LASSO TOOL

Better understand species distributions when using the map.

Lasso Tool

The lasso tool provides a faster and more effective way to understand which species have been found in a certain area on the map.

How to access the lasso tool?



Based on symbology alone, it is impossible to know which species are being represented on the map in this screenshot. With the lasso tool, this task is made possible.

Example of Using the Lasso Tool

I want to see all the invasive species findings reported at the Flight 93 National Memorial in iMapInvasives.







1. Open the map from the main navigation page.



2. Zoom to the desired area using the zoom ladder (left side of map) OR use the search bar by typing "Flight 93 Memorial" and clicking the magnifying glass to search.



3. Turn on the "Confirmed" and "Approximate" data layers. (This may take a few moments.) Do not turn on "Unconfirmed" data as this data has not been reviewed by the Administrator.



4. Click the lasso tool and draw a box around the data you wish to analyze. Double click to finish drawing your polygon.

🖸 MAP - PA iMapInvasives - Google Chrome									
$\leftarrow \rightarrow$ C \bigtriangleup [] login.imapinvasives.org/paimi/map/									
🛗 Apps 🖉 ADP ezLabor 🏠 Redmine 🝐 Google Drive 🍠 iNaturalist 🔤 Pixabay 🔕 BONAP 🛛 PA iMapInvasives									
iMapInvasiv Sharing information for strategic management	res Pen Instruct	nsylvania Inva tions Generate Reports D	asive Speci	es Map			Hor	Welcome back, Amy (amyjewitti0, User Level 10) 2.08 me Log Out	
	Flight	nt 93 Memorial			Q 0	a	2		
 Google Hybrid Layer Google Terrain Layer Google Aerials Bing Aerial WithLabels Bing Aerial 		R.B. U	7	oomer Hill Rd E Cemeter	Rd	()		Mouse Position Long:-78,9109 /Lat:40.0733 X:166481 /Y:4443225	
OpenStreet Maps	ID	Scientific Name	Common Name	Organization	County Observe	d Data Status		1019	
Overlays A Invasive Species Observation	PA-5606U	Centaurea biebersteinii; Centaurea stoebe ssp. micranthos	Spotted Starthistle	The Pennsylvania State University - DuBois campus	Somerset 2013-07-	Confirmed			
Confirmed	PA-56420	Cirsium vulgare	Bull Thistle	University - DuBois campus	Somerset 14	Confirmed		ogninsula Dr	
Unconfirmed Approximate	PA-5643U	Centaurea biebersteinii; Centaurea stoebe ssp. micranthos	Spotted Starthistle	The Pennsylvania State University - DuBois campus	Somerset 2013-07- 14	Confirmed	(
Problem	PA-5849U	Cirsium vulgare	Bull Thistle	The Pennsylvania State University - DuBois Campus	Somerset 2013-07- 14	Confirmed		Pening	
Deleted	PA-5850U	Cirsium arvense	Canada Thistle; Creeping Thistle	The Pennsylvania State University - DuBois Campus	Somerset 2013-07-	Confirmed		N Shore	
Invasive Species Details Assessments - Animals	PA-5851U	Centaurea biebersteinii; Centaurea stoebe ssp. micranthos	Spotted Starthistle	The Pennsylvania State University - DuBois Campus	Somerset 2013-07- 14	Confirmed	1019	TTO A	
Assessments - Insects	PA-6547U	Centaurea biebersteinii; Centaurea stoebe ssp. micranthos	Spotted Starthistle	The Pennsylvania State University - DuBois Campus	s Somerset 2013-07- 17	Confirmed	W Shore	IndianLake	
Treatments	PA-6548U	Cirsium vulgare	Bull Thistle	The Pennsylvania State University - DuBois Campus	Somerset 2013-07- 17	Confirmed	Trail.	Peninsula Di Tridita	
Treatment - Problem Data	PA-6203U	Elaeagnus umbellata	Autumn Olive	The Pennsylvania State University - DuBois Campus	Somerset 2013-07- 15	Confirmed	I P		
Survey	PA-6204U	Elaeagnus umbellata	Autumn Olive	The Pennsylvania State University - DuBois Campus	Somerset 2013-07-	Confirmed	Penins	A	
Survey - Problem Data	PA-5669U	Cirsium arvense	Canada Thistle; Creeping Thistle	The Pennsylvania State University - DuBois Campus	Somerset 2013-07- 14	Confirmed	ula or	St.	
	PA-5809U	Cirsium arvense	Canada Thistle; Creeping Thistle	The Pennsylvania State University - DuBois Campus	Somerset 2013-07- 14	Confirmed	N S	Report a map error	

5. Watch as a window appears, detailing all the selected records.



6. Scroll to the bottom of the window. There you'll see buttons which allow you to view this data in a Report or Table format.

Administrator Tools iMapInvasives - Google Chrome		Chapies includes
← → C △ ③ login.imapinvasives.org/paimi/reports/generate/?data_entry_method_	- qualifier=%20&obsdatastatus_qualifier=%20&org_qualifier=%20&obsid=PA-5606U%20PA-5642U%20PA-5643U%20PA-5849 Q 🕁 🚺 📓 🤷 🗄	<u>Species include:</u>
🏢 Apps 🙍 ADP ezLabor 🏠 Redmine 👍 Google Drive 🍠 iNaturalist 🔯 Pixabay 🔘 BONAP	PA iMapInvasives	Spotted starthistle
701 Total Observations Found	*	Canada thistle
Date Generated: April 26, 2017		Dull thistle
View Species List		Buil Inisile
Counties: 1 Species: 7		Autumn olive
Users: 3 Projects: 1		
Organizations: 2 Data Entry Method: 1		Bush noneysuckle
Observation Species 1D Method: 1		Reed canary grass
Country Depart 1 Counties		Need canary grass
County Report - I Counties		Multiflora rose
Counties Found		
1 Somerset: 701		
Species Report - 7 Species		Strate State
Summary		
300 200 100		
Total Species: 7 Average Number of Observations: 100	3 4 5 6 7 0	
Species Found		
Centaurea biebersteinii; Centaurea stoebe ssp. micranthos Spotted Starthistle	Lonicera spp. (species unknown) Bush Honeysuckle (species unknown)	
149 observations 2-152552	28 observations 2-IMAP1	
Common Invasive Species	Common Invasive Species	
Cirsium arvense Canada Thistle; Creeping Thistle	Phalaris arundinacea Reed Canary Grass	
53 observations 2-154063	1 observation 2-159238	

7. Here's what the data would look like in a report. We can quickly see that there are 701 observations, 7 invasive species being reported on, and 3 observers.

