

Chesapeake Bay Watershed Freshwater Mussel Partnership Virtual Meeting

December 5, 2023

Meeting Minutes

Prepared by SRBC Staff

Attendees:

Anacostia Watershed Society	The Nature Conservancy (TNC)
Chesapeake Bay Commission (CBC)	U.S. Environmental Protection Agency (USEPA)
Herbert, Rowland & Grubic, Inc. (HRG)	U.S. Fish and Wildlife Service (USFWS)
James River Association	U.S. Geological Survey (USGS) Eastern Ecological Science Center
MD Dept of Natural Resources (MDNR)	VA Department of Wildlife Resources (DWR)
PA Dept of Environmental Protection (PADEP)	Woods & Waters
PA Fish and Boat Commission (PFBC)	WSSC Water Patuxent Watershed Protectors
Potomac Riverkeeper Network	York County Planning Commission (PA)
Sassafras Riverkeeper	
Stroud Water Research Center	
Susquehanna River Basin Commission (SRBC)	

1. Welcome, Orientation, and Introductions

- Jamie Shallenberger and Tyler Shenk from SRBC welcomed the group.
- The meeting was not recorded, but the chat dialogue was saved. Attendees were asked to provide their name and affiliation into the chat box, along with any links or pertinent information.

2. What the Partnership is About

- Objectives of the Partnership: advance conservation and restoration to maintain mussel biodiversity and assess mussels as a water quality Best Management Practice to control nutrient and sediment.
- Past meetings included the March 2020 STAC Workshop, the April 2022 NFWF/Maryland Workshop, and the February 2023 NFWF/Maryland Virtual Meetings (see presentation slides from this meeting for specific information).
- SRBC was asked to take over coordination of this Partnership in 2023. In addition to SRBC staff, the Steering Committee consists of the following people: Mieko Camp, MDNR; Brian Watson, VWR; Nevin Welte, PFBC; Joe Wood, CBF, Danielle Kreeger, Partnership for Delaware Estuary, and Scott Heidel, PADEP.
- Today's meeting them builds on our history: What can the Partnership do in support of each other? What would the Partnership seek in support from the Bay Program?

3. Conservation and Restoration Plans

- No aggregated database of mussel populations across the region exists.
- Planning objectives depend on specific such as taxa, taxa status, driving impetus (conservation, mitigation for authorized impact, case study, etc.).
- State Wildlife Action Plan updates are coming in 2025 and are an opportunity to have states consider freshwater mussels.

- SRBC asked attendees the following two questions: 1) How could the Partnership support conservation and restoration planning? 2) How could the Bay Program support conservation and restoration planning? Comments from meeting attendees are as follows:
 - York County Planning Commission (YCPC) has worked with Western Pennsylvania Conservancy to develop Watershed Implementation Plans (WIPs). The mussel Partnership could help with language for WIPs about mussel conservation. YCPC sees conservation and restoration as primary and Chesapeake Bay support as secondary. York County has six watershed monitors for nitrate, phosphorus, and sediment, and are working on trends for those pollutants to quantify impacts.
 - USFWS, State College, talks to school students about federally endangered mussel species. They suggested starting a Mussels in the Classroom program in schools similar to Trout in the Classroom or Eels in the Classroom. The Partnership could help with this by putting the mussels out throughout the watershed (if agencies/hatcheries could raise the mussels).
 - The James River Association was awarded a Chesapeake WILD grant for mussel habitat surveys. They are developing and rolling out a curriculum with soil and water conservation districts in July. The JRA could talk to other agencies about partnerships.
 - NFWF has upcoming Request for Proposals for Innovative Nutrient and Sediment Reduction (INSR) dollars (approximately \$2M available). There is a planning track and an infrastructure track. The next Chesapeake WILD round is coming out in a few weeks.
 - Matt Ashton from MDNR is the only malacologist participating in this meeting. He stressed that any new mussel programs need to be approved to move organisms/species around, especially over jurisdictions. This doubly applies to endangered species. Currently, mussels are not available in hatcheries, and the ones that are being propagated are already promised to groups.
 - USFWS is not sure mussels in the classroom programs would work. Mussels are not available from hatcheries and federally listed species would not be allowed in classrooms. They suggested finding funding to transport students to hatcheries as a field trip instead.
 - Stroud Water Research Center said that although adding mussels improves water quality, mussels also need cleaner streams to survive in the first place. There's no percentage of benefits from mussels available. Mussels shut down in storms, so it's difficult to figure out estimates. USFWS said there's literature available on nitrogen and mussel biodeposits.

4. Coordination for Field Activities

- SRBC asked if there is a need or desire to coordinate field activities ahead of survey season? Is there value in developing a message board and calendar to foster locally available volunteer (or publicize?) participation? Are there preparatory activities (e.g., training, gear, waivers/insurance, site recon, access, historic data)?
 - JRA is in contact with DWR and hatchery and already doing field work in VA. They aren't sure if their small group process would work in PA.

- The Anacostia Watershed Society is assessing the Anacostia and Potomac Rivers with VA Tech.

5. Freshwater Mussel Propagation

- SRBC asked the following about the process to obtain freshwater mussels for stocking: What facilities exist? Are facilities pending/planned? What taxa are available? What are lead time and costs? Are there permits, demonstrated merit, and biosecurity matters?
 - York County Planning Commission said that Western PA Conservancy has a malacologist (Eric Chapman). More propagation is happening in the Susquehanna Basin than in other basins, but that the Union City hatchery is mostly catering to Ohio Basin. The only overlap is Eastern elliptio.
 - USFWS said the facilities in Philadelphia, NJ, and MD are not ready yet, and that Harrison Lake is at capacity. It would help to have a restoration plan for the Chesapeake Bay. We need to know what species are needed/wanted in Bay area: some are easier to propagate. USFWS has an “at-risk species initiative” that details places where surveys are needed, etc. VA and Bay regions are under review. Three types are raised at Harrison Lake.
 - MDNR said a hatchery design contract has been executed with 2-3 years anticipated for construction; however, MD has already allocated everything from hatchery.
 - Nevin Welte, the PA state malacologist, was awarded a Chesapeake WILD grant to inoculate juvenile American eels with Eastern elliptio.

6. Engagement with Chesapeake Bay Program

- The Bay Program includes the Chesapeake Executive Council, committees, management board and goal implementation teams (see presentation slide for organizational framework). The Bay Program involves state and federal agencies to advance conservation and restoration to maintain biodiversity and develops water quality BMPs. Science, water quality, and ecosystems are considered in the Bay agreement. Education and outreach opportunities are incorporated into the TMDL framework.
- From WSSC Water: We should concentrate in promoting the benefits of mussels for controlling/mitigating harmful algae blooms and bacteria removal. News organization broadcast harmful algae blooms and bacteria outbreaks in streams or fresh water bodies.
- From Matt Ashton, MDNR: Based on my experience, we have been individually coordinating our activities with colleagues, professionals, etc. and I do not know what a central coordination would accomplish. Non-professional involvement in DNR project field surveys has safety and liability issues. Involving the general public or a school group in the field (e.g., mussel release) is usually a very specific event at a specific location to alleviate potential issues. Some activities are more amenable to public involvement than others (e.g., tagging versus monitoring).

7. News and Announcements

- JRA is working on a mussel plan with state and federal agencies and VT that will wrap up soon. Publication is intended for 2024. The General Assembly gave money for statewide mussel plan in VA.
- Anacostia Watershed Society's education program, Mussel Power, in the Anacostia River/DC area: <https://www.anacostiaws.org/what-we-do/education/school-based-programs/mussel-power-freshwater-mussel-restoration.html>
- Potomac Riverkeeper Network just announced a settlement agreement they negotiated with the city of Alexandria directing \$400,000 to VA DWR for a freshwater mussel project in the Potomac River.
- Ohio River Foundation's Mussels in the Classroom: <https://ohioriverfdn.org/education-programs/mic-mussels-in-the-classroom/>
- The Virginia Tech Freshwater Mollusk Conservation Center along with HLNFBH is propagated and releasing 8-10 Atlantic Slope species for release in the Shenandoah River system as part of the South River NRDAR. To date, we've released >12,000 mussels of 8 species over the last few years in this river system. Our lead time is 1.5-2 years to propagate mussels to a size suitable for release. Costs are ~10 dollars per mussel or more depending on species.
- From Catherine Gatenby, USFWS: I think more research should be funded to quantify the nitrogen removal, phosphorus, ecosystem services by freshwater mussels; Sally Entekin, Paul Angermeier, and Jess Jones at VA Tech are doing some of this research in a river outside of Reston VA, and needed additional funding. I would like to see NFWF and other grants be able to fund research of mussels and ecosystem services, so we can put \$\$ amounts around the benefits of the services they provide. VA Tech wanted to do this but didn't get funded.
- Potomac River article in Washington Post (need subscription to read): <https://www.washingtonpost.com/dc-md-va/2023/11/01/potomac-river-pollution-alexandria-virginia/>
- SRBC reminded the participants to send future news and announcements to be posted on the Partnership website: <https://www.srbc.gov/our-work/what-we-do/chesapeake-bay-freshwater-mussel-partnership.html>
- SRBC will generate meeting summary and post on the website. Please contact SRBC with any other needs.