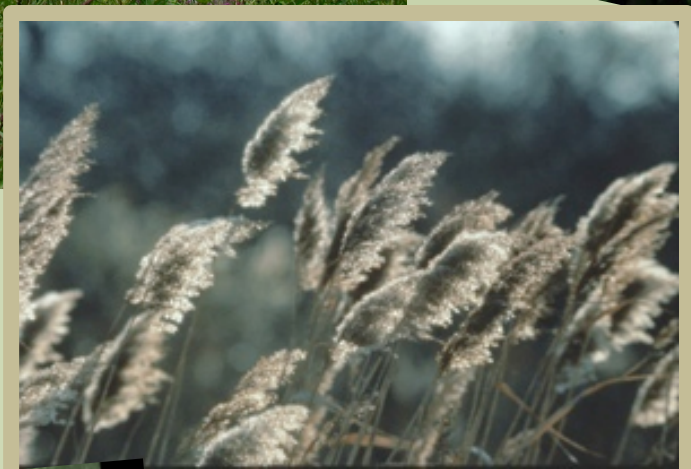
- [Manage my alerts](#)

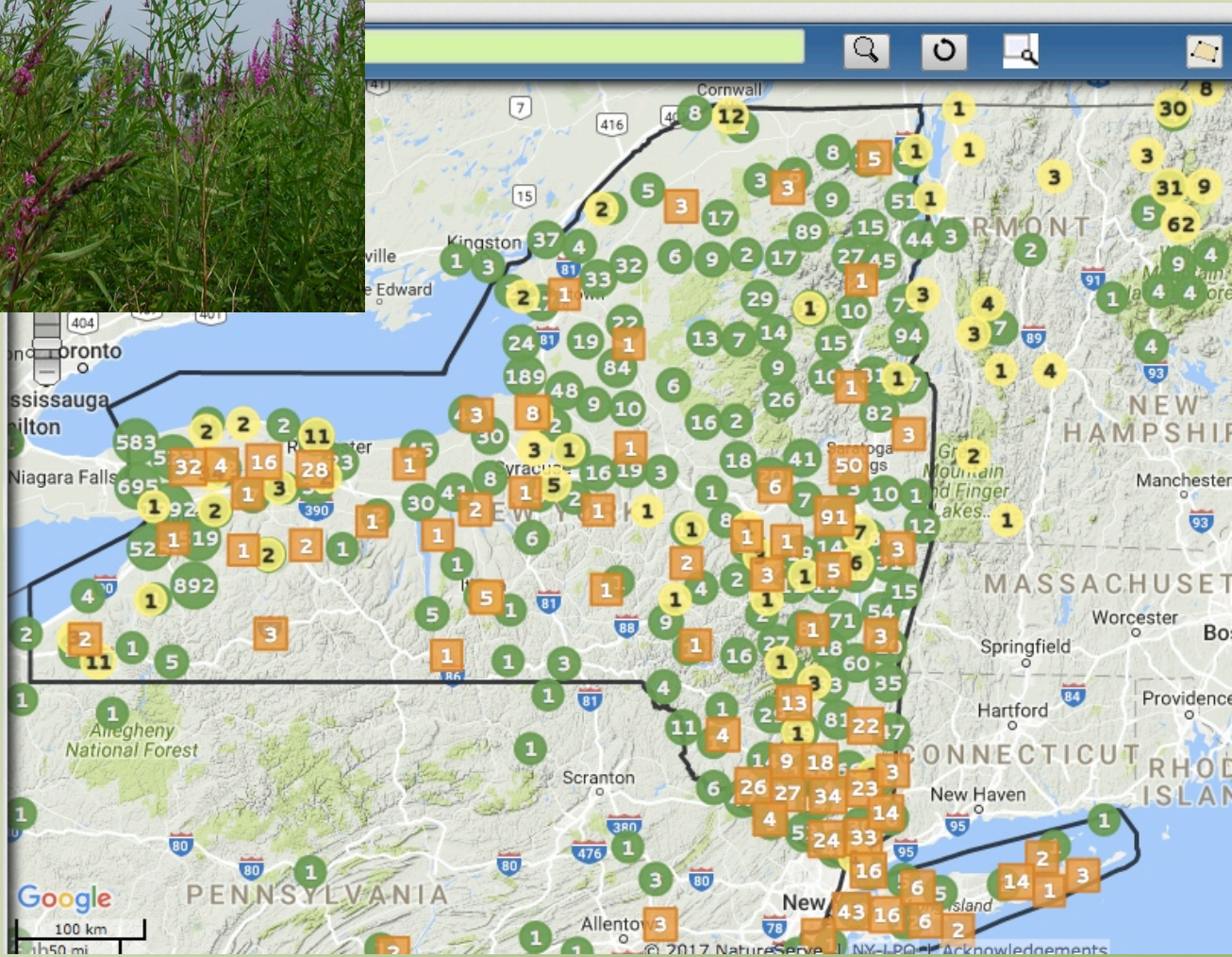
Hemlock Woolly Adelgid

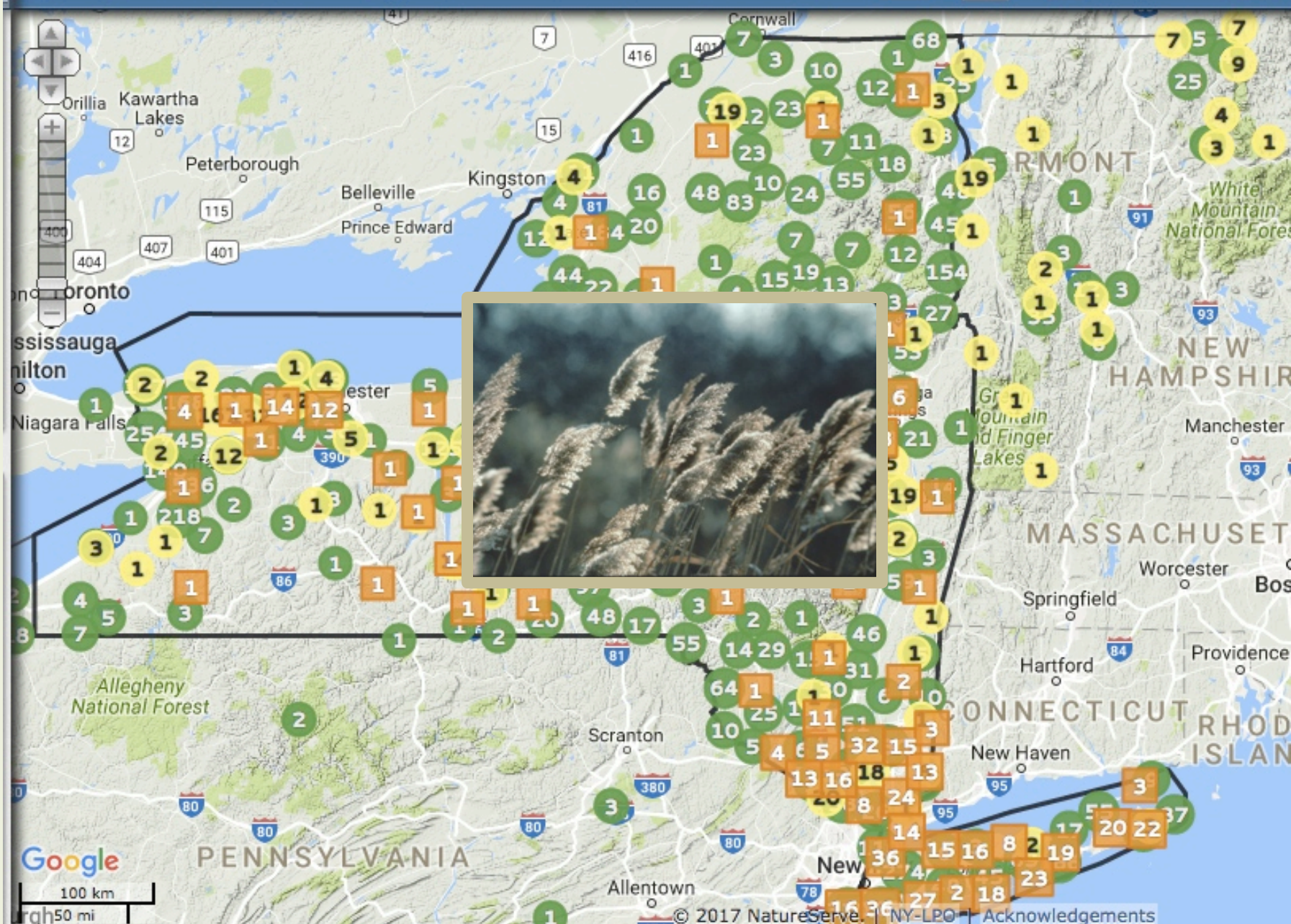
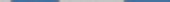


