**PROGRAM**

**2014 Columbia River Estuary Workshop:**

***Forging Links in the Columbia River Estuary***

**May 28 – 30, 2014**

**Liberty Theater, Astoria, OR**

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| **May 28, 2014** |
| 8:00 AM | **Registration** |
| 8:30 AM | **Welcome** *Astoria Representative- TBD* |
| 8:40 AM | **Invocation** *Tanna Engdahl, Cowlitz Indian Tribe*  |
| 9:00 AM | **Introduction to the Columbia River Estuary Workshop***Catherine Corbett, Lead Steering Committee, Lower Columbia Estuary Partnership*  |
| 9:10 AM | **Keynote Address – Columbia River Treaty***John Shurts, Northwest Power and Conservation Council* |
| **Session 1: Columbia River Basin/Estuary Issues** |
| *Session Moderator: Joe Needoba* |
| 9:40 AM | **Fast Prediction of River Influences on the Columbia River Estuary and Plume, and Implications for Policy, Adaptive Management and Operation***António M. Baptista*, Charles Seaton, Kurt Fresh, Dan Bottom, Jessica Miller, Krista Jones, Hans Moritz, Cynthia Studebaker and Rob Lothrop |
| 10:00 AM | **Preventing Non-indigenous Species Transport to the Lower Columbia River and an Approaching Paradigm Shift in Ballast Water Management Practices***Rian vanden Hooff* |
| 10:20 AM | **Break** |
| 10:40 AM | **Habitat Status and Trends: Lower Columbia Pilot Integrating Stormwater with Habitat Monitoring***Karen Adams*, Amy Puls and Josh Johnson |
| 11:00 AM | **Exploring the Interaction between Contaminants of Emerging and Legacy Concern and Biological Effects in Columbia River Foodwebs**Elena Nilsen and *Jennifer Morace* |
| 11:20 AM | **Yakama Nation’s Columbia River Remediation and Restoration Project***McClure Tosch*  |
| 11:40 AM | **Time to Reevaluate the Ecology of the Columbia River Estuary: We Need CREDDP II!***Robert Emmett*, Curtis Roegner and Susan Hinton |
| 12:00 PM  | Question and Answer Period |
| 12:15 PM | **Lunch** (on your own) |
| **Session 2: Endangered Species Act (ESA) Listed Species Recovery** |
| *Session Moderator: Amy Horstman* |
| 1:30 PM | **Restoring the Lower Columbia River Ecosystem – Where do we go from here?***Catherine Corbett* and Keith Marcoe  |
| 1:50 PM | **Columbian White-tailed Deer History, Status, and Habitat Requirements***Paul Meyers* |
| 2:10 PM | **Columbia White-tailed Deer Habitat Suitability Model and Methodology***Chris Moller*, Paul Meyers and Keith Marcoe |
| 2:30 PM  | **Recovery of Columbian White-tailed Deer: Proposing reclassification after 46 years***Rebecca Toland* |
| 2:50 PM | Question and Answer Period |
| 3:00 PM | **Break** |
| **Session 2: ESA Listed Species Recovery (cont)** |
| *Session Moderator: Carla Cole* |
| 3:20 PM | **The Streaked Horned Lark: Conservation of a Threatened Species in an Industrial Landscape***Cat Brown* |
