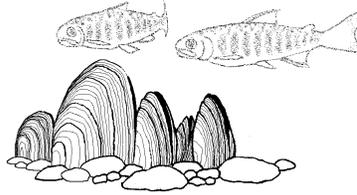


Pacific Northwest Native Freshwater Mussel Workgroup



November 27, 2007

Minutes

Attendees were as follows: Al Smith, Sarina Jepsen, Mary Hanson, Molly Hallock, John Fleckenstein, Wendy Walsh. Christina Luzier, Brian Adair, Rob Plotnikoff, Michelle Steg-Geltner, Nancy Duncan and Arden Thomas were on the conference line.

Purpose: This was a regularly scheduled meeting of the Workgroup.

New workgroup & listserve members – *Sarina Jepsen*

New members: Bonnie Becker, University of Washington, marine mussels; Celeste Mazzacano, Xerces; Mike Holliman; Deb Lester. There will be no distinction between listserve and workgroup membership.

Critical Needs Document review – *Brian Adair*

Brian has written the introduction and asked the group to review it and see if it is going in the right direction. The group agreed that it was. Brian would like for the document to be published to give it more weight especially with funding entities. Is a description of the workgroup and list of preparers a good idea, like in the lamprey document? The group says yes. Do we want to rank and prioritize the critical uncertainties? Brian suggested sending a brief survey to regional experts to get their opinion on ranking the uncertainties. Are there other experts out there not already on the workgroup? Other mussel experts not in the PNW? They may not have an accurate view of habitat or other problems in our area. Should we plan for a larger chunk of time at the next meeting to discuss? In the meantime, Brian will send the above-mentioned survey to the workgroup (35 members of listserve) and any other experts to rank priorities (Jayne BrimBox, Jeanette Howard, Terry Frest, Karen Mock). By AFS in May 08 we will have a workgroup approved document and then submit it for publication after that. Do we want to have a vision statement, like in the lamprey document, 5, 10 and 20 year goals? Group says yes.

Group decided to do some preliminary brainstorming rankings now. And decided to make the next meeting a one-day workshop focused on this topic.

List of needs (in no particular order). Brian will send survey to listserve for comments on rankings.

Status

Host Fish Species

Habitat

Population delineation

Ecology

- Environmental requirements

- Host fish species

- Population structure

- Recruitment

- Life History Studies

Education

Understanding of Current Threats

- Invasives – fish and mussels

- Isolation/Fish Barriers

- Hydrologic alterations

- Sedimentation

- Water quality, temperature

- Stream alterations

Strategies

- Regulations

Review of Natural Heritage rankings for Mussels – John Fleckenstein

The needs workshop will be a good opportunity to talk about status. John's job as zoologist in the National Heritage program is to maintain info on the status of animals in the state. There are Natural Heritage biologists all over the country but no gastropod specialists. Ranking methodology is general for most species. John consults with an expert to get more detailed info for each species. 1 critically imperiled, 2 – imperiled, 3, 4 and 5 – secure (i.e., American Robin). There are other ranks for species that are extirpated. List of ranking criteria that is used (each is assigned a rank 1-4 or U) 1. Status – how many populations/occurrence (generally more is better), condition of populations; 2. Range/extent, range map level, within range what is level of occupancy; 3. Trend, short and long-term trend, number of populations, range, occupancy; 4. Threats - scope, whole or part of population, severity of threat, immediacy, number of appropriately protected/managed occurrences (for bivalves very few); 5. Vulnerability – intrinsic (how quickly would population recover (reproductive age), specificity (habitat needs - general needs would do better), hunting or collection pressure.

John would like to go through the process in powerpoint structure with the group to go over specific rankings for bi-valves. In the Natural Heritage program weight is placed on number of populations and individuals which might not be the best way for mussels (i.e., Margaritifera). A different weighting system might be more appropriate. State ranks have been expanded to global ranks 20 years ago. But questions of scale have been problematic. Current ranks of bi-valves may be out of date. That is why this process is important to re-evaluate appropriate rankings. Bruce Lang has data that would be useful for this process. John would like to take two hours at the next meeting to go through rankings for each species.

Field suggestions for entering mussel data into StreamNet – Molly Hallock

Molly enters data into Wisdom (formally Heritage) system. Fish people at WDFW would like Molly to pursue StreamNet again. Al thinks she may get further with StreamNet than the workgroup was able to get because WDFW is more involved with it. Molly wondered if Anodontas should be entered just by genus. If species is available list it along with collector information. More information seems better at this point. Molly is using GPS data. John suggested that maybe the location should be used as well.

