



PENNSYLVANIA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

SUMMER NEWSLETTER JULY 2024

President's Hook

Greetings, Thank you all for checking out the 2024 summer edition of the PA Chapter of the American Fisheries Society newsletter! I hope your summer is going well, it is incredible how fast time goes by. As my shift as chapter president is nearing an end, I am so appreciative of the opportunity to participate in this professional society and foster so many meaningful professional and personal relationships. As I reflect on my time to date as an officer for the PA Chapter and my time in AFS as a whole, I truly believe one of the main benefits of being an AFS member and active participant in the PA Chapter annual technical meet-



Clayton Good, PA F&BC

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ing and functions is the opportunity to cast your net, build relationships and ultimately a network that will guide you through your career.

Similar to Past President, Matt Shank's article in last summer's newsletter, landing a Fisheries Biologist Aide (FBA) position with the PA Fish and Boat Commission (PFBC) was a crucial building block to beginning my professional career. One will find throughout both the PFBC and PA Fisheries professionals that this is a common re-occurring theme. The FBA opportunity provided to me is almost solely due to presenting a poster from a prior internship experience with Trout Unlimited's Pennsylvania Coldwater Habitat Program, thanks to Dr. Shawn Rummel and Kathleen Lavelle for an amazing experience there! I also need to thank my professor from Lycoming College, Dr. Mel Zimmerman who introduced me to electrofishing through two summers of conducting Unassessed Waters surveys. Presenting at a PA AFS technical meeting led to me connecting with Tom Shervinskie (PFBC retired), Mark Hartle, Jordan Allison and Doug Fischer which led to an opportunity as an FBA in the PFBC Division of Environmental Services. Which is where I am currently starting my 7th year of employment after a few stops in between. Did I mention that time flies?

I now take pride in connecting with current students and mentoring our FBA's as they start their professional careers, even if they leave in the middle of their term to take a graduate school position (Brenden Naumen, now at West

Virginia University). With career mentorship in mind, the PA Chapter Executive Committee members held a virtual Q&A session for career and academic development questions from current students in November, 2023. This event was a success and a concept that we hope to replicate moving forward. Please share any ideas you may have to improve or expand ideas for student engagement for those interest in a career in biology or fisheries.

I encourage you all to seek opportunities to engage your fellow fisheries and conservation professionals. You never know when a connection could lead to future job opportunities, grant acquisition, collaboration or partnerships to further conservation efforts. Speaking of conservation efforts, I also want to encourage everyone to maintain relevancy in your work. Think of ways to convey the importance of our work to the common man as it can be difficult to accomplish resource management and protection without support from the public. For example, increasing the budget of a culvert replacement project to accommodate fish passage alone can be a tough sell. However, when you present the benefits of greater flood resiliency and longevity that results from designing culverts for stream continuity, it becomes an easier sell.

I look forward to seeing a good turnout at our summer social on July 20 at the Juniata College Raystown Field Station. Juniata College has a beautiful facility and George Meroovich is an excellent host! I want to thank George for his service as an Executive Committee member and the time and effort to organize our newsletter. I would also like to extend my gratitude to our remaining board members Matt Shank, Adam Slowik, Aaron Henning, Logan Stenger and Emily Bierer. Without all of their collective time and efforts it would be impossible to facilitate our annual technical meeting and other operations needed to maintain the chapter. Please consider getting involved with our chapter, we are always looking for future Board members and help to plan our annual technical meeting.

I hope you all have a great summer, make time to get on the water and enjoy the abundant fishing and boating opportunities Pennsylvania has to offer. Don't forget to include your kids or other youth in your activities. Establishing a love for the outdoors at a young age is often a key pillar in the foundation of future fisheries professionals!

Tight lines,

Clayton Good



PA Chapter Officers 2023 / 2024



President-Elect
Aaron Henning, SRBC



Past President
Matt Shank, PA DEP



Secretary / Treasurer
Adam Slowik, Brookfield Renewable



ExComm
Logan Stenger
Chesapeake Conservancy



ExComm
George Merovich
Juniata College



Student Representative
Emily Bierer
Duquesne Univ.



