

Meeting of the Pennsylvania Governor's Invasive Species Council (PGISC)
Tuesday, December 5, 2023 | 10:00am

(Virtual meeting; held via Microsoft Teams)

** All text in italics indicates additional information included by the minute taker, except where scientific names are mentioned.*

Council Members Present (21): Amy Jewitt, Andrew Ernst, Andrew Rohrbaugh, Deah Lieurance, Fred Strathmeyer, Grant Gulibon, Gregg Robertson, Jim Grazio, Jeff Wagner, Jocelyn Behm, Joseph Demko, Julie Urban, Kerry Golden, Lisa Murphy, Mary Beth Ruh, Piper Sherburne, Rosa Yoo, Sara Stahlman, Sarah Whitney, Scott Bearer, Sean Hartzell

Other Participants Present (70): Alex Stout, Ali Bowling, Amber Rose Stilwell, April Moore, Brant Portner, Brenda Shambaugh, Brian Daggs, Brian Gallagher, Bryon Ruhl, Catherine Zeigler, Cheryl Wimer, Dani Jurina, David Scamardella, Derek Eberly, Destiny Zeiders, Donald DeMackiewicz, Ekaterina Nikolaeva, Emilee Boyer Euker, Eve Adrian, Frank Schneider, Geoffrey Smith, Heather Fowler, Ivie M. Foster, Jacob Misal, Jay Losiewicz, Jeffrey Young, Jennifer Senchak, Jesse Sabitsky, Jessica Lenker, Jill Rose, Jody Groshek, John Schwartzter, Jolie Coates, Jonathan Geyer, Jordan King, Kailee Glock, Karen Reed, Katie Brooks, Kendra McMillin, Kierstin Carlson, Kirstin Jakober, Kris Abell, Kristen Markley, Kyle Schutt, Kylie Wirebach, Lee Dillon, Marie Maiuro, Mark Scarpitti, Mary Walsh, Mason Crouthamel, Meagan Hopkins-Doerr, Megan Kepler Schall, Megan Kresse, Michael Hutchinson, Michael Parker, Michelle Stevens, Nick Decker, Nick Trivelli, Norris Muth, Ona Cleckley, Rachel Reese, Ross A. Ruschman, Shane Phillips, Shishir Paudel, Stephen Rudman, Sydney Stark, Thomas Allgaier, Tim Byan, Zachary Appleby, Zachary Newby

In total, 91 individuals are present for today's meeting.

Welcome and Introductory Remarks

Fred Strathmeyer (Deputy Secretary for Plant Industry and Consumer Protection, Pennsylvania Department of Agriculture – PDA) thanked all participants for joining the meeting today. Fred also thanked the individuals who participated in the NW regional meeting (*held on November 17, 2023*). It was well planned and well attended.

Announcements, Roll Call, Approve June 2023 Meeting Minutes

Fred Strathmeyer (PDA) conducted the roll call and introduced a new member of the Council representing Penn State University – [Dr. Deah Lieurance](#). She is an Assistant Professor of Invasive Species Biology and Management and recently moved from the University of Florida to Penn State.

In Florida, Dr. Lieurance spent almost 11 years doing weed risk assessments, status assessments, different kinds of EDRR (early detection rapid response) prioritization, and the first horizon scan in the United States. Based on this work, Dr. Lieurance is doing similar work on a horizon scan in Puerto Rico and the U.S. Virgin Islands. Another project she will be starting soon involves a federally funded 50-state horizon scan for plants in trade. Beyond that, Dr. Lieurance’s interests include plant-herbivore interactions. She has a history of working with honeysuckles, and as she gets her lab going at Penn State, she hopes to expand her work to other species.

Fred thanked Amy Jewitt (Western Pennsylvania Conservancy - WPC) for doing the minutes for the June 2023 PGISC meeting; a lot of work goes into doing this.

MOTION: Joseph Demko (Roadside Manager, PennDOT) moved to approve the June 8, 2023 PGISC meeting minutes. Jeff Wagner (Director of Heritage, WPC) seconded the motion. **Motion approved.**

Fred noted that Dr. Ruth Welliver retired from PDA in July 2023; she was the Director of the Bureau of Plant Industry. The Bureau now has a new Director, Frank Schneider. Frank introduced himself during the meeting, saying he started in his new role in early September. He has a degree in Animal Science and previously worked for DEP and the State Conservation Commission.

Kris Abell (Council Coordinator, PDA) mentioned that a Council member, Piper Sherburne (South East Region Director, PA Association of Conservation Districts – PACD), was recently honored with a North American Invasive Species Management Association (NAISMA) Advocacy Award. This award recognizes outstanding leadership and advocacy in the policy/program realm at state, tribal, and/or federal levels. Special attention is given to advocacy for congressional bills, support, outreach, and/or policies that directly advance invasive species prevention and management.

According to Kate Wilson, NAISMA President (*not present on today’s meeting*), “It is NAISMA’s honor to recognize Piper for her demonstrated local, regional, and national influence and leadership in natural resource protection and invasive species management. Piper is known to work closely with partners at all levels to advance policy, funding, and efforts to create a regional Pennsylvania Regional Invasive Species Management (PRISM) program to better address invasive species threats and impacts, which, if successful, will benefit the entire state of Pennsylvania.”

Piper Sherburne – North American Invasive Species Management Association Advocacy Award

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"It is NAISMA's honor to recognize Piper for her demonstrated local, regional, and national influence and leadership in natural resource protection and invasive species management. Piper is known to work closely with partners at all levels to advance policy, funding, and efforts to create a regional Pennsylvania Regional Invasive Species Management (PRISM) to better address invasive species threats and impacts, which, if successful, will benefit the entire state of Pennsylvania," said Kate Wilson, NAISMA President.



Christie Trifone Millhouse, NAISMA Executive Director, is pictured holding an Advocacy Award recognizing Piper Sherburne of the Berks County Conservation District.

Kris Abell (PDA) shared proposed dates for PGISC meetings in 2024. They are as follows:

- Thursday, March 7 – In-person at PDA in Harrisburg (with a virtual option)
- Thursday, June 6 – In-person at PDA in Harrisburg (with a virtual option)
- Date TBD – September field tour meeting (location TBD)
- Thursday, December 12 – Virtual only

Kris asked that Council members and stakeholders reach out to him with ideas/suggestions on where to hold the September 2024 PGISC field tour. He also asked for feedback on whether any of the proposed 2024 meeting dates conflict with important meetings or events.

A Survey of Angler Perception on Aquatic Invasive Species and Flathead Catfish in PA

Speakers – **Megan Keplar Schall**, Assistant Professor of Biology, Penn State Hazleton (mvk10@psu.edu); **Sydney Stark**, MS Student, Wildlife and Fisheries Science, Penn State (sps6558@psu.edu); **Geoffrey Smith**, Susquehanna River Biologist, Pennsylvania Fish and Boat Commission (geofsmith@pa.gov)



Left to right: Megan Keplar Schall, Sydney Stark, and Geoffrey Smith

Megan started off the presentation by noting that multiple collaborators were part of this project including Penn State, Pennsylvania Fish and Boat Commission, the Mid-Atlantic Panel on Aquatic Invasive Species, USGS, and Pennsylvania Sea Grant.

The goal of the project was to gain insight on angler perception on aquatic invasive species (AIS) and to investigate angler attitude and perception of a recent AIS in Pennsylvania, the flathead catfish. The project included three distinct sections:

1. Angler demographics and general angling habits
2. AIS knowledge, prevention, and information transfer
3. Perception of flathead catfish-angling practices, attitudes, and management

The survey included about 50 questions. Survey respondents were not forced to answer all the questions and could opt out at any point.

The survey focused on flathead catfish for several reasons:

- Recent invader (early 2000s)
- Large predatory fish
- Prominent AIS in U.S.
- Concern for established aquatic communities
- Recreational appeal (fishing, angling tournaments, guiding)
- Native vs. introduced (invasive populations) in Pennsylvania

Note from minute taker: Flathead catfish are native to parts of western PA and invasive in eastern PA, as can be seen in the map below from [USGS NAS](#):



Orange coloration signifies the native range of flathead catfish in PA.

The survey was made using [Qualtrics](#) and released online for just over a month. In addition to the three sections listed above, scenario-based questions were also included in the survey. The survey was given to the PA Fish and Boat Commission's general license holder database and was open from September 1, 2022 to October 5, 2022. A total of 450,547 email addresses were sent the survey. Without the partnership with PFBC, this project could not have happened; Megan expressed her gratitude to the PFBC for their involvement.

Email interactions and responses:

- 48% opened the email
- 5% accessed a link in the email
- 18,666 individual responses received
- 4,687 respondents indicated they “fish” for flathead catfish (Note: “Fish” refers to anglers targeting flathead catfish, or catching flathead catfish as bycatch)

Results from the survey included information on:

Demographics:

- >90% of survey respondents identified as male
- >60% were between the age of 45 and 74 years old, increase in anglers <44 years fishing for flathead catfish
- >80% indicated they had been fishing for over 20 years (84-85.6%)

Recreational fish targeted:

- Black basses (*Micropterus salmoides* and *M. dolomieu*)
 - All respondents = 70.9%
 - FHC anglers = 77.1%
- Trout
 - All respondents = 70.3%

- FHC anglers = 68.6%

Scenarios involving AIS introductions:

- Greatest concern for movement from another continent (>70% very concerned)
 - Within the same state, river (<22% very concerned)

Note from Megan: This was an interesting finding since AIS movement locally or within small distances can also be very problematic.

How do respondents prefer to get AIS information (ranked in order):

- Websites
- Flyers and signs at popular access points (boat launches, trail heads, etc.)
- Print (articles in magazines or other media)
- Social media
- Outreach programs (from professionals in the field)
- Mail

AIS prevention:

- Top practiced AIS prevention measures (>50% of 14,950 responses)
 - Prohibited transfer and movement of fish or other aquatic organisms
 - Cleaning or checking equipment and gear before leaving water access
 - Draining water from boat or live wells before leaving water
 - Not releasing aquarium pets or plants
- Top preventative measure (72%) = Cleaning or checking equipment or gear before leaving water access

Note from Megan: These results show that the message of preventing the spread of AIS is getting out to the public (which is encouraging!).

Flathead catfish angling motivation:

- 81.6% of FHC anglers fishing for recreation and 4.4% for competition
- Angling motivation varied; important factors included:
 - Thrill of catching large fish
 - Find it relaxing
 - Enjoying time with family

Flathead catfish angling – Susquehanna River:

- Fishing by basin
 - Susquehanna River (52.7%)
- Catch and release top fishing practice in all basins
- Low reported harvest rates; highest in the Susquehanna River

Note from Sydney: Survey primarily asked respondents about their activity in the Erie, Ohio, Susquehanna, and Delaware watersheds.



