

Agenda
2018 Columbia River Estuary Conference:
Promoting Resiliency under Shifting Environmental Conditions

April 10, 2018

8:00 AM **Registration**

9:00 AM **Invocation**
Tanna Engdahl, Cowlitz Indian Tribe

9:20 AM **Welcome and Introduction to the Columbia River Estuary Conference**
Catherine Corbett, Chair Steering Committee

Session 1: Update on Ocean Conditions and Ecological Impacts

Session Moderator: Curtis Roegner, NOAA National Marine Fisheries Service

9:30 AM **Keynote Address—Nonlinearity and Early Detection of Abrupt Change in Northeast Pacific Marine Ecosystems**
Mary Hunsicker, NOAA National Marine Fisheries Service

10:00 AM **The Blob, El Niño, La Niñas, and North Pacific Marine Ecosystems**
Laurie A. Weitkamp

10:20 AM **Effects of Warming Ocean Conditions on Feeding Ecology of Small Pelagic Fishes in the Northern California Current**
Mary Hunsicker, Richard Brodeur, Ashley Hann, Todd Miller, and Yi Gong

10:40 AM **Break**

11:00 AM **Growth and Survival of Coho Salmon Smolts in the NE California Current 2000 – 2017**
Brian Beckman, Cheryl Morgan, and Meredith Journey

11:20 AM **Ocean Conditions and Run Size Forecasts for Natural Coho Salmon in Washington Tributaries of the Lower Columbia River**
Mara Zimmerman

11:40 AM **OAH Inventory and Regional Efforts to Respond to OAH Placeholder**
Charlotte Regula Whitefield

12:00 PM **Question and Answer Period**

12:10 PM **Lunch** (on your own)

Session 2: Adapting to Shifting Ecosystem Conditions—Predicting Sea Level Rise and Flood Risk

Session Moderator: Lynne Krasnow, NOAA National Marine Fisheries Service

1:30 PM **Observations and Simulations to Characterize a Changing Estuary: The Good, the Bad, and the Uncertain**
António M. Baptista

- 1:50 PM **Sea-Level Rise in the Columbia River Estuary, Past, Present, and Future**
Stefan A Talke, David A Jay, and Lumas Helaire
- 2:10 PM **Modeling Flood Risk in the Portland, OR Metro area**
Lumas Helaire, Stefan A Talke, and Heejun Chang
- 2:30 PM **Sea Level Rise: Implications for Water Level Management**
Mojgan Rostaminia and Gary Wolff
- 2:50 PM **Break**

Session 3: Adapting to Shifting Ecosystem Conditions—Integrating Shifting Conditions into Restoration and Management

Session Moderator: Amy Horstman, US Fish and Wildlife Service

- 3:10 PM **Approaches for Integrating Transitioning Ecosystem Conditions into the Conservation Reserve System for the Lower Columbia River**
Catherine Corbett
- 3:30 PM **Identifying Geographic Priorities for Coastal Wetland Conservation Funding in a Changing Climate**
Chris Swenson
- 3:50 PM **Finding Conservation Opportunities and Constraints along Estuary Margins in an Era of Sea Level Rise**
Brian Fulfrost and David Thomson
- 4:10 PM **Enhancing Blue Carbon Sequestration and Resilience to Sea Level Rise with Tidal Marsh Restoration**
Katrina L. Poppe, John M. Rybczyk, Logan Parr, Analissa Merrill, and Sage Pollack
- 4:30 PM **Soil Carbon Accumulation and Ecosystem Drivers in Youngs Bay and Tillamook Bay, Oregon, USA**
Laura S. Brophy, Erin K. Peck, Robert A. Wheatcroft, Laura A. Brown, and Michael J. Ewald
- 4:50 PM **Incorporating Future Climate Predictions into Today's Ecosystem Restoration Design**
Caitlin Alcott and Matt Cox
- 5:10 PM **Question and Answer Period**

5:30 PM – 7:30 PM **Poster Session** (McTavish Room upstairs)