EMAIL ALERTS

Quickly find out about new invasive species findings that are relevant to you.

Benefits of Using Email Alerts

- Stay informed of recent invasive species findings.
- Prioritize your organization's survey and treatment efforts based on information provided in alerts.
- <u>Take action</u> to prevent the spread of rare invasive species or species recently discovered in Pennsylvania for the first time.

Note: There are 3 alert types are available in iMapInvasives. Make use of the alert(s) that best suit your needs. Take action based on data from email alerts!



Volunteers participating in a water chestnut pull. Photo credit: www.timesunion.com

Alert #1: Continual Alert

- Puts a focus on:
 - Any one species, or group of species, which you have an interest in staying aware of.
- You choose an area of interest such as:
 - County
 - CWMA
 - Waterbody
 - All of Pennsylvania
- Which observations trigger this alert?
 - Observations found one year ago or sooner.

This is the most basic alert type and is useful in staying informed of invasive species findings that are important to you.



Alert me every time Mile-a-minute vine is found in the town of Murrysville, Pennsylvania.



Mile-a-minute vine Photo credit: Connecticut Gardener



Other Examples of a Continual Alert

1. Alert me any time Callery Pear is reported in <u>Valley Forge National</u> Historic Park.



Photo credit: The Daily South - Southern Living



Photo credit: Maryland Biodiversity Project

2. Alert me any time Bog bulrush is reported in Philadelphia County. 3. Alert me any time Water chestnut is reported **anywhere in Pennsylvania**.



Photo credit: Chesapeake Bay Program

Alert #2: Early Detection Alert

- Puts a focus on:
 - Species that are rare or not yet found in Pennsylvania.
- You choose an area of interest such as:
 - County
 - CWMA
 - Waterbody
 - All of Pennsylvania
- Which observations trigger this alert?
 - Observations found one year ago or sooner.
- Note: iMapInvasives considers a species "Early Detection" if there are <u>three or fewer</u> <u>observations</u> for that species in a specified geography.
 - Example: Only <u>two reports</u> for wavy leaf basketgrass have been reported in <u>York County</u>, making this species an "Early Detection" species.

This alert type is useful in "raising a red flag" when new or rare species are found in Pennsylvania (to aid in Early Detection and Rapid Response efforts).



Alert me if Wavyleaf basketgrass is found anywhere in Pennsylvania.



Other Examples of an Early Detection Alert



Photo credit: Wikipedia

Water solider (*Stratiotes aloides*)

Not yet found in Pennsylvania – First report would trigger ED alert.



Photo credit: Pixabay

Policeman's helmet (*Impatiens glandulifera*)

Not yet found in Pennsylvania – First report would trigger ED alert.



Photo credit: per.aasen/Flickr

Pond water-starwort (*Callitriche stagnalis*)

Rare in Pennsylvania – Additional reports would trigger ED alert.



Alert #3: New to Geography Alert

- Puts a focus on:
 - A group of species (*i.e., not individual species*).
 - Species found in an area where they've never been found before.
- You choose an area of interest such as:
 - County
 - CWMA
 - Waterbody
 - All of Pennsylvania
- Which observations trigger this alert?
 - Observations reported up to 200 years ago.

This alert type is useful if you already know the species that are found in a particular place, and you want to be notified when a species never reported there before is found for the first time.

(Different from an early detection alert.)



Alert me when any <u>NEW</u> terrestrial plant is reported in Bear Run Nature Reserve (Fayette County).





Bear Run Nature Reserve is home to the famous Fallingwater house, owned and operated by the Western Pennsylvania Conservancy. Photo credit: archimess.tumblr.com

Other Examples of a New to Geography Alert





Geography Type = County



2. Alert me when any NEW aquatic animal is reported in the **Pymatuning Reservoir**.

3. Alert me when any NEW terrestrial plant species is reported in **Bucktail State Park**.



Geography Type = Conservation Lands

Email Alerts

 To create a new email alert, *i*MapInvasives Pennsylvania User Tools go the main navigation page My iMapInvasives :: Alerts Table and scroll down to the MyAlerts Table Active Alert Add New Alert Personal Information section. Note: Alerts are automatically run and sent nightly Search Click on "Manage my Alerts", then "Add New Alert". Geography Alerts Alert Type Username ID Geography Species Value Sent No records returned My Personal Information My Profile E-Mail Alerts Edit My Profile Manage my Alerts Change my Password My *i*MapInvasives Data View My Data in a Table Download My Observation Data Download Related Data (ESRI gdb) (.csv - formatted for a spreadsheet) Select Data to View Assessment Data • Select Data to Download Select Assessment Data to Download • (.gdb - formatted as an ESRI geodatabase) Select Data to Download Treatments Select Treatment Data to Download • Infestation Management Select Infestation Data to Download • Surveys Select Survey Data to Download •

Additional Email



MANAGEMENT DATA

agetown Pike

and Treatment Data

Assessment Data

Useful in documenting efforts to better understand the impacts caused by an invasive species at a specific location.

Reasons for capturing assessment data:

- Document size of infestation
- Understand what the threats are to a certain area
- Intensity of infestation
- Damage done to a location
- Pre- and post-treatment planning and evaluations





Example: This infestation of purple loosestrife is best documented in iMapInvasives as an assessment record. An assessment allows a user to accurately record population size, damage being caused to the surrounding landscape, and plans for action in the future.