Flathead catfish management scenarios:

- Of all the statements listed in this section, 15-19% disagreed, 16-30% were neutral, and 53-68% agreed.
 - I would harvest flathead catfish if the PA Fish and Boat Commission or other state agency recommended it as a form of population control
 - I would support some form of population control if flathead catfish are harming a native species that is not a sport fish
 - I would support some form of population control if flathead catfish are harming sport fisheries (e.g., black bass and panfish)
 - I support current management of the flathead catfish (50 fish per day creel limit, no minimum length limit, combined with other species)
 - I would support development of creative management strategies for flathead catfish (e.g., commercial catfish fishery)
 - I would support regulations that develop a flathead catfish recreational fishery

Summary:

- Recreational fishing is an important factor for flathead catfish anglers
- Catch and release fishing is a dominant angler practice; however, anglers may be willing to change practices based on responses to management scenarios
- Flathead catfish anglers (>50%) are willing to change angling habits if recommended by the state agency
- Respondents indicated that they practiced various AIS prevention methods
 - The most preferred sources of information on AIS (websites and flyers at boat launches) can help direct continued AIS outreach and communication

Future needs include:

- Continue to work with/incorporate the public (outreach)
- Share findings from ecological field studies with the public to help them understand concerns regarding invasive flathead catfish
- Continued need to study the intersection of the public and AIS

Fanwort Early Detection Rapid Response in PA State Parks

Speaker – **Kylie Wirebach**, Aquatic Resource Systems Analyst, PA DCNR Bureau of State Parks (kwirebach@pa.gov)



Kylie Wirebach

An initial observation for invasive fanwort (*Cabomba caroliniana*) was made at [Tobyhanna State Park](#) on September 5, 2023 by Jason Smith of Hanover Engineering Associates, Inc. The park manager, Lee Dillon, collected a plant sample which was positively identified as fanwort. Plans were made to begin early detection rapid response (EDRR) efforts.



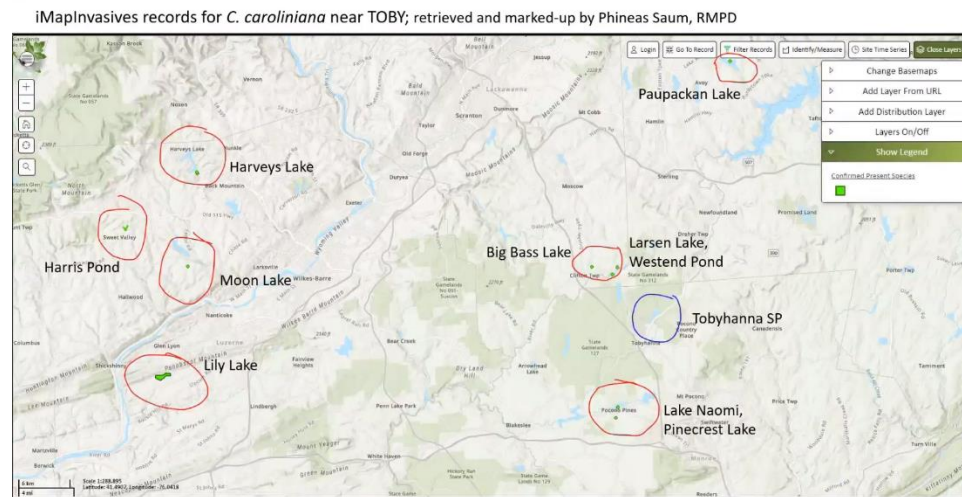
Jason Smith, Hanover Engineering Associates, Inc.
September 5, 2023

Lee Dillon, Park Manager @ Tobyhanna/Gouldsboro SP
September 13, 2023



Park staff reviewed data for fanwort in [iMapInvasives](#) and found that several confirmed sightings had already been made in multiple areas close to Tobyhanna State Park in northeast Pennsylvania. Confirmed sightings were noted in Harvey's Lake, Harris Pond, Moon Lake, Lily Lake, Paupackan Lake, Big Bass Lake, Larsen Lake, Westend Pond, Lake Naomi, and Pinecrest Lake. (See map below from *iMapInvasives*.)

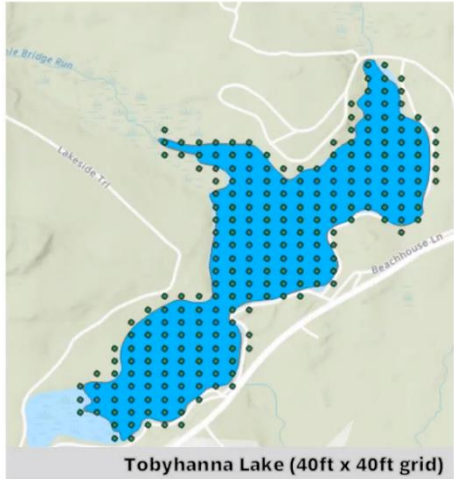
Based on these confirmed findings, Kylie commented that it wasn't surprising fanwort eventually did make its way to Tobyhanna State Park.



Map of fanwort findings in NE Pennsylvania from PA *iMapInvasives*.

A survey was developed to discern the extent and density of fanwort in Tobyhanna Lake. A 40ft x 40ft survey grid was made for the lake (meaning a sample was taken every 40 feet) to get good coverage of the lake. A rake-toss on a long rope was made that could be thrown into the lake from a boat to collect plant material. A ranking system for rake-tosses was used that identified the fanwort density at each rake-toss location:

- 1 = Sparse: 1-3 stems, less than a handful
- 2 = Moderate: Solid handful of stems, ~5-10
- 3 = Dense: More than one solid handful of stems, rake covered in material
- 4 = Anecdotal (no rake-toss): Dense growth obvious from visual inspection alone



Normally the park staff would have used their airboat for this survey (a convenient method for accessing areas with extremely dense plant growth – no need to worry about plant material getting caught on a propeller); however, their airboat was broken at the time, so staff used a boat with an outboard motor, which limited survey efforts.

The following images show fanwort along with a few of its look-alike species, including Eurasian watermilfoil and coontail.



When survey efforts began on October 11, 2023, it became very apparent to park staff that fanwort is very dense across all of Tobyhanna Lake. Often, fanwort could easily be seen from a boat, coming up to the surface in dense amounts, with no end in sight. In some instances, there was a very sudden end to the vegetation (strange).

Note: In the photo collage below, all the photos show the heavy infestation of fanwort in Tobyhanna Lake except for the bottom right photo which shows an area heavily infested with invasive Eurasian water-milfoil.



The following three images show what many of the park staff's rake throws looked like (specifically by Lee Dillon, the park manager); toss after toss of extremely dense growth of fanwort.

Also shown below are photos taken of the boat's propeller while conducting the vegetation survey. Park staff needed to stop 3-4 times to clear the vegetation from the propeller.





Additional plants were found while conducting the vegetation survey, including water starwort (*Callitriche* sp.) which was positively identified by Dr. Rebecca Urban at Lebanon Valley College. She did a lot of the plant identifications as part of this survey effort, which was very helpful. Other plants found in the lake included watershield (*Brasenia*), bladderwort (*Utricularia inflata*), an algae (*Nostoc*) (?), and possible specimens of state endangered water-milfoils including *Myriophyllum humile* and *Myriophyllum farwellii*.



The results of this survey have a lot of implications, most of them negative. Recreational activities such as kayaking, fishing, and motorboating will be difficult to do. Paddles and fishing equipment will easily get tangled in the dense masses of fanwort. Boaters with trailers will likely have their trailers covered in fanwort (*like in the image below*).

Management of this new fanwort infestation in Tobyhanna Lake will need to take into consideration the presence of one (or more) potential state endangered species of *Myriophyllum* for which positive identification is still pending.



An interesting observation noted during the survey was the presence of flowering fanwort. Not much information could be found on the flowering behavior of fanwort, so it was unclear to park staff if this was the first-year fanwort was in the lake, if this was the first or second time it had flowered this year, and if this flowering stage would survive in cold weather.

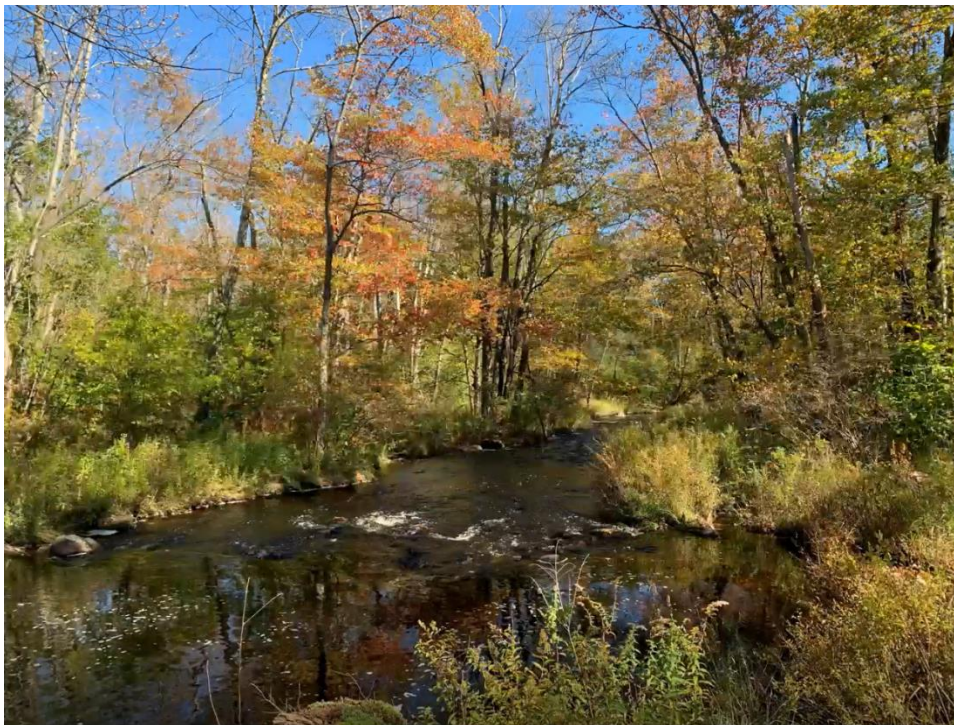


A sample of fanwort was collected beneath the spillway of Tobyhanna Lake (*top left image shown below*). Fragments of fanwort could be seen coming down the spillway while park staff

were standing there. To the right of the spillway is a walking area that can be crossed. In the rocks near this area were nestled pieces of fanwort as well (*bottom right image shown below*).



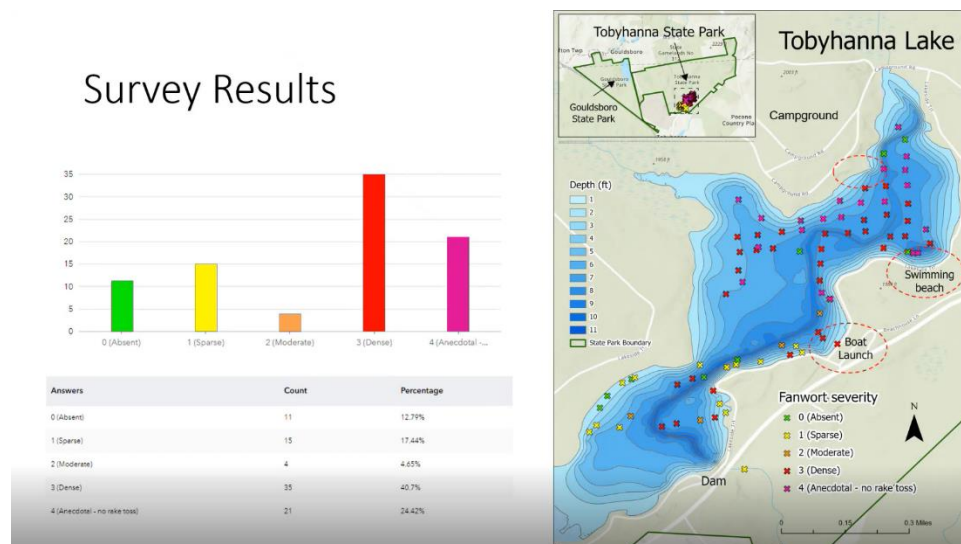
Park staff walked about 100 feet downstream, under a bridge, to a section of Tobyhanna Creek where fanwort was also noted to be present; specifically, a rooted piece of fanwort (*see photos below*). These findings show that fanwort is spreading to areas outside of Tobyhanna Lake. Tobyhanna Creek eventually flows all the way down to the Lehigh River, which raises additional concerns regarding the potential spread of this species.





The results of the survey can be seen below. Each “x” on the map represents a survey point. Park staff were limited on their available time and their boat often got stuck in the lake’s vegetation. Five people were part of the survey; three on a boat and two in kayaks. The boat team surveyed much of the northern part of the lake, and the kayak team surveyed the southern end of the lake. As can be seen on the map, the kayak team had better luck finding parts of the lake that were not completely choked with fanwort, whereas the northern section of the lake was densely infested.

Park staff specifically paid attention to lake depth when surveying for fanwort. From the results, lake depth did not seem to impact where fanwort was found. The darker areas of the map (*below*) represent the deepest sections, and fanwort was found even in these areas, indicating that the plant does not seem to be limited by depth or light penetration.



Park staff now know fanwort to be extremely prevalent in Tobyhanna Lake, not only in the main recreation areas, but across most of the lake. Regarding rapid response, next steps include

minimizing ecological impacts to plant and animal biodiversity and maintaining suitable conditions for recreation (which is currently impacting boating and fishing).

Anticipatory goals include:

- Review the eligibility of adding fanwort to the PA state noxious weed list
- Redirect visitor access and possibly discouraging use of the lake's shoreline (to prevent the spread of fanwort to other locations)
- Ensuring proper signage on the presence of an aquatic invasive species present in the lake
- Park staff are in the process of reviewing chemical management options to treat the fanwort in Tobyhanna Lake, specifically areas used for recreation, including the beach, boat launch, and areas around the campground where visitors would want access to the lake. Chemical treatment would ideally happen in 2024.
- There is a potential/tentative plan in 2024 to draw down Tobyhanna Lake (for other reasons, such as dam maintenance), but this could also serve as a physical control method for the fanwort infestation. The drawdown could stress the fanwort enough to lower its population in the lake.

Considering the survey results, it's obvious that certain management options are not feasible to effectively treat the high density of fanwort currently present in the lake. For example, physical raking would not be effective considering the sheer density of fanwort currently present. Additionally, biological control using triploid grass carp would not be effective because fanwort is not a preferred plant eaten by these fish. Finally, the park does not want to take a non-action approach of letting fanwort naturalize in the lake system, given how it is clearly dense and will certainly have a negative impact on recreation moving forward.

Jim Grazio (Great Lakes Biologist, PA DEP) commented that fanwort is native to the southeastern U.S. He asked if it is problematic in its native range, and are there any lessons to be learned from management in its native range? Kylie responded, saying that in most of her research, fanwort is listed as a nuisance or noxious species in areas north of its native range (in states like Michigan, New York, and Maine). She did not see information about it being a nuisance in the south or maintenance of it in that part of the country; therefore, Kylie couldn't answer Jim's questions very well. However, when fanwort becomes as bad as it is, like in Tobyhanna Lake, chemical treatment tends to be the most effective management option. Kylie said she will research more information on whether fanwort is currently being managed in the southern United States.

Amy Jewitt (PA iMapInvasives Program Coordinator, Western PA Conservancy – WPC) asked how long the fanwort is estimated to have been at Tobyhanna Lake, based on its current density? Kylie theorized this isn't the first year that fanwort has been in the lake; however, park staff were not aware of it being present until now. Therefore, it's currently unknown how long fanwort has been in Tobyhanna Lake. Lee Dillon (Tobyhanna State Park Manager, PA DCNR) added that historically, Tobyhanna Lake is a very shallow lake with the deepest part being near the dam,

which is under 20 feet. Weeds have always been an issue; however, this year the weediness of the lake “exploded” around August. The questions being asked now are, why now, and why is the fanwort as dense as it is?

Mary Walsh (Zoology Manager, WPC) asked (*via the Chat*): “Kylie, have you been in touch with any Western PA Conservancy/PA Natural Heritage Program botanists about the (*potentially state-endangered*) *Myriophyllum*? I can put you in touch if you need additional identification help. The botanists can also make sure confirmed records get added to state botanical databases.” Kylie replied (*via the Chat*), saying, “Mary, thank you! We do have a connection to PNHP’s Rachel Goad, who helped us identify *Myriophyllum farwellii* and *M. humile* in Gouldsboro this year, and I will email her to catch her up on the Tobyhanna work. We mailed all the specimens we collected to Dr. Urban at LVC for identification, but we can certainly also retrieve specimens for PNHP next year. Either way, I will be sure to share the findings!”

Kris Abell (PDA) thanked Kylie for her presentation and suggested that an update on this effort at a future PGISC meeting would be appreciated.

Legislative District Invasive Species Dashboard

Speakers – **Amy Jewitt**, Pennsylvania iMapInvasives Program Coordinator, Western PA Conservancy & PA Natural Heritage Program (WPC/PNHP) (ajewitt@paconserve.org); **Megan Kresse**, GIS Technician, WPC/PNHP (mkresse@paconserve.org)

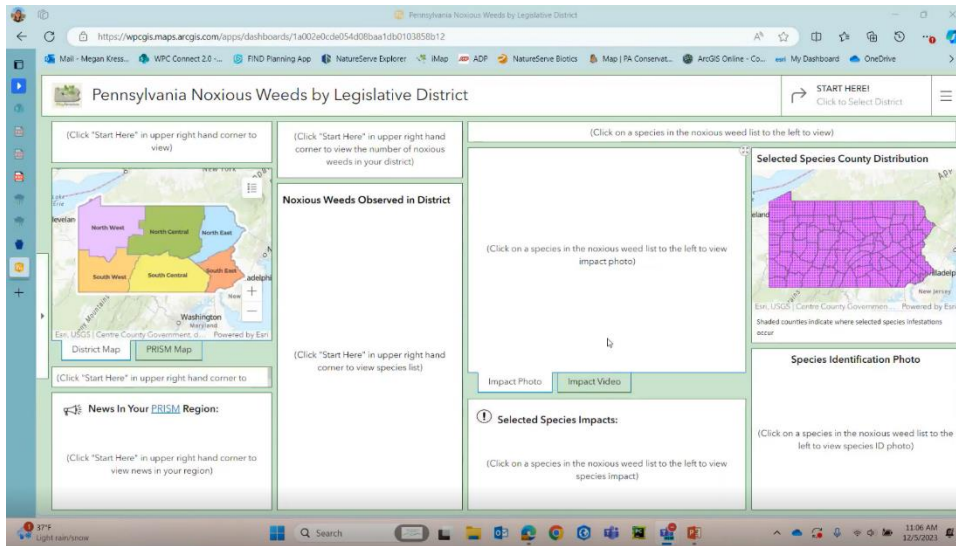


Left to right: Amy Jewitt, Megan Kresse

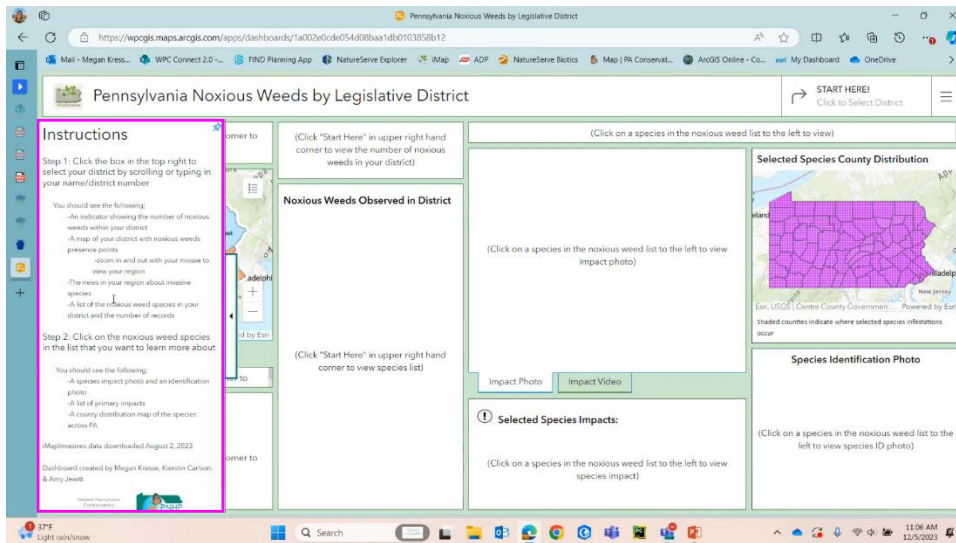
Amy and Megan discussed a new ArcGIS [Legislative Dashboard](#) which can be used to advance efforts to implement a PRISM program in Pennsylvania. The intended audience for the dashboard includes legislators and their staffers as well as others who have an interest in invasive species. Data provided in the dashboard shows viewers which invasive species, specifically noxious weeds, have been found in each of Pennsylvania’s legislative districts. Noxious weeds

were chosen to be highlighted in the dashboard because they are part of a PA-regulated list and most legislators are familiar with the term “noxious weed.” Likely, noxious weeds will resonate more with legislators than other species that are not on a regulated list. In addition to Amy and Megan, Kierstin Carlson (WPC/PNHP) was also a big part of creating this dashboard. Included in the dashboard are instructions on how to use it and coming soon will be a video tutorial.