| 3:40 PM | **Streaked Horned Larks and Dredged Material Placement in the Lower Columbia River: Habitat Analysis and Recommendations***Hannah Anderson*and Matt Stevenson |
| 4:00 PM | **A Rising Tide? Shorebird Conservation and the Lower Columbia River System***Vanessa Loverti*  |
| 4:20 PM | **Development of Diets for the Intensive Culture of Pacific Lamprey (*Entosphenus tridentatus*)***James M. Barron*, Ronald G. Twibell, Heidi A. Hill, Kyle C. Hanson and Ann L. Gannam |
| 4:40 PM | Question and Answer Period |
| 5:30 PM  | **Poster Session** (McTavish Room upstairs) |
| **May 29, 2014** |
| 7:30 AM | **Registration** |
| 8:00 AM | **Welcome***Catherine Corbett, Lead Steering Committee, Lower Columbia Estuary Partnership*  |
| 8:10 AM | Keynote Address – Acidification in Estuaries and Coastal Zones*George Waldbusser, Oregon State University* |
| **Session 2: ESA Listed Species Recovery (cont)** |
| ***Session Moderator: Tom Murtagh*** |
| 8:40 AM | **Estuary-Ocean Coupling: Characterizing Ocean Conditions for Juvenile Salmonids at the Time of Ocean Entry for Spring Outmigrants (April-May)***Bill Peterson*, Cheryl Morgan, Jay Peterson and Jennifer Fisher  |
| 9:00 AM | **Stock-specific Distributions of Juvenile Chinook Salmon along the Oregon and Washington Coasts***David Teel*, Brian Burke, David Kuligowski, Cheryl Morgan, Donald Van Doornik and Laurie Weitkamp |
| 9:20 AM | **Evidence for Selective Mortality in Marine Environments: the Role of Fish Migration Size, Timing, and Production Type***Andrew M. Claiborne*, Jessica A. Miller, Laurie A. Weitkamp, David J. Teel and Robert L. Emmett  |
| 9:40 AM | **Marine Perspectives on Hatchery Chinook Salmon Production in the Columbia River Basin***Brian R Beckman*, Larissa Rohrbachand David Teel |
| 10:00 AM | **Prey Availability and Feeding Ecology of Juvenile Salmon in Coastal Waters based on Stomach Content and Stable Isotope Analyses***Richard D. Brodeur*, Julia N. Adams, Elizabeth A. Daly and Todd W. Miller |
| 10:20 AM | **Break** |
| **Session 2: ESA Listed Species Recovery (cont)** |
| *Session Moderator: Curtis Roegner* |
| 10:40 AM | **Assessing the Relative Importance of Local and Regional Processes on the Survival of an Endangered Salmon Population***Jessica Miller*, David J. Teel, William T. Peterson, Antonio Baptista |
| 11:00 AM | **Conceptual Framework for Food Web Links between Seabirds and Fish in the Estuary, Plume, and Nearshore Ocean of the Columbia River***Jeannette E. Zamon*, Elizabeth M. Phillips, Troy J. Guy, Daniel D. Roby, Don E. Lyons, Ken Collis, Allen Evans and Jennifer M. Mannas |
| 11:20 AM | **Matching Bird Diets with Fish Data: New Insight into Avian Predation in the Columbia River Estuary***Laurie Weitkamp*, Tom Good, Don Lyons and Dan Roby |
