

10th Annual Northwest Climate Conference
October 8-10, 2019
The Sentinel Hotel, Portland, Oregon

Tuesday, October 8, 2019

7:00 PM	Evening Plenary and Reception (open to all)
	<p><i>Agriculture and Climate Change in the Pacific Northwest – Success, Opportunities, and Challenges</i> Panel Moderator – Jennifer Moore-Kucera (American Farmland Trust) Panelists: Gayle Goschie (Goschie Farms), Chad Kruger (Washington State University), Hannah Clark (American Farmland Trust), Risa Demasi (Grassland Oregon)</p>

Wednesday, October 9, 2019

7:00 AM	Breakfast (provided)
8:30 AM	Opening Plenary
	Opening Remarks , Paul Loikith, Conference Chair, Portland State University
	Invocation , TBD
9:15 AM	State of the Pacific Northwest Climate 2019 , John Abatzoglou, University of Idaho
10:00 AM	BREAK
10:15 AM	Concurrent and Special Sessions
	<p>Climate Change and Water Quality Impacts Agriculture Wildlife Ecology Community-driven Climate Justice – Special Session State Adaptation Planning Across Sectoral Boundaries in Oregon: Integration Challenges and Opportunities – Special Session</p>

11:45 AM	Lunch (provided)
12:45 PM	Concurrent and Special Sessions
	<p>Climate Extremes and Dynamics Cities, Communities, and Climate Change Public Perception of Climate Change (12:45-1:25) Mental Health Resilience (1:35-2:15) Tribal Communities Final Results and Products of the Washington Coastal Resilience Project – Special Session</p>
2:15 PM	BREAK
2:30 PM	Afternoon Plenary
3:15 PM	BREAK
3:30 PM	Concurrent and Special Sessions
	<p>Climate change and Equity Coastal and Marine Science Building climate resilience and adaptation at the municipal level: Leading-edge case studies from the City of Portland – Special Session Sharing and Exploring Cross Jurisdictional Approaches to Forest Management Under Climate Change: Implementing the CA, WA, & BC Forest Management MOU – Special Session Communicating your science by distilling what you know and why it matters – Special Session</p>
6:00 PM	Poster Session and Reception

Thursday, October 10, 2019

7:00 AM	Breakfast (provided)
8:30 AM	Opening Plenary

	Morning Announcements , Paul Loikith, Conference Chair, Portland State University
	Invocation , Tanna Engdahl, Tribal Elder, Cowlitz Tribe
8:45 AM	Keynote , Don Sampson, Chief of the Walla Walla Tribe, Affiliated Tribes of Northwest Indians
9:30 AM	BREAK
9:45 AM	Concurrent and Special Sessions
	<p>Atmospheric Rivers and Precipitation</p> <p>Wildfire Impacts</p> <p>Tribal & Indigenous Peoples Engagement for the National Climate Assessment – Special Session</p> <p>Greening and Health: Neighborhoods Adapting to Climate Stressors – Special Session</p> <p>Resilient Water Resources in Practice: Case studies, stories, and examples from practitioners – Special Session</p>
11:15 AM	LUNCH BREAK
12:45 PM	Concurrent and Special Sessions
	<p>Forest Ecology</p> <p>River Hydrology</p> <p>The Clackamas Watershed Resilience Project: An Interdisciplinary Partnership Model for Conducting Climate Impact Assessment – Special Session</p> <p>Communicating Climate Change in the Pacific Northwest: Engaging Students in the Long Story – Special Session</p> <p>Envisioning Coastal Resilience through Alternative Futures Modeling – A Graduate Student Perspective – Special Session</p>
2:15 PM	BREAK

2:30 PM	Afternoon Plenary
	<p><i>Emerging climate risks and liability: Understanding risk exposure in the insurance, legal, and water sectors</i></p> <p>Panel Moderator – Kavita Heyn (Portland Water Bureau)</p> <p>Panelists: Paul Fuller (Allied Public Risk), Deanna Moran (Conservation Law Foundation), Edward Campbell (Portland Water Bureau)</p>
3:15 PM	BREAK
3:30 PM	Concurrent and Special Sessions
	<p>Resilience and Risk</p> <p>Climate Change and Public Health</p> <p>Snow and Ice</p> <p>Decision-Making Tools</p> <p>Climate Change and Stormwater Management: Notes from the Field – Special Session</p>

2019 Northwest Climate Conference Detail

Tuesday, October 8

7:00 PM	Evening Plenary and Reception (open to all) – Grand Ballroom
	<p><i>Agriculture and Climate Change in the Pacific Northwest – Success, Opportunities, and Challenges</i></p> <p>Panel Moderator – Jennifer Moore-Kucera (American Farmland Trust)</p> <p>Panelists: Gayle Goschie (Goschie Farms, Inc.), Chad Kruger (Washington State University), Hannah Clark (American Farmland Trust), Risa Demasi (Grassland Oregon)</p>

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7:00 AM	Breakfast (provided)				
8:30 AM	Opening Plenary – Grand Ballroom				
	Opening remarks, Paul Loikith, Conference Chair, Portland State University Invocation, TBD				
9:15 AM	State of the Pacific Northwest Climate 2019 , John Abatzoglou, University of Idaho				
10:00 AM	BREAK				
10:15 AM	Concurrent and Special Sessions				
	Governor Ballroom	Renaissance Room	Grand Ballroom	Library	Billiard Room
	Climate Change and Water Quality Impacts	Agriculture	Wildlife Ecology	Community-Driven Climate Justice	State Adaptation Planning Across Sectoral Boundaries in Oregon: Integration Challenges and Opportunities