Megan provided a brief demonstration of how to use the dashboard for the benefit of Council members and stakeholders. (*Provided below are screenshots from her demonstration.*)

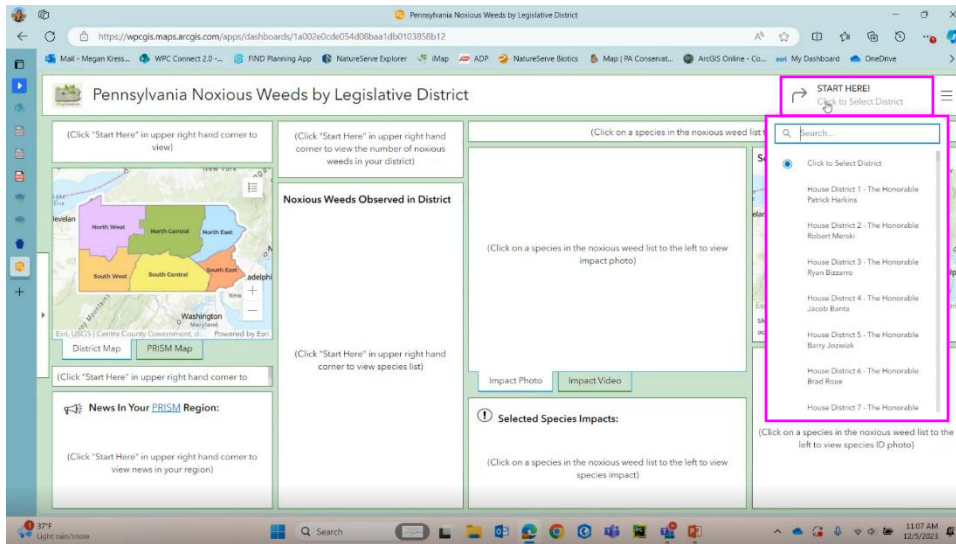


This dashboard is user-friendly and provides lots of information with only a couple of clicks. The data on noxious weeds and their occurrence locations was sourced from iMapInvasives. There are over 15,000 noxious weed observations in Pennsylvania that were included in the dashboard, including 55 different species.

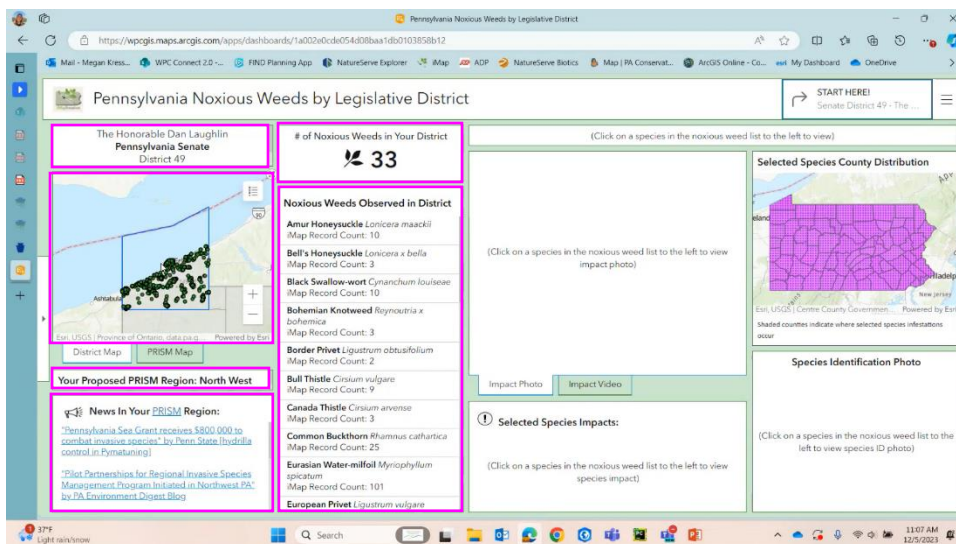


When first opening the dashboard, an instruction pane will appear on the left side (*see screenshot above*). This provides step-by-step information for how to use the dashboard as well as the date for when data was downloaded from iMapInvasives. After review, the instruction pane can then be minimized.

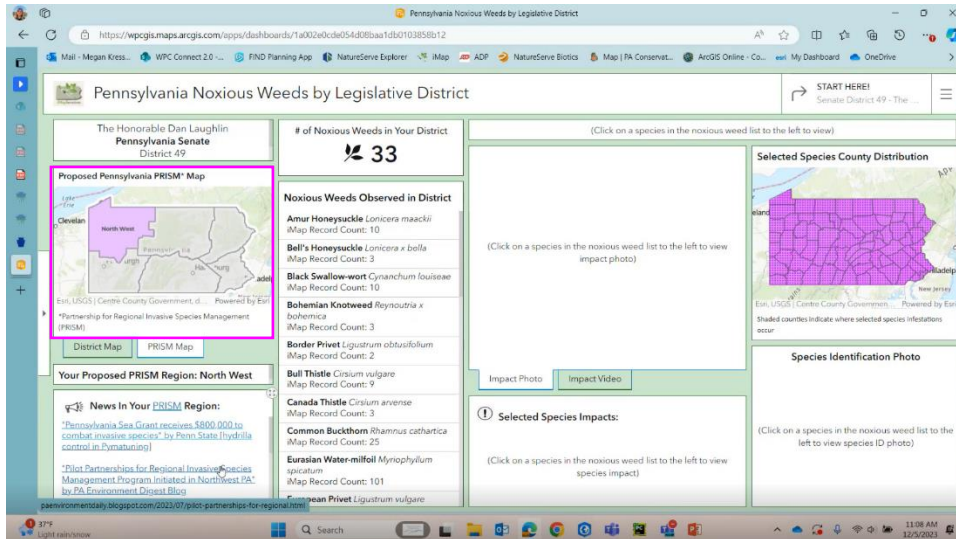
Two maps can initially be seen on the dashboard; one on the left showing a proposed PRISM map for Pennsylvania, and a map on the right which will show a selected species' county distribution. Also present are several empty panes saying to "Start Here", an option available in the upper right-hand corner (*see screenshot below*).



After clicking "Start Here," a scrollable/type-ahead list will appear that shows all PA House and Senate districts. Users should choose their relevant district from the list, which will begin to populate information in the dashboard; *see highlighted areas below for reference*. In the example below, The Honorable Dan Laughlin of Senate District 49 has been selected.



After making a district selection, the PRISM boundary map is replaced by the relevant district boundary and the noxious weed observations within it. There is also a legend in the map's top right corner as well as zooming capabilities in the map's lower right corner. A tab called "PRISM Map" underneath the map pane allows you to see which proposed PRISM region your selected district is located in (*see screenshot below*).

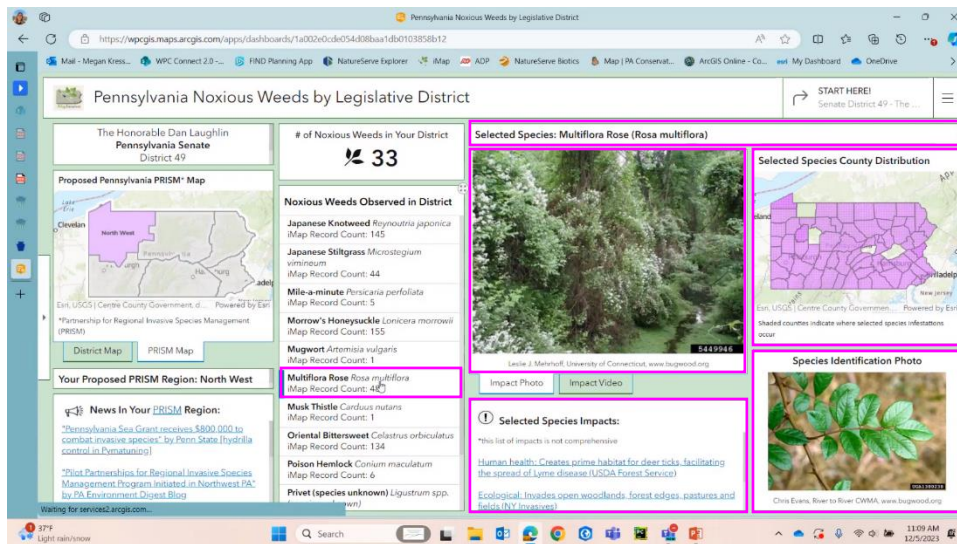


Below the map pane is an area highlighting "News In Your PRISM Region". These news links include a range of topics, from invasive species impacts and infestations to management updates, and each are relevant to the PRISM region selected. Each news item is hyperlinked to their respective news article, allowing for ease of viewing by dashboard users.

Note: Anything in the dashboard that is blue and underlined is a hyperlink.

The next pane over shows the number of noxious weeds reported in the selected district. In the example shown, there are 33 unique noxious weed species reported in Senate District 49. Below, there is an alphabetized list of all the noxious weeds found in that respective district. Each listed species includes the total number of observations documented and confirmed in iMapInvasives from the selected district.

By clicking on a species in the "Noxious Weeds Observed in District" list, the remaining panes in the dashboard will populate with information specific to the species chosen. In the example below, multiflora rose (*Rosa multiflora*) was chosen. Two images then appear in the dashboard, one showing the impacts of multiflora rose to the environment, economy, or human health, and the other image being a species identification photo. The "Impact Video" tab can be clicked on to view a video of the impact(s) caused by the selected species. The video is embedded directly into the dashboard, making it easily viewable by dashboard users.



The “Selected Species Impacts” area shows a bulleted list (not fully comprehensive) of the specific ways the selected species impacts the economy, environment, and human health.

The map in the upper right corner shows purple shaded counties indicating the county distribution of the selected species; in this case, multiflora rose.

The WPC/PNHP is excited about this new dashboard and all the resources it provides, all together in one place. We hope it is utilized by legislators and their staff to learn more about the noxious weeds in their district and help advocate for a PRISM program in Pennsylvania. Future updates include automating the data sourced from iMapInvasives (which currently includes static/downloaded data) as well as updated news articles for the “News In Your Region” section.