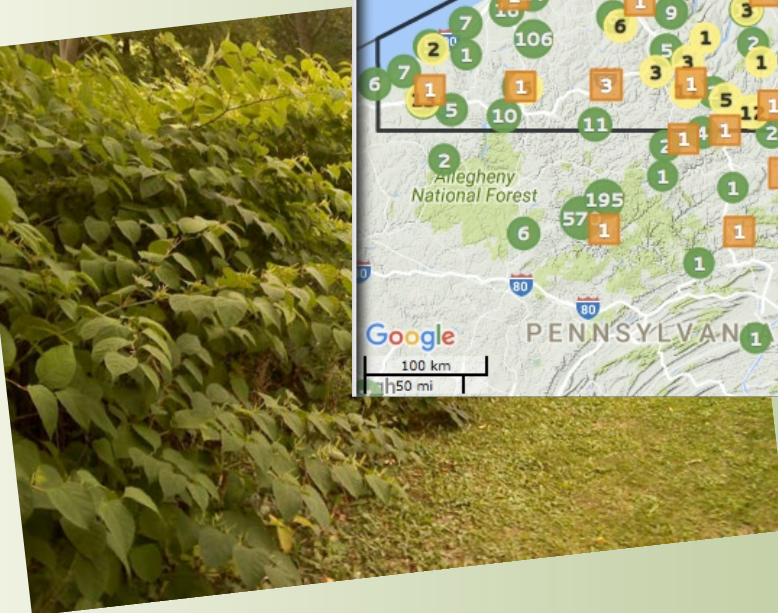
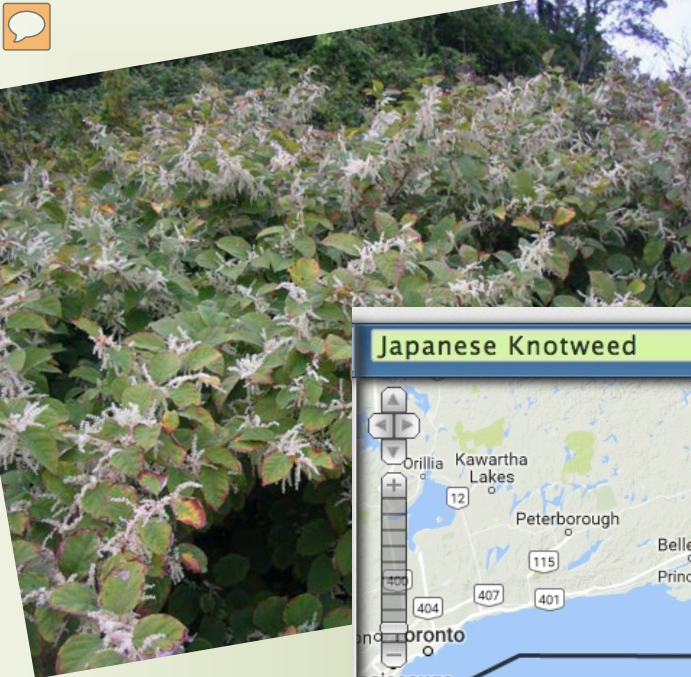
X-HWA-Not Detected





