

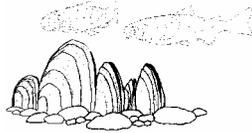
2nd Annual Freshwater Mussels of the Pacific Northwest Symposium

April 20th, 2004

“Bridging the Gap Across the Continental Divide”

Hosted by the:

Pacific Northwest Native Freshwater Mussel Workgroup



Sponsored by the:

U. S. Army Corps of Engineers



Oregon Chapter of the American Fisheries Society



Water Tenders, through the King County Water Quality Fund



Washington Department of Fish and Wildlife



U. S. Fish and Wildlife Service



Washington Trout



About the Pacific Northwest Native Freshwater Mussel Workgroup

History

The status of the seven species of freshwater mussels native to the Pacific Northwest has received very little attention, despite the fact that freshwater mussels in general are considered the most endangered group of animals in North America. On February 19, 2003, a workshop on freshwater mussels was held in Vancouver, Washington that consisted of presented papers and a panel discussion. The purpose of the workshop was to initiate discussion on the regional population status of freshwater mussels. The workshop was attended by 91 participants of very diverse backgrounds. From this meeting, the Pacific Northwest native Freshwater Mussel Workgroup was founded.

Purpose

The purpose of the Workgroup is to provide an open forum for discussions focusing on native freshwater mussels, dissemination of related information, and to provide guidance on integrated planning of mussel research, management, and education. The goal of the Workgroup is to ensure that freshwater mussel research, management, and educational activities are coordinated, prioritized, and are consistent with information needs identified.

Composition

Current representation includes: Portland State University, Confederated Tribes of the Umatilla Indian Reservation, University of California-Berkeley, Nevada Division of Wildlife, Washington Department of Fish and Wildlife, U. S. Forest Service (Utah), U. S. Fish and Wildlife Service (Washington and Alaska), Jamestown S'klallam Tribe, The Nature Conservancy, Washington Trout, Washington Department of Natural Resources, Deixis Consultants, Snohomish County, Bear Creek Water Tenders, Washington Department of Ecology, and retired biologists.

Process

Members of the Workgroup hold an annual freshwater mussel symposium, which may be attended by anyone, for the purpose of reviewing the state of mussel research, management, and education. The location of the annual symposium rotates throughout the Pacific Northwest.

Members of the Workgroup meet at least four times per year (either in person, via teleconference, or by proxy) to review projects, coordinate work, discuss research priorities, and conduct other associated activities. Workgroup meeting locations rotate throughout the Pacific Northwest.

Keynote Speakers

Tom Watters

I am a native of pastoral Beaver Creek, Ohio. At an earlier age I became enthralled by seashells, and infused with a healthy dose of the Jacques Cousteau syndrome, I embarked on a career in malacology. This led me to the University of Miami for his BS and the University of Rhode Island for his MS. Through a peculiar set of circumstances I ended up back in Ohio for my PhD at THE Ohio State University. Noting a profound lack of oceans in the area, I switched to freshwater mollusks. I currently am the Curator of Molluscs at the Ohio State University Museum of Biological Diversity, which houses over 2 million freshwater mollusc specimens. I am also the president of the Freshwater Mollusk Conservation Society. In addition to mussels, my other interests include the phylogeny and zoogeography of Caribbean landsnails and GIS approaches to mollusc surveys and collections.

Art Bogan

I was born in Rhode Island and promptly moved to Enumclaw, Washington, where I grew up. My undergraduate training was in a Quaternary Studies Program at Washington State University. Here I found the interdisciplinary blend of archaeology, zoology, ecology and geology exciting and challenging. This set the direction for my graduate work. I was in a program in zooarchaeology; dead animal remains in an archaeological context. During my graduate school days at the University of Knoxville, Tennessee under Paul W. Parmalee, Neil Robison and I prevailed upon him to begin teaching a class on the identification of the freshwater mussels of North America. Thus began my descent down the slippery slope into unionids. I wrote *The Endangered Mollusks of Tennessee* (1983) while avoiding finishing my dissertation. I finished graduate school and took a job in the Malacology Department, Academy of Natural Sciences, Philadelphia. I spent 12 years working in one of the world's largest mollusk collections. Here I continued to focus on unionoid bivalves. During this time, Randy Hoeh came to New Jersey on his first post-doc and we spent a good amount of time mapping out a research plan on the Unionoida for the next 20 years. I left the Academy in 1992 and formed a consulting firm, Freshwater Molluscan Research, focusing on endangered freshwater mollusks. I was hired in late 1996 as the Curator of Aquatic Invertebrates at the North Carolina State Museum of Natural Sciences, Raleigh. I have given a number of workshops focusing on the identification of freshwater bivalves of Pennsylvania, Maryland and North Carolina, freshwater mollusks of the Northeastern United States and the freshwater gastropods of the Southeastern United States. My interests focus on the taxonomy, systematics, zoogeography, evolution and phylogeny of the whole Order Unionoida.