Officer elections coming up soon...be on the look out for an electronic ballot. Consider volunteering your time and expertise to running your PA Chapter of AFS. Contact us for any comments, questions, or suggestions, or nominations pachapterafs@gmail.com.

2024 Summer Business Meeting and Social

Juniata College Raystown Field Station



[GPS Coordinates: 40.367336, -78.144544](#)

Saturday July 20, 2024

Join us for our annual summer business meeting and social at the Raystown Field Station on **Saturday July 20**. Come early and spend the day with other chapter members. Fun for the whole family by the lake.

Lunch at noon; business meeting at 3 pm. This year **Nelson Wert, hatchery director for the PA Striped Bass Association**, will give a tour of the **Striped Bass facility** at Seven Points. This is a very informative presentation on rearing striped bass for Raystown Lake. Timing on this field trip is TBA. It's about a 20-min drive from the Field Station to the hatchery at Seven Points.

Please RSVP [here](#) for the Summer Social and hatchery trip (or see your email for the link as well).



Opportunity abounds at the field station for recreational opportunities during the Social. This summer has been HOT, so swimming at the lake down the hill from the field station will be POPULAR. The James Creek boat ramp is nearby (40.362715, -78.158053) if you'd like to launch a boat and make an

amphibious landing. There are multiple camping and recreational opportunities in the [Raystown Lake](#) region if you would like to make it a long weekend. Pitching a tent for the night at the station is a possibility too. Bring your fishing gear, bike, hiking gear, etc. The Chapter will provide burger/dogs and some drinks; please bring a covered dish.

Images from 2022— come out and join us this year!



[Recap of the 2024 Spring Technical Meeting](#)

The Pennsylvania Chapter held our annual spring technical meeting in Meadville, PA on February 8-9 hosted by the Allegheny College Watershed Conservation Research Center. We could not have asked for a better location to discuss our theme of Biodiversity and Human Dimensions than along French Creek, a tributary to the Allegheny River that supports the most bio-diverse assemblage of aquatic life in the state.

There were 120 attendees over the two day conference, including ~40 students representing 12 academic institutions. Day 1 included a plenary talk by Dr. Stuart Welsh with the West Virginia Cooperative Fish and Wildlife Research Unit, West Virginia University. His talk gave an overview of his recent publication *Hornyheads, Madtoms, and Darters: Narratives on Central Appalachian Fishes* and included a video highlight of unique smoke screen feeding behavior of Northern pike, *Esox lucius*, that he recorded while ice fishing with his son. Dr. Welsh's book is a must have for all fish enthusiasts, providing technical descriptions and observations in a very readable format.

We had a packed agenda that included 15 professional podium presentations, 3 student podium presentations as well as an evening poster social with 20 student and professional posters. Day 2 consisted of three professional workshops on freshwater mussel identification from the Ohio River basin, identification of central Appalachian darters, and geospatial operations in R.

Our 2024 Cooper Award Winner was Bridget Reheard from Penn State University. She received a certificate and \$500 to further her research. Bridget was also awarded the top student podium presentation for her talk on "Evaluation of shale gas development and wastewater spills as drivers of biological changes in second-order streams in northcentral Pennsylvania". The Chapter gave student awards to the top three student podium and poster presentations totaling \$1200 in cash awards.

We greatly appreciate all of our meeting sponsors, presenters, workshop facilitators, Allegheny College staff and PA AFS Excomm members who all contributed to an excellent meeting.

In other news from the past year...

On November 9, 2023 we hosted an evening online Q&A session for career development and higher education aimed at current college students in the fisheries profession. Panelists were PA AFS officers representing various professional backgrounds, state agencies, academia, and the private sector. Feed back from student attendees was great, and we welcome other ideas for virtual seminars, activities, and sessions during the year.