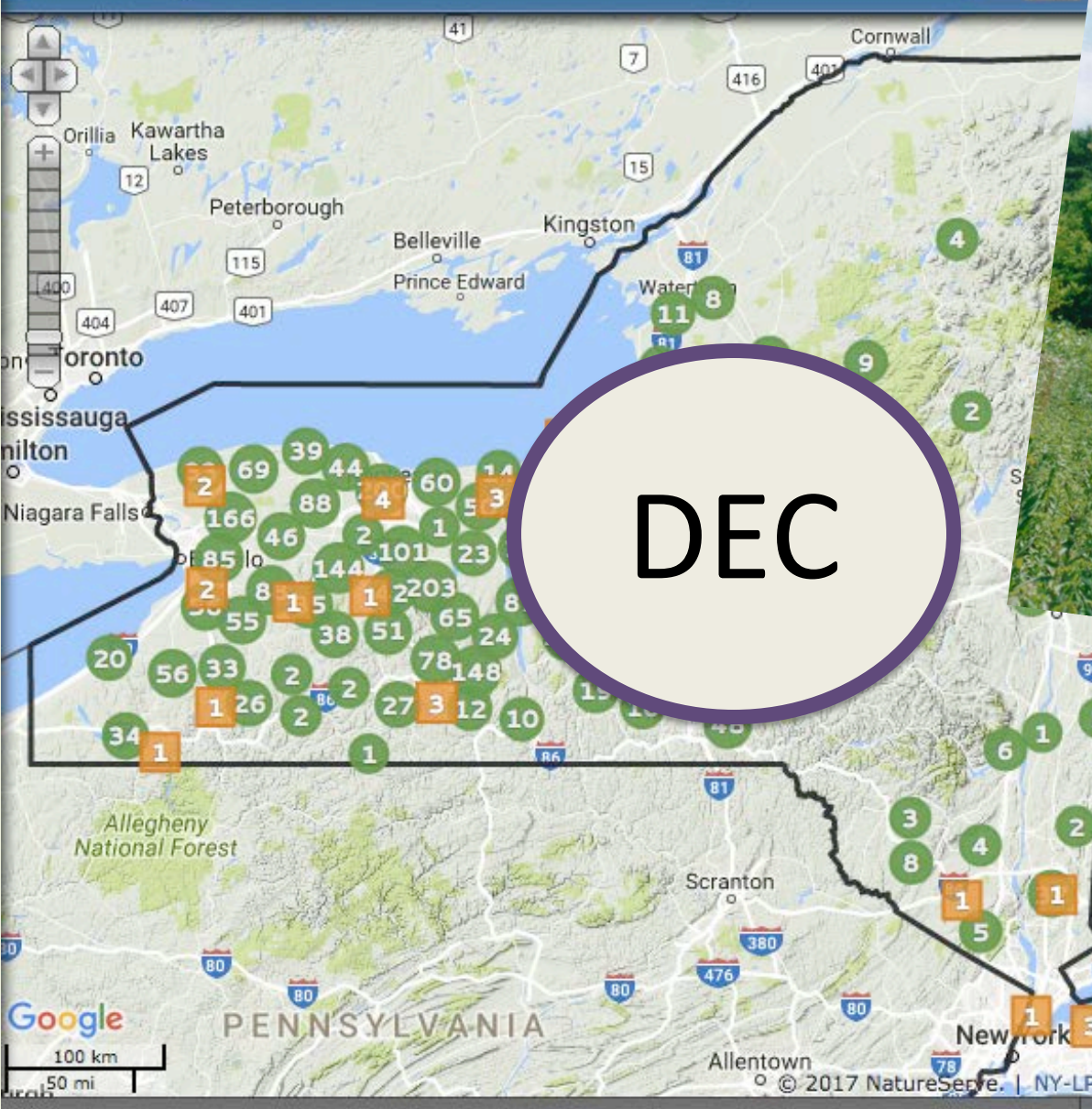




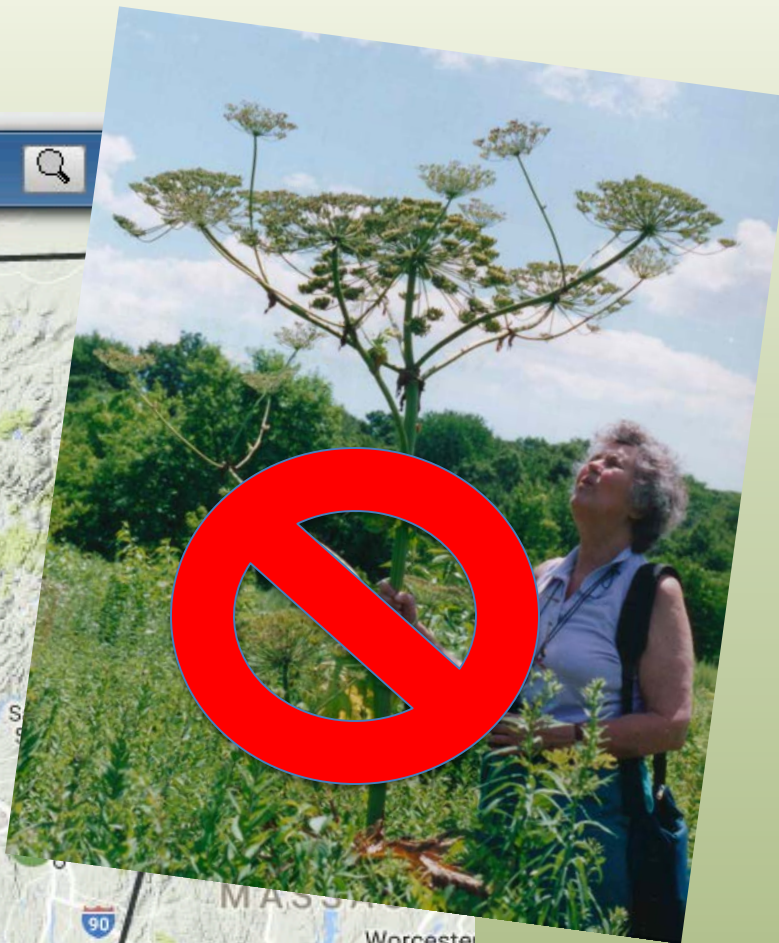




Giant Hogweed



DEC



Google

100 km
50 mi

PENNSYLVANIA

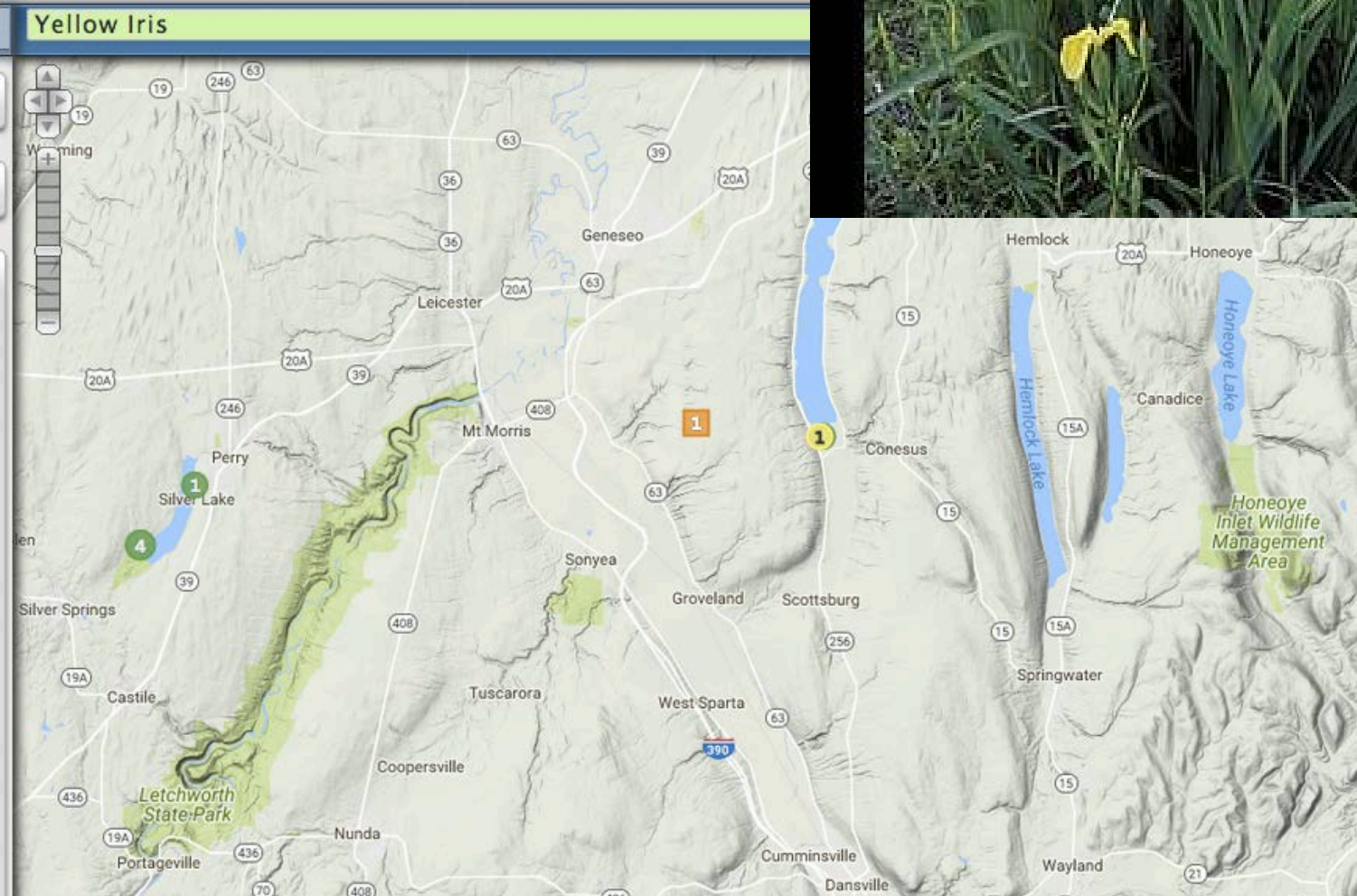
Allentown

© 2017 NatureServe. | NY-LPO | Acknowledgements

Slide 17 of 47

101%

Yellow Iris

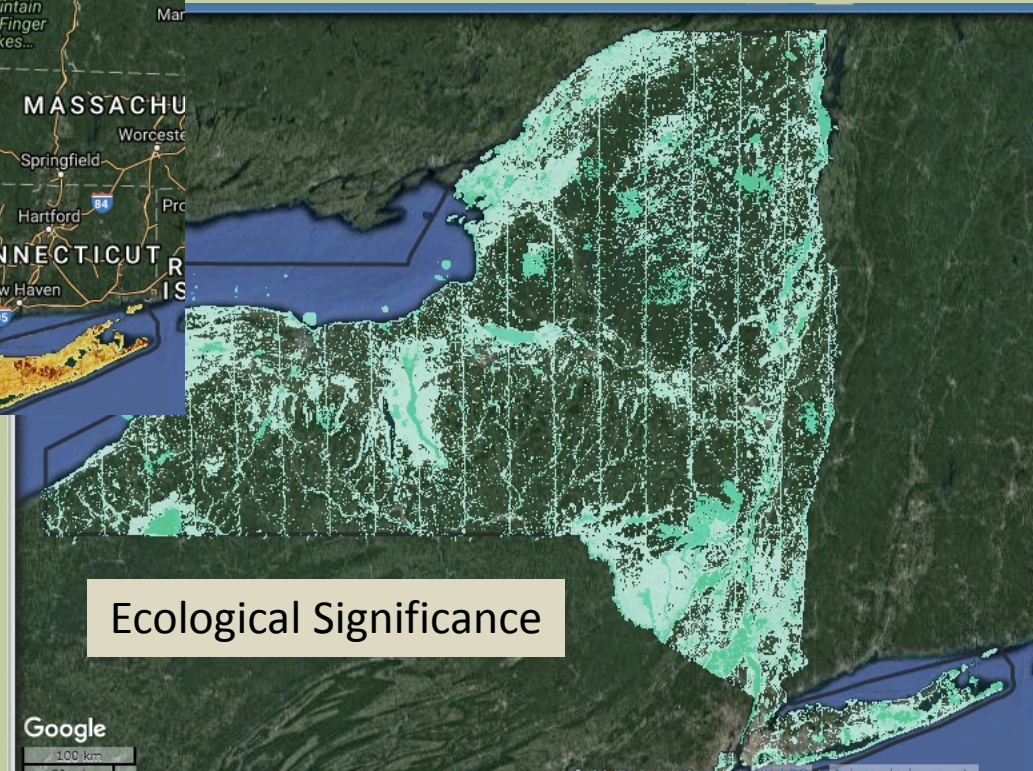
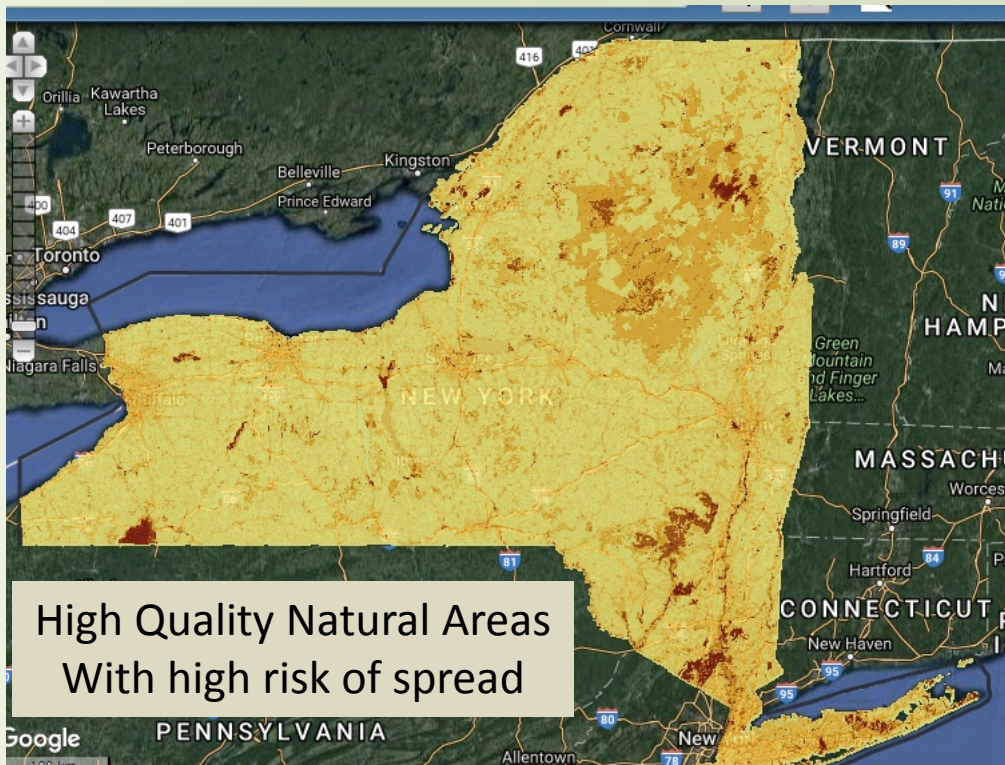




Where to Focus: Species Prioritization by PRISM

- Tier 1 – not present
- Tier 2 – might be able to eliminate it
- Tier 3 – manage on local basis
- Tier 4 – well-established

Spatial Prioritization: Where to focus?





1 Type

Full Data Query

Common Invasive Species

Early Detection

Approaching Region

2 Criteria

Data Set

All Map Data - Including Nearby States



Geography

Geography Type

All



Geography Value

All
Coordinate
Conservation Lands
Conservation Lands - Ownership Type
County
DEC Regions
DOT Regions
ISPZ
OPRHP Regions
PRISM
State
Towns
USGS Topographic Quad
Waterbody
Watershed (HUC6)
Watershed (HUC8)



Species

☐ Animal ☐ Insect ☒ Plant

3 Results

View Table

View Report

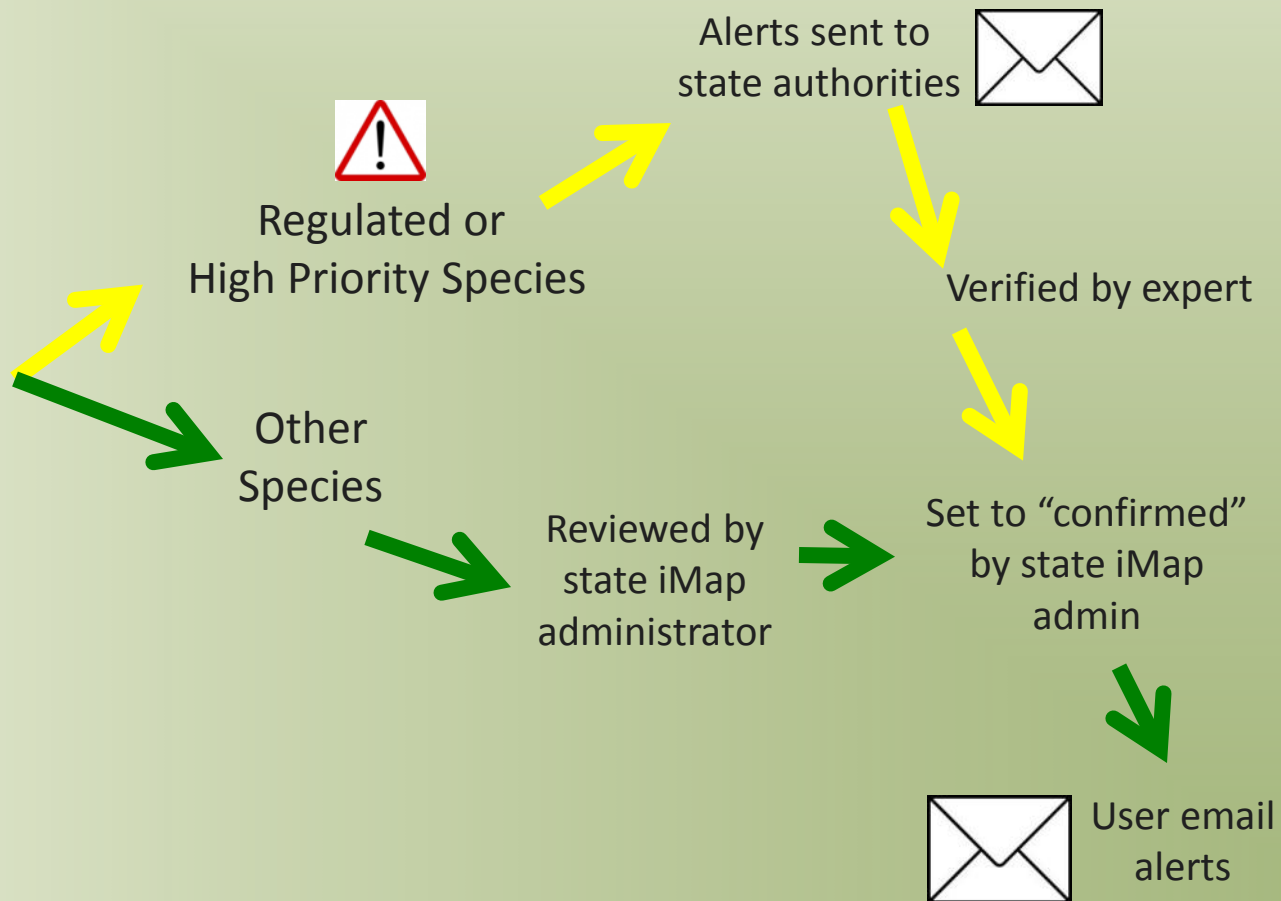
View On Map

Clear All Queries



Email Alerts

Communicating important findings to stakeholders




Project

- Group data
- Project Leader: confirm/ review data
- Download data



Enter data online

New York iMapInvasives





Sharing information for strategic management

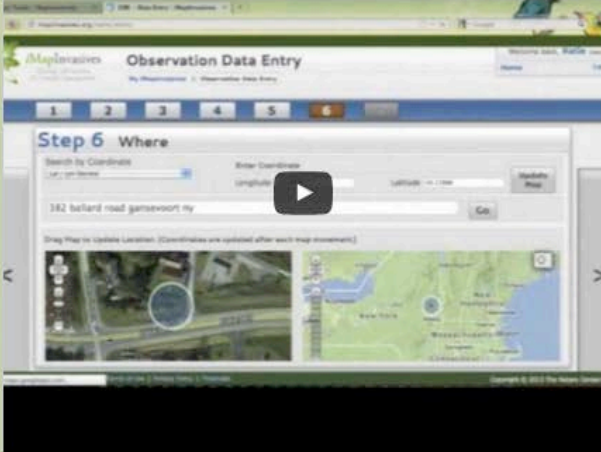
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[Training](#) > [Data Entry Training Videos](#) >
Observation Data Entry

Lesson 1- Invasive Species Observation Data Entry

iMapInvasives Observation Training-upd...  



(if the form below is not appearing, please try a different web browser. If the problem persists, contact imapinvasives@nynhp.org)

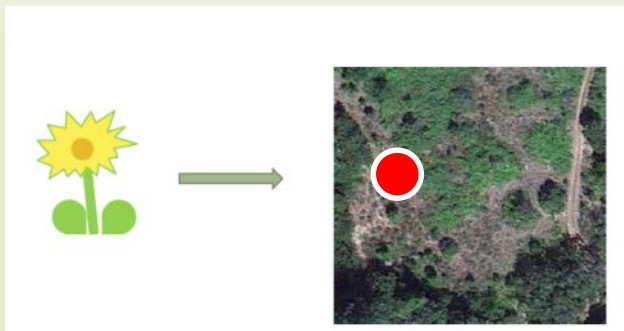
iMapInvasives observation data entry quiz

After you have watched the "iMapInvasives Lesson1- Invasive Species Observation Data Entry" training video, please complete this quiz. We will contact you shortly with your results.

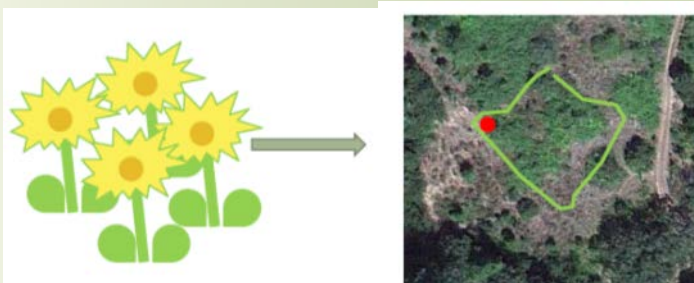
*** Required**

Your Name *

Email Address *



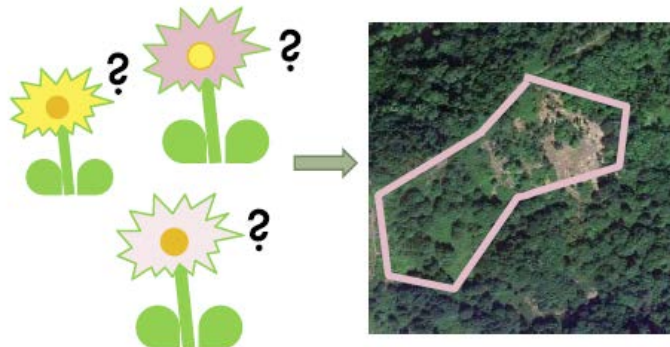
OBSERVATION – location of a specific species(location, date)



ASSESSMENT – detailed information about a specific observation



TREATMENT – control effort details



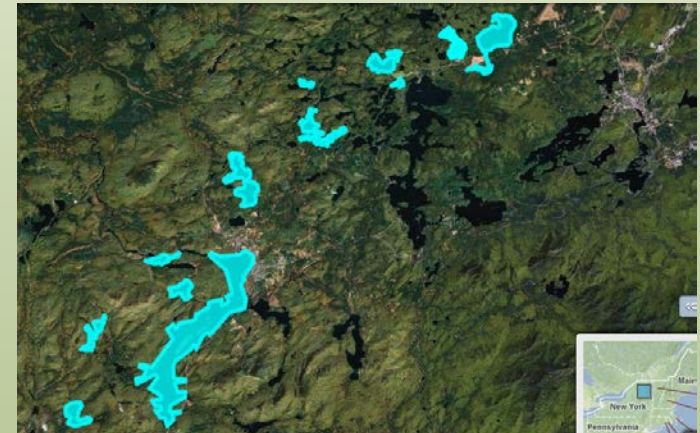
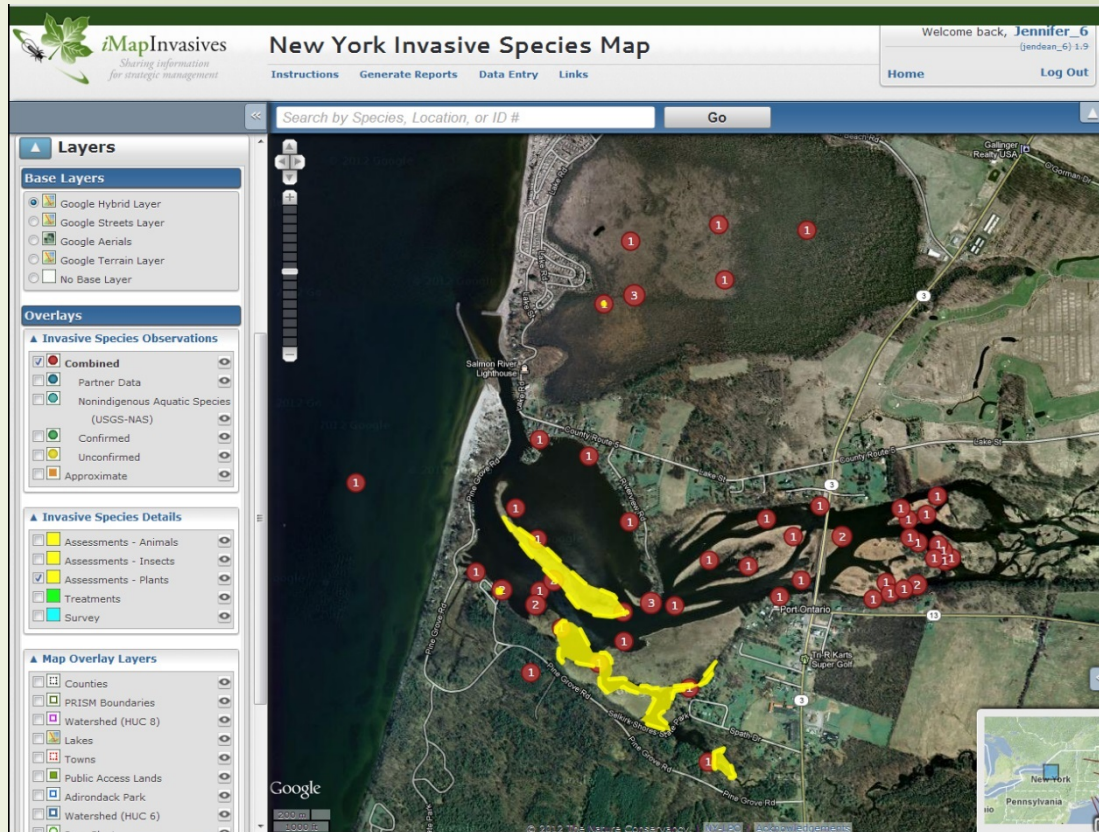
SURVEY – search for presence or absence of a species

**INFESTATION
MANAGEMENT
RECORD**



Online: Managing advanced data

Managing a Geography



*** Survey Area**
Use the buttons on the top right side of the map to add a feature.

- Use the red "x" button to delete a polygon.
- Use the green "+" button to draw a new polygon. (Double click to end drawing the survey polygon.)
- Use the pan button to move the map or edit the polygon.

