



WATERSHED

CONSERVATION RESEARCH CENTER

ALLEGHENY COLLEGE

Fall 2026 Newsletter

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Conservation Through Collaboration

Conservation is a community effort. The work we do at the WCRC is made possible through the many people and organizations who come together with a shared commitment to caring for our natural resources. From non profits, educational institutions, local community organizations, and regional partners, each collaboration brings new ideas, knowledge and opportunities to make a difference.

In this issue, we're celebrating some of the partnerships that have been especially meaningful over the past year and highlighting the work we've accomplished together. These stories represent just a few of the many relationships we've built since the WCRC was founded. We are grateful for every partner who has shared their time, expertise, and enthusiasm with us, and we look forward to continuing this work together in the years ahead.

Students are also a critical partner to the WCRC and this fall we welcome our new WCRC technicians, Sophia Misner and Beckham Pease, and welcome back our macroinvertebrate specialist, Meghan Wolfharth.



French Creek
Woodcock Creek
French Creek Watershed
Woodcock Creek Watershed



Co-Directors Casey Bradshaw-Wilson and Kelly Pearce joined PA DEP, CCCD, and PFBC at a trout stocking event at Stainbrook Park

French Creek Watershed



Strategic Wood Additions with Western Pennsylvania Conservancy

Traditional stream restoration techniques involved hardening banks and adding human-made structures to modify streams. A more recent technique that is being employed is called Strategic Wood Additions which involves selectively cutting and placing trees into the stream channel. This approach helps streams reconnect to their floodplains, reduce sediment, stabilize streambanks, slow water down and improves habitat for fish and aquatic life. With funding from the **Pennsylvania Department of Environmental Protection Growing Greener Watershed Protection Grant***, the WCRC has partnered with the **Western Pennsylvania Conservancy** to apply this technique to two streams in western Pennsylvania. The first restoration was completed in August of 2026 on an unnamed tributary to Oil Creek, referred to as Putter Run. The second restoration will take place in the summer of 2027 on an unnamed tributary to Woodcock Creek.



Added wood increases in-stream habitat diversity



Excavator used to position felled trees within stream



Putter Run immediately following Strategic Wood Additions



Connecting Pennsylvania Fish Data for Conservation

Pennsylvania is home to over 86,000 stream miles, the second highest of any state behind Alaska. Because of the magnitude of stream miles, many of the smaller streams in the state had never been surveyed. To complete this work, the **Pennsylvania Fish and Boat Commission** launched the **Unassessed Waters Initiative** in 2010. This program allows partners at educational institutions and non profit organizations to assist the PFBC with the goal of documenting wild trout populations.

Beginning in 2012, Allegheny College joined this effort, and the WCRC has continued participating since our founding in 2021. Each year, PFBC assigns the WCRC 30-40 stream sites to assess. Surveys involve electroshocking a 100-meter reach of each stream, allowing us to identify and document all fishes present, with a specific interest in Brook Trout and Brown Trout populations.

In August, the Freshwater Research Institute at Susquehanna University in collaboration with our Research Scientist, Mark Kirk, published a long-term database in *Science Direct* that compiles data from 1,491 stream sites collected between 2010-2025 across the entire state of Pennsylvania. This centralized resource makes decades of monitoring data more accessible to research partners, supporting future research and helping us better understand long-term trends in fish communities across the region. The database can be accessed through this [recent publication](#).



Juvenile Brown Trout indicating wild trout reproduction



Summer research students Gage Johnson '29, Ian Dombach '27, Emma Stephens '29, and Jacob Hochstetler '28



Research Scientist Mark Kirk, Gage Johnson '29, and Emma Stephens '29 backpack electrofishing during Unassessed Waters survey



Round Gobies on the Move: Tracking fish movement in Lake LeBoeuf with Pennsylvania Fish and Boat Commission



**PFBC staff and Gage Johnson '29
PIT tagging a Round Goby to
monitor movement**



**PFBC staff and Emma Stephens '29
electrofishing for fish on Lake LeBoeuf**

Lake LeBoeuf is a glacial lake located at the northern portion of the French Creek watershed. Round Gobies, an invasive fish species native to the Black and Caspian Seas, were first detected in the lake in 2014. Research on Round Gobies in Lake LeBoeuf began shortly after their detection by Co-Director, Casey Bradshaw-Wilson. This work has continued for more than a decade and has evolved into an on-going WCRC research program focused on understanding the spread, movement, and potential impacts of Round Gobies in the French Creek watershed.