2024 Cooper Award and Best Student Podium Presentation Award Winner Bridget Reheard with PA Chapter President Clayton Good

News from around the Chapter

Delisted! The Power of Partnership

Submitted by: Logan Stenger, Project Manager, Chesapeake Conservancy

Earlier this spring, the [Rapid Stream Delisting Partnership](#) celebrated a monumental achievement: approximately 4.5 miles of streams from four different watersheds were removed, or “delisted”, from the federal Clean Water Act impaired waters list! This milestone was marked by a celebratory event among partners along Turtle Creek, an agriculturally impaired watershed in southeastern Union County. After more than a decade of collaborative restoration efforts, approximately 2 miles of Turtle Creek have shown significant improvements in water quality, warranting their removal from the impaired waters list.



Conservation partners gathered to celebrate the “delisting” of approximately 2 miles of Turtle Creek in Union County from the federal impaired streams list. Photo credit: Northcentral Pennsylvania Conservancy.

The rapid stream delisting strategy, conceived in 2019 by the Chesapeake Conservancy, employs a data-driven approach to prioritize restoration efforts in small, agriculturally impacted watersheds. Since its inception, the partnership has grown to include over 60 partners encompassing federal and state agencies, county conservation districts, academic institutions, and non-profit environmental groups. Currently, the focus is on 57 streams across seven Pennsylvania counties, including Centre, Clinton, Huntingdon, Lancaster, Lycoming, Snyder, and Union counties. To date, the Chesapeake Conservancy alone has raised over \$18 million to support the rapid stream delisting strategy. This collaborative effort underscores the power of partnerships in driving meaningful environmental change and sets a promising precedent for future water quality restoration projects!

Watch this brief [3-minute video](#) to see how it was done at Turtle Creek in Union County, PA!

Project Spotlight: Transforming Urban Streams with Beaver Dam Analogs

Submitted by: Matt Wilson and Siobhan Fathel, Susquehanna University

At Susquehanna University’s field station, the Center for Environmental Education and Research (CEER) in Selinsgrove, Pennsylvania, beaver dam analogs (BDAs) are being used to restore a local stream.

Urbanization, suburban development, and agricultural practices have significantly degraded many streams,

leading to increased stormwater runoff, erosion, pollution, and habitat loss. Traditional stormwater management systems, like concrete channels, often exacerbate these problems. BDAs, however, offer a promising alternative. These low-tech structures mimic natural beaver dams, regulating water flow, enhancing groundwater recharge, capturing sediment, and promoting riparian vegetation. They support biodiversity and contribute to ecosystem resilience.

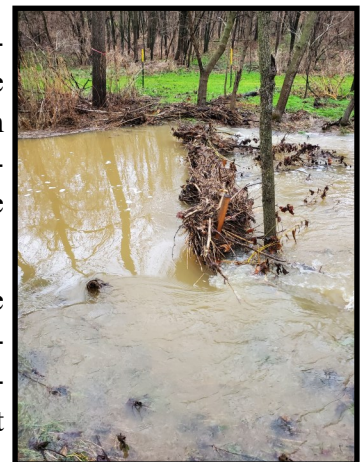
This project focuses on urban and suburban streams, which are often overlooked in restoration efforts. At the CEER, eight BDAs have been installed along a 200-meter stretch of an ephemeral stream. These structures aim to slow water flow, redirect excess water, and reconnect the stream with its floodplain, addressing the severe erosion and infrastructure damage caused by urban and agricultural runoff. Notably, this is the first time the Pennsylvania Department of Environmental Protection (PA-DEP) has permitted such structures.



Initial data collection in Summer 2023 and 2024 included stream profiles to understand how channel width and depth changes, along with bed substrate analysis to understand how fast water is moving through the system. Ongoing monitoring involves photographic documentation, topographic surveys, erosion measurements, and tracking water depth and temperature. This framework helps in understanding the BDAs' hydrological dynamics and ecological impact.