Xerces conservation status review for western mussels - Sarina Jepsen

Xerces has applied for funding through the PGE Salmon Habitat Fund (managed by The Nature Conservancy) to compile a status review of mussels in the state of Oregon. This will involve pulling together data from surveys that many different people have done, as well as distribution information that can be gleaned from museum collections. Xerces will find out soon if they receive funding; if funded, they will start working on this in February. Nancy Duncan, Joseph Furnish, and Shelly Miller have data to share for the state of Oregon. The Xerces Society is pursuing funding to do a complete status review of each of the western freshwater mussels across their ranges.

ODFW new regulations for mussels – Mary Hanson

Mary passed out status of new protection guidelines for mussels/clams. Guidelines would go into angling regulations. Additional review is being performed currently and then it will have to be presented at public meetings. Current status is there are no harvest regulations and a permit is required for scientific purposes. New regulations will be that harvest will be prohibited for all live mussels and clams including Asian clams and Quagga mussels. Dead, empty shell collection will not need a permit. Also included in this is crayfish which will no longer be able to be used as bait while still alive. If approved new regulations will be in affect January 2009.

Quagga mussel progress in OR. ODFW is inspecting boats and educating boaters, employees at weighstations, etc. on inspections and boat cleaning. Diamond Lake visitors are being inspected vigorously to maintain newly restored condition.

Bear Creek research update - Arden Thomas

Arden's thesis work is nearing completion, but King County will be doing a little more monitoring of the caged mussels. In early December 2006 mussels were moved from Cottage Creek to a control site (Cottage Creek) and Wendy's site (Bear Creek). In May mussels were moved from Cottage Creek to a control site (Cottage Creek) and Wendy's site and another site on Bear Creek upstream of Paradise Lake. Mortality has been seen in Wendy's site. Group moved in December has 56% survival. Group moved in May has 57% survival. Arden is going over histology slides. Adductor muscle is visibly weaker. Digestive glands look healthy. Most sites were dominated by dead shells (93-98%). Parasites? Point source pollution / private landowner activities? Toxin? Euglena in lake? Phytoplankton? 100% of flathead minnows died in Paradise Lake water in the lab. 2006 BIBI test (benthic Index of Biological Integrity) was very low, lower than other places and in other years.

Position statement on Mussel relocation – Christina Luzier

USFWS has asked workgroup to draft a position statement on mussel relocation projects. Christina asked the group if they would be interested in creating something that could be referred

to when relocation proposals come up for review and/or funding. Information included, but not limited to, would be donor population health, genetic concerns, current habitat conditions, historical occurrence, monitoring plans, etc. Christina agreed to draft something and send it to the group. Mary Hanson is going to send what ODFW has used for bull trout reintroduction projects. Al will share his references that describe relocation protocols.

Mexico mussels: zoogeography, introductions and early mussel identification – Al Smith

Al contacted Karen Mock about locating other speakers for AFS. She gave him the name of Terry Meyers who is a consultant in Arizona who has worked on mussels in Mexico. He is studying three species near continental divide: CA floater and two Eastern mussel species that may be moving over the divide. Terry wants to determine the southern range of the CA floater. He invited Al to sample in Mexico.

List of speakers for AFS mussel session

Karen Mock, Deb Lester, Arden Thomas, Kirk Krueger, Jason Dunham, Cynthia Tait, Jeanette Howard, Jayne Brim Box, Rick Gustafson, Brian Adair, Marie Fernandez, BC survey/database speaker

Zebra/Quagga mussel surveys – Rob Plotnikoff

Exotics are an issue on critical needs. One boat from Ontario, Canada and one from Midwest have showed up in eastern WA with Quagga mussels. Rob Plotnikoff was interested in finding out what kind of survey efforts are going on in OR and WA for Zebra/Quagga mussels. Corps of Engineers are sampling for larvae in their facilities. Oregon Lakes Association and WALPA also survey for them. Portland State has volunteer monitoring program. Molly suggested Rob to call Pam Meachum at WDFW and Mary suggested calling Jim Gores at ODFW, Paul Heimowitz at USFWS.

Mussel workgroup Financials – Sarina Jepsen

Xerces now has mussel workgroup funds in hand ~\$967.

Mussel Guide Reprinting – Sarina Jepsen

WaterTenders does not hold a copyright on the field guide. Ethan Nedeau did not file a copyright request so there is no impediments on the reprint. We have very few guides left. Should we reprint 5000? Group says yes. We will sell them for between \$5-10. New sponsors will be added to the list of original sponsors in reprinted book. Scott Black is working on a proposal for funding. ODFW, ORAFS and USFWS may also contribute.

Next Meeting:

March 4, 2008, 9 am – 5pm, in Vancouver, WA. This meeting will be longer in order to discuss the critical uncertainties document and National Heritage rankings.