

Columbia Basin Collaborative Predation Work Group

Meeting Summary

Monday, March 27, 2023 from 2:00 – 4:00pm PT/ 3:00 – 5:00pm MT

Attendees

Working Group Members in Attendance: Holly McLellan (Confederated Tribes of the Colville Reservation), Tim Copeland (Idaho Department of Fish and Game), Lynne Krasnow (National Oceanic and Atmospheric Administration), David Bain (Orca Conservancy), Grant Waltz (Oregon Department of Fish and Wildlife), James Lawonn (Oregon Department of Fish and Wildlife), Michael Brown (Oregon Department of Fish and Wildlife), Art Martin (Oregon Department of Fish and Wildlife), Sean Tackley (US Army Corps of Engineers), Gary Marston (Trout Unlimited), Michelle McDowell (US Fish and Wildlife Service), Andrew Murdoch (Washington Department of Fish and Wildlife), Chris Donley (Washington Department of Fish and Wildlife), John Edwards (Washington Department of Fish and Wildlife), Joe Buchanan (Washington Department of Fish and Wildlife), Tom Iverson (Yakama Nation Fisheries), Keely Murdoch (Yakama Nation Fisheries)

Observers in Attendance: Doug Hatch (Columbia River Inter-Tribal Fish Commission), Tom Lorz (Columbia River Inter-Tribal Fish Commission), Dennis Rohr (D. Rohr & Associates, Inc.), Mark Martin (Idaho Outfitters and Guides Association), Jeanette Zamon (National Oceanic and Atmospheric Administration), Jerry Klemm (Port of Lewiston), Amanda Ward (Upper Columbia Salmon Recovery Board), Jennifer Urmston (US Fish and Wildlife Service), Stuart Crane (Yakama Nation), Ralph Lampman (Yakama Nation Fisheries), Heather Nicholson, Lillian Dawson

Facilitation Team: Amira Streeter (Kearns & West), Angela Hessenius (Kearns & West)

Welcome, Agenda Review, and Updates

Amira Streeter, Kearns & West, provided an overview of the agenda and meeting guidelines. The topics included: 1) Review and Consensus Building on Piscine Recommendations, 2) Update on Non-Lethal Pinniped Recommendation, 3) Review of Systemwide Recommendations, and 4) Confirm Next Steps and Upcoming Meeting Topics. Amira also outlined the desired outcomes for the meeting to review and finalize the short-term recommendations.

Review and Consensus-Building on Piscine Recommendations

Piscine Recommendation 1: Develop and initiate testing of a comprehensive piscine predator monitoring and evaluation program (PPMEP) for the Columbia River Basin. Grant Waltz, Oregon Department of Fish and Wildlife (ODFW), shared an overview of this recommendation and the revisions that have been made since the group previously discussed the recommendation. The focus of this recommendation is to acquire funding to design a more complete and robust monitoring and evaluation program for piscine predators in the Columbia River Basin. The goal would be to improve monitoring and measuring of piscine impacts on juvenile migrating salmonids and suggest potential management measures. This study would build on ongoing efforts in the basin and

aggregate data from work that has already been completed. The monitoring component would be paired with an analytical component to address piscine predation in the Columbia River Basin.

The recommended action includes the study design process which would gather technical experts to determine what the program would need to comprehensively monitor piscine predation and adapt to changes in piscine predator composition. Other actions would be taken in tandem to inform this study design, including answering questions related to gear effectiveness, habitat, diet analysis, and additional non-native predators. Grant noted that the spatial scope of the recommendation includes the mainstem Columbia River and the Snake River up to the Hells Canyon Dam. If the recommendation is moved forward, there would be additional work to incorporate a specific spatial extent in the study design process based on importance and feasibility.

Andrew Murdoch, Washington Department of Fish and Wildlife (WDFW), shared that this action is needed to collect empirical data that will allow researchers to estimate predator abundance and associated consumption rates. These are two key steps that are needed to establish a baseline understanding of the problem of piscine predation and answer questions such as which species of fish are consuming which species of salmonids. This information could then be used to conduct population dynamics modeling to generate management scenarios and how they would benefit salmonids. Andrew also noted that the goal is to create a study design that is easily scalable and transferable through space.

Grant noted that the existing programs broadly contain the Northern Pikeminnow Management Program numerous other studies that have been conducted previously or are ongoing. Andrew and Grant also shared that part of the study design process includes developing a plan for sequencing the sampling effort based on predators within a specific reach and considerations that are specific to individual reservoirs.

Decision Outcome: Pending the addition of minor edits to incorporate suggestions received through comments in the document and during this meeting, the work group agreed to forward this recommendation to the I/RG for review.

Questions and Discussion:

- The estimated cost is for the design of the study. Does the piscine subgroup have an idea of what it might cost to implement the study?
 - This would depend on the number of random sampling units, which is one of the uncertainties. There will need to be a balance between reach length and sampling effort, which they need to acquire empirical data on before determining. The overall cost will depend on the frequency of sampling. The current pikeminnow reward program is another factor to consider. The aim is to use a study design that requires less effort, and transferring the study design may be cost-neutral.
 - Work group members suggested that it is important to build considerations for how often to do sampling into the recommendation.
 - All the fish species being studied live in the same reaches at the same time. They can see clear trends in index abundance that will help inform the frequency of sampling. For example, it has been a long time since northern pikeminnow has been the dominant predator in some reaches. There is a lot of work that can be done with existing funds. The recommendation also includes more information on the analytical component,

which will help evaluate shifts in predator assemblages and likely compensatory responses.