Amy concluded by saying that for anyone who is contributing data to iMapInvasives, this dashboard is just one way that the platform is being used in an informational and educational way. Any data that we can continue to provide to iMapInvasives is helping in the creation of products like this, both now and in the future.

Fred Strathmeyer (PDA) asked how legislative offices can get access to the dashboard and know that it exists? Megan responded, saying the dashboard is publicly accessible and this meeting of the Council is the first time it’s been shared widely with others. So far, the dashboard hasn’t been advertised, but we felt a presentation to the Council was a good starting point to make people aware of it. We are still working on the best way(s) to go about advertising it. Amy added that WPC has plans to talk with other Council members, specifically the PGISC Legislative Committee, on future advertising strategies. Hopefully word-of-mouth is a potential method also.

Fred asked if the dashboard is a finished product at this point, or still a work in progress? Amy and Megan said the dashboard is ready to be used starting today. Megan clarified that any updates made to the dashboard will occur live.

Sean Hartzell (Aquatic Invasive Species Coordinator, PA Fish and Boat Commission – PFBC) commented (*via the Chat*) that perhaps the Legislative Dashboard could be presented and shared at an upcoming Controlled Plant and Noxious Weed Committee (CP&NWC) meeting. Amy replied (*via the Chat*) that yes, she would love to share the dashboard at a future CP&NWC meeting.

April Moore (U.S. Forest Service, Allegheny National Forest) asked (*via the Chat*) if it would be possible to include treatment information in the dashboard which would highlight if any locations on the map are currently being treated/managed. Amy responded that this may be a possibility. She also mentioned that an initial version of the dashboard was first created in 2021, and this version (*shown today*) is version two of the dashboard, made primarily because of the recent redistricting that occurred. The redistricting provided an opportunity to revisit the dashboard and consider improvements to be made and additional information to include.

AIS Education and Outreach Committee Report

Speaker: **Amber Stilwell**, Coastal Outreach Specialist in the Lake Erie Office with Pennsylvania Sea Grant, and Master Watershed Steward Coordinator (Erie, Crawford, and Warren counties) with Penn State Extension (ars26@psu.edu)



Amber Stilwell

This committee is looking to manage how they present aquatic invasive species (AIS) across the state so they can have a platform where everyone is working together, instead of reinventing the wheel. The meetings this committee has provide a place for people to come together and share ideas and form collaborations and projects.

Round Goby Symposium

At their last meeting, the committee had an idea to do a symposium focused on the round goby (*Neogobius melanostomus*). Amber mentioned she is also part of the PGISC round goby working group and it was noted there that the round goby was being observed further downstream in French Creek. Because of this, Amber started doing outreach with anglers in the Pittsburgh area

and discovered they were unfamiliar with the round goby and how to identify it. From that information, the idea for a symposium came about.

Presenters for a round goby symposium could potentially include researchers and scientists to share up-to-date information with the angling community. This idea (for a symposium) was well received by the round goby working group, so the idea was then brought to the AIS Outreach and Education Committee, where it was also well received. The details for the symposium and a potential date are TBD, though it's anticipated the symposium will be held in either 2024 or 2025.

AIS Display at 2025 Farm Show

Members of this committee would like to create an AIS display at the 2025 Farm Show. That effort will involve a collaboration between the PA Fish and Boat Commission, PA Sea Grant, and other partners including the PA Lake Management Society, etc.

Fred Strathmeyer (PDA) commented that he is happy to hear this committee plans to share information on AIS at the 2025 Farm Show. This will certainly help raise awareness of AIS with members of the public who may not know much about the topic.

Interactions with Local Government

Fred asked if this committee plans to have meetings with members of local government, such as county and township commissioners, supervisors, etc. Fred felt it would be beneficial for local government officials to better understand the overall dynamics associated with AIS, such as impacts to lakes or streams in their area. Is this an idea the committee would consider, possibly with assistance/collaboration with PA Sea Grant, PA Fish and Boat Commission, etc.?

Amber felt Fred's suggestion was good, commenting that it's a wonderful idea to engage with county commissioners and similar groups. Amber can bring this idea back to the committee and strategize ways that committee members can do this type of outreach in their respective communities or possibly create statewide materials (pamphlets, handouts, etc.) that can be directed to legislators.

Fred added that personal conversations and interactions with local government officials could have direct, positive impacts related to implementing PRISM in PA. Support gained from grassroots entities is what will make a PRISM program shine, and in this case right now, show the need for it.

Communications Committee Report

Speaker: **Kris Abell**, Council Coordinator, Pennsylvania Department of Agriculture
(krabell@pa.gov)



Kris Abell

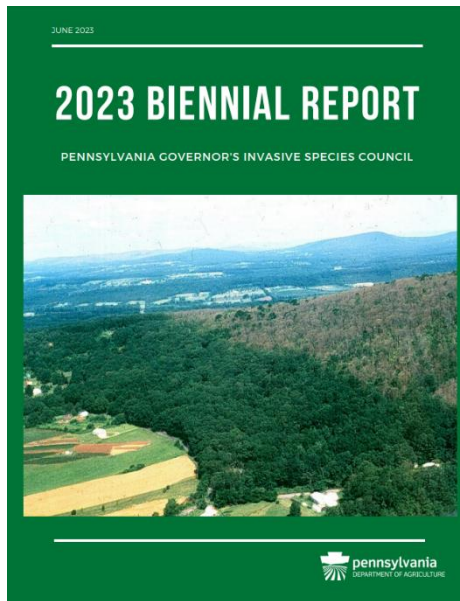
Committee Chair Vacancy

Kris began by announcing that Deb Klenotic (who had been the chair of the Communications Committee for several years and spearheaded PA Native Species Day, started the PGISC e-newsletter, and led the PGISC statewide survey) is no longer working for the PA Department of Environmental Protection - PA DEP, and so this committee no longer has a chair. The hope is to fill this vacancy to allow PGISC communications priorities to move forward. In the interim, Kris will serve as the committee chair until a replacement can be found. Interested Council members or others from PGISC member organizations are welcomed and encouraged to serve in this capacity. There could also be a chair and a co-chair, if necessary.

2023 Biennial Report

The [2023 Biennial Report](#) has been completed and submitted to the Governor; a great accomplishment by the Communications Committee! The following content was included in the biennial report:

- Executive Summary
- Letter from Secretary Redding (PDA) highlighting PRISM, a practical solution to a pressing issue
- Highlighted activities and accomplishments from 2021-2022:
 - PRISM plan
 - First Pennsylvania Invasive Species Impacts Survey
 - Legislative hearing with Center for Rural PA
 - First Pennsylvania Native Species Day
 - Council newsletter launch
 - New searchable public database on 150 invasive plants of most concern to PA
 - Improved aquatic invasive species rapid response plan
 - 833-INVASIVE hotline
 - StoryMap of council members' work



PGISC E-Newsletter

The PGISC e-newsletter is still very active. A total of 674 people opened the [October 2023 edition](#), which is 47% of the 1,379 email accounts currently registered to receive the newsletter – very high! Eighteen new people recently signed up to receive the newsletter ([sign up is available here](#)).



[October 2023 PGISC E-newsletter](#)

The next edition of the newsletter will be released in January 2024. Please send Kris Abell suggested items for inclusion.

PA Native Species Day

We'd like to continue hosting [PA Native Species Day](#). In 2023, the event was hosted on May 18 at North Creek Nurseries in Landenburg, PA (Chester County). Present at the event were representatives from all the state agencies who are members of PGISC. Each provided statements on the importance of Pennsylvania's native species and the impacts that invasive species have on them.

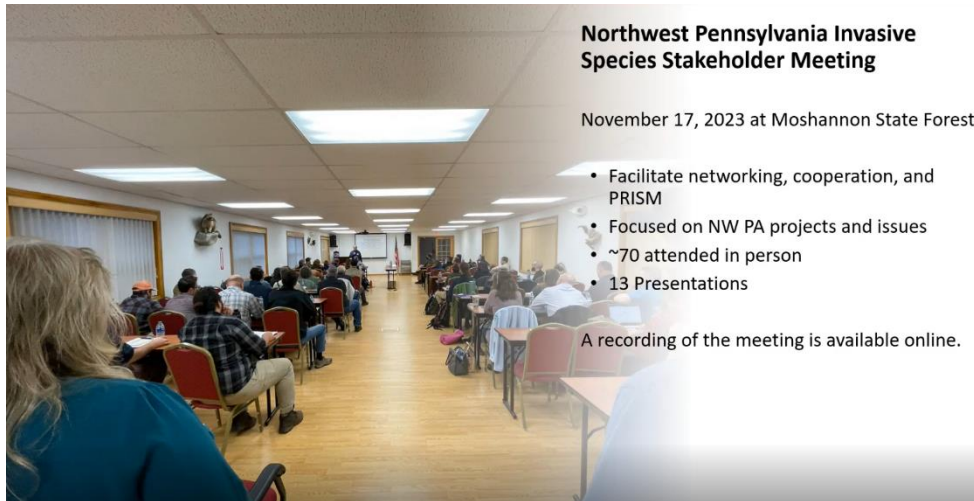


[2023 Pennsylvania Native Species Day](#) (YouTube)

We plan to host PA Native Species Day next year on Thursday, May 16, 2024. Thoughts, ideas, and suggestions for the 2024 event (location/venue, coinciding event, project(s) completed related to native/invasive species, etc.) are welcomed from PGISC members and stakeholders. As always, we'd like to reach out to as many other partners as possible to promote the event and possibly hold the event at their location.

NW PA Invasive Species Stakeholder Meeting *(held November 17)*

The Council recently held an invasive species stakeholder meeting in northwest Pennsylvania on November 17, 2023 at Moshannon State Forest. The purpose of the meeting was to facilitate networking, cooperation, and promote PRISM. Discussion and presentation topics focused on projects occurring in NW PA. The meeting was well attended; about 70 people present in-person. A total of 13 presentations were given. [A recording of the meeting is available online.](#)



The November 17 meeting was followed up with a survey to get an idea of how attendees felt the meeting went and the value it provided. Based on the survey results (*see below*), the meeting was well received:

- “Overall, did the meeting meet, exceed, or fall short of your expectations?”
 - Exceeded expectations (6)
 - Met expectations (14)
 - Fell short of expectations (2)
- “How would you rate the value you got out of the meeting?”
 - Exceptional (3)
 - High (12)
 - Satisfactory (7)
 - Low (0)
 - None (0)
- “Do you think the duration of the meeting was too short, too long, or just right?”
 - Too short (3)
 - Too long (4)
 - Just right (15)
- “How likely are you to attend another meeting like this in the future?”
 - Very likely (15)
 - Somewhat likely (6)
 - Neither likely nor unlikely (1)
 - Somewhat unlikely (0)
 - Very unlikely (0)

Survey comments were also received on participants' perspectives of the value provided by the meeting. Some specific comments included the following:

- “I enjoyed learning about the wide variety of research, conservation, and management work that is being done in northwestern Pennsylvania and the extent of collaboration that is happening between government organizations, private companies, universities, community organizations and others to combat the spread of invasive species.”
- “The cross-section of presenters and projects was very good. These presented what is finally being recognized as both an ecological and economic impact of invasives of all kinds. Having worked for many years with invasive plant control, I hope that more meetings like this will get the word out for more awareness and the need for funding. Networking was very good also.”
- “Learning about the efforts of other organizations across the region was both interesting and beneficial. There were a lot of projects and opportunities I was unfamiliar with, but could possibly be applied in my area.”