| 11:40 AM | **Juvenile Steelhead Distribution, Migration, Growth, and Feeding in the Columbia River Estuary, Plume and Coastal Waters***Elizabeth A. Daly*, Julie A. Scheurer, Richard D. Brodeur, Laurie A. Weitkamp, Jessica A. Miller and Brian R. Beckman |
| 12:00 PM | Question and Answer Period |
| 12:10 PM | **Lunch** (on your own) |
| **Session 2: ESA Listed Species Recovery (cont)** |
| *Session Moderator: Patty O’Toole* |
| 1:20 PM | **Life History Strategies of Selected Chinook Salmon Spawning Populations in the Columbia River, as Inferred From Otolith Microchemistry** *Lance Campbell*, Jamie Lamperth, Andrew Claiborne, Dan Bottom, Curtis Roegner, Mara Zimmerman, Dan Rawding, Cameron Sharpe and Bryce Glaser |
| 1:40 PM | **Migration Patterns of Juvenile Chum Salmon in the Lower Columbia River and Estuary***G. Curtis Roegner*, Dan Bottom and Kristen Homel |
| 2:00 PM | **Oceanographic and Ecological Indicators for Salmon Returns in the northern California Current***Brian Burke*, Bill Peterson, Cheryl Morgan, Jay Peterson, Jennifer Fisher and Kurt Fresh |
| 2:20 PM  | **Migration Timing and Survival of Adult Salmonids from the Columbia River Estuary to Upstream Dams using Passive Integrated Transponder Tag Technology***Robert J. Magie*, Matthew S. Morris, Bruce F. Jonnason, Richard D. Ledgerwoodand Benjamin P. Sandford |
| 2:40 PM | Question and Answer Period |
| 2:50 PM | **Break** |
| **Session 3: New Understanding of the Lower Columbia River Ecosystem** |
| *Session Moderator: Jennifer Morace* |
| 3:10 PM | **Habitat Quality, Toxics, and Salmon in the Lower Columbia Estuary: Updated Results from the Ecosystem Monitoring Program***Lyndal Johnson*, Paul Chittaro, Dan Lomax, Kate Macneale, O. Paul Olson, Sean Sol, David Teel, Gina Ylitalo and Jina Sagar |
| 3:30 PM | **Juvenile Salmon Food Webs, Primary Production, and Water Quality in Tidal Emergent Wetlands in the Lower Columbia River and Estuary***Whitney B. Temple* and David R. Piatt |
| 3:50 PM | **Role of Phytoplankton Parasites in Food Webs of the Columbia River Estuary***Michelle A. Maier*, Joseph A. Needoba and Tawnya D. Peterson |
| 4:10 PM | **Monitoring Biogeochemical Cycles in the Columbia River Estuary using In Situ Sensors***Joseph Needoba*, Catherine Corbettand Tawnya Peterson |
| 4:30 PM | **Remote Sensing of Turbidity and Water Temperature in the Columbia River Estuary***Austin Scott Hudson* and Stefan A. Talke |
| 4:50 PM | **Development of a 1-Dimensional Unsteady State Model of the Lower Columbia River and Application in Determining a 50% Annual Exceedance Stage Profile***Christopher Nygaard,* Gary Brunner and James Crain |
| 5:10 PM | Question and Answer Period |
| 5:20 PM  | **Adjourn** |
| 5:20 PM – 6:30 PM  | **Public Hearing on the Northwest Power and Conservation Council draft Fish and Wildlife Program***Bill Bradbury, Chairman, Northwest Power and Conservation Council and Council staff* |

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| **May 30, 2014** |
| 8:00 AM | **Registration** |
| 8:00 AM | **The Confederated Tribes of Grand Ronde Drum Song and Blessing**  |
| 8:20 AM | **Welcome***Catherine Corbett, Lead Steering Committee, Lower Columbia Estuary Partnership*  |
| 8:30 AM | Keynote Address – Geology of Lower Columbia River *Jim O’Connor, US Geologic Survey* |
| **Session 3: New Understanding of the Lower Columbia River Ecosystem (cont)** |
| *Session Moderator: Pat Frazier* |
| 9:00 AM | **Sea Level and Extreme Events in the Columbia River Estuary since 1853***S.A. Talke* and D.A. Jay |
| 9:20 AM | **Modeling of Historical Columbia River Flood Impacts***Lumas Helaire*, Drew Mahedy, Dr. Stefan A. Talke |
| 9:40 AM | **A System View of Water Level Processes in the Lower Columbia River, Pacific Ocean to Bonneville Dam: From Channel to Floodplain***David Jay*, Amy Borde and Heida Diefenderfer |
| 10:00 AM | **Modeling Changes to Residual Circulation in the Historic Lower Columbia River Estuary using Delft3D***Drew Mahedy*, Lumas Helaire, and Stefan Talke |
| 10:20 AM | **Break** |
| **Session 4: Lessons from Ecological Restoration Projects** |
| *Session Moderator: Ben Zelinsky* |
| 10:40 AM | **Improving State and Federal Fish Passage Design Guidelines for Water Crossings in Tidal Environments***Curtis J. Loeb,* Jeremy P. Loweand Robert Battalio |
| 11:00 AM | **River Restoration for a Changing Climate***Tim Beechie*, Mathias Collins, Robert Dudley, Faith Fitzpatrick, Glenn Hodgkins, Laura Perry, George Pess, Lindsay Reynolds, Phil Roni and Pat Shafroth |
| 11:20 AM | **Cold Water Refuges: Critical Temporary Habitats for Migrating Salmon and Steelhead***Matthew Keefer* and Chris Caudill |
| 11:40 AM | **Restoration of Cold Water Refugia in the Columbia River Estuary** *Chris Collins,* Keith Marcoe, Paul Kolp, and Catherine Corbett |
| 12:00 PM | Question and Answer Period |
| 12:15 PM | **Lunch** (on your own) |
| **Session 4: Lessons from Ecological Restoration Projects (cont)** |
| *Session Moderator: Gary Johnson* |
| 1:20 PM | **Trajectories of Ecosystem Recovery in oligohaline Tidal Wetland Reconnection Restoration Projects***Sarah Kidd* and Alan Yeakley |
| 1:40 PM | **Tidal Channel Allometry: Developing a Tool for Restoration Planning, Design, and Monitoring**W. Gregory Hood |
| 2:00 PM | **Exploring the Ecosystem and Salmon Habitat Functions of Large-River Floodplain Marshes with Altered Disturbance Regimes***Heida L. Diefenderfer*, Amy B. Borde, Valerie I. Cullinan, Lyndal L. Johnson and G. Curtis Roegner |
| 2:20 PM | **Improving Wetland Capacity through Integration of Science and Restoration in the Lower Columbia River and Estuary***Amy B. Borde*, Heida L. Diefenderfer, Valerie I. Cullinan, Ronald M. Thom, Shon A. Zimmerman, Jina Sagar, Catherine Corbett, and Matthew Schwartz |
| 2:40 PM | **Break** |
| **Session 4: Lessons from Ecological Restoration Projects (cont)** |
| *Session Moderator: Denise Lofman* |
| 3:00 PM | **An Evidence-Based Evaluation of the Cumulative Effects of Tidal Freshwater and Estuarine Ecosystem Restoration on Endangered Juvenile Salmon in the Columbia River**Heida Diefenderfer, *Gary Johnson*, Ron Thom, Amy Borde, Christa Woodley, Laurie Weitkamp, Kate Buenau and Roy Kropp |
| 3:20 PM  | **Particulate Organic Matter Export from a Restored Tidal Freshwater Wetland in the Columbia River Estuary***Ronald Thom*, Stephen Breithaupt, Curtis Roegner, Dana Woodruff and Gary Johnson |
| 3:40 PM | **A High-Resolution Area-Time Inundation Model to Assess Habitat Opportunity and Quality under Existing and Alternate Conditions***André Coleman*, Chris Vernon, Heida Diefenderferand Amy Borde |
| 4:00 PM | **Estuary Restoration Planning for Fish and Wildlife: North Unit, Sauvie Island Wildlife Area (SIWA)***Allan Whiting*, Curt Mykut, Tom Josephson, Mark Nebeker, Curtis Loeb, Brad Bales and Scott Gall |
| 4:20 PM  | **Changes in Tidal Hydraulics at Crims Island in Response to Restoration Activities***Hans R. Moritz*, Chris Nygaard, Cynthia Studebaker, Andy Goodwin,Bertrand Lemasson and Kim Pevey |
| 4:40 PM  | **Chinook River Estuary – Restoring Anadromous Fish Passage and Tidal Ecosystem Dynamics***Steven Vigg*, Alex Uber, Heida Diefenderfer and Amy Borde |
| 5:00 PM | **Closing Remarks***Denise Lofman, Steering Committee member, Columbia River Estuary Study Taskforce* |
| 5:15 PM | **Adjourn** |

**Thank You 2014 CREW Sponsors:**

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