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Photo credit: Conewango Creek Watershed Association

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TRAINING OPPORTUNITY >>>

Learn More About iMapInvasives by Attending an Upcoming Webinar

Take an opportunity in December to learn more about the iMapInvasives database by registering to attend a free webinar training. This webinar is an advanced training and is recommended for natural resource professionals and those individuals that already possess a basic understanding of iMapInvasives.

[For more details on this webinar and information on how to register, please visit the Upcoming Trainings page on the Pennsylvania iMapInvasives homepage for further instructions.](#)

If you are unable to attend this webinar but are still interested in learning about iMapInvasives, stay tuned for additional training opportunities which are scheduled periodically throughout the year. You can also request to set up an in-person training by sending an email to imapinvasives@paconserve.org.



iMapInvasives

Sharing information for strategic management

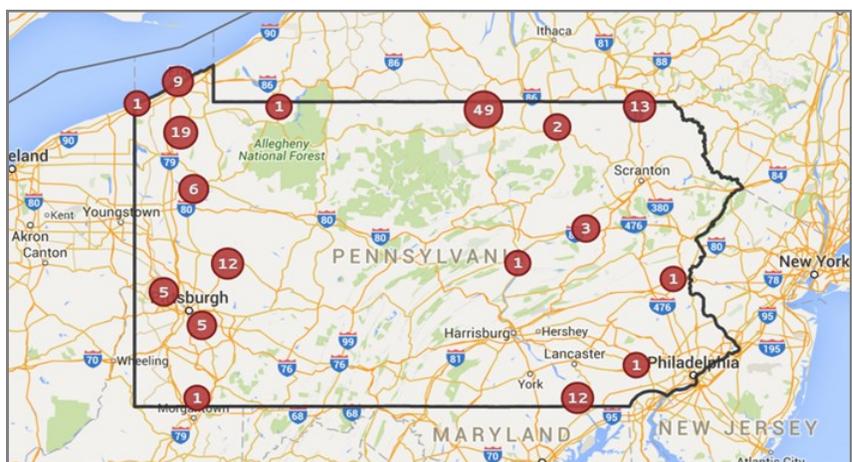
Using the Map in iMapInvasives

Wondering where in Pennsylvania an invasive species has already been found? Look no further...

If you've ever wanted to quickly figure out where a certain invasive species has been found in Pennsylvania, try the map in iMapInvasives. This unique feature allows registered users of Pennsylvania iMapInvasives to easily see exact locations across the state for the species of their choice and details about each location including the date a species was found, who made the observation, and the observer's associated organization.

Using iMapInvasives to find the distribution for a specific invasive species allows users to see not just the information they entered themselves, but also data contributed by other people and organizations.

The invasive records are represented as clusters of observations, depicted below as red circles in a statewide map. When a user zooms into the map, the locations of individual records are displayed. For more information about using the iMapInvasives map, please contact the Pennsylvania iMapInvasives staff at imapinvasives@paconserve.org.



*The map above shows the current distribution for zebra mussel (*Dreissena polymorpha*) across Pennsylvania according to data provided to Pennsylvania iMapInvasives.*

Update on Water Chestnut Invasion in Warren County

Provided by Jean Gomory, Watershed Specialist at the Warren County Conservation District

[Water chestnut](#) (*Trapa natans*) is an invasive plant from Eurasia and Africa that has been found in the U.S. since the late 1800's. This plant is typically found in lakes or ponds, but can also be found in slow moving or still areas of streams. Seeds settle in the sediment and sprout a vine to the water's surface where a rosette-like plant develops. Each plant can produce up to 20 seeds and one seed can sprout up to five plants. This plant spreads easily because the hooked barbs of the seeds may attach to the feathers of waterfowl and then be transported to another waterbody.

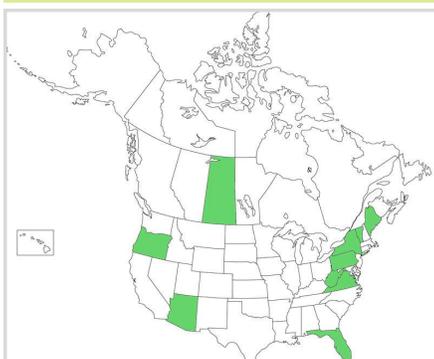
Volunteers in Warren and Bucks counties pull water chestnut and toss it in a dry place nearby where it cannot wash back into the water. Once the plant dries out, it cannot reestablish. Other disposal techniques include burning, burying somewhere dry, or composting. When pulling water chestnut, it's best to bring up the whole vine and the seed. The goal is to pull all rosettes before they can reproduce and drop new seeds in late summer. A water chestnut infestation is very manageable if found in the early stages of infestation. In 2015, at least 92 volunteers donated no less than 870 hours to pull this invasive plant out of Pennsylvania lakes and waterways. Diligence and volunteer hours are the keys to keeping this invasive plant under control. Engaging, encouraging, and inspiring volunteers are also essential.

In 2015, members of the Jamestown Audubon Society applied herbicide to a large area that was beyond the help of hand-pulling. The herbicide seems to have been effective and the employees and volunteers of Jamestown Audubon are hoping for a manageable population in years to come.

Several dedicated volunteers in the Warren area are keeping an eye on problem spots at the Akeley Swamp along the Conewango River and the Allegheny River. While these infestations seem to be under control, efforts to pull existing plants from known infestation areas will need to be an ongoing project. Note from the Pennsylvania iMapInvasives administrator: [To see where water chestnut has been found in Warren County and other places in Pennsylvania, log into Pennsylvania iMapInvasives and perform a custom search using the map, table, or a custom observation query.](#)



Jean Gomory gathering water chestnut from an infested waterbody. Photo by Gary Lester.



FUN FACT

Did you know that Pennsylvania is just one of several states involved in the iMapInvasives network?

Currently, the iMapInvasives network is comprised of nine states and one Canadian province, as seen in the map above. If you'd like to request a login account from any of the other participating states/province to enter or view data, be sure to visit the [iMapInvasives network website](#) for more details.

To learn more about the benefits of being part of a larger network, please see the first Frequently Asked Question listed just to the right.

FREQUENTLY ASKED QUESTIONS >>>

Q: What are the benefits of using iMapInvasives?

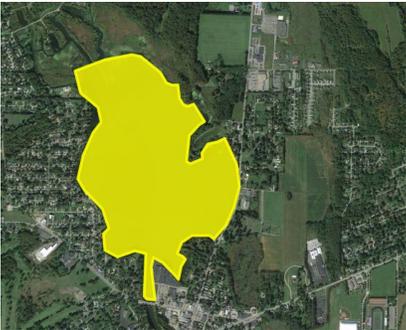
A: The greatest strength of iMapInvasives is its network of participating states which provides a partnership of programs with shared goals, diverse expertise, administrative support, ties to the [NatureServe network](#), and a framework for collaboration on invasive species issues. In addition, the iMapInvasives platform provides a detailed and standardized geospatial data model for tracking information important to the casual user as well as the natural resource manager. Each state iMapInvasives program is overseen by an administrator who vets species lists, confirms observations, and closely collaborates with local and regional organizations to collect, manage, and share invasive species data. The iMapInvasives platform also includes several built-in query and reporting tools as well as detailed mapping and recordkeeping capabilities for more complex data such as treatment and survey information.

Q: How do I register for a free user account?

A: To register for a free iMapInvasives user account in Pennsylvania, [click here](#) and you'll be directed to a form asking you to fill in your contact information. This form is then automatically sent to the Pennsylvania administrator. Once the administrator reviews your login request, you will receive your login credentials via email shortly afterwards, most likely within a few days or up to a week.

Creating an Assessment Record

An assessment is a data type for storing detailed information about an observation record. It includes data on the intensity of an infestation, the damage caused by an organism, and the details about the surrounding area.



There are five assessment types available to choose from in iMapInvasives: aquatic animals, aquatic plants, terrestrial animals, terrestrial plants, and insects. While many data fields are common to all assessment types, some fields are tailored to the type of invasive organism being reported on in an observation. To create an assessment record, you must first create an observation record. [Refer to our YouTube training video for details on how to create an observation record.](#) Once you've created your observation record, locate your observation in the "View Table" section of the database. Open your record and scroll down to the "Related Records" section where you'll see a hyperlink that says "Enter an Assessment for this observation". [For additional details on creating an assessment record, please visit the Reference Guides section on our homepage.](#)

Several registered users of Pennsylvania iMapInvasives are utilizing assessment records to manage information about control work for priority invasive infestations. One of those users is Zachary Goodrich, Habitat Management Coordinator for [The Nature Conservancy in Northeast Pennsylvania](#) (pictured right). Here's what Zachary had to say about his use of the assessment data type in



Pennsylvania iMapInvasives: *"iMapInvasives is a very useful resource in prioritizing control work of problematic exotic species on our nature preserves. All of our assessment data is able to be stored in one place in iMapInvasives and in the same format as other organizations and citizen scientists. We can gauge the effectiveness of our control efforts year-to-year and prioritize work based on species and size as well as by proximity of nearby reported infestations."*



CUSTOM OBSERVATION QUERY >>>

iMapInvasives provides a wealth of invasive species information, but did you know that there's a [quick and easy way](#) to extract data specific to your personal interests as well as that of your organization?

The **Custom Observation Query** tool is a remarkable functionality in iMapInvasives. Found on the main navigation page in iMapInvasives, it allows registered users to build specialized queries in order to pull data out of the system relevant to the projects or grants that an organization is working on. Queries can be simple or very detailed; the choice yours.

The following are a few examples of queries that could be run using the Custom Observation Query tool, though the options are practically limitless:

- ◇ Query for all the records reported by a specific user.
- ◇ Query for observations of zebra mussel specifically in Erie County.
- ◇ Query for the number of observations reported by the Western Pennsylvania Conservancy from January 1, 2012 to December 31, 2014.
- ◇ Query for all the plant records found in the Southern Laurel Highlands CWMA.
- ◇ Query for all the aquatic animals observed in Lake Erie by a staff member of the Department of Environmental Protection.

[For more information on how to utilize the Custom Observation Query tool, please visit the Reference Guides section on our homepage.](#)

ENCOURAGING WORDS >>>



Caitlin Seiler, Director of Volunteer and Land Resources at the [Allegheny Land Trust](#)

"After attending a training on iMapInvasives, I definitely feel like I have a better grasp on the tools it provides and a good idea of how the Allegheny Land Trust can best use iMapInvasives to track data on our properties and in our overall management efforts."