- Others noted that the I/RG is likely to have questions on the budget and that it would be helpful to include more focus on the modularity and scalability of the study design and to either define the spatial scope and estimate the total cost or use an example location and describe how that cost is scalable.
- Some work group members cautioned that it is difficult to sample even a small reach representatively, so the recommended action should be focused and specific regarding the types of predators and spatial scale of the study design.
 - Piscine subteam members noted that starting next month, they will be testing one methodology. In the recommendation, they need to make a better linkage between ongoing activities and the vision for what can be achieved in the future.
 - Other work group members noted that this specificity would likely emerge through the study development process. A group of technical experts would examine the problem basin-wide and then might prioritize specific studies.
 - Piscine subteam members shared that they might identify specific areas to focus on, but also want to acknowledge the potential to develop a more spatially broad monitoring program if it's feasible. Through the study development process, they may identify areas that would serve as good locations for pilot studies.
 - For the Northern Pikeminnow Management Program, they implement some tasks on a broad geographic scale and other tasks are conducted rotationally dependent on funding that is available. While the team developing the study design will make recommendations based on a data-driven exercise, ultimately, policy and funding will be considered in implementation.
 - The piscine subteam will add more detail to the recommendation to specify that one of the tasks in the study development process would be this sequencing and provide more clarity on the spatial and temporal component of the recommended action.
- Is there a role for community scientists to collect data as volunteers?
 - This is unknown at this point. There is a strong citizen science component to the current Northern Pikeminnow Management Program through the sport reward fishery. In developing the study design, the technical experts could explore options to maximize data collection.

Piscine Recommendation 2: Develop and fund a robust Columbia River Northern Pike and invasive non-native fishes monitoring project

Holly McLellan, Confederated Tribes of the Colville Reservation, shared an overview of this recommendation and the revisions that have been made since the group previously discussed the recommendation. The focus of this recommended action is on northern pike and other emerging invasive fish. There is a need for an overarching plan for the entire Columbia Basin, while specific plans will also be needed for areas within the basin. Part of the recommended action also includes compiling eDNA data from throughout the basin to identify data gaps. The recommendation also calls for the development of rapid response plans for invasive fish that are not present yet but likely to arrive within the next five years.

Decision Outcome: Pending the addition of minor edits to incorporate suggestions received through comments in the document and during this meeting, the work group agreed to forward this recommendation to the I/RG for review.

Questions and Discussion:

- Work group members suggested being more specific about what constitutes a non-native invasive for this recommendation and asked what other non-native invasive species would be included.
 - Piscine subteam members shared that the three states all classify spiny warm water fishes, including walleye and smallmouth bass, are all classified as game fish. Therefore, they would not be classified as invasive non-native fish by any of the state fish and wildlife agencies. American shad are not a game species but qualify as for commercial fishing as a food fish. Work group members noted that this would be helpful context to explain in the recommendation for readers who are not familiar with these classifications.
 - Other non-native invasive species include Siberian glass shrimp in the Snake River Basin, redclaw and northern crayfish, five-spined stickleback, and fathead minnow.
- Work group members also suggested adding the total estimated cost (in addition to the cost per specific activity).
 - Piscine subteam members shared that they could provide estimates for northern pike since those are known costs, but for other invasive fish it is difficult to estimate since it depends on where they show up and how quickly. At Lake Roosevelt, northern pike suppression efforts total \$1.5 million per year. It is important to start implementing prevention efforts before these species become problematic.

Update on Pinniped Recommendation: Non-Lethal Management

David Bain, Orca Conservancy, provided an update on the status of this draft recommendation to use non-lethal deterrents to make it undesirable for pinnipeds to haul out. This includes acoustic deterrence and physical disturbance methods. Some of the primary uncertainties include short-term versus long-term effectiveness and whether there are other environmental impacts of the acoustic methods since they are airborne sounds. The pinniped subteam is close to finalizing the draft recommendation to share with the full work group for their review.

Questions and Discussion:

- Have these acoustic deterrence methods been used for birds?
 - Acoustic methods have been used for birds in an oil spill response context, but the kind of sound used would likely be different.
- Which spatial locations are included in the recommendation? Is the action focused on targeting the largest sea lion haul-outs?
 - Yes, the disturbance will occur at haul-out sites.
 - Astoria is probably going to be a location with lower efficacy since there are alternative sites available (e.g., the mouth of the Cowlitz River).

Review of Systemwide Recommendations

The work group reviewed the list of potential systemwide actions including implementation actions and research, monitoring, and evaluation (RM&E) actions and the ranking results from the survey that was distributed to work group members. Work group members discussed that there would be value in presenting this list to the Science Integration Work Group (SIWG) since there is a lot of integration with the other work groups and they may want to combine members of various work groups to work on developing the full recommended actions.

Confirm Next Steps and Upcoming Meeting Topics

Amira reviewed the next steps for this work group based on the group's discussion and confirmed upcoming meeting topics.

Next Steps:

- Piscine Subgroup: Update the draft recommendations based on work group feedback and send final versions to K&W to distribute to the I/RG by March 31.
- Pinniped Subgroup: Prepare non-lethal recommendation and send to K&W to distribute to the full work group for review by March 31.

Amira thanked everyone for participating and adjourned the meeting.