Another question asked during the survey included the following:

- “May we contact you with more information about the PRISM program and how you can support its creation in Pennsylvania?”

An overwhelming response of “yes” was received for this question (Yes = 20; No = 2), with a few specific responses listed below:

- “It (PRISM) would definitely benefit our company. As an ecological restoration company, any improvement in the ability to do more work and obtain additional funding will help us continue to create jobs and improve our paid internship program for developing professionals. Having a PRISM in place will also help to address the problem of invasive species on a regional level.”
- “I think that it (PRISM) would benefit my organization because it was stated at the opening of the meeting – invasive species don't care about county borders, boundaries of project zones, etc. From my experience, curbing the spread of invasive species seems to require a large-scale, unified effort of conservationists and based on what I learned at this conference, I believe the PRISM program will provide that.”
- “There is an overwhelming need for resources, attention, and coordination of invasive species management. PRISM seems like an excellent opportunity to make that more of a reality. It is not easy to distribute funding or other resources (besides technical knowledge) to the public from DCNR, so hopefully this will provide an avenue for that to more easily occur.”

Participants suggested several ways (*via the survey*) that the November 17 meeting could have been improved:

- “There was not too much discussed about working together and next steps for collaboration/partnerships.”
- “Not enough time for networking, smaller breakout group discussions.”
- “Guided roundtable discussion – develop questions to respond to and have more structure to discussion.”
- “People at the event wanted to know more info/details about where things stand with funding a PRISM program in PA. There should have been a presentation about this topic specifically since that is one of the most important components in getting PRISM going in PA at this point.”
- “The outreach prior to the meeting wasn’t clear on the purpose of the meeting and who the intended audience was, so perhaps that could be something to clarify for a future event.”

Kris mentioned that for any future meetings of this nature, he will take these suggested improvements to heart and adjust the format of the meeting accordingly.

Jay Losiewicz (Deputy Communications Director, PDA) commented on some follow-up that occurred after the November 17 meeting’s conclusion, including the publishing of a blog post on PDA’s website titled “[Coming Together to Combat Invasive Species](#)” and a [post on PDA’s social media](#). PDA is also working on writing up some language for folks to use for potential press releases moving forward. Jay encouraged the use of these resources by PGISC members and partners to help promote the event and spread awareness of invasive species efforts and the promotion of PRISM.

Jody Groshek (Outreach and Education Coordinator, Allegheny Hardwoods Utilization Group – AHUG) commented (*via the Chat*) that “AHUG is willing to help distribute press releases in the region regarding the NW PRISM meeting.” Jay responded, saying, “Thanks Jody! I’m hoping to wrap up some ‘canned’ remarks for that this week and Kris and I will make sure to get it to you.”

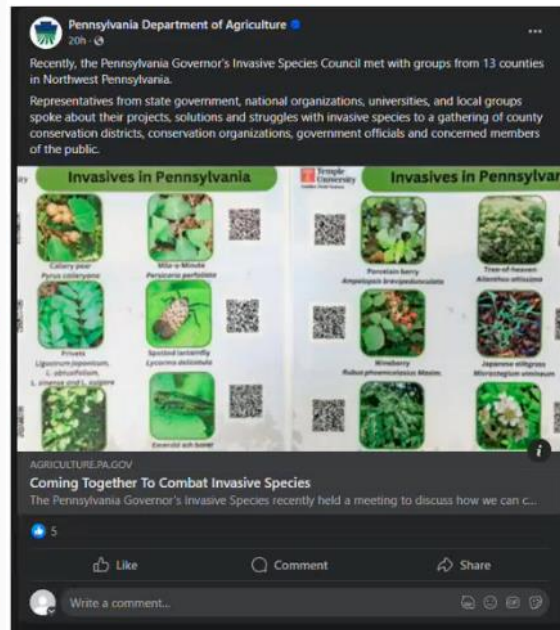


COMING TOGETHER TO COMBAT INVASIVE SPECIES

Tags: [Invasive Species](#)
 December 01, 2023 01:30 PM
 By: [Governor's Invasive Species Council](#)



Invasive species are a costly problem in Pennsylvania, and their effects impact virtually every economic interest and ecosystem. Their impacts are felt on our farms, in our waterways, throughout our forests, and in our pocketbooks across the Commonwealth, from our rural towns to our urban cities. A 2021 economic



[Blog](#) and [social media post](#) by PDA highlighting the November 17 NW PA meeting.

Regarding next steps, Council members suggested the formation of another committee/workgroup with the goal of cataloguing some of the invasive species projects happening in NW PA. This information could be used for communication and outreach purposes. Scott Bearer (Chief, Habitat Planning and Development Division, PA Game Commission – PGC) felt this idea to have a clearinghouse of information makes a lot of sense, given how much activity is happening in the NW with invasive species. Kris asked if any Council members or stakeholders would commit to being a part of this new workgroup as Kris could not do this task alone.

Via the meeting chat, several individuals expressed their interest in being part of this new workgroup, including April Moore (U.S. Forest Service, Allegheny National Forest), Shishir Paudel (Plant Ecologist, Phipps Conservatory & Botanical Gardens), and Jennifer Senchak (Gargiulo Landscape).

Jim Grazio (PA DEP) asked for clarification on why the focus for the November 17 meeting was on northwest Pennsylvania? Kris responded, saying the NW already has a strong invasive species community, including several active Cooperative Weed Management Areas (CWMAs), one of which is a member of the Council – the Allegheny Plateau Invasive Plant Management Area (APIPMA). The NW also includes the Allegheny National Forest which has representatives who are very involved with the Council. There’s also the Hardwoods Development Council and the Allegheny Hardwoods Utilization Group, as well as a longer list of folks who are involved and concerned about invasive species in that region. With this high level of partners already in place in the NW, that’s why the Council chose to begin this effort there.

Andrew Rohrbaugh (PA DCNR) commented (*via the Chat*), “There’s a lot of large landowners already working in that area as well.”

If there are other ways that follow-up can occur after the November 17 NW PA meeting, Kris is open to hearing suggestions.

April Moore (U.S. Forest Service, Allegheny National Forest) commented (*via the Chat*), “How about a follow-up virtual meeting from the November 17 meeting – could present some of what was presented here today for a start.”

Jim Grazio (PA DEP) commented (*via the Chat*), “I’m happy to help with the NW PRISM, of course.”

Fred Strathmeyer (PDA) commented that the new (*Shapiro*) administration is hungry for success stories. If there are other areas in the state that are doing similar work related to invasives, or areas that need work done (which there are many), how do you fund these programs? By working at a grassroots level and making these efforts personal, it will be easier to talk with legislators as well as the administration, both of which will influence funding.

Fred agreed with Kris that NW PA currently has more of a comprehensive and collective effort going on, from work happening at Pymatuning (two states working together – *PA and OH*) to Lake Erie and the Great Lakes group.

Moving forward, the most important things that can happen are obtaining funding for a PRISM program, showing success from implementing such a program, and building off the success of existing groups collaboratively working on invasives in PA. Fred mentioned he is very interested in the work completed by the Western PA Conservancy (by Amy Jewitt and Megan Kresse) to create a [dashboard](#) showing information on noxious weeds by legislative districts. This type of product makes it easier to create personal connections with legislators in relation to invasive species that impact them.

Legislative Committee Report

Speaker: **Eve Adrian**, Executive Policy Specialist 2, Pennsylvania Department of Agriculture, Office of the Secretary (eadrian@pa.gov)



Eve Adrian

Meeting with NY Agency Staff

Over the summer, members of the Legislative Committee met with agency staff from New York State (*Department of Environmental Conservation – DEC*) about PRISM to learn more about the specific components of their program and how information could be utilized for use in a future Pennsylvania PRISM program.

Recap on September 8 Informational Hearing at Temple

Seven legislators were present at the September 8, 2023 House Agriculture & Rural Affairs Committee informational hearing and field tour at the Temple Ambler Field Station. The way that presenters at this event spoke on specific issues related to invasive species was well received by legislators and how PRISM could be the next best logical step for Pennsylvania moving forward. Follow-ups with legislators after this event included thanking them for their attendance. Additionally, emails were sent out to all House Ag Committee members that included copies of the materials used during the September 8 meeting.

We plan to do field visits with legislators on a regular basis, at least annually, to keep momentum going about invasive species, and particularly about PRISM.

Jocelyn Behm (Assistant Professor, Integrative Ecology Lab, Temple University) provided further details about the September 8 event. Six people provided testimony, including:

- Jocelyn Behm, Assistant Professor (Temple University)
- Kathleen Salisbury, Director (Ambler Arboretum of Temple University)
- Fred Strathmeyer, Deputy Secretary for Plant Industry and Consumer Protection (PA Department of Agriculture)
- Cliff Lane, McKean County Commissioner (County Commissioners Association of PA)
- Matt Gabler, Executive Director (PA Forest Products Association)
- Lea Johnson, Associate Director of Land Stewardship and Ecology, Horticultural Operations (Longwood Gardens)

Each presentation was unique, yet complimentary of other topics shared. In Jocelyn's presentation, she discussed the subtle effects of invasive species that are not easily noticed and

how their interactions with an ecosystem can cause disease outbreaks (e.g., invasive plants and their connection to Lyme disease). Kathleen talked about her experience teaching at Temple about invasive plants and managing the Arboretum that is recovering from a tornado that knocked down a huge patch of previously uninvaded old growth forest that is now overrun by invasives during its recovery. Kathleen also gave a good overview of what is and isn't considered an invasive species (e.g., poison ivy is often thought of as invasive, but it's actually not because it's a native species; it's just something many people don't like). Fred's presentation focused on statewide issues, such as the economic impact of invasive species to Pennsylvania, the PGISC survey results from last year, and "hit home" the PRISM idea and its importance to the state. Cliff discussed his experience managing invasives in his area (*McKean County*) and provided a helpful on-the-ground view of what that looks like. Matt talked about his experience from the forestry perspective and how invasives negatively impact forest health and the sustainable management of forests. Lea talked about the management of invasive species on land at Longwood Gardens, including successful restoration projects (a hopeful note to end on!).

After the testimonies concluded, a field tour was held outside in the old growth forest of the Ambler campus. The tour focused on recently invaded parts of the forest that were a result of damage caused by the tornado that impacted the area. Lawn signs were set up that featured information on specific invasive species (e.g., multiflora rose, Japanese stiltgrass) that are present on the site as well as QR codes that directed participants to view relevant fact sheets on each species.

The field tour provided a good opportunity to network with other attendees and learn their experiences with invasives (e.g., Jocelyn talked with folks from western PA and the invasives they are dealing with, which are very different from those she is dealing with in southeastern PA).

Destiny Zeiders (Executive Director, PA House of Representatives, Agriculture & Rural Affairs Committee) was present at the September 8 meeting and commented that there was a lot of very positive feedback from the members who attended. Afterwards, the testifier information and PowerPoint slides were sent to all members of the House Agriculture & Rural Affairs Committee. **Destiny mentioned she has garnered some interest from a couple members in particular who would be willing to step up and sponsor legislation in regards to PRISM.** Destiny commented that she enjoyed the tour as well.

Eve asked if Destiny plans to attend future field visits that PGISC plans to host, to which Destiny said yes (September - as long as it works for her schedule). Destiny commented that she's sure Chairman Pashinski would be happy to attend future field visits also, so long as a date is set early enough to block that time on his schedule.

A sampling of photos taken at the September 8 event are provided below; others can be viewed [online](#).







A recording of the hearing held on September 8 was published online and can be viewed below.



[House Agriculture & Rural Affairs Committee Hearing – September 8, 2023 \(YouTube\)](#)

Outreach Efforts

Outreach efforts by the Legislative Committee include having committee and PGISC members attend other organizations' meetings, such as the Growing Greener Coalition and WeConserve PA policy meetings. Brian Gallagher (Public Policy and Government Relations Manager – WPC) will be attending both events and plans to give an overview about PRISMs in hopes of garnering support from these entities.

It will be important to continue having interactions with these large entities that have a broad stakeholder base and many partners (another example being Trout Unlimited). Getting access to these types of groups and “spiderwebbing” out our main messages will be helpful. The Legislative Committee has documents they are working on for use by stakeholders so they know what action steps we'd like them to take, such as how best to support PRISM.

Once the document regarding stakeholder outreach is completed, it will be circulated to PGISC members and stakeholders for use in doing this type of outreach. The Legislative Committee has a tracking document that shows who is doing what/where/when, and Eve would love to get additional PGISC members and stakeholders added to this document with information on who is being visited and what meetings are being attended. Start with what you know, and move forward from there.

We will be sending a document for the Governor's office to use internally for the administration. This is not a public document; it is a document that looks at Pennsylvania's invasive species responses and New York State's PRISM program and how NY responds to invasive species. It's

essentially a comparison document that helps illustrate the benefits of PRISM and how it could be applied to Pennsylvania.

The Committee will also be working on a letter of support.

Day at the Capitol

The Legislative Committee has discussed having a day at the Capitol in late winter/early spring that could coincide with [National Invasive Species Awareness Week](#) (February 26-March 3, 2024) or [Pennsylvania's Native Species Day](#) (May 16, 2024); whichever one works out.

Funding for PRISM

Jordan King (Deputy Director of Legislative Affairs, Executive Office, PDA) commented that in building off the momentum from the September 8 informational hearing and the November 17 NW meeting, we are having conversations with the Governor's office about PRISM and the best way to get that program across the finish line (*i.e., funded*). For now, we won't learn more about that until the Governor's budget address occurs on February 6, 2024.

We continue to have internal conversations and with the policy office/other stakeholders about funding mechanisms for PRISM. We're open to thoughts and ideas that stakeholder groups may have in regards to that effort.

Jim Grazio (PA DEP) asked if the PRISM comparison document between Pennsylvania and New York State could be shared with the Council? Eve said yes, she'd be happy to share that document with members of the Council, though she will need to include a watermark that says "Internal, Do Not Share".

Invasive Species Listing Committee Report

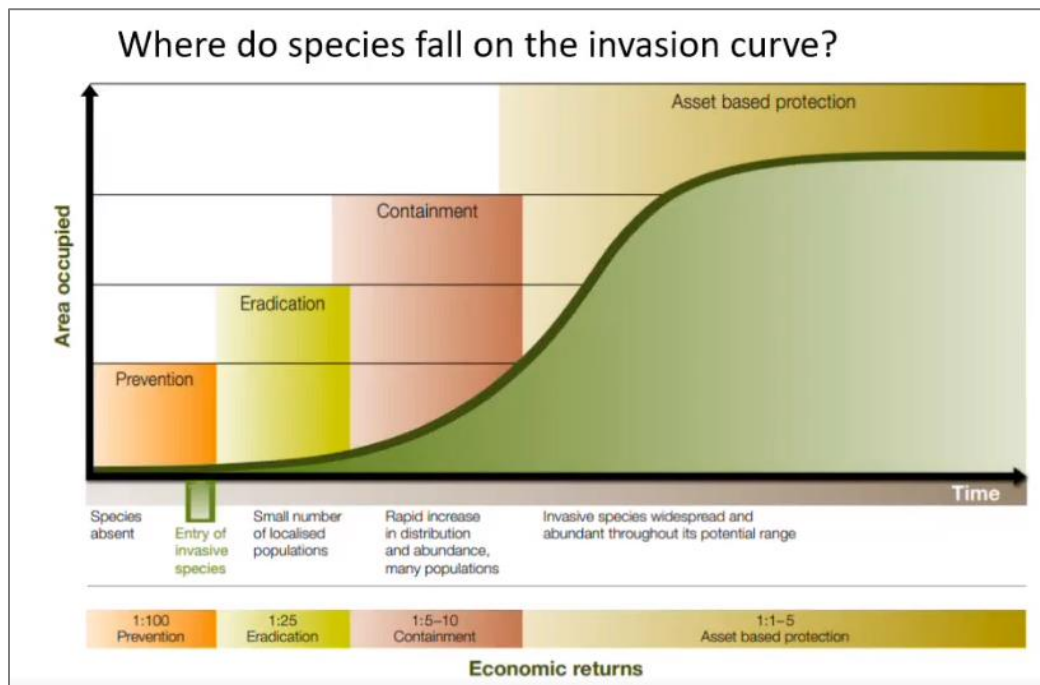
Speaker: **Andrew Rohrbaugh**, Section Chief, Program Services and Support Section, Division of Forest Health, Bureau of Forestry, PA Department of Conservation & Natural Resources (anrohrbaug@pa.gov)

There have not been any new listings; however, work continues completing invasive species risk assessments. Andrew has several assessments that were completed by staff at DCNR that are ready for him to review.

The Bureau of Forestry has just approved the creation of an Invasive Plant Specialist position. This will be the first full-time invasive plant position for DCNR. Previously, this type of work has been handled as a part-time duty for all staff. With that in mind, it will be nice to have someone dedicated to work just on invasive plants for the Bureau of Forestry, both for their 2.2 million acres of land as well as statewide initiatives. Once hired, Andrew plans to have the

person who fills that role become fully integrated into efforts of PGISC and the Controlled Plant and Noxious Weed Committee. The position will report to Andrew in DCNR's Forest Health Division. More details to come.

Mary Walsh (Zoology Manager, WPC) provided an overview on a project that staff at the Western PA Conservancy/PA Natural Heritage Program (WPC/PNHP) are working on to develop a map of invasive species priorities for Pennsylvania. One of the pieces of information that needs to go into the map is a model of priorities based on information about invasive species which are important in terms of their distribution. In general, there are many ways to prioritize invasive species for prevention, survey, control, and management, and there are some systems in place already that do this. There's also the regulatory aspect of things that's also in place. For WPC's purposes, we're looking at where species fall on the Invasion Curve (*see graphic below*).



In general, the Invasion Curve shows that cost and effort go up exponentially with a species' extent of invasion. Therefore, trying to prioritize the species that are on the left side of the curve would make the most sense.

For the project WPC is working on, we are wanting to put invasive species at places on the Invasion Curve to give perspective on how widespread they are.

Experts in New York State have already gone through this process of tiering invasive species, rating a total of 521 species according to this methodology. [View this information online.](#)

New York State Invasive Species Tiers

Overview

These invasive species tiers guide management priorities in each PRISM and across New York State. To generate tiers for hundreds of invasive species, the New York Natural Heritage Program (NYNHP) devised a [new method](#) that combines data from iMapInvasives and other sources with invasiveness assessments and expert feedback (reference below). A species will only receive a tier value if it is considered to have high negative impacts. Also, the tiers rely on accurate data. If you are aware of new locations for a species, please report it to [iMapInvasives](#).

The [official definitions for the tiers](#) were formalized in 2017 by the NYS invasive species network of PRISMs, state agencies, and NYNHP. Simplified definitions can be viewed by clicking the ? icon next to the Tier Value filter below.

Use the filters below to generate tier lists for your region and use the search box to find a specific species. In the table, click on the common name to see its distribution in iMapInvasives.

New: [Species Tiers Maps by PRISM](#)

Filters

[Deselect All Filters](#)

Geography Statewide APIPP CRP CRISP Finger Lakes Lower Hudson LIISMA SLELO WNY **Select All Geographies**

Taxa Type TP Terrestrial Plant TA Terrestrial Animal AA Aquatic Animal AP Aquatic Plant M Microorganism **Select All Taxa Types**

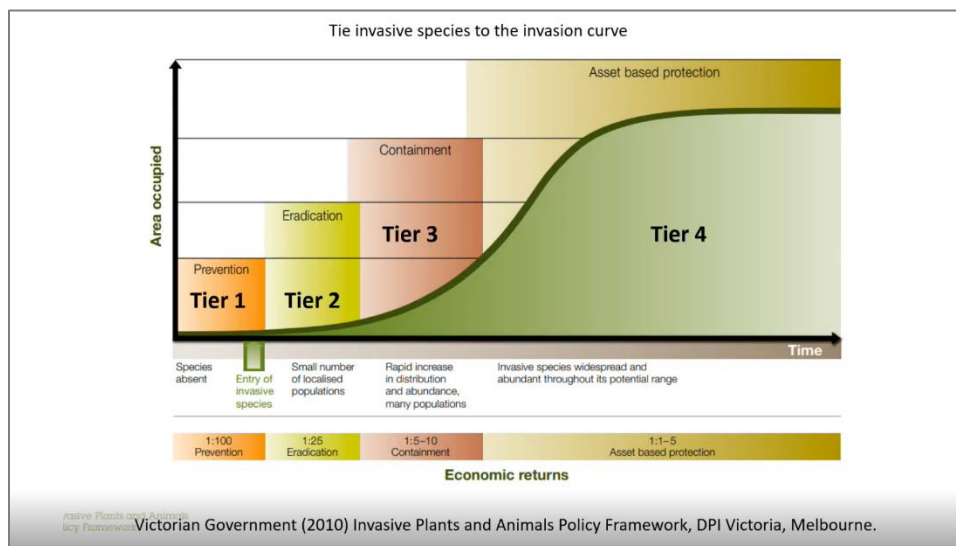
Tier Value ? 1 2 3 4 M (Blank) **Select All Tier Values** In any selected geography In all selected geographies

Show 10 entries

Search Table:

Species Information		Invasiveness Ranks		Regulatory Status	State Tier	PRISM Tier								
Common Name	Scientific Name	Type	Ecological	Socio-Economic	NYS Part 575	NYS	APIPP	Capital Region	CRISP	Finger Lakes	Lower Hudson	LIISMA	SLELO	WNY
African clawed frog	<i>Xenopus laevis</i>	AA	Moderate	Insignificant Positive	Regulated						M			
African elodea	<i>Lagarosiphon major</i>	AP	High	Low Negative		1b		1c			1c			

This method to prioritize invasive species was published in 2023 in the journal “Biological Invasions” in an article authored by Finley, et al. titled “[A data driven method for prioritizing invasive species to aid policy and management](#)”. The method uses a standardized distribution analysis to help slot species into the tiering categories (i.e., early detection, controlling the spread of a species, or targeted management of a widespread species). For the WPC project, we’re interested in statewide distributions, but it could also be scaled down to regions or PRISMs.



For this aspect of the analysis, we’re trying to figure out what species might be in the regional buffer around Pennsylvania. These species would be considered Tier 1 and are those we’d want to prevent from getting into the state. Tier 2 species include new infestations to the state, but aren’t yet widely spread in PA; these would be targets for eradication. Tier 3 species are those in the containment category with the goal of preventing their further spread. Tier 4 species includes those already in PA, are widespread, and management goals would include local control. (See graphic above for more details.)

More detailed definitions for the four tiers are provided in the graphic below (taken from the Finley et al. paper):

		Invasive Species Tiers Standardized species lists for each PRISM			
		Difficulty of Eradication / Cost of Control Abundance (in PRISM plus Buffer)			
High, medium, or suspected high/medium impact		None in PRISM	Low (Eradication/ Full containment may be feasible)	Medium (Strategic management to contain infestations and slow spread in PRISM)	High (Established/widespread in PRISM; only strategic localized management)
Impact (current and future)	Very-high or High	TIER 1 <i>Early Detection/Prevention</i> Highest level of early detection survey efforts. Should conduct delineation surveys and assign to appropriate Tier if detected. a) Inside buffer, but not in PRISM b) Outside PRISM and Buffer, but close (eastern North America) c) Far outside PRISM and buffer (not in east NA), but introduction pathway exists	TIER 2 <i>Eradication</i> Highest level of early detection response efforts. High impact species with low enough abundance and suitable treatment method available to make eradication feasible within the PRISM. Need delineation surveys to determine extent.	TIER 3 <i>Containment</i> Target strategic management to slow the spread, as likely too widespread for eradication, but many surrounding regions could be at risk if left unattended. For plants, use the IPMDAT. Possible eradication candidate only if adequate resources and effective control methods available.	TIER 4 <i>Local Control</i> Eradication from PRISM not feasible; focus on localized management over time to contain, exclude, or suppress to protect high-priority resources like rare species or recreation assets. Be strategic when deciding if / where to control.
	Medium	<i>Evaluate (Medium Impact)</i> Further evaluate impacts and PRISM resources to see if the species should be assigned to one of the other lists. If this species could feasibly become high impact with climatic or other environmental changes, consider moving to the appropriate High Impact row based on abundance. If too little is known, consider moving to "Monitor".			
	Unknown	X	TIER M <i>Monitor</i> Species that need more research, mapping, and monitoring to understand their invasiveness. This includes naturalized species and cultivated-only species that are known to be invasive in other regions but are not yet invasive here. Invasiveness may change with environmental or genetic changes. Should monitor populations on a regular basis to see if they are starting to become invasive and assign to appropriate Tier if invasive infestations detected.		

Tier definitions were formalized in 2017 by the NYS invasive species network of PRISMs, state agencies, and NYNHP.
Buffer: An area chosen by the PRISM that surrounds the PRISM and takes in certain counties, states and provinces. Most PRISMs are using about 100 miles as the buffer.
Impact: Use the PRISM-specific invasiveness rankings if available, or use NYS ranks (see nysis.info for existing ranks). For species that are not ranked yet, or PRISM-specific adjustments of state ranks are deemed necessary, use expert opinion and document justification. Low-impact species not included since cannot justify spending resources to control these.
Abundance: This is left as a qualitative metric, since assigning standardized values to categories is not feasible due to the diversity of species dispersal strategies and data gaps.
 This ranking system takes into account populations that have escaped into natural areas, but not intentionally (and legally) distributed individuals. For example, a landscape planting would not be counted.

New York State has been working on this tiering effort for several years and have a good idea of what species are considered the most invasive in their state. They now are focusing their attention and efforts on species that ranked highly according to their tiering process. While we (here in PA) can rely on some of the information already compiled by New York, we don’t yet have everything “fleshed out” for our own state. For the WPC project, we’ll be focusing on species that are known or suspected to be high/moderately high regarding their invasiveness.

We’ve done some initial distribution analyses according to the Finley et al. method by compiling regional datasets within Pennsylvania and a buffer around it. The datasets are sourced from iMapInvasives, iNaturalist, USGS NAS, and GBIF. The data being used is more recent, beginning in the year 2000 and going to present day. We tried to standardize the information by clustering occurrences that are near each other to represent a single population. All of this information is then compiled into a number of populations per species.

Then we take the number of populations and slot species into those tiers. WPC has currently done this process for a couple hundred species and would now like to make some adjustments based on expert input. This process of expert review will help fine-tune things with actual conditions on the ground, especially for under-reported species that might not be well represented in the datasets. Expert input could be merged with true management priorities.

Next week, WPC plans to hold two virtual meetings on December 13 and 14 to gather expert opinion on invasive species tiers for terrestrial and aquatic species. Many thanks to members of this committee who have already provided feedback on the species tiers.

We see some applications of this initial effort with invasive species tiering, such as for state and regional planning efforts. It will likely be an iterative process if there is broader buy-in and interest for this type of analysis. We could investigate expanding the tiering process for other species and recommend priorities for regional efforts, such as in NW PA.

Comments or questions about the tiering process can be directed to Mary Walsh at mwalsh@paconserve.org.

Kris Abell (PDA) commented that he feels there's tremendous value to this tiering project and sees a lot of potential applications, many of which Mary already mentioned. Perhaps most pertinent for today and for the Invasive Species Listing Committee are the problems with the threat categorization on the [PGISC Invasive Species List](#). This tiering work could help eliminate that issue.

Updates, Activities, and Events

Amy Jewitt (WPC) mentioned that she and Mary Walsh (WPC) have been working on a grant-funded project (funded by the Great Lakes Restoration Initiative – GLRI) to produce a documentary-style film in conjunction with [Great Lakes Media](#). The film is centered around aquatic invasive species threats to the Great Lakes and is slated to be 30-40 minutes long. The film should be completed sometime in January 2024. We're excited for the uses of the completed film, such as being a tool to advocate for PRISM as well as a teaching resource to raise more awareness about aquatic invasive species and how they are impacting so many different things that people may not easily notice. Once the film is complete, Amy/Mary will notify Kris Abell (PDA) and ask that Kris share the link to the film with PGISC members and stakeholders.

Andrew Rohrbaugh (DCNR) commented that we haven't had a forest health update recently. There are several potential issues currently happening, such as with sudden oak death, southern pine beetle, etc. We have ongoing issues like oak decline, beech leaf disease. There's also surveys being done for spongy moth to try and determine how much of an outbreak there will be the following year. If the Council feel it's helpful to hear a short update from agencies and

organizations on specific topics, please let Kris know and short presentations can be given at future PGISC meetings.

Dr. Deah Lieurance (Penn State University) commented that she is currently building her lab and some of the extension program areas that she'll be working on. If anyone on the meeting today has a specific need in relation to invasive species management, this would be helpful information for Deah to build useful extension programming from. *Deah can be contacted via email at dzl5661@psu.edu.*

Sean Hartzell (PFBC) commented (*via the Chat*): "I did field surveys for AIS in a subset of various PA Fish and Boat Commission lakes around the state this summer, supported by GLRI grant funding. I'll be presenting a summary of survey results at a forthcoming (March?) PGISC meeting."

April Moore (USFS, ANF) commented (*via the Chat*): "Allegheny Forest Health Collaborative is having a meeting on buckthorn in January; date TBD."

Jim Grazio (PA DEP) commented (*via the Chat*): "EPA is accepting comments on proposed rulemaking for National Standards of Performance under the 2018 Vessel Incidental Discharge Act (VIDA). The comment deadline is December 18, 2023. While national in scope, VIDA has significant implications for the ballast-mediated introduction and spread of AIS."

Public Comment Period

None.

Kris reminded folks that questions or comments can always be sent to him directly via email (krabell@pa.gov) or by phone (717-787-2227).

Concluding Remarks

Fred Strathmeyer (PDA) thanked everyone for their participation on today's meeting, especially those from the public sector. Your interest in the topic of invasive species is appreciated.

Kris, Fred, and members of the Council will continue to make the public aware of what is going on related to invasive species issues in Pennsylvania.

Meeting adjourned.

Next PGISC Meeting

Thursday, March 7, 2024 (10:00am to 12:15pm)

To be held in-person at PDA in Harrisburg, with a virtual option

Meeting minutes respectfully submitted by Amy Jewitt, Pennsylvania iMapInvasives Program Coordinator with the Western Pennsylvania Conservancy and the Pennsylvania Natural Heritage Program.

Questions or concerns regarding these minutes should be submitted to Kris Abell (krabell@pa.gov), Council Coordinator. If you are a member of the public and wish to attend the next PGISC meeting, please contact Kris for more information on the meeting's date, time, and location.