Early results are encouraging. Increased water retention, reduced flow velocity, and effective sediment capture have been observed. Additionally, the floodplain, inactive for over five years, has been reactivated during high flow events, promoting sediment deposition and reducing flood risk. Challenges like side scour or erosion of the stream bank around the dams have prompted design adjustments to better suit site conditions.

This project aims to demonstrate the viability of BDAs as a sustainable stream restoration solution in areas affected by significant runoff and stormwater damage. Through research and educational outreach, the goal is to inform broader adoption of BDAs, contributing to healthier, more resilient watersheds, ecosystems, and communities.



Update from Susquehanna River Basin Commission

Submitted by: Aaron Henning



The Susquehanna River Basin Commission remains actively engaged in fisheries science heading into the 2024 field season. Major initiatives include continued eDNA monitoring for invasive Northern Snakehead and Blue Catfish, fish community surveys at its Continuous Instream Monitoring stations and pre-restoration monitoring of the Tioga River watershed. Additionally chapter members

Aaron Henning (president-elect) and Luanne Steffy have teamed up with SUNY Oneonta and the United States Fish and Wildlife Service to use eDNA to monitor for American eel across the Susquehanna River Basin. Commission scientists are also participating in the EPA's National Rivers and Streams Assessment. This nation-wide initiative has dozens of field crew sampling over 1,800 sites using identical protocols to assess the physical, chemical and biological conditions of our nation's waters. This will be the SRBC's fourth year participating in the survey. The Commission's 'Eels in the Classroom' continues to grow in popularity and scope. Our neighboring states of Maryland and New York will both seek to join the program in the coming years and a satellite chapter has brought the unique experience to Massachusetts students through the USFWS. For a live look in on American eels anytime via webcam visit The Montour Preserve's Vernal School online at <http://www.vernalschool.org/the-eels.html>



PA AFS President-elect, Aaron Henning, with a Susquehanna River Largemouth bass

Stream Restoration Updates

Strategic Conservation and Connecting People to Nature: Herod Run – Yoder Farms Habitat Restoration and Streambank Stabilization

Submitted by: Bob Vierck, Adam Smith, and Carla Hine, USFWS

Pennsylvania’s Partners for Fish and Wildlife recently completed a habitat restoration and streambank stabilization project on Herod Run at Yoder Farms in Jackson Township, Huntingdon County. Herod Run is listed on the Pennsylvania Department of Environmental Protection’s list of impaired waters due to agriculture. It is also a priority stream for the Chesapeake Conservancy’s rapid de-listing program. The streambanks are actively collapsing due to years of livestock access and stream straightening, contributing sediment to the stream.



In progress



After

The resulting sediment and collapsing banks provide little cover for fish and cause increased water temperatures.

Herod Run is a tributary to Standing Stone Creek (tributary to the Juniata River and the Chesapeake Bay), which is the primary drinking water source

Project Statistics:		Partners Contributing to the project:	
Project Length:	3,781 feet	Huntingdon County Conservation District	
Project Cost:	\$302,288	Western PA Conservancy	
Sediment Reduction	187 tons/yr	Pheasants Forever	
Nitrogen Reduction:	323 lbs./yr	U.S. Fish and Wildlife Service	
Phosphorus Reduction:	61 lbs./yr	Foundation for CalU of PA	
		Juniata College	
		PA DEP (Growing Greener)	
		Landowner	

for Huntingdon Borough (the county seat and highest population center) and surrounding areas. Excess sedimentation has been cited as a concern for the Huntingdon Borough Water and Sewer Authority, as it has increased the cost of water treatment.

The project is 3,781 feet long. In-stream structures included 21 Mudsills (1,615 feet), 390 feet of rock toe, 11 restored riffles, 152 feet of toe logs, 11 log vanes, 2 log cross vanes, 3 brush mattresses, four restored cattle crossings, and 21 random boulder clusters. In addition, the Partners Crew removed invasive privet and honeysuckle, and 13 acres of native trees and shrubs were planted. The project was coordinated by the Western Pennsylvania Conservancy, Huntingdon County Conservation District, Chesapeake Conservancy, and Juniata College.