In collaboration with **PFBC**, the WCRC has captured and PIT tagged over 300 Round Gobies in Lake LeBoeuf. A tracking array allows us to monitor PIT tagged fish and their movement between LeBoeuf Creek and Lake LeBoeuf. This past summer, the project expanded to include other species that lack migration and movement data, including Channel Catfish. These data will help us better understand how a variety of fish species use Lake LeBoeuf and the connection to French Creek, in addition to valuable information for managing both native and invasive species.

For WCRC students, the project provides an opportunity to work alongside PFBC biologists and gain hands-on experience with larger sampling equipment, such as boat electrofishing.



**Channel Catfish being
weighed in preparation for
PIT tag**



Turtle Population Study with Ecological Research as Education Network

Since 2023, the WCRC has partnered with the **Ecological Research as Education Network (EREN)** to monitor vernal pool hydroperiods and amphibian reproduction. This fall, the partnership has expanded to include monitoring local turtle populations, with a focus on painted turtles. Through a mark-and-recapture study, researchers are examining how painted turtle populations vary across different levels of urbanization.



The WCRC is part of a larger collaboration of research groups across multiple states working to build a comprehensive dataset on turtle populations. By combining data from across the region, this project will provide valuable insights into how turtles respond to changing landscapes and help inform future conservation efforts.



Research Scientist Mark Kirk prepares to set turtle trap



Assistant Research Scientist Bryan Winston processing a Painted Turtle



Common Snapping Turtle at one of our study sites



Painted Turtles basking on a fallen tree at one of our study sites



Mussel Surveys with Erie National Wildlife Refuge

The Erie National Wildlife Refuge, managed by the US Fish and Wildlife Service, is comprised of two distinct areas, one located in Guys Mills and the other in Cambridge Springs. Together, these lands protect critical habitat in the French Creek watershed, and provide valuable opportunities for conservation research.



The WCRC has partnered with refuge staff on several research projects over the years. Most recently, we have worked together to survey freshwater mussel populations, helping to document the distribution of the watershed's 27 native mussel species. We have also collaborated on collecting tissue samples from both mussels and their aquatic host species to support ongoing research and conservation efforts.



WCRC students and staff assist Yianni Laskaris (USFWS) with sorting mussel species



Federally endangered Snuffbox mussel was detected at one of our study sites



Common Logperch which serves as a host for the Snuffbox mussel



New Nesting Habitat for Hellbenders in French Creek

French Creek provides important habitat for Pennsylvania's state amphibian, the eastern hellbender. To support ongoing conservation efforts, the WCRC partnered with the **Clean Water Institute at Lycoming College**, led by Allegheny alumnus Dr.



**LYCOMING COLLEGE
CLEAN WATER
INSTITUTE**

Matt Kaunert '11, who monitors hellbender populations across Pennsylvania. Together, we installed nest boxes at a few key sites to provide additional nesting habitat for these unique and important amphibians.

The nest boxes will also serve as a valuable conservation tool, allowing researchers to more easily monitor hellbender populations and reproductive activity while minimizing disturbance to the animals and their habitat. Through this partnership, the WCRC is helping to support the long-term conservation of hellbenders in French Creek.



