

NW Native Freshwater Mussel Workgroup

Quarterly Meeting

Tuesday, January 18, 2022 1:00 Pacific Time

Zoom Meeting

Attendees: Kevin Aitkin, Craig Haskell, Alexa Maine, Josh Boyce, Emilie Blevins, Al Smith, Katherine Saurensen, Patty Morrison, Kate Holcomb, RD Nelle, Andy Lawrence, Linnea Gullikson, Dorene MacCoy, Emily Johnson, Christina Wang, Ryan Blackadar, Julie Campbell Smith, Tyler Beals, Jennifer Poirier, Bruce Moffatt, Tim Counihan, Almeta Helmig, Stephen Bollens, Laura Navarette, Rob Plotnikoff, Liz Bockstiegel, Michael Stephenson, Michele Weaver, Michelle Anderson, John Chan, Courtney Newlon, Jerry George, Ann Gannam, Bruce Moffatt, Celeste Searles Mazzacano, Gretchen Sausen, Jerry George, Dave Stagliano

New folks who introduced themselves: Josh Boyce (USFWS, Arcata FWO), Kat Sarensen (USFWS), Linnea Gullikson (USFWS), Christina Wang (USFWS), Tyler Beals (Yakama Nation)

Meeting Minutes

- 1) FMCS – Board meeting update, bylaw development and division structure within the FMCS (Emilie Blevins).
 - FMCS board meeting highlights 1) internship opportunities 2) professional certification 3) August 2022 workshop in Tennessee that will focus on sampling protocols (\$250/member)
 - 2023 FMCS Symposium April 9-13; PNW was to hold 2021 meeting in Portland. PNW members (Alexa Maine, Michele Weaver, Kate Holcomb, Teal Waterstrat, Kevin Aitkin, and Patty Morrison) put a lot of work into planning. There is a need to reinstate the planning committee again, developing the program, developing abstract.
 - There may be a need for others to assist? Reach out to Emilie, Alexa or Patty if you are interested. Interest by FMCS to provide a virtual aspect to this meeting, so if anyone who has experience with hybrid meetings, please reach out with any advice.
 - Goal is for the workgroup to be a Division of the FMCS by the annual meeting in 2023. See the draft of the structure here:
<https://drive.google.com/file/d/1CZP5yt92HoKlmcBKq4CCmNQSEyXbqcvW/view>
- 2) eDNA planning and collaboration (Emilie Blevins Xerces Society and Courtney Newlon, USFWS)
 - Shared the coordinated effort between Xerces, BLM, USFS, USFWS, ODFW, and WDFW to identify priority basins and google doc link to enter current and/or upcoming projects to avoid duplication of effort.
 - RMRS would like to coordinate with the workgroup to ensure that effort is not being duplicated, particularly since they do not process all the samples being collected.
 - FWS looking to coordinate with other agencies/groups working across the species' range, including statewide or regional efforts (e.g., state fish and wildlife, USFS, BLM) to better inform the FWS western ridged Species Status Assessment as an opportunity to fill in distribution gaps for the western ridged mussel but also for the

other mussel species, as it would help better describe current distribution, and potentially identify areas where more intensive surveys could be conducted.

- Recommendations could be cited for use in funding applications
- Recommendations will be made available to the workgroup in the coming weeks
- Here is a list of known existing eDNA projects, please share any eDNA projects you are aware of:

<https://docs.google.com/document/d/1dLVWzPg8IMq95CEHX8k75NepoFMV42HIm6mZIB8cbng/edit>

- Alexa Maine shared the CTUIRs planned 5-year effort for CTUIR ceded territories.
- Kate Holcomb shared that UDWR worked with USU (Karen and Torrey) and noted that the # of samples, low densities might give a negative reading. Sampling distance is a top consideration.
- Emilie Blevins mentioned a paper out of California related to sampling distance (added to Google doc)
- Dorene MacCoy brought up that Matt Laramie and David Pilliod are working with her on probability of detection study with known numbers, sampling at different times, what detecting, when detecting, Results expected Spring 2022.
- Josh Boyce mentioned USFWS funding to conduct a mussel health status assessment (part of FWS nationwide funding project). Large tributaries to the Klamath. Could collect eDNA samples if interested.
- Almeta Helmig (Nevada) – mentioned her work planning to use RMRS samples and repurposing for 3 mussel species.

3) Update from Tyler Beals (Yakama Nation)

- Tribe involved in freshwater mussel recovery opportunistically with lamprey salvage efforts in Yakima River (Sunnyside canal).
- 2015-2020 – Headgate shut off occurs annually on Oct 20th. 725 live mussels upstream and downstream of the fish screens have been salvaged and relocated in Yakima River. Mostly western pearlshell, however in 2021 there were western ridged mussels.
- October 2021 they PIT tagged 100 western pearlshell mussels. There were 4 release groups (in the canal-upstream and downstream of the fish screens) and in the Yakima river (above and below PIT array). Overall goal is to monitor long term survival, movements, and understand overall mussel population in the canal.
- In 2018, started collecting empty shells to age (University of Idaho - Chris Caudill). Identified shell condition. Lots of predator activity beaver, raccoon, mink, and otter.

4) Update from Dorene MacCoy (City of Boise – WQ division):

- Summarized efforts described previously in October 2021 meeting.
- Flow model (Lidar; 2D model) overlaying with habitat suitability curves for fish and mussels
- Attempted to capture/detect breeding timing by examining fins, gills, etc but no luck.
- Expressed interest in how to detect glochidia and describe breeding timing.
- Fall of 2022 - Tentatively planning on a workshop with a mussel symposium as part of the PNW Society for Freshwater Science meeting.