10:15 AM	<p>Modeling the effects of climate change on hydrology and stream temperature in the South Fork of the Stillaguamish River</p> <p>Katherine M. Clarke (Western Wash. Univ.), Robert J. Mitchell, John R. Yearsley</p>	<p>Agricultural Policy and Practices to Support USCA States' Climate Mitigation Goals: Examples from Western USA</p> <p>Jennifer Moore-Kucera (American Farmland Trust), Jimmy Daukas, Thayer Tomlinson, Anna Harmon, Hannah Clark</p>	<p>Forecasting Species Assemblages under Projected Climate Scenarios: Implications for Wildlife Agencies as Species Colonize across State and International Borders</p> <p>David S. Pilliod (U.S. Geological Survey), Michelle I. Jeffries, Robert S. Arkle, Deanna H. Olson</p>	<p>Special Session</p> <p><i>TBD</i></p>	<p>Special Session [10:15-11:45]</p> <p><i>Presenters: Christine Shirley (Oregon Department of Land Conservation and Development), Geoff Crook (Oregon Department of Transportation), Shaun Clements (Oregon Department of Fish and Wildlife), Ali Hamade (Oregon Health Authority), Lesley Jantarasami (Oregon Department of Energy)</i></p>
10:35 AM	<p>The influence of climate change on the distributions of native and nonnative trout species across Montana</p> <p>Donovan Bell (Univ. of Montana), Clint C. Muhlfeld, Robert Al-Chokhachy, David A. Schmetterling, Diane C. Whited, Ryan P. Kovach, Andrew R. Whiteley</p>	<p>Opportunities and obstacles for Northwest specialty crops in a changing climate</p> <p>Lauren E. Parker (USDA California Climate Hub, UC Davis), John Abatzoglou, Katherine Hegewisch</p>	<p>Evaluating the effectiveness of engineered log jam projects at improving salmon habitat</p> <p>Caroline J. Walls (Western Washington University), James M. Helfield</p>		

10:55 AM	<p>The climate sensitivity of water quality in the Pacific Northwest: Linking anticipated shifts in hydrologic regime to riverine nitrogen sources in Puget Sound watersheds</p> <p>Elizabeth J. Elmstrom (University of Washington), Gordon Holtgrieve, Karrin Leazer, Andrew Schauer</p>	<p>Farmer Adaptation to Reduced Groundwater Availability in Idaho</p> <p>Katrina Running (Idaho State University), Morey Bumham</p>	<p>Non-native introgression from rainbow trout alters seasonal growth and migratory patterns of native westslope cutthroat trout in three wild populations</p> <p>Jeffrey T. Strait (University of Montana), Lisa Eby, Ryan Kovach, Clint Muhlfeld, Matt Boyer, Stephen Amish, Gordon Luikart</p>		
11:15 AM	<p>Evaluating Climate Resilience of a Public Stormwater and Wastewater Utility using the EPA's CREAT Tool</p> <p>Matt Glazewski (Water Environment Services of Clackamas County, Oregon)</p>	<p>Pest pressures under climate change: management implications for apple production</p> <p>Kirti Rajagopalan (Washington State University), Hossein Noorazar, Vincent Jones, Sonia Hall, Georgine Yorgey, Matt Jones, Chad Kruger</p>	<p>Effects of climate change and forest governance on large-scale insect outbreaks</p> <p>Dongmei Chen (University of Oregon)</p>		
11:45 AM	Lunch (provided)				

12:45 PM	Concurrent and Special Sessions				
	Governor Ballroom	Renaissance Room	Grand Ballroom	Library	Billiard Room
	Climate Extremes and Dynamics	Cities, Communities, and Climate Change	Public Perception of Climate Change	Tribal Communities	Final Results and Products of the Washington Coastal Resilience Project
12:45 PM	Cold-air drainage and potential refugia in a basin in the western Cascade Range of Oregon <i>Sarah J. K. Frey (Oregon State University), David Rupp, Sarah Shafer, Chris Daly, Julia Jones</i>	Triple exposure: mapping climatic, economic and socio-spatial drivers of risk and resilience in a 'sustainable city' <i>Idowu Ajibade (Portland State University)</i>	Assessment of Oregon public's risk perception of climate change impacts to water resources <i>Monica L. Hubbard (Boise State University)</i>	Pacific Northwest Tribal Climate Change Project <i>Haley E. Case-Scott (Pacific Northwest Tribal Climate Change Project, USDA Northwest Climate Hub)</i>	Special Session [12:45-2:15] <i>Presenters: Ian Miller (Washington Sea Grant), Paige D. Lavin (University of Washington), Heidi A. Roop (University of Washington), Nicole Faghin (Washington Sea Grant), Bobbak Talebi (Washington State Department of Ecology), Lara Whitely Binder (King County)</i>
1:05 PM	<i>High-resolution climate modeling for Southeast Alaska</i> <i>Rick T. Lader (University of Alaska Fairbanks, AK CASC)</i>	Beyond the CIRCus – Communities Level up <i>Ann K. Mooney (Climate Impacts Research Consortium), Katherine Hegewisch, Kara Odegard, Brian Henning, Levi Keesecker, Mike Petersen, Karl Rains</i>	Believing is Seeing: How Climate Change Beliefs Predict Perceptions of Extreme Weather in Oregon <i>Brianne M. Suldovsky (Portland State University), Daniel Taylor-Rodriguez</i>	Tribal Climate Camp: Tribes engaging Tribