

**--REQUEST FOR SPONSORSHIP--**  
**3<sup>rd</sup> Annual “Freshwater Mussels of the Pacific Northwest Symposium”**

**Symposium Description**

Purpose: The Pacific Northwest Native Freshwater Mussel Workgroup (Workgroup) is requesting sponsorship to help support the 3<sup>rd</sup> Annual “Freshwater Mussels of the Pacific Northwest Symposium”. The purpose of this Symposium is to promote the advancement of knowledge, skills, and techniques needed by environmental professionals, educators, and the public for the conservation of native freshwater mussels. This Symposium supports the mission of the Workgroup by encouraging responsible stewardship and proactive management of one of the most endangered groups of animals in North America, the freshwater mussel.

Project Need: Freshwater mussels occur throughout the world but are most diverse in North America with approximately 300 native species. Of these, 72% are considered endangered, threatened, or of special concern (Williams et al. 1993). The severity of this decline has only been recently recognized and is highly disproportionate to the decline of other species, such as birds and mammals, of which only 7% are considered extinct or imperiled (Master 1990).

Three genera of freshwater mussels are present west of the Rocky Mountains: *Margaritifera*, *Anodonta*, and *Gonidea*. *Anodonta californiensis* is listed as a State Species of Concern in Washington and Oregon and the status of the other native mussels is undetermined.

There are several factors implicated in the apparent decline of these populations. One is the degradation and destruction of suitable habitat through river diversion, siltation, unstable substrate, and nutrient enhancement (Frest and Johannes 1995). Another relates to the declining distribution and abundance of their host fish species (including endangered and threatened Pacific salmonids) that serve as obligatory hosts for part of the mussel’s life history.

Freshwater mussels are an essential part of the ecosystem. Adults are consumed by terrestrial mammals such as muskrat and raccoon (Tyrell and Hornbach 1998) and were once a cultural and food resource for Native Americans (Parmalee and Klippel 1974). Mussels improve water quality by filtering nutrients, suspended solids, and contaminants (Dewey 2000). They are used as an indicator species due to their sensitivity to habitat degradation and water quality (Havlik and Marking 1987, Turick et al. 1988). Some species can live up to 120 years, acting as a long-term environmental monitor of stream health.

There is an urgent need to document the distribution and status of freshwater mussels throughout the Pacific Northwest to determine if they are declining as precipitously as are the freshwater mussels east of the Rocky Mountains. Biologists working for tribal, state, and federal natural resource agencies and non-profit environmental organizations need to acquire the skills and training necessary to assess Northwest freshwater mussel populations as well as the support of the public to do so.

On February 19<sup>th</sup>, 2003, the U. S. Fish and Wildlife Service hosted the first “Freshwater Mussels of the Pacific Northwest Symposium”. The purpose of the workshop was to initiate discussion on the regional population status of freshwater mussels; 91 people attended. Presentations focused on the results of local research and identified information needs. From this workshop, the Pacific Northwest Native Freshwater Mussel Workgroup was founded. 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 Workgroup achieves this, in part, by hosting annual symposia. The 2<sup>nd</sup> Annual “Freshwater Mussels of the Pacific Northwest

Symposium” (sponsored by the U. S. Army Corps of Engineers, the Oregon American Fisheries Society, the Bear Creek Water Tenders, the U. S. Fish and Wildlife Service, and Washington Trout) was held on April 19<sup>th</sup>, with 107 people in attendance. Educational presentations were made by expert malacologists from the Midwest and east coast, as it is in these areas where mussel research and conservation has focused.

The annual symposia target biologists of diverse backgrounds and affiliations, concerned citizens and watershed groups, and environmental educators. The participants gain knowledge of the biology, ecology, and life history of native freshwater mussels, they become familiar with local research and information needs, and they are introduced to conservation activities underway throughout the country. Each participant brings this information back to their agency, their community, or their school to gain support for mussel conservation activities in their local area and throughout the region.

Goals: The goal of the 3<sup>rd</sup> Annual “Freshwater Mussels of the Pacific Northwest Symposium”, to be held in 2005, is to provide participants with the knowledge needed to begin assessing the status of freshwater mussels. For example, expert malacologists from the east coast and Midwest will be solicited to convene mini-workshops that target specific needs identified by the Workgroup. Examples of such workshops are: 1. Designing a monitoring and evaluation program; 2. Identifying Northwest native species; 3. Determining age and growth of mussels; 4. Sampling for juvenile mussels; and 5. Monitoring water quality with mussels. These mini-workshops will be designed with significant detail to allow the participant to acquire working knowledge and hands-on experience rather than relying on theoretical principles.

Methods: Workgroup members will develop the Program for the symposium by identifying potential mini-workshop themes that will enable biologists to begin conducting work that addresses the critical needs and uncertainties for freshwater mussels, and they will solicit conveners for these workshops. Members of the Workgroup will coordinate and facilitate this event at no cost. The Symposium will be held in the Spring/Summer of 2005, will be free of charge (to encourage maximum attendance), and will be a one-day event.

Project Evaluation: Participants of the symposium will be asked to fill out a comment card, detailing the quality of the mini-workshops (i.e. content, organization, and achievements), the format of the symposium (i.e. location, length, and time of year), and suggestions for improvement. Additionally we will query the participants as to how they will apply what they have learned at the workshop to their monitoring and conservation programs.

Qualifications: The Workgroup consists of 20 members representing state, federal, and tribal governments, non-profits, consultants, and academics. These are biologists and citizens that are actively conducting work with freshwater mussels, their host species, or water quality and habitat. The Workgroup is charged with identifying and prioritizing critical needs and uncertainties. There is no other entity in this region that is focusing solely on the needs of freshwater mussels.

Budget:

<b>Task</b>	<b>Estimated Cost \$</b>	<b>Detail</b>
<b>Symposium Planning</b>		
Identify mini-workshops	0	Volunteered by the Workgroup
Solicit conveners	0	Volunteered by the Workgroup
Arrangements	0	Volunteered by the Workgroup
<b>Symposium Execution</b>		
Room Rental	500	50\$ per hour, 10 hours
Convener Preparation	960	4 conveners, 8 hour prep, 30\$ per hour
Convener Travel	4000	4 conveners, 1000\$ travel reimbursement per convener
Break Refreshments	200	coffee and snacks
Workshop Materials	200	printing, supplies
<b>Symposium Wrap-up</b>		
Reporting	0	Volunteered by the Workgroup
<b>Total</b>	<b>5860</b>	

**Literature Cited**

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