April 11, 2018

8:00 AM **Registration**

8:20 AM **Welcome**
Catherine Corbett, Chair Steering Committee

Session 3: Adapting to Shifting Ecosystem Conditions—Integrating Shifting Conditions into Restoration and Management (continued)

Session Moderator: Jason Karnezis, Bonneville Power Administration

8:30 AM **Developing a Framework for Incorporating Climate Change and Building Resiliency into Restoration Planning Case Study—Lower Columbia River Estuary**
Keith Duffy, Ethan Rosenthal, and Sandra Conveny

8:50 AM **Enhancing Cold Water Refuges at Small Tributaries in the Lower Columbia River**
Chris Collins, Keith Marcoe, Catherine Corbett, Mike Burke, and Matt Keefer

9:10 AM **Enhancement of Cold Water Refuges in the Lower Columbia River Gorge**
Keith Marcoe, Chris Collins, Paul Kolp, Catherine Corbett, and Mike Burke

9:30 AM **Examining the Functions and Forms of Restored Channel Outlets in Floodplains of the Lower Columbia River Estuary**
Curtis Loeb and Jeremy Lowe

9:50 AM **Tidal River Dynamics at a Junction: Portland-Vancouver Harbor**
David A Jay, Lumas Helaire, and Stefan A Talke

10:10 AM **Break**

Session 4: Assessment of Restoration and Management

Session Moderator: Siena Lopez-Johnston, Bonneville Power Administration

10:30 AM **Quantifying Habitat Connectivity in the Lower Columbia River and Estuary**
Amy B. Borde, Shon A. Zimmerman, Gary E. Johnson, Heida L. Diefenderfer, and André M. Coleman

10:50 AM **Wetland Restoration Trajectories and Long-Term Ecosystem Monitoring: A Tidal Wetland Story**
Sarah Kidd and Matthew Schwartz

11:10 AM **Is it working? – Quantifying Restoration Successes at the Physical Processes Level**
Matthew Schwartz and Sarah Kidd

11:30 AM **Management Trade-Offs Between Reed Canarygrass Control, Amphibian Habitat, and Salmon Habitat in Multnomah Channel Natural Area**
Regan A. McNatt, Brian Cannon, Susan A. Hinton, Luke D. Whitman, Rachael Klopfenstein, Thomas A. Friesen, and Daniel L. Bottom

11:50 PM **Question and Answer Period**

12:00 PM **Lunch** (on your own)

Session 5: New Understanding of the Lower Columbia River Ecology

Session Moderator: Mike Turaski, US Army Corps of Engineers

1:20 PM **Indirect Benefits of Habitat Restoration on Juvenile Salmon: Results from the Landscape-Scale Action Effectiveness Study**

Laurie Weitkamp, Meredith Journey, Brian Beckman, Angie Munguia, Don VanDoornik, Jessica Miller, and Kym Jacobson

1:40 PM **Investigating the Diet of Juvenile Chinook Salmon in the Lower Columbia River Using Stable Isotopes**

Tawnya D. Peterson and Joseph Needoba

2:00 PM **Making Connections to Habitats: Feeding Ecology of Juvenile Salmonids During Emigration in the Lower Columbia River and Estuary**

Angie Munguia, Jessica A. Miller, Laurie A. Weitkamp, and Donald M. Van Doornik

2:20 PM **Direct Benefits of Habitat Restoration on Juvenile Salmon: Site-Scale Evaluation**

Nichole Sather, Regan McNatt, Adam Martin-Schwarze, Kailan Mackereth, Heidi Stewart, Susan Hinton, and Gary Johnson

2:40 PM **Growth of Uearling Chinook Salmon and Steelhead Smolts in the Columbia River Estuary 2016 – 2017**

Brian Beckman, Meredith Journey, Laurie Weitkamp, Don Van Doornik, and Kym Jacobson

3:00 PM **Break**

Session 5: New Understanding of the Lower Columbia River Ecology (continued)

Session Moderator: Nicole Czarnomski, Washington Department of Fish and Wildlife

3:20 PM **Columbia River Estuary to Bonneville Dam: A Cooperative Effort Between NOAA Fisheries and Columbia River Commercial Fishermen**