**Hellbender nest box with
removable lid**



**Eastern Hellbender waiting
to be processed**



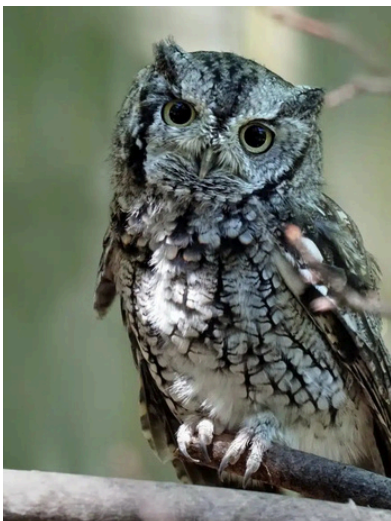
**Hellbender nest box
deployed in French Creek**



Introducing our Fall 2026 Research Team



Name: Megan Wolfharth
Year: Senior
Hometown: Morgantown, WV
Major: Environmental Science and Sustainability
Minors: Biology and Computer Science
Clubs/Activities: Bird Club, Soccer Club
Favorite animal: Eastern Screech Owl



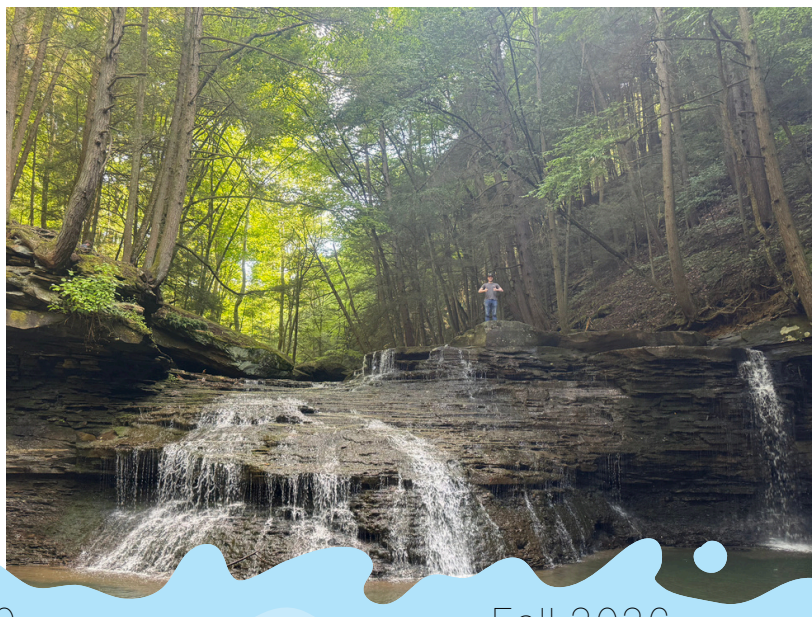
Name: Beckham Pease
Year: Sophomore
Hometown: Reading, PA
Major: Environmental Science and Sustainability
Minor: Energy and Society
Clubs/Activities: Allegheny College Volleyball Club
Favorite Animal: Seals and Sea Lions



Name: Sophia Misner
Year: Junior
Hometown: Washington, PA
Major: Environmental Science and Sustainability
Minor: Biology and Spanish
Clubs/activities: Outing Club, Bird Club, College Orchestra, ESS Office Assistant
Favorite Animal: Chipmunk









A Note from our Co-Directors

At the WCRC, we believe that effective conservation is built on partnerships. The challenges facing our watersheds are complex, and no single organization, researcher, or community can address them alone. Our work is made stronger by the knowledge, experience, resources, and commitment of the many partners who help turn research into meaningful conservation.

Over the past year, we have had the opportunity to collaborate with partners on projects spanning the French Creek watershed and beyond. Together, we have monitored fish communities across Pennsylvania, tracked the movement of invasive Round Gobies and native sportfish in Lake LeBoeuf, expanded our work with EREN to better understand turtle populations and amphibian reproduction and started some impactful restoration efforts. Each of these projects demonstrates the value of bringing people and organizations together around a shared conservation goal.

Our partners also help us take information collected in the field and turn it into something much more valuable: knowledge that can guide future conservation decisions. Whether it's over a decade of fish monitoring data being organized into a statewide dataset, PIT-tagging fish to understand how they move through our waterways, or combining turtle population data from researchers across multiple states, these efforts would not be possible without collaboration.

We are incredibly grateful to the community organizations, agencies, researchers, landowners, and students, who contribute their time and expertise to this work. Conservation is most successful when we work together, and we are proud to be part of a community that recognizes that protecting our waters, wildlife, and natural resources is a shared responsibility. We are so fortunate to have such incredible people and organizations by our side. We couldn't do it without you!



- Casey and Kelly



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