Two ways to enter an Assessment:

• Create a new observation record. After creating a new record, click on "Submit Assessment" button in Step 7.

<u>OR</u>

 Open existing observation record that you've created. Scroll to <u>Related Records</u> section; click on "Enter an Assessment for this observation" hyperlink.



Site Access			
Site Directions			
Related Records	Enter an Assessment for this observation		
Repository Informa	ation		
Repository Informa	ation	•	
Repository Informa Location Available	ation 	•	

Create polygon around infested area using drawing tools on map.





Next, fill in data fields including:

- Evaluation type
 - Pre-treatment
 - Post-treatment
 - Other
- Plant distribution •
- Plant maturity •
- Landscape type •
- Cover class and/or percent cover



V Ph

Asses

Photos						
ssessment Information						
Do not use special symbols in text boxes	. Only l	etters, numbers, and characters found on common keyboards are accepted.				
Plant Type		Plant Terrestrial v				
Scientific Name		Daucus carota				
Common Name		Wild Carrot				
* Observation ID		PA-9321U	?			
Entry Person		aspweitzel_3	?			
Entry Date		2018-02-21 10:39:42.550366	?			
Evaluation Type		b) Pre-treatment	?			
Evaluation Type Comments	A	a) initial b) Pre-treatment c) Post-treatment d) Other	?			

When finished, click Update Assessment to submit the record.

Percent Cover	0.0	1
Percent cover	Enter a number between 1 and 100	
OR		
	×	2
Cover Class		
	0.0	?
Infested Area (square meters)		
	0.00	
Infested Area (Acres)		
	d) Onen naturalized area (e.e. arassland, old field)	
Landscape Type	d) Open naturalized area (e.g., grassiand, old rield)	r
	T	2
Native Vegetation Distribution		<u> </u>
	a) Mixed	
	ay minood	
Landscape and Location Comments	c) Dominant	<u> </u>
	d) Subdominant	
	a) absort	
	D Unknown	
Invacive Plant Information		
Invasive Plant Information		
Plant Distribution	T	?
Plant Distribution (if other - 50 character limit)		?
Plant Maturity	b) Flowers × c) Seeds ×	?
riant ristanty		
Plant Maturity (if other - 50 character limit)		?
,,		
Invasive Terrestrial Plant		
Information		
(IIII) SHITTER S		
Woody Plant Age	a) Seedlings ×	?
· -		
Update Assessment	View on Map	

Examples of Assessment Data

- #1: Severe infestation of water chestnut (*Trapa natans*) at Bradford Reservoir in Bucks County.
 - Entered by a citizen scientist who participated in the 2017 Water Chestnut Chasers Challenge





Total infested area = 17.58 acres

Examples of Assessment Data

- #2: Population of curly-leaf pondweed in Fords Lake in Lackawanna County.
 - Entered by PA DEP employee.



Total infested area = 25.86 acres



Examples of Assessment Data

- #3: Sporadic patches of swallowwort species along ridgeline near SGL 230 in Cumberland County.
 - Entered by DCNR BOF employee.





Total infested area = 149.29 acres



Conduct a planned search of an area to determine the presence or absence of specific invasive species.

Examples for why to document survey data:

- Capture data collected at a BioBlitz
- Conduct academic research on the distribution of a single species
- Community group in charge of maintaining a park
- Accurately document land stewardship activities
- Record negative/absence data
 - Only method available in iMapInvasives to record where an invasive species <u>wasn't found</u>.



Use of glass-bottomed bucket to survey for underwater invasive species. Photo credit: adkinvasives.com

On main navigation page, click on "Survey" in the Enter Data section.



Choose the type of survey you'd like to create. Various options are available, and each will populate specific fields to fill in.

• For this example, I'll choose Terrestrial simple.





Create a polygon around the area surveyed using drawing tools on map.



Next, fill in data fields. Fields highlighted in pink are required.

- Goal
- Start/end date
- Target species
- Focus area of survey
- Sampling method
- Equipment
- Landscape type

asic Survey Fields		
Do not use special symbols in text boxes. O	nly letters, numbers, and characters found on common keyboards are accepted.	
* Type For descriptions of all survey types, click here	Terrestrial Simple - If you need to select a different survey type you will need to restart the record. Press Ctrl + F5	?
* Lead Contact	Jewitt, Amy	?
roject Name	T	?
ite		?
Goal	b) Find new infestations	?
Start Date	2018-03-13	?
End Date	2018-03-13	?
Target Species	Centaurea spp. (species unknown) × Acer platanoides × Ludwigia grandiflora × Potamogeton crispus × Prunus avium × Cynanchum spp. (species unknown) ×	?
Detected Species	Select Some Options	?
n Observation record needs to be created for each		

Here I've selected myself as the Lead Contact; Goal is to find new infestations, Start and end dates are the same (March 13, 2018), and the species that I will be searching for are listed.

When finished, click Update Survey to submit the record.

Survey Data Entry iMapInvasives - Google Chrome		
← → C ☆ Secure https://login.imapinvasives.org/paimi/survey/net	ew/	Q 🏠 🚺 🙆 🗄
🏢 Apps 🛷 ADP ezLabor 🏫 Redmine 🝐 Google Drive 🥖 iNaturalist 🔯 Pix	iabay 🔕 BONAP 🏪 LPO SharePoint 🛛 PA iMapInvasives 👸 WPC Connect	
		2
Sampling Method	a) Visual ×	
Sampling Method Comments		?
Equipment	c) Binoculars × e) Aerial Photographs ×	ř
Equipment Comments		?
Landscape Type	c) horest	
Ourself Ourseas Community		?
overall survey comments		
Demonstration of the state		
Remember to save your data often		
Update Main Survey		
Home Legal Disclosure and Terms of Use Privacy Policy Financials Con	ntact your iMap Administrator	Copyright © 2018 NatureServe.

Examples of Survey Data

- Area surveyed near Fern Ridge Bog Preserve in Monroe County.
- Survey of trail for various terrestrial and wetland species including:
 - Japanese barberry
 - Honeysuckle spp.
 - Purple loosestrife
 - Common reed
 - Japanese knotweed
 - Multiflora
- Detected species = Japanese barberry
- Entered by a staff member of The Nature Conservancy.





Total area surveyed = 37.78 acres

Examples of Survey Data

- Area surveyed in the Youghiogheny River for the presence of water chestnut. None found. Survey record indicates absence data.
 - Entered by a USACE staff member who participated in the 2017 Water Chestnut Chasers Challenge



Total area surveyed = 1,149.63 acres
Examples of Survey Data

- Survey in 2015 at Presque Isle lagoons for starry stonewort, a rare invasive species in PA. <u>Species found</u>; showed a significant expansion from previous survey in 2012.
 - Entered by PA DEP employee.



Total area surveyed = 15.71 acres

Treatment Data

Document efforts to eradicate, control, and suppress invasive species populations.

Examples of treatment measures include:

- Chemical
- Hand pulling
- Grazing (goats)
- Prescribed burning
- Barrier (something to block sunlight)
- Bio-agent (insects used as suppression agents)
- Organized hunt







On main navigation page, click on "Treatment" in the Enter Data section.



Create polygon around treated area using drawing tools on map.

reatment Information		New Record
	Enter obs ID, GPS coordinates, or address (include state/province initials)	Go ?
Aybrid Map Soogle Aerials Soogle Streets iMap Layers Confirmed (zoom for labels) Unconfirmed (zoom for labels) Approximate (zoom for labels) Treatment Survey Assessment Plant Assessment Insect		
State-specific Layers State Layers (Streams, principalities, Magrand Lands		a an interesting

Next, fill in data fields. Fields highlighted in pink are required.

- Goal
- Lead contact
- Target species
- Start/end date
- Permit needed?

*To be a treatment lead contact, send a request to the iMapInvasives administrator.

Basic Treatment Fields		
Do not use special symbols in text boxes. On	ly letters, numbers, and characters found on common keyboards are accepted.	
* Goal	b) Containment	?
* Lead Contact	Seiler, Caitlin	?
Data Status	a) Not Reviewed	?
* Target Species	Achillea millefolium × Myosotis scorpioides ×	?
* Observations Affected	PA-4813U; PA-4812U ID Numbers (e.g. NY-123456U; NY-316017U or NY-123456U, NY-316017U) <u>OBSID Scientific Name Observe Date Observer Assessment ID Meters</u>	?
* Start Date	2018-03-13	?
* End Date	2018-03-13	?
* Permit needed?	No	?
Project	T	?
Site		?

Here I've selected a coworker as the Lead Contact; the goal is Containment, Start and end dates are the same (March 13, 2018), and I've filled in the species that will be treated.

Choose your treatment type. Data fields will populate, based on the type selected. In this example, I've chosen mechanical/manual. When finished, click Update Treatment to submit the record.

Treatment Type: Mechanical/	manual Details	
Mechanical Method Used	f) Hand-pulling	?
Disposal method	d) Compost ×	•
Mechanical equipment used	m) Other ×	2
Total Days	1	
Comments		?
Disposal Site	a) On-site	?
Update Treatment		

Examples of Treatment Data

Chemical treatment of gravel ponds in Erie County near Lake Pleasant by staff at the Western Pennsylvania Conservancy.

• Species treated include Eurasian water-milfoil and curly-leaf pondweed.



of ponds treated = 18



Examples of Treatment Data

Manual pulling of spotted knapweed in area owned by the Nature Conservancy in Luzerne County. All pulled plants were left on site to compost.

• Entered by TNC employee.





Total treated area = 0.02 acres

Examples of Treatment Data

Area near Pittsburgh infested with oriental bittersweet and Japanese knotweed; treated by allowing goats to graze the area and eat the invasives.

• Treatment conducted by Steel City Grazers (now called Allegheny Goatscape) and the Western Pennsylvania Conservancy.





Total infested area = 0.20 acres

goats (and one donkey) at Allegheny Goatscape

QUERYING FOR ADVANCED DATA

Learn how to find the data you're looking for. This includes your data and data from others.



Querying for Advanced Records

Okay, so you just finished entering an <u>Assessment</u> record. How do you go back into iMap and retrieve it?

- Option 1: Find the affiliated observation
- Option 2: Use the map
- Option 3: Custom data query





Step 1: Click on "View Table" from the main navigation page.

Observ	ations Tab	le							Cu	stom Data Query
Active Cust	tom Query									
Data Set = al	l_data Clear Qu	ery								
341u Showing: 34	Gipar		Search							
ID	Status	Scientific Name	Common Name	Observer	Organization	Date	County	Photo(s)	Entry Date▼	Entry Person
PA-7341U	Unconfirmed	Potamopyrgus antipodarum	New Zealand Mudsnail	nicmacelko	Eco Action (PSU)	2017-04-12	Centre	Yes	2017-04-12 20:19:09	nicmacelko
PA-6341U	Confirmed	Elaeagnus umbellata	Autumn Olive	tobneal	The Pennsylvania State University - DuBois Campus	2013-07-16	Somerset	No	2017-01-05 10:45:24	ethwest
PA-5341U	Confirmed	Cirsium arvense	Canada Thistle; Creeping Thistle	brydolney	Pittsburgh Parks Conservancy	2014-06-16	Allegheny	Yes	2016-05-11 11:06:14	joedephillips
PA-4341U	Confirmed	Ludwigia peploides	Primrose-willow	alaeverett	Pennsylvania Department of Environmental Protection	2015-08-17	Bucks	Yes	2016-03-03 10:41:49	amyjewitt10
PA-3341U	Confirmed	Phragmites australis ssp. australis	Common Reed	weed_warriors	Weed Warriors	2012-07-05	Erie	No	2014-08-11 13:39:59	dandudra
PA-2341U	Confirmed	Adelges tsugae	Hemlock Woolly Adelgid	amyjewitt10	Western Pennsylvania Conservancy	2014-04-26	Fayette	Yes	2014-05-09 10:33:28	amyjewitt10
PA-341U	Confirmed	Dreissena polymorpha	Zebra Mussel	milostrofsky	Allegheny College	2004-05-20	Mercer	No	2013-07-15 15:56:30	amyjewitt10

Step 2: Locate and open the appropriate observation record by using the search bar near the top of the page.



Step 3. Once the observation record is open, scroll down to the Related Records section.

Administrator Tools iMapInvasives - Google Chrome			c	ð	8
→ C ☆ ③ login.imapinvasives.org/paimi/observation	on/PA-341U/		☆ 🖸 🛙	3 0	:
👖 Apps 🛷 ADP ezLabor 🎢 Redmine 🔥 Google Drive 🖋 iNat	uralist 🛛 Pixabay	BONAP PA iMapInvasives Water samples for the enumeration of planktonic veligers were collected weakly from three mid-lake locations from mid-May to late-October 2004." South Lake - obcomption location is not exact, but represents that summer were conducted in different			
Site Directions		parts of the lake			
Related Records					
Assessment ID		PA-1012U-A	?		
Specific Information					
Is Significant Record		0	?		
Suspicious Distance Flag		0	?		
Data Entry Method		On-line			
Species ID Method		v			
Data Access Information					
Min Download Level			?		
Repository Information					
			2		

Step 4. Note that when an observation has an affiliated assessment record "tied to it", the record ID number will appear as a hyperlink.

Administrator Tools iMapInvasives - Google Chrome					ð	×
→ C ☆ io login.imapinvasives.org/paimi/observation/PA-341	U/		☆		Ō	
Apps 🙉 ADP ezLabor 🎢 Redmine 🝐 Google Drive 🥒 iNaturalist 🔤 F	Pixabay	BONAP PA iMapInvasives waterskning: pressena polymorpha were mist observed in the lake in 2000 (3, while), Lakesheer ark co., personal communication)" - "Water samples for the enumeration of planktonic veligers were collected weekly from three mid-lake locations from mid-May to late-October 2004 "				
Site Directions		Sandy Lake - observation location is not exact; but represents that surveys were conducted in different parts of the lake				
Related Records						
Assessment ID	>	PA-1012U-A		?		
Specific Information						
Is Significant Record		0		?		
Suspicious Distance Flag		0		?		
Data Entry Method		On-line				
Species ID Method	[v				
Data Access Information						
Min Download Level		T		?		
Repository Information						
	[2		

Step 5. By clicking on this hyperlink, you will be "transported" directly to the related assessment record.



Step 1: Click on "View the Map" from the main navigation page.



Step 2: In the Legend on the left side of the page, scroll down to the "Invasive Species Details" section.



Step 3: Check the box next to the type of assessment you are looking for. Options include Animals, Insects, and Plants. (I will choose animals.)



Step 4: Change the background of the map to better view the assessment polygons.



Step 4: Hold down the shift key while drawing a box around an area that includes the assessment you're looking for.



Step 5: Click on the yellow assessment polygon. Note that a window called "Management Record Results" will appear.



Step 6: Click on the appropriate record to bring up the record's details.



Step 1: On the main navigation page in the "View Table" area, locate the Assessment section and click on the type of assessments you would like to view (animals, insects, or plants). I'll choose animals.

iMag Shari for strat	Invasives	Pennsylval Data Management :: (nia Adm	ninistrato ent Table	or Tools				Home	Welcome back, Am (amyjewitti0, User Level 10 Log C
	sessment i		Search							0 - 11 of 11 results
Assessment ID	Observation ID	Scientific Name	Common Name	Observer	Organization	Date	Evaluation Type	Follow Up	Entry Date▼	Entry Person
PA-2106U-A	PA-7328U	Potamopyrgus antipodarum	New Zealand Mudsnail	nicmacelko	Eco Action (PSU)	2017-03-18	a) Initial		2017-03-26 10:47:25	nicmacelko
PA-1012U-A	PA-341U	Dreissena polymorpha	Zebra Mussel	milostrofsky	Allegheny College	2004-05-20	a) Initial		2013-07-15 15:56:30	amyjewitt10
PA-1011U-A	PA-340U	Cipangopaludina chinensis; Bellamya chinensis	Chinese Mysterysnail	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 14:47:40	amyjewitt10
PA-1010U-A	PA-339U	Cipangopaludina chinensis; Bellamya chinensis	Chinese Mysterysnail	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 14:41:21	amyjewitt10
PA-1009U-A	PA-338U	Corbicula fluminea	Asiatic Clam	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 14:21:08	amyjewitt10
PA-1008U-A	PA-337U	Corbicula fluminea	Asiatic Clam	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 14:05:32	amyjewitt10
PA-1007U-A	PA-336U	Dreissena polymorpha	Zebra Mussel	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 11:41:43	amyjewitt10
PA-1006U-A	PA-335U	Dreissena polymorpha	Zebra Mussel	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 11:29:30	amyjewitt10
PA-1005U-A	PA-334U	Dreissena polymorpha	Zebra Mussel	milostrofsky	Allegheny College	2002-09-01	a) Initial		2013-07-15 10:45:13	amyjewitt10
		Dreissena			Allegheny	2002 00 04	N 7 11 1		2013-07-15	

Step 2: Click on the "Custom Data Query" button in the upper right corner.

dministrator Tools iMapInvasives - Google Chrome	
C C login.imapinvasives.org/paimi/assessments/animals/custom_query/	* 🛛 🖾 🖸
Apps 🙍 ADP ezLabor 🇥 Redmine 🝐 Google Drive 🍠 iNaturalist 🔤 Pixabay 🔘 BONAP 🛛 PA iMapInvasives	
MapInvasives Sharing information for strategic management :: Custom Assessment Query	Welcome back, Amy (amyjewit10, User Level 10) 2.08 Home
Animal Assessments - Custom Query	
Assessment Information	
Observation / Assessment / Treatment	
Observation ID:	
Assessment ID:	
Treatment ID:	
Assessment Information	
Follow up: All	
Evaluation Type:	
Landscape Type: All	
Waterbody Type: All	
From the Observation Table	
Observer Name: All Users	
Project: All projects	
Observed Species: All Species	
Observation Date (YYYY-MM-DD):	

Step 3: Filter for a specific assessment record by filling in information in various data fields. There are eleven data fields to choose from for an assessment query. Select the field that makes the most sense to search on, based on what you know about the assessment record.

😨 Administrator Tools iMapInvasives - Google Chrome	
← → C △ ③ login.imapinvasives.org/paimi/assessments/animals/custom_query/	☆ 🛛 📓 🗅 🗄
🔛 Apps 💯 ADP ezLabor 🇥 Redmine 📥 Google Drive 🕖 iNaturalist 🔤 Pixabay 🔕 BONAP 🛛 PA iMapInvasives	
MapInvasives Sharing information for strategic management :: Custom Assessment Query	Welcome back, Amy (amyjewitti0, User Level 10) 2.08 Log Out
Animal Assessments - Custom Query	
Assessment Information	
Observation / Assessment / Treatment	
Observation ID: PA-341U	
Assessment ID:	
Assessment Information	
Follow up: All	
Evaluation Type:	
Landscape Type: All	
Waterbody Type: All	
From the Observation Table	
Observer Name: All Users	
Project: All projects	
Observed Species: All Species	
Observation Date (YYYY-MM-DD):	

Step 4: In this example, I know the observation record ID# associated with the assessment record I'm trying to find, so I'll enter that. (PA-341U).

Administrator Tools iMapInvasives - Google Chrome	
← → C △ O login.imapinvasives.org/paimi/assessments/animals/custom_query/	☆ 🖸 🗟 i
🔢 Apps 🛷 ADP ezLabor 🏠 Redmine 🍐 Google Drive 🍠 iNaturalist 🔯 Pixabay 🔕 BONAP 🛛 PA iMapInvasives	
MapInvasives Sharing information for strategic management :: Custom Assessment Query	Welcome back, Amy (amyjewitt0, User Level 10) 2,08 Log Out
Animal Assessments - Custom Query	
Assessment Information	
Observation / Assessment / Treatment	
Observation ID: PA-341U	
Assessment ID:	
Treatment ID:	
Assessment Information	
Follow up: All	
Evaluation Type:	
Landscape Type: All	
Waterbody Type: All	
From the Observation Table	
Observer Name: All Users	
Project: All projects	
Observed Species: All Species	
Observation Date (YYYY-MM-DD):	

Step 5: Scroll to the bottom of the query page and choose to view your results in a Table or on the Map. (I'll choose the table.)

iMa Shar for stra	pInvasives ring information ttegic management	Pennsylva Data Management ::	nia Adm	ninistrato ent Table	or Tools				Home	Welcome back, A (amyjewitt10, User Level Log
Animal A: Active Custon Obsid = PA-3410	n Query (Gear Query	able							Cus	tom Data Query
Assessment ID	Observation ID	Scientific Name	Search Common Name	Observer	Organization	Date	Evaluation Type	Follow Up	Entry Date▼	0 - 1 of 1 resu Entry Person
PA-1012U-A	PA-341U	Dreissena polymorpha	Zebra Mussel	milostrofsky	Allegheny College	2004-05-20	a) Initial		2013-07-15 15:56:30	amyjewitt10

Step 6: Here are my query results in a table format. Now to view the record, I just click on the row to bring up the assessment details.

Querying for Advanced Records

To query for Survey and Treatment, records, use the following two methods:

- Option 2: Use the map
- Option 3: Custom data query
- <u>Note</u>: Option 1: Find the affiliated observation" only works for querying Assessment records.



Screenshot of treatment records in iMapInvasives.



QUERYING FOR PROJECT DATA

How to find data submitted in the APIPMA project. Who can do this?

How do you retrieve and view all data in the APIPMA project?

- Step 1: Create a custom query
- Step 2: Search by project name
- Step 3: Choose to view the data in a table, report, or map form.

You must be a member of the APIPMA project to contribute data to it.





Step 1: From the main navigation page, choose "Custom Observation Query" in the Query and Reports section.

Query iMapInvasives - Google Chrome				_ f X
$\leftarrow \rightarrow \mathbf{C} \mathbf{\hat{C}} \mathbf{\hat{C}}$	g/paimi/observations/custom_query/			€ ☆ 0 0 :
👖 Apps 🛷 ADP ezLabor 🗥 Redmine 🝐 Google Drive 🖉	🍠 iNaturalist 🔯 Pixabay 🧿 BONAP 👫 LPO SharePoin	t 👸 WPC Connect PA iMapInvasives		
iMapInvasives Sharing information for strategic management My iMapInva	ylvania User Tools sives :: Custom Query		(a	Icome back, Amy myjewitt7, User Level 7) 2.13 Log Out
1 Туре				
Full Data Query	Common Invasive Species	Early Detection	Approaching Region	
2 Criteria				
Any part of the organization name				?
Project				
Project	APIPMA Initial Database (Bohn, H	(imberly) ×		
Data Status				
Data Status is equal to	All		۲	2
Digital Photo				
3 Results				
View Table	View Report View O	n Map Clear All Queries		
L Home Legal Disclosure and Terms of Use Privacy Policy	Financials Contact your iMap Administrator		Copyrigh	t © 2018 NatureServe.

Step 2: Scroll down to the "Project" section and choose "APIPMA Initial Database".

Query iMapInvasives - Google Chrome												
C A Secure https://login.imapinvasives.org/paimi/observations/custom_query/												
👖 Apps 🛷 ADP ezLabor 🐴 Redmine 🝐 Google Drive 🍠	iNaturalist 🔯 Pixabay 🔕 BONAP 🚼 LPO SharePoin	it 👸 WPC Connect PA iMapInvasives										
iMapInvasives Sharing information for strategic management My iMapInvasiv	Welcome back, Amy (amyjewitt7, User Level 7) 2:13 Home Log Out											
1 Type												
Full Data Query	Common Invasive Species	Early Detection	Approaching Region									
2 Criteria												
Any part of the organization name			?									
Project												
Project	APIPMA Initial Database (Bohn, H	Kimberly) ×										
Data Status												
Data Status is equal to 🔹	All		Y ?									
Digital Photo												
3 Results												
View Table	View Report View C	n Map Clear All Queries										
Home Legal Disclosure and Terms of Use Privacy Policy	Financials Contact your iMap Administrator		Copyright © 2018 NatureServe.									

Step 3: Choose which format to view your custom query in.

r Tools iMapInva	sives - Google Chrom	e	, -	, -	_		. –			
) C C 🕯	Secure https://	login.imapinvasives.org/p	aimi/observations/?c	//////////////////////////////////////	qualifier=%20&obsdatast	atus_qualifier=%20)&projectid=\$68\$&	org_qualifier=%20&	user_type=all_data&user	_type=all 😭 🖸
Apps 🔊 ADP e	zLabor 🏠 Redmin	ie 🝐 Google Drive 🍠	iNaturalist 💌 Pixaba	iy 🔕 BONAP 📒	LPO SharePoint 👸 WPC	Connect PA iN	1 apInvasives			
R-AE										Walcomo back
iM	apInvasives	Pennsy	Ivania Us	er Tools						(amyjewitt7, User Level 7) 2
for	haring information strategic management	My <i>i</i> MapInvasive	es :: Custom Query	:: Observations T	able				Home	LUG OL
Observa	ations Tab	ole							Cus	stom Data Query
<u>I</u>										
Active Cust	om Query									
)ata Set = all	_data Project = /	Asaph Wild Area BioBlitz	[2016] Clear Q	иегу						
			Search							0 - 25 of 48 results
ID	Status	Scientific Name	Common Name	Observer	Organization	Date	County	Photo(s)	Entry Date▼	Entry Person
PA-7699U	Confirmed	Prunus avium	Sweet Cherry	bonisaac	Carnegie Museum of Natural History	2016-06-24	Tioga	No	2017-06-07 16:40:29	amyjewitt10
PA-7698U	Confirmed	Trifolium hybridum	Alsike Clover	bonisaac	Carnegie Museum of Natural History	2016-06-24	Tioga	No	2017-06-07 16:37:23	amyjewitt10
PA-7696U	Confirmed	De stulle, els sesses								
		Dactylis glomerata	Orchard Grass	bonisaac	Carnegie Museum of Natural History	2016-06-24	Tioga	No	2017-06-07 16:28:04	amyjewitt10
PA-7694U	Confirmed	Rosa multiflora	Orchard Grass Multiflora Rose	bonisaac betleppo	Carnegie Museum of Natural History Western Pennsylvania Conservancy	2016-06-24 2016-06-24	Tioga Tioga	No	2017-06-07 16:28:04 2017-06-06 13:14:03	amyjewitt10 amyjewitt10
PA-7694U PA-7693U	Confirmed Confirmed	Rosa multiflora	Orchard Grass Multiflora Rose Multiflora Rose	bonisaac betleppo bobross	Carnegie Museum of Natural History Western Pennsylvania Conservancy United States Geological Survey (USGS)	2016-06-24 2016-06-24 2016-06-23	Tioga Tioga Tioga	No No No	2017-06-07 16:28:04 2017-06-06 13:14:03 2017-06-06 13:11:55	amyjewitt10 amyjewitt10 amyjewitt10
PA-7694U PA-7693U PA-7692U	Confirmed Confirmed Confirmed	Rosa multiflora Rosa multiflora Rosa multiflora	Orchard Grass Multiflora Rose Multiflora Rose Multiflora Rose	bonisaac betleppo bobross bonisaac	Carnegle Museum of Natural History Western Pennsylvania Conservancy United States Geological Survey (USGS) Carnegle Museum of Natural History	2016-06-24 2016-06-23 2016-06-23	Tioga Tioga Tioga Tioga	No No No No	2017-06-07 16:28:04 2017-06-06 13:14:03 2017-06-06 13:11:55 2017-06-06 11:09:19	amyjewitt10 amyjewitt10 amyjewitt10 amyjewitt10
PA-7694U PA-7693U PA-7692U PA-7691U	Confirmed Confirmed Confirmed Confirmed	Rosa multiflora Rosa multiflora Rosa multiflora Rosa multiflora	Orchard Grass Multiflora Rose Multiflora Rose Multiflora Rose	bonisaac betleppo bobross bonisaac bonisaac	Carnegie Museum of Natural History Western Pennsylvania Conservancy United States Geological Survey (USGS) Carnegie Museum of Natural History	2016-06-24 2016-06-23 2016-06-23 2016-06-23	Tioga Tioga Tioga Tioga Tioga	No No No No No	2017-06-07 16:28:04 2017-06-06 13:14:03 2017-06-06 13:11:55 2017-06-06 11:09:19 2017-06-06 11:07:00	amyjewitt10 amyjewitt10 amyjewitt10 amyjewitt10 amyjewitt10
PA-7694U PA-7693U PA-7692U PA-7691U PA-7690U	Confirmed Confirmed Confirmed Confirmed Confirmed	Rosa multiflora Rosa multiflora Rosa multiflora Rosa multiflora Rosa multiflora	Orchard Grass Multiflora Rose Multiflora Rose Multiflora Rose Multiflora Rose	bonisaac betleppo bobross bonisaac bonisaac bonisaac	Carnegie Museum of Natural History Western Pennsylvania Conservancy United States Geological Survey (USGS) Carnegie Museum of Natural History Carnegie Museum of Natural History	2016-06-24 2016-06-23 2016-06-23 2016-06-23 2016-06-23	Tioga Tioga Tioga Tioga Tioga Tioga	No No No No No	2017-06-07 16:28:04 2017-06-06 13:14:03 2017-06-06 13:11:55 2017-06-06 11:09:19 2017-06-06 11:07:00 2017-06-06 11:04:55	amyjewitt10 amyjewitt10 amyjewitt10 amyjewitt10 amyjewitt10 amyjewitt10

Table View Example
Querying for Project Data

User Tools iMapInvasives - Google Chrome	
 × A O thtps://login.imapinvasives.org/paimi/reports/generate/?user_type=all_data&data_entry_method_qualifier=%20&org_qualifier=%20&obsdatastatus_qualifier=%20&projectid=\$6 Apps @ ADP ezLabor A Redmine & Google Drive / Naturalist I Pixabay O BONAP I LPO SharePoint O WPC Connect PA iMapInvasives 	i8\$ 🖈 🛛 🗅 :
MapInvasives Sharing information for strategic management Pennsylvania User Tools My MapInvasives :: Custom Observation Query :: Generated Report	Welcome back, Amy (amyjewitt7, User Level 7) 2.13 Home Log Out
Generated Report	🚔 Print
Report for Project: Asaph Wild Area BioBlitz [2016]	
48 Total Observations Found	
Date Generated: June 06, 2018	
View Species List	
Counties: 1 Species: 26 Projects: 1 Organizations: 4 Data Entry Method: 1 Observation Species ID Method: 1	
County Poport - 1 Counties	
County Report - I Counties	
Counties Found	
1 Tioga : 48	
Species Report - 26 Species	

Report View Example

Querying for Project Data



Map View Example



PUTTING DATA TO USE FOR YOU!

Make management decisions based on information entered into iMapInvasives by yourself and by others.

Data Analysis: Who's Working in My Area?

You're the Stewardship Manager at a local land trust in Allegheny County and want to see who's managing invasive species in your region.

Example: Use the Lasso tool to show me all the organizations who are conducting treatment efforts in the Pittsburgh region.





Photo credit: Conservation Land Stewardship

Data Analysis: Who's Working in My Area?

- Go to the Map from the main navigation page.
- Turn on the County layer and zoom to Allegheny County.
- Turn on the Treatment layer and zoom in as necessary.
- Use the Lasso tool to group together the data you're interested in viewing.
- View record details to find which groups are active in invasive species management (date of control activity and name of organization).



Use of Lasso tool in iMapInvasives

*Data results: Organizations conducting treatment in the Pittsburgh region include the Pittsburgh Parks Conservancy, Bartlett Tree Experts, and Steel City Grazers (i.e., Allegheny Goatscape).

Data Analysis: Prioritize Survey and Treatment Efforts

You're the leader of the Lake Erie Watershed CWMA and want to know what management efforts are currently underway or have already been completed in the region you manage. This data will help to prioritize future survey and treatment efforts.

Example: Use the Lasso tool to show me all the assessment, survey, treatment, and infestation management records documented in the LEW CWMA.



Tom Cermak (standing), Coordinator of the LEW CWMA controlling invasive weeds.

Data Analysis: Prioritize Survey and Treatment Efforts

- Go to the Map from the main navigation page.
- Turn on the CWMA layer in the Map Overlay Layers section of the legend.
- Zoom into the LEW CWMA (Erie County region).
- Turn on the assessment, survey, and treatment layers.
- Use the lasso tool to group all data together and analyze as appropriate.



DEP WIP watersheds

66 assessments have been recorded in the LEW CWMA.

Data Analysis: Search for Similar Management Efforts

- You are a land stewardship manager in Centre County and want to find out who else in Pennsylvania has done work to control a particular species you are interested in treating.
- Additional questions:
 - What were their treatment methods?
 - Were the treatment efforts recent?

Example: Use the Treatment Custom Query Tool to search for treatments done for Japanese knotweed all across Pennsylvania.



Data Analysis: Search for Similar Management Efforts

- From the Main Navigation page, click on "Treatments" from the View Table section.
- Click on Custom Data Query.
- Choose "*Polygonum cuspidatum*" from the Target Species drop-down list.
- Choose to view the query in a Table.

C A O https://login.imapinvasives.org/paimi/map/# 🚥 ADP ezLabor 🇥 Redmine 💧 Google Drive 🍠 iNaturalist 🔯 Pixabay 🔕 BONAP 🛛 PA iMapInva *i*MapInvasives Pennsylvania Invasive Species Map Wineberry Q 0 4 .ong:-79.8941 /Lat:40.434 1:84817 /Y:4487505 Man Overlay Lave View Table ✓ □ Countie AT 0 Stream HUC 4 AT 0 HUC 6 AT 0 AT 0 REGENT SQUARE HUC 12 ... AT 0 A.T. (0) PFBC Boundari Heritage NHA All Observations Surveys Treatments Two of the treatment efforts occurring in Allegheny County for Japanese knotweed, as recorded in PA iMapInvasives. Assessments Animals Insects Plants IPMDAT Shared Results Custom Data Query

*Data results: A total of 9 treatment efforts involving Japanese knotweed have been recorded in iMapInvasives. Of those efforts, <u>chemical</u>, <u>mechanical/manual</u>, and <u>grazing</u> were all methods used. Treatment dates range from 2010 to 2016.

Questions?

Amy Jewitt Pennsylvania iMapInvasives Coordinator ajewitt@paconserve.org 412-586-2305

www.paimapinvasives.org





Western Pennsylvania Conservancy