Polygon Area (in square meters): 3591655.118574269

Basic Survey Fields

* Lead Contact: Johnstone, Meghan

Project Name: APFP 2011 Volunteer Lake Monitoring Program

Site Name: Big Wolf Lake

* Survey Goal: to find potential EDRR locations



Intro

- **PRISMs** *Partnerships for Regional Invasive Species Management*
- **Importance of Early Detection**

Username = iMap Username
first three letters of first name
& last name (in full)
EXAMPLE: johsmith
PASSWORD: "changeme2017"

iMapInvasives Online

- **Online – Map & Table**
- **Online – Query/Report & Email Alerts**

iMapInvasives App

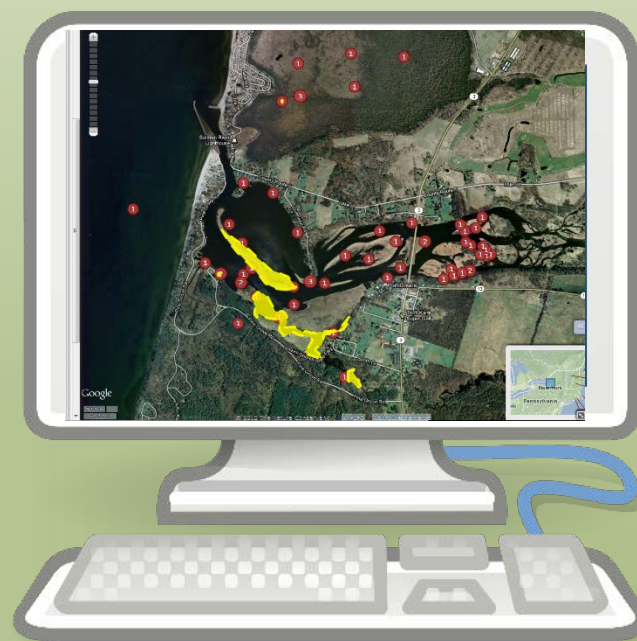
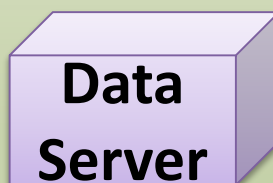
- **App – Download/Set Preferences**
- **App – Record an Observation**
- **App - Upload; Test & View Online**

Wrap-Up

- **Watercraft Inspection Station Program App ("WISPA")**
- **8 Things You Can Do – *by Megan Phillips***
- **Questions**

The iMap Mobile app is a convenient way to collect new records for viewing and editing on the full online interface

(You will use the same iMapinvasives username and password for both)



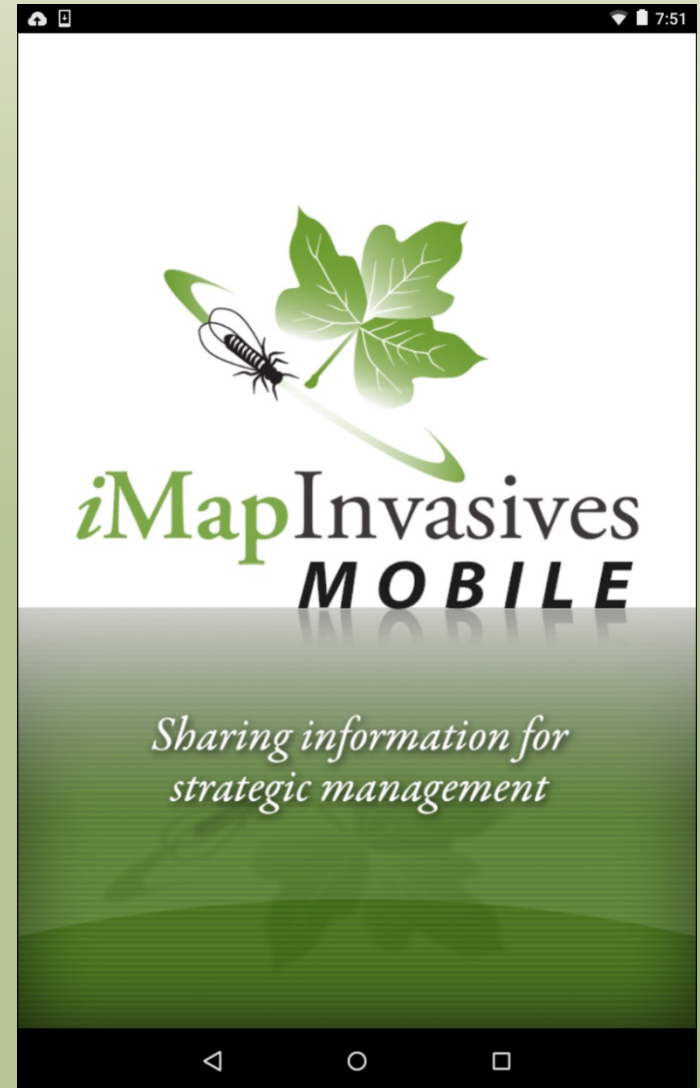
iMapInvasives Mobile App

Collect observations using your phone GPS and camera. Upload to server on wi-fi.

iMapInvasives Online

Full browser-based mapping functionality to search the data, produce maps, and enter data, from new locations, to detailed treatments and surveys.

Observation Data-entry
in the field...
without connectivity
App - smartphone



Download iMapInvasives Mobile App

Method 1: OR

Method 2:

- Android: playstore
- iPhone: AppStore
- Download - FREE

Search:

“imapinvasives mobile”

- Phone Browser:
(e.g. Chrome or Safari)
- <http://www.nyimapinvasives.org/>
“Mobile” tab
- Click icon
- Download - FREE

Method 2:

www.NYimapinvasives.org


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http://imapinvasive x Wikipedia, the free x My.Dec x HeritageWiki x Mobile - New York x Google Maps x Google

www.nyimapinvasives.org/mobile

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Search this site

 *Sharing information for strategic management*

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Mobile

Report invasive species with your smartphone!

iMapInvasives Mobile App - Collect observations on your phone, then upload directly to your iMapInvasives online account once back in connectivity.

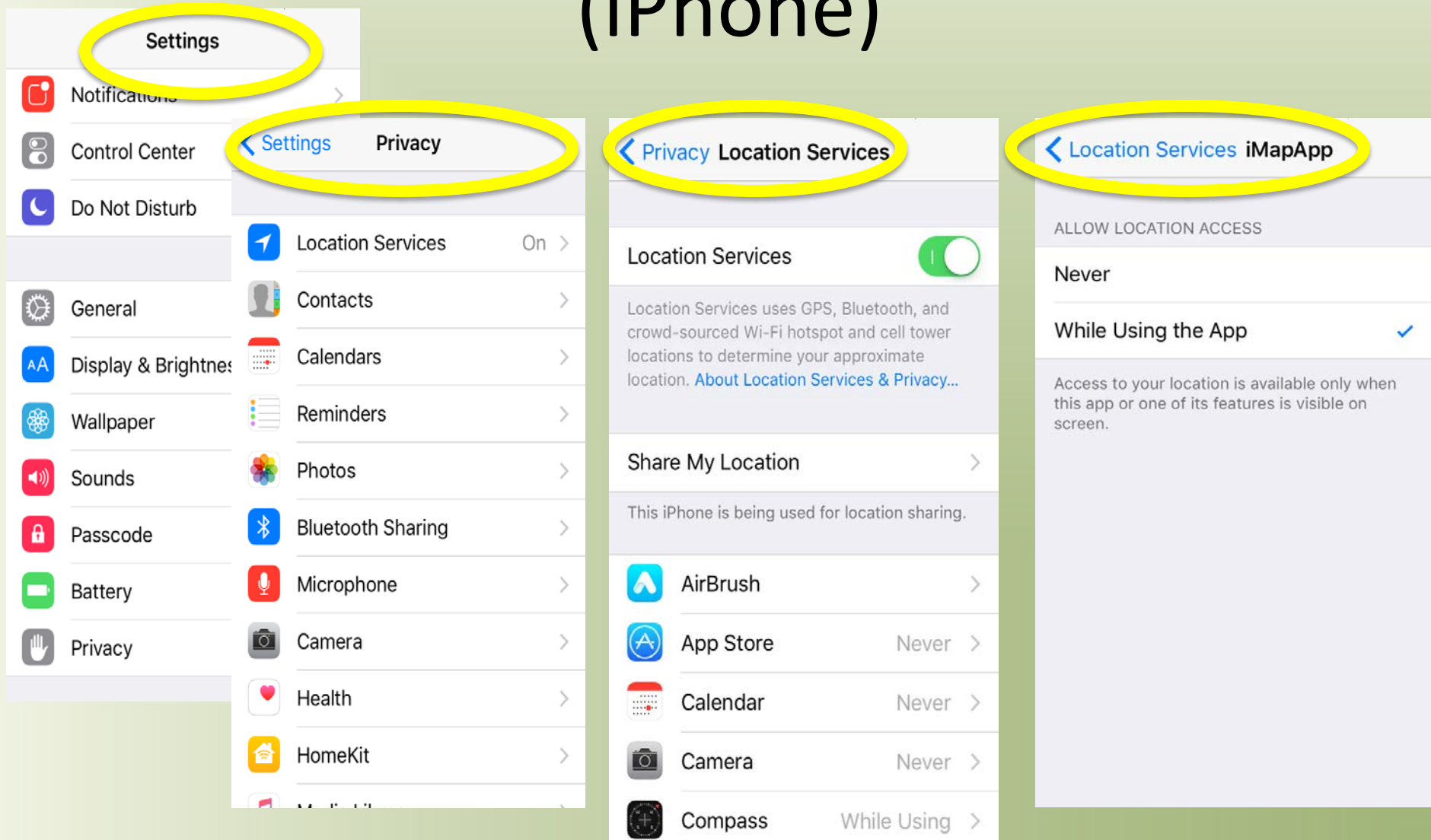
Check out the [Quick Start Guide](#) or [iMapMobile User Manual](#) for help.