A. Michelle Wargo Rub, Ben Sandford, Don Van Doornik, David Teel, Matthew Nesbit, Samuel Rambo, Jesse Lamb, Louis Tullios, Kinsey Frick, April Cameron, Mark Sorel, David Huff, and Rich Zabel

3:40 PM **You Are What You Eat: A study of Age Demographic Changes in Eulachon Smelt**

Laura Lloyd

4:00 PM **The Cyanobacterial Neurotoxin, L-β-methylamino-N-alanine (BMAA), as an Emerging Public Health Concern in the Columbia River Watershed**

Stuart W. Dyer, Tawnya D. Peterson, and Joseph A. Needoba

4:20 PM **Pharmaceuticals and Personal Care Products Measured in Water and Suspended Solids in the Columbia River Estuary**

Elena Nilsen, Jennifer Morace, and Tawnya Peterson

4:40 PM **Mapping Contaminants in the Columbia River Basin—What Can We Learn**

Mary Lou Soscia, Jennifer Morace, Leslie Bach, and members of the Mapping Subgroup of the Columbia River Toxics Reduction Working Group

5:00 PM **Question and Answer Period**

5:10 PM **Adjourn**

April 12, 2018

8:00 AM **Registration**

8:20 AM **Welcome**
Catherine Corbett, Chair Steering Committee

Session 6: Results of Restoration—Are We Having an Effect?

Session Moderator: Patty O’Toole, Northwest Power and Conservation Council

8:30 AM **Keynote Address—Just What the Hell is Going On?: The Latest in Columbia River Fish and Wildlife and Energy Policy and Law**
John Shurts, Northwest Power and Conservation Council

9:00 AM **An Overview of the 2018 Synthesis Memorandum for the Columbia Estuary Ecosystem Restoration Program**
Gary E. Johnson and Kurt L. Fresh

9:20 AM **The State of the Sandy: Bolstering Resiliency in a Decade of Post-Dam Restoration**
Steve Wise and Katherine Cory

9:40 AM **Restoring Resilience to Tillamook Bay: Incorporating Climate Change in the Restoration Design and Construction at the Kilchis Estuary Preserve, Tillamook County, Oregon**
Dick Vander Schaaf, Curtis Loeb, and Hunter White

10:00 AM **Habitat Restoration Using Dredged Material Placement within the Lower Columbia River at Woodland Islands, WA**
Hans R. Moritz, Matt Fraver, Logan Negherbon, Mike Turaski, Ann Hodgson, Valerie Ringold, and Louis Landre

10:20 AM **Break**

Session 7: New Tools for Assessing and Evaluating Restoration Impacts

Session Moderator: Rudy Salakory, Cowlitz Indian Tribe

10:40 AM **Use of Drones and Hyperspectral Imagery to Remotely Sense Vegetation Patterns at Wetland Restoration Sites**
Curtis Roegner, Amy Borde, Andre Coleman, Robert Erdt, Joe Aga, George Pierce³, and Carla Cole

11:00 AM **Juvenile Salmon Movement/Passage through a Tidal Free-Flowing River Junction Emerge from Swim Orientations Based on their Recent Past Flow Field Experience**
R. Andrew Goodwin, Yong Lai, Noah Adams, Russell W. Perry, David L. Smith, Aaron Blake, Jon R. Burau, Paul Stumpner, Ryan Reeves, and Jacob McQuirk

- 11:20 AM **OFAIM and Fortune in Oregon’s Floodplains: Oregon Floodplain Impact Mitigation Tool**
Rowyn Cooper-Caroselli, Marjorie Wolfe, and Polly Gibson
- 11:40 AM **Elevation is the Surrogate for Everything: A Short Story of Translational Ecology, Multi-Species Floodplain Restoration Design and a Biological Risk-Reduction Habitat Model**
Kelley Jorgensen and Chris Watson
- 12:00 PM **Question and Answer Period**
- 12:10 PM **Closing Remarks**
Madeline Ishikawa
- 12:20 PM **Adjourn**