

Mussels Biodiversity Conservation Committee
February 14, 2023

A recording of the meeting can be found at:

<https://nfwf.sharefile.com/d-sae982f46dbee40f280883e6fb97c45be>

Introduction and background:

- In April of 2022, the National Fish and Wildlife Foundation and the state of Maryland hosted a regional workshop to connect entities that are working with freshwater mussels within the Chesapeake Bay Watershed.
 - Two primary goals for mussel restoration were identified: biodiversity conservation and water quality improvement. Although there are many commonalities among these two paths, the issues, strategies, and partners are decidedly unique. This understanding has led to the development of two parallel committees: Mussel Biodiversity Conservation and Mussels as Natural Filters.
 - It is envisioned that this group will be an evolution of the Chesapeake Mussel Group.

Structure, function, and capacity of committee:

- Mission
 - Discussed where the group currently is on the collaboration spectrum and what the appropriate level is moving forward.
 - Freshwater Mollusk Conservation Society's Conservation and Restoration Committee's mission could be used as a model.

The Collaboration Spectrum – Tool						
Compete	Co-Exist	Communicate	Cooperate	Coordinate	Collaborate	Integrate
Competition for clients, resources, partners, public attention.	No systematic connection between agencies.	Inter-agency information sharing (e.g. networking).	As needed, often informal, interaction, on discrete activities or projects.	Organizations systematically adjust and align work with each other for greater outcomes.	Longer term interaction based on shared mission, goals; shared decision-makers and resources.	Fully integrated programs, planning, funding.

Source: Tamarack Institute - July 2017

- Goals
 - Advance mussel conservation for the purpose of maintaining mussel biodiversity.
 - Connect subject experts and practitioners.
 - Build capacity to conduct mussel work (propagation, restoration, education, etc.).
- Leadership
 - Jamie Shallenberger and colleagues at the Susquehanna River Basin Commission have volunteered to help lead both committees.

- Time commitment of participants
 - A survey will be conducted to gauge the preference and availability of members for future meetings.
- Reporting and updates
 - There has been expressed interest in returning to an annual or biennial symposium to share information with the larger Chesapeake Bay freshwater mussel community.
 - There needs to be a mechanism for coordination with the Mussels as Natural Filters Committee.

Committee priorities:

- Identifying watersheds for protection or restoration
 - Priority conservation areas/sanctuaries
 - These areas can used as a mechanism to boost attention and funding for mussel restoration and protection.
 - The [Ohio River Basin Strategic Plan](#) identified mussel beds as a key habitat and a conservation target.
 - Develop watershed level conservation plans and strategies for mussels.
 - We need to factor in climate change and plan for it.
 - State Wildlife Action Plans will be revised in 2025.
 - Prioritize and target best management practices for mussel conservation (e.g., buffer planting, barrier removal, land conservation)
 - Ecosystem resiliency should be considered and projects that benefit the broader ecosystem should be prioritized.
 - Identify ways to integrate mussel goals with traditional stream restoration goals (and project designs) and Chesapeake Bay Program goals.
 - The Xerces Society's "[Conserving the gems of our waters](#)" could be used as a model.
 - Identify the watersheds where implementation of land based BMPs will most benefit mussels.
 - Identify site selection metrics for mussel augmentation or reintroduction.
 - Identify whether stressors that led to the decline or extirpation of mussels would preclude augmentation/reintroduction or have been remediated and augmentation/reintroduction is possible.
- Closing Science Gaps
 - Identify, prioritize, and standardize mussel community survey methods.
 - Establish population baselines.
 - Identify benefits and concerns of stocking mussels in non-traditional/engineered habitats (e.g., stormwater ponds)
 - Need to translate science into guidance to convey when and where mussel restoration is a viable option.
 - Hatchery activities, capacity, and coordination
 - Hatchery capacity and staffing is a current bottleneck to implementing additional mussel reintroduction and augmentation projects.

Funding:

- National Fish and Wildlife Foundation - [Chesapeake Bay Stewardship Fund](#); request for proposals is open through April 20th
 - Small Watershed Grants (SWG) Program
 - Chesapeake Watershed Investments for Landscape Defense Grants (WILD) Program
- National Fish and Wildlife Foundation - [Central Appalachia Habitat Stewardship Program](#)

Takeaways and next steps:

- Follow-up with a survey to better define the structure, function, and capacity of the committee.
- Share committee member directory to foster communication and cooperation.
- Develop a conceptual framework for mussel work that outlines various approaches to mussel stocking or restoration. This framework could include: guidance and decision-making processing on how and where to do the work (needs and opportunities); anticipated challenges, risks, and concerns; current knowledge; and how to optimize goals.