

# CALL FOR ABSTRACTS

## 2012 Columbia River Estuary Conference: New Scientific Findings and their Management Implications

<http://cerc.labworks.org/index.stm>

May 15-17, 2012 at the Liberty Theater in Astoria, Oregon

Abstracts Due: February 29, 2012

**Theme:** Bringing together project leaders, program managers, and research scientists to highlight new findings and perspectives from research and monitoring efforts and the resulting implications for ecosystem restoration and recovery of Endangered Species Act (ESA) listed species in the lower Columbia River and estuary (LCRE).

**Focal Area:** Scientific findings and recommendations from research, monitoring and evaluation (RME) efforts in the lower Columbia River, estuary and plume, including tidal areas of tributaries. Findings from outside this study area are welcome if they provide context or a better understanding of ecosystem processes, restoration or species recovery in the lower Columbia River.

**Call for Papers and Posters:** Presentations that provide new scientific findings, contribute to a better understanding, describe innovative techniques or discuss new emerging issues for LCRE ecosystems or ESA listed species are welcome. All presentations should include a synthesis and interpretation of results and a discussion of the application of these findings to management. Abstracts that address the key topics and example questions below are encouraged:

### Topics:

- ESA listed species recovery: What is the latest research telling us and why is it important? What are the greatest uncertainties to properly design and justify projects to increase ESA listed species survival/fitness and the quality of the ecosystem? How can the survival or ecological benefits of a given restoration action be projected beforehand and measured afterward? What are the management implications of this?
- Lessons from ecological restoration projects: Habitat restoration in the LCRE has been a regional priority for over a decade, and is included in many regional plans. What do we know now that we did not know five years ago about restoration in the LCRE? How do we provide quality assurance checks for individual projects or on a landscape scale and how do we incorporate these lessons as individual organizations and as a region? Which habitat types are the highest priority for restoration and why? What are the best locations for projects and what are our assumptions for this? What are the biggest risks?
- New understanding of ecosystem function and processes: As an example, net ecosystem metabolism, the balance between primary production and respiration, which can be a useful indicator of an estuary's trophic condition as changes to it can reflect changes to the pathways of energy flow, is a relatively recent research topic in the LCRE. What are new findings to provide us with a better basic understanding of the LCRE? What are changes from historic conditions and can we mitigate for these changes, if necessary? How does this information help us in designing ecosystem restoration or ESA listed species recovery actions?
- Ocean acidification and low dissolved oxygen (DO): West coast estuaries may be particularly vulnerable to ocean acidification and low DO due to a combination of factors, such as the upwelling of corrosive waters. What are the preliminary findings along west coast estuaries from decreasing pH

and carbonate ion availability on individual aquatic organisms or ecosystem processes? What are potential impacts of low DO on species and ecosystems of concern? Can we predict responses on a population or community level? What steps can we take in the LCRE in anticipation of these impacts?

- Climate change: As a result of climate change the lower Columbia River is predicted to face warming water temperatures, decreased habitats for cold water fish such as salmonids, changes to timing of spring freshet, and along the coast, storms with increasing wave energy and increased sea levels, among other potential impacts. What are preliminary findings of climate change impacts throughout the LCRE on individual aquatic organisms or ecosystem processes? How do we restore or mitigate for losses of cold water refugia and other habitats? How can we start to proactively protect tomorrow's wetlands? What steps can we take in the LCRE in anticipation of predicted climate change impacts?
- Innovative technologies and new data products: Two examples of new data sources include the Center for Coastal Margin Observation and Prediction's real-time data collection of physical and biogeochemical data in the Columbia River estuary, near plume, and coastal margins of Oregon and Washington as well as the Columbia River Estuary Ecosystem Classification, which provides a hierarchical characterization of lower Columbia River habitats into six scales. What are other innovative technologies or data products and how have they been applied to research and monitoring in the LCRE? What specific findings result from these new data products and how do these compare to our historic monitoring methods or improve our understanding of the LCRE? How does this information help us in designing ecosystem restoration, research and monitoring projects or ESA listed species recovery actions?

**Abstract Format:**

Please list presentation title, author (s) and contact information, including email for primary author. ***Please denote presenting author with Italics font and asterisk (\*)***. Please keep text description of abstract to one paragraph and no more than 500 words. Please indicate whether you prefer to make an oral or poster presentation. Depending on time constraints, some presenters may be requested to modify their format from oral to poster presentation format or vice versa.

Example abstract format:

**Results of Multi-Year Coordinated Fish, Food Web and Habitat  
Data Collection under the Ecosystem Monitoring Program**

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Since 2007, this most excellent monitoring program has provided key baseline information of the tidal freshwater section of the lower Columbia River. Results from this monitoring will be provided...

Oral presentation preferred.

***Abstracts should be submitted in electronic format to Maggie Jones by February 29, 2012 via email ([mjones@lcrep.org](mailto:mjones@lcrep.org)).***

**Conference Format:** Two and a half day event with invited and contributed presentations. Audience participation will be encouraged. There will be poster sessions during evening events.

**Previous Themes in the Conference Series:** The 2012 conference will be the seventh in a series. Previous themes were Biological Integrity (1999), Habitat Conservation and Restoration (2001), Research Needs (2003), Estuarine and Ocean Ecology of Juvenile Salmonids (2006), Ecosystem Restoration (2008) and Adaptive Management (2010).

**Sponsors:** Bonneville Power Administration, Columbia River Estuary Study Taskforce, Lower Columbia River Estuary Partnership, National Marine Fisheries Service, and U.S. Army Corps of Engineers.

**Steering Committee:** Bernadette Graham-Hudson (LCFRB), Ben Zelinsky (BPA), Blaine Ebberts (USACE), Catherine Corbett (LCREP), Cindy Studebaker (USACE), Curtis Roegner (NMFS), Gary Johnson (PNNL), Jeff Johnson (USFWS), Jennifer Morace (USGS), Marcy Foster (BPA), Patty O'Toole (NPCC), Micah Russell (CREST) and Tom Murtagh (ODFW).