Live staking with more than 40 students from Juniata College

Blacklog Creek – Habitat Improvement and Stream Restoration

Submitted by: Bob Vierck, Adam Smith, and Carla Hine, USFWS

The Blacklog Creek Stream Restoration Project was recently completed in Orbisonia, Huntingdon County, Pennsylvania. This project remediates the extreme erosion and improves habitat at an extreme bend in the stream as it meanders dangerously close to the roadway and adjacent gravel lot. The eroded bank was more



Before



Before

than 20 ft. in height and was extremely dangerous to traffic as well as frequent fishermen, as this stream is stocked by the Pennsylvania Fish and Boat Commission.

The project restored 650 linear feet of stream through installation of a 140 ft, zig zag wall topped by a rock terrace 15 to 20 feet wide. This structure improved the safety by eliminating the precipitous fall off



After

while greatly reducing the constant sediment. In addition, three rock vanes, a root wad deflector, and a 50 ft. rock toe were constructed to improve the connection to the flood plain. The impact is projected to reduce sediment by 91 tons, nitrogen by 166 lbs/yr and phosphorus by 43 lbs/ yr.

These measures will greatly improve the water quality of Blacklog Creek and the Juniata River watershed downstream to the Chesapeake Bay.

Photo Corner



Juniata College Fisheries and Aquatic Sciences Program provided an electrofishing workshop at the 29th annual [Rivers Conservation and Fly-Fishing Youth Camp](#) (hosted by Cumberland Valley Chapter of TU) at Messiah University in Grantham, PA on June 19, 2024. Pictures show students dip-netting and learning to identify fish in the Yellow Breeches and Trout Run. The week-long camp is an awesome model in conservation camps for kids interested in conservation, the outdoors, and fly-fishing (Photos: RCFYC and G. Merovich)

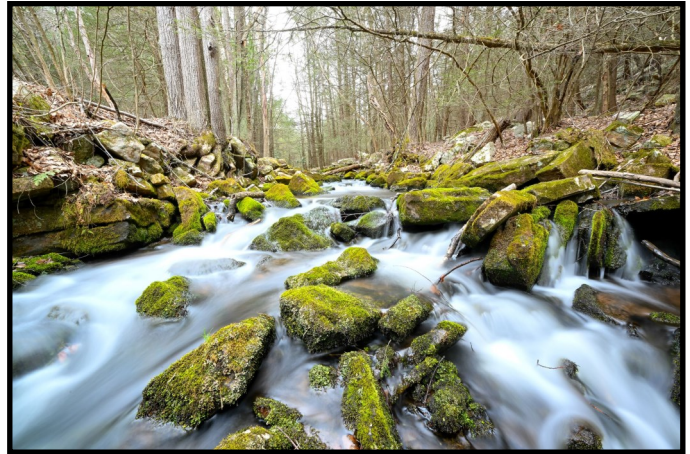


And...going back almost 100 years, here is a scene from 1936 "Opening day of Game Fish Season" at Safe Harbor dam on the Susquehanna River. Let your mind wonder in viewing this. Picture from Safe Harbor Water Power Corp.

Photo Corner



Nest of woodcock eggs found along Buffalo Creek in Union Co, April 2024 (M. Shank)



Long exposure shot of Laurel Creek in Centre Co, April 2023 (M. Shank)



“Pickerel Pond” (near Gifford Pinchot State Park, York Co., PA) now mostly absent of large standing wood. Used to be a favorite spot to catch chain pickerel, but now is loaded with bluegills and roaming snapping turtles. This feisty bluegill may have been a victim of a snapping turtle attack (07-06-2024, G. Merovich).

Acknowledgements

Thank you for contributing to the 2024 Summer Newsletter: Chesapeake Conservancy, Susquehanna University, USFWS, PA FBC, PA DEP, SRBC

We hope to see you at the summer social and future Chapter meetings. Email the Chapter at pachapterafs@gmail.com to get involved, volunteer, provide suggestions, or ask questions.