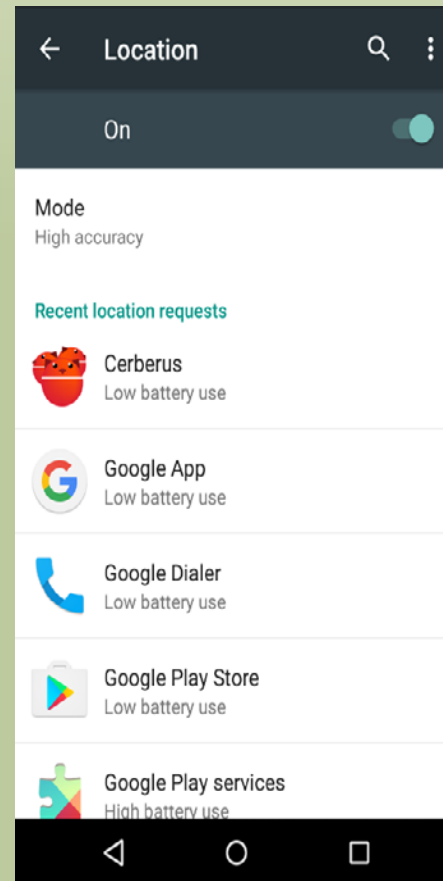
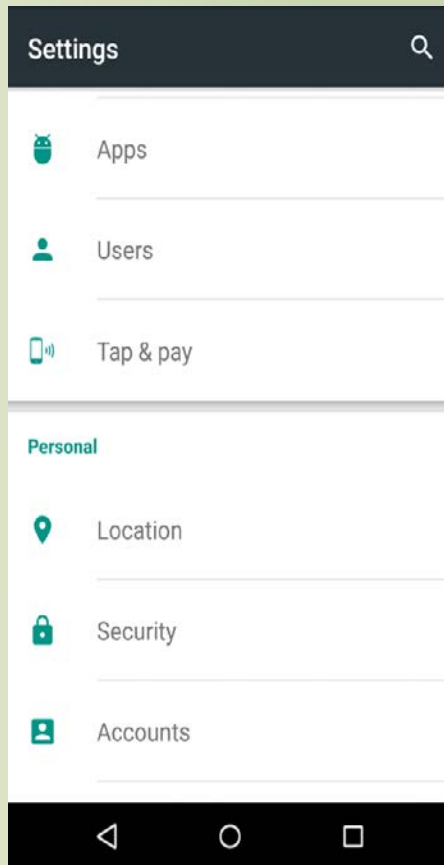
iMapInvasives Mobile App Minimum Requirements:

Android: 5+

How to: Turn on Location Services (iPhone)



How to: Turn on Location Services (Android)



Open the App & Set Preferences

Username = iMap Username
first three letters of first name
last name (in full)
EXAMPLE: johsmith
PASSWORD: "changeme2018"



A screenshot of the 'Preferences' screen. A yellow circle highlights the 'State' dropdown menu, which is currently set to 'New York'. Another yellow circle highlights the 'Username' text input field, which includes a note: '(user names are case sensitive and in most cases all lowercase)'. Other fields visible include 'First:', 'Last:', 'Password:', and 'Species Name:'.

A screenshot of the 'Species' configuration screen. It features a 'Species Name:' section with 'Scientific' and 'Common' tabs, where 'Common' is selected. Below this is a 'Customize Species List' button. The 'MapType:' section has 'Road' and 'Satellite' tabs, with 'Satellite' selected. A 'Default Zoom' slider is set to 12. The 'Default Project:' dropdown is set to 'RIT Capstone Project 2016'. At the bottom are 'Save' and 'Cancel' buttons, and an 'Update States Data' button. The footer shows 'Last Update: 2016-03-30'.

Preferences: Custom species list

“Presence”

Hemlock Woolly Adelgid →

State: Verizon 8:43 PM 82%

New York

First:

Select Your Species

- ☐ Trumpet creeper
- ☐ Tufted Vetch
- ☐ Variable Flatsedge
- ☐ Velvet-leaf
- ☐ Viburnum Leaf Beetle
- ☐ Virile Crayfish
- ☐ Wall Lettuce
- ☒ Water Chestnut, Water-chestnut
- ☐ Water Flea, a Cladoceran
- ☐ Water Hyacinth

Water Chestnut, Water-chestnut

Wild Parsnip

X-HWA - NOT Detected

X-Water chestnut - NOT Detected

Yellow Iris, Water-flag, Yellow flag iris...

Road Satellite

“Absence” →

X-HWA NOT Detected

Comments:

Search effort - # trees & # branches

Menu Bars

- Help Text





Add Observation

- Tips:
- Close other mapping apps
 - Make sure the phone's GPS is on and allowed to talk to the app

Take Photo

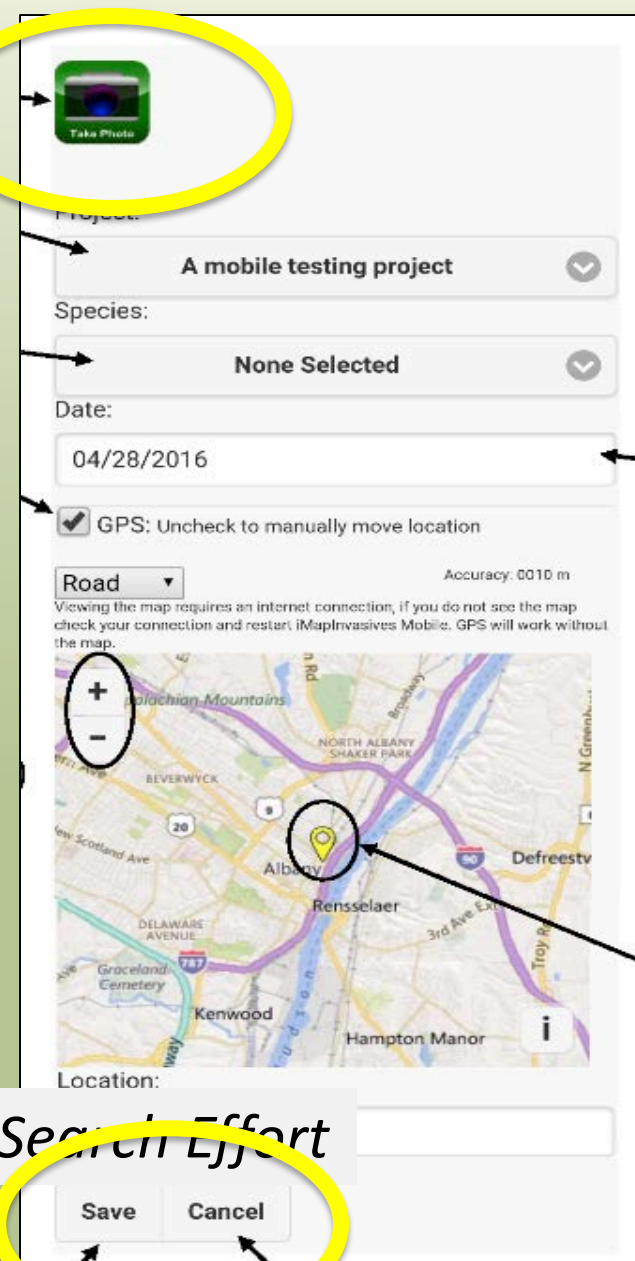
Project

Default in Preferences

Select species

Uncheck to move point

Comment – “X” – Search Effort



“Fake Species (for testing)”

- Comments: “Test”



In Field

- No Connectivity
- No map
- GPS *On*
- Coordinates
 - With 73-ish & 42-ish;
 - NOT “0,0”

The screenshot displays the iMapInvasives Mobile app interface. At the top, there is a 'Take Photo' button. Below it, the 'Project' dropdown is set to 'A mobile testing project'. The 'Species' dropdown is set to 'None Selected'. The 'Date' field shows '04/28/2016'. A checkbox for 'GPS' is checked, with the text 'Uncheck to manually move location'. Below this, a 'Road' dropdown is visible, and the accuracy is noted as '0010 m'. A map of the Albany, New York area is shown, with a yellow location pin placed in the Rensselaer area. The map includes labels for 'Albany', 'Rensselaer', 'Hampton Manor', 'Defreestville', 'Troy', '3rd Ave Ext', '787', '20', '90', 'N Green', 'Broadway', 'Beverly', 'North Albany Shaker Park', 'Delaware Avenue', 'Graceland Cemetery', 'New Scotland Ave', and 'Hudson River'. Below the map, the 'Location' field displays the coordinates '-73.7488438, 42.6525417'. At the bottom, there are 'Save' and 'Cancel' buttons. A yellow oval highlights the 'Location' field and its coordinates. Arrows point to various elements: the 'Take Photo' button, the 'Project' dropdown, the 'Species' dropdown, the 'Date' field, the 'GPS' checkbox, the map, the location pin, and the 'Location' field.