Catherine Gatenby

I am the Hatchery Manager and Project Leader for White Sulphur Springs National Fish Hatchery, United States Fish and Wildlife Service, White Sulphur Springs, WV. My primary duties include developing a program aimed at the culture and conservation of imperiled species for the Fisheries Division of the USFWS. As well, my primary duties include managing a disease-free national brood stock hatchery for production of rainbow trout. We maintain and distribute 9000 adult rainbow trout, and produce and distribute 7 million eggs annually. We are building a mussel propagation facility and greenhouse dedicated to the culture of algae for feeding our imperiled species of mussels. We are preparing to rear three endangered freshwater mussels in 2004/2005 as well as one candidate species, and begin developing feeding protocols for maintaining adult brood stock. We also will serve as a temporary refugia for holding endangered species salvaged from various in-stream transportation/navigation projects. Our top production goals will be to continuously feed 5000 adult freshwater mussels, and 50,000 growing juvenile mussels annually. We also develop outreach educational materials and events to enhance the public's recreational and learning experiences at the hatchery, and to make the public aware of the role the Fisheries Division plays conserving aquatic resources and providing recreational fishing opportunities.

Karen Mock

My undergraduate training was in microbiology and environmental toxicology at the University of Texas at Austin and Colorado State University. Oddly enough, my primary area of interest emerging from this background was in the genetics of natural populations, and in pursuit of this interest I completed a doctoral degree at Northern Arizona University in genetics. I am currently an assistant professor in the Forest, Range, and Wildlife Sciences Department at Utah State University, where my research program involves population and conservation genetics in a variety of terrestrial and aquatic species, including galliform birds, cyprinid fishes, mountain pine beetles, and unionid mussels. Recently, my lab has been involved in research on *Anodonta* population dynamics in the Bonneville Basin of Utah, a collaborative project with a real malacologist, Dr. Jayne Brim Box. Although the species in my research program vary widely, there are some common threads with respect to conservation and restoration, which I think are particularly applicable and unexplored in freshwater mussels.

Symposium Agenda

- 8:30am – 9:00am Sign-in, refreshments provided
- 9:00am – 9:10 am “*Welcome and Introduction to Workgroup*”
Al Smith, chair of the Pacific Northwest Native Freshwater Mussel Workgroup, Hillsboro, Oregon
- 9:10am – 10:10am “*Freshwater Mussels: From Living Rocks to Mean Mothers*”
Tom Watters, THE Ohio State University, Columbus, Ohio
- 10:10am – 10:20am Break, refreshments provided
- 10:20am – 11:20am “*Freshwater Bivalves: Diversity and Distribution of the Unionoida*”
Art Bogan, North Carolina Museum of Natural Sciences, Raleigh, North Carolina
- 11:20am – 11:30pm Break, refreshments provided
- 11:30pm – 12:30pm “*Cobbles with Gills and Guts: Conserving Freshwater Mussels and Water Quality*”
Catherine Gatenby, U. S. Fish and Wildlife Service, White Sulphur Springs, West Virginia
- 12:30pm – 1:30pm Raffle (must be present to win)
Lunch
- 1:30pm – 2:00pm “*Population Genetic Issues in the Management of Freshwater Mussels*”
Karen Mock, Utah State University, Logan, Utah
- 2:00pm – 2:20pm “*Beyond Biodiversity: the Conservation and Propagation of Native Mussel BioMASS for Ecosystem Services*”
Danielle Kreeger, Academy of Natural Sciences, Philadelphia, Pennsylvania
- 2:20pm – 2:40pm “*The Freshwater Mussel and a Tribal Culture*”
David Wolf, Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon
- 2:40pm – 3:00pm “*Data Management for Invertebrates: Documenting and Sharing Knowledge*”
Nancy Duncan, U. S. Bureau of Land Management, Roseburg, Oregon

- 3:00pm – 3:20pm Raffle (must be present to win)
Break, refreshments provided
- 3:20pm – 3:40pm “*Zebra Mussels and the Pacific Northwest*”
Steve Wells, Portland State University, Portland, Oregon
- 3:40pm – 4:00pm “*Factors Affecting the Shoreline Distribution of Asiatic Clams, Corbicula fluminea (Müller), in the Hanford Reach, Columbia River*”
Gerald Turner, Pacific Northwest National Laboratories, Richland, Washington
- 4:00pm – 4:20pm “*Bear Creek Mussel Studies 2003*”
Micah Wait, Washington Trout, Duvall, Washington
- 4:20pm – 4:50pm “*Tying It All Together --A Western Perspective*”
Jayne Brim Box, U. S. Forest Service, Logan, Utah
- 4:50pm-- 5:00pm “*Closing Remarks*”
Al Smith, chair of the Pacific Northwest Native Freshwater Mussel Workgroup, Hillsboro, Oregon

Technical Posters

Survey of Western Pearlshell Mussel (Margaritifera falcata) Populations, Church Creek, WA. Sacha Johnson, Surface Water Management, Public Works, Snohomish County/College of Forest Resources, University of Washington, Seattle

“*Filtration Effects of Western Pearlshells on Water Quality*”. Clancy O'Connor, Cody Wheeler, Astoria High School, Astoria, Oregon

“*Host Preference of Western Pearlshells*”. Kent Russell, Jordan Okoniewski, Brittany Zschoche, Astoria High School, Astoria, Oregon

“*Monitoring Endocrine Disruption Using Caged Bivalves*”. Mike Salazar, Applied BioMonitoring, Kirkland, Washington

Monitoring Sentinels for Uptake of Hanford Site Materials Along the Hanford Reach of the Columbia River. Brett Tiller, Pacific Northwest National Laboratories, Richland, Washington

Meeting Adjourned

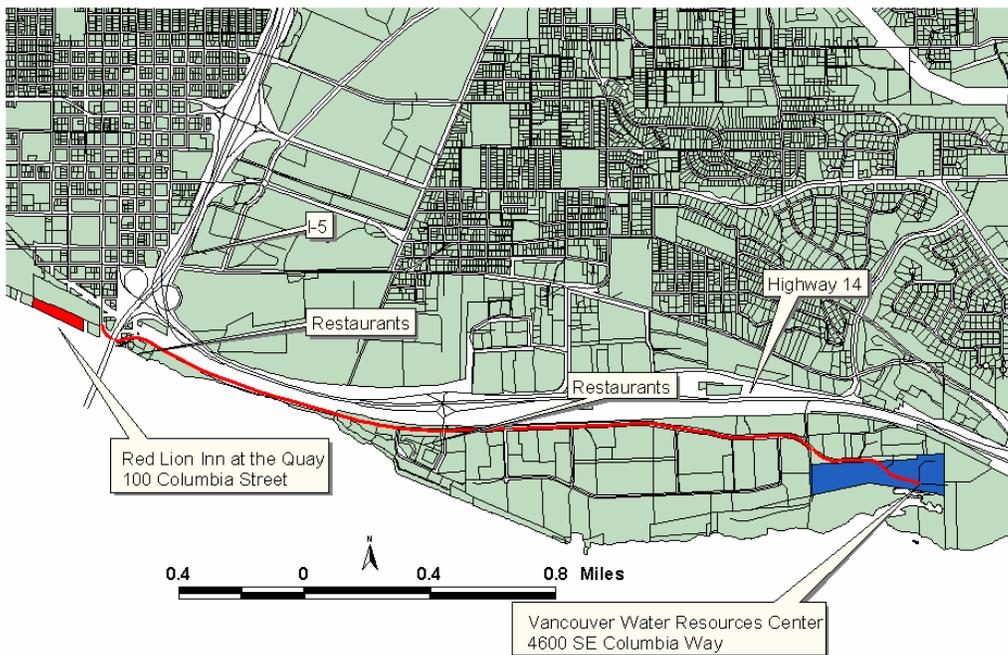
6:00pm – 11:00pm After Symposium Social at the Red Lion Inn at the Quay
Everyone is invited!!!

Join us at a Post-Symposium Social!!

6:00 at the Red Lion Inn at the Quay

Directions:

Travel West on SE Columbia Way, turn slight right onto SE Columbia Parkway. SE Columbia Parkway becomes SE Columbia Way, which then becomes SE Columbia St (this is the Pacific Northwest; they like to have multiple names for the same road). The social is in the bar of the Red Lion Inn at the Quay, which is at 100 Columbia Street.



Come rub elbows with the mussel experts (and the rest of us)!!!