Take Photo

Project:
A mobile testing project

Species:
None Selected

Date:
04/28/2016

☒ GPS: Uncheck to manually move location

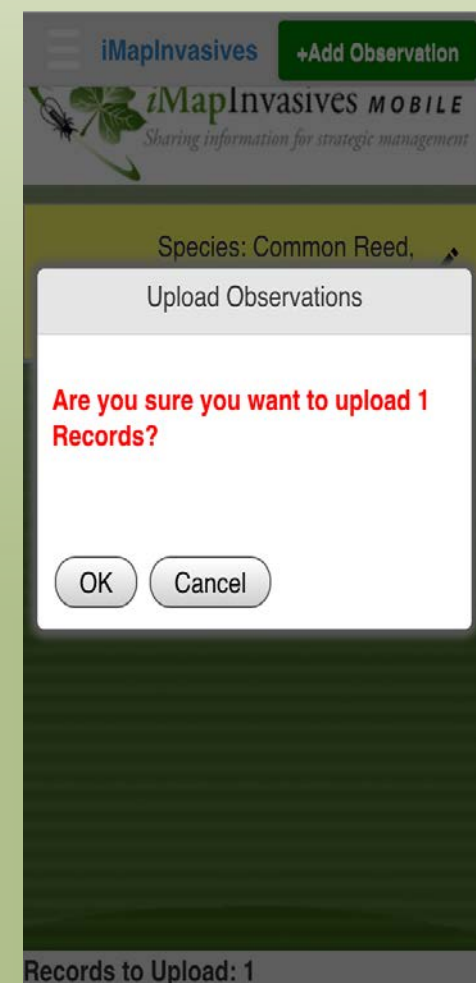
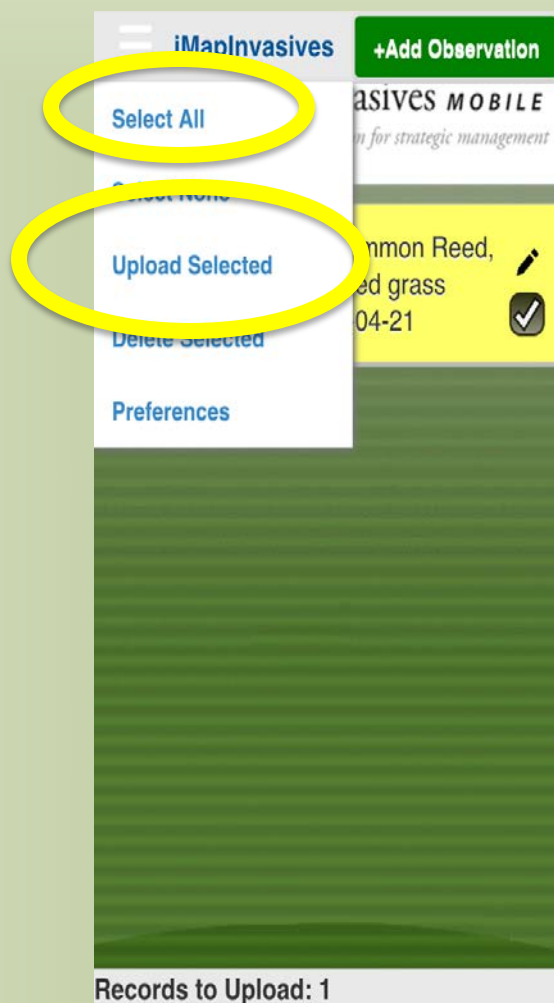
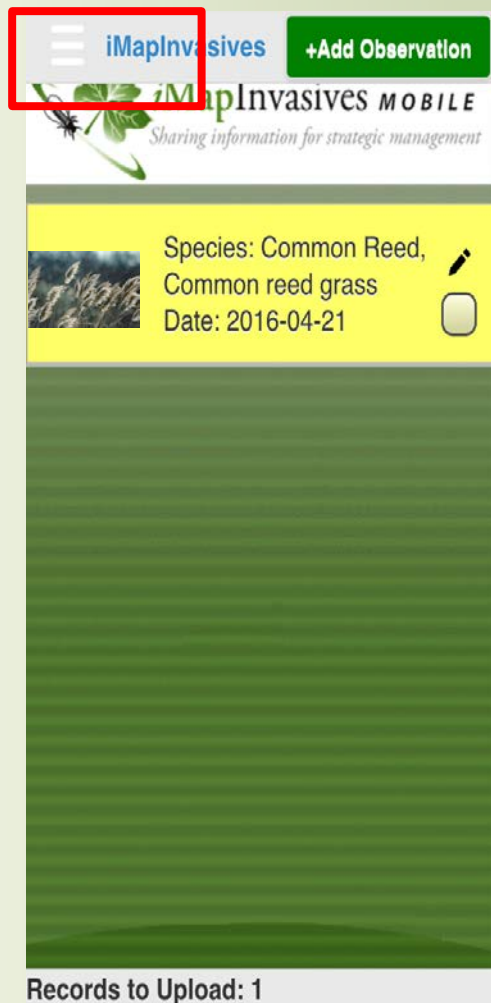
Road Accuracy: 0010 m

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.

Location:
-73.7488438, 42.6525417

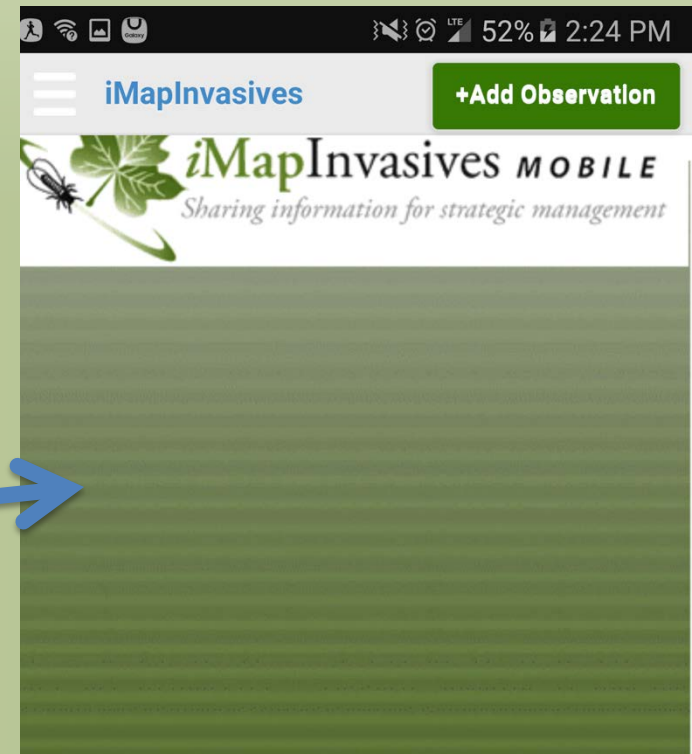
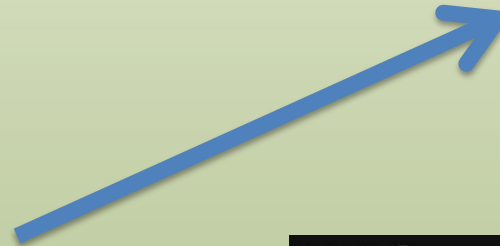
Save Cancel

How to: Upload Your Point (Wifi suggested)





“Cards” phone → iMap



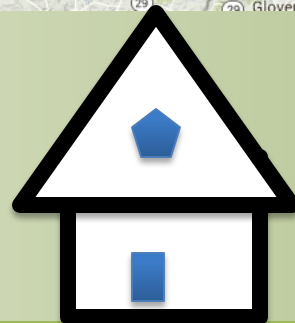
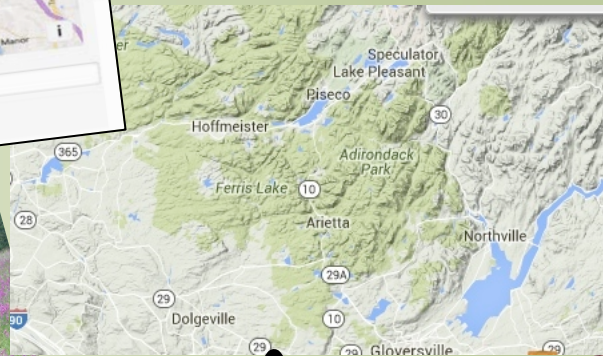
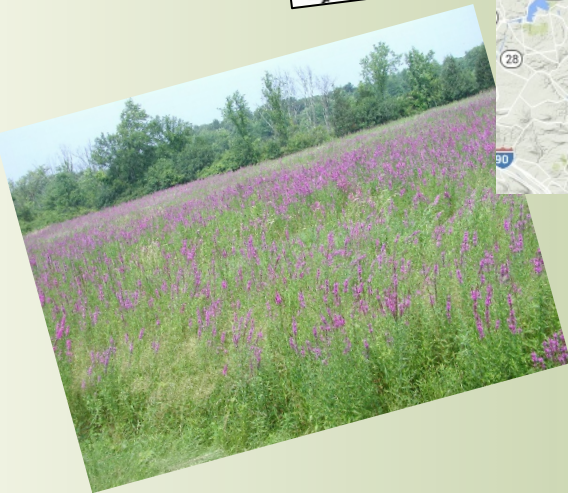


Test & Then View Online

Project: A mobile testing project
Species: None Selected
Date: 04/28/2016
GPS: Uncheck to manually move location
Road: [dropdown]
Location: -73.7488438, 42.6525417
Save Cancel

Username = iMap Username
Check email
Default: xxxzzzzzzz
X = first three letters of first name
Z = last name (in full)

iMapInvasives
+Add Observation
ASIVES MOBILE
for strategic management
Common Reed,
ed grass
04-21
Records to Upload: 1



LIVE – Check Table



Test & Then View Online



iMapInvasives
Sharing information
for strategic management

New York Administrator Tools

Location: **My iMapInvasives**

Welcome back, **Meg**
(megwilkinson, User Level 10) 2:06
[Home](#) [Log Out](#)

[Show Your iMap Stats](#)

My iMapInvasives

Resources

Data Management

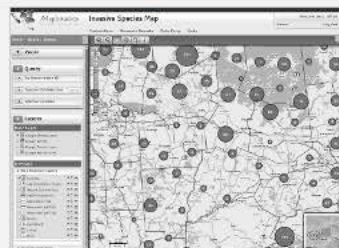
System Management

Enter Data



- Observation
- Survey
- Treatment
- Infestation Management

View the Map



- View the Map
- Not using a high-speed internet connection?

View Table

Date	Species	Location	Status
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed
2012-01-15	Japanese Knotweed	New York	Observed

- All Observations
- Surveys
- Treatments
- Infestation Management
- Assessments
 - Animals
 - Insects
 - Plants
- IPMDAT Shared Results

Query and Reports



- Custom Observation Query**
- All Data Summary Report
- All Species by County: Report Table
- Infested Lakes: Report Table
- Report with Observation IDS
- Active Projects: All Projects
- My Projects with Details
- Admin: Summary Report



Test & Then View Online



iMapInvasives
*Sharing information
for strategic management*

New York Administrator Tools

My iMapInvasives :: [Custom Query](#) :: [Observations Table](#)

Welcome back, **Meg**
(megwilkinson, User Level 10) 2:06
[Home](#) [Log Out](#)

Observations Table

[Custom Data Query](#)

Active Custom Query

Data Set = all_data

[Clear Query](#)

[Search](#)

0 - 25 of 162,259 results

ID	Status	Scientific Name	Common Name	Observer	Organization	Date	County	Photo(s)	Entry Date ▼	Entry Person
NY-412244U	Unconfirmed	Lonicera maackii	Amur Honeysuckle	julgrinstead	State University of New York College of Environmental Science and Forestry	2016-06-21	Onondaga	Yes	2016-06-27 10:45:59	julgrinstead
NY-412243U	Unconfirmed	Lonicera maackii	Amur Honeysuckle	julgrinstead	State University of New York College of Environmental Science and Forestry	2016-06-21	Onondaga	Yes	2016-06-27 10:42:16	julgrinstead
NY-412242U	Unconfirmed	Bythotrephes longimanus	Spiny Waterflea	sarpowers	New York State Office of Parks Recreation and Historic Preservation (NYS OPRHP)	2016-06-11	Seneca	No	2016-06-27 10:29:05	matbrincka
			Curly Pondweed, Crisped Pondweed		New York State					



Test & Then View Online



New York Administrator Tools

My iMapInvasives :: Observations :: ID: NY-415233U

Welcome back, **Meg**
(megwilkinson, User Level 10) 2.07
[Home](#) [Log Out](#)

Observation Information

NY-415233U

Data Entry Person: **catpedler**
Observer: **Cathy Pedler**
Organization: **Adirondack Mountain Club (ADK)**

Project: **Adirondack Backcountry Forest Pest Monitoring 2016**

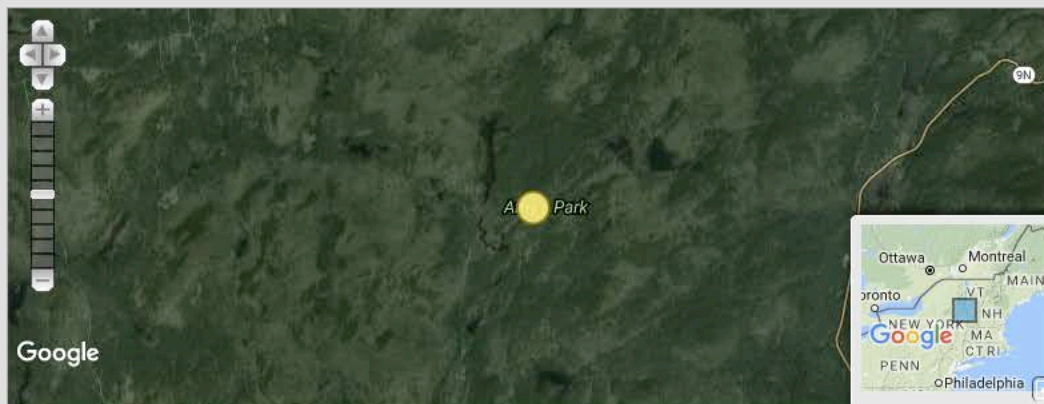
Dates
Observed: **Sept. 14, 2016**

Species
X-HWA - NOT Detected
X-Adelges tsugae (NOT Detected)
Status: **Unconfirmed**

Geographic Data
County: **Warren**
ID: **NY-415233U**

[View Observation on Map](#)

[Create Assessment for this Observation](#)



608894 4833332 State based Coordinates

Latitude	Longitude
43.6450136	-73.6498153
43°38'42"N	73°38'59.3"W

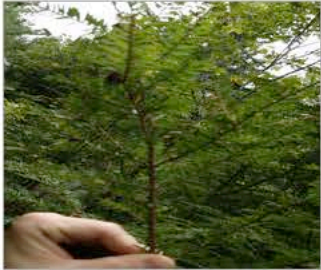
0,0 Coordinates of mouse position over map

Online – Add Photos

Save New Map Location

Photos

Closeup Photo



pedler



Upload New Photos



Test & Then View Online



iMapInvasives
Sharing information
for strategic management

New York Administrator Tools

Location: **My iMapInvasives**

Welcome back, **Meg**
(megwilkinson, User Level 10) 2:06
[Home](#) [Log Out](#)

[Show Your iMap Stats](#)

My iMapInvasives

Resources

Data Management

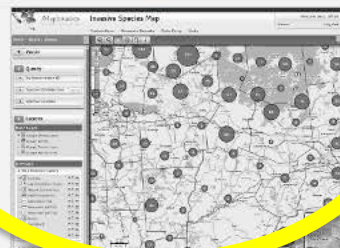
System Management

Enter Data



- Observation
- Survey
- Treatment
- Infestation Management

View the Map



- View the Map
- Not using a high-speed internet connection?

View Table

Species Name	County	Latitude	Longitude	Species Code	Species Name	Species Code
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000
1000000000	Albany	42.65	-73.75	1000000000	1000000000	1000000000

- All Observations
- Surveys
- Treatments
- Infestation Management
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Query and Reports



- Custom Observation Query**
- All Data Summary Report
- All Species by County:
Report
Table
- Infested Lakes:
Table
Report
Report with Observation IDS
- Active Projects:
All Projects
My Projects with Details
Admin: Summary Report



Intro

- **PRISMs** *Partnerships for Regional Invasive Species Management*
- **Importance of Early Detection**

iMapInvasives Online

- **Online – Map & Table**
- **Online – Query/Report & Email Alerts**

iMapInvasives App

- **App – Download/Set Preferences**
- **App – Record an Observation**
- **App - Upload; Test & View Online**

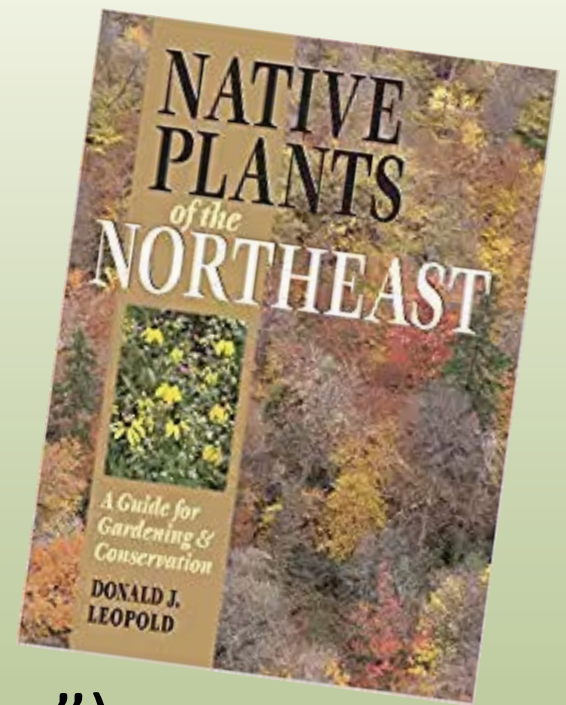
Wrap-Up

- **8 Things You Can Do – *by Megan Phillips***
- **Questions**

Things You Can Do

From Megan Phillips

1. Don't Move Firewood
2. Clean, Drain, Dry *boat/kayak, etc*
3. Know Before You Grow ("Plant Native")
4. Don't Let It Loose (exotic pets/fish)
5. Play, Clean, Go *bike/4-wheel/hiking shoes*
6. Don't take the (Invasive) Bait
7. Report to iMap
8. Keep Up With Your PRISM





READY to Search 😊

- ✓ Know how to ID some invasive species
- ✓ App downloaded to smartphone
- ✓ Local observation point uploaded to iMap
- ✓ Checked local obs point - online iMap (view Map & view Table)
- ✓ Checked online for known invasive species locations



Comments:

Search effort - # trees & # branches



Questions?

<http://www.nyimapinvasives.org>
[Email: imapinvasives@dec.ny.gov](mailto:imapinvasives@dec.ny.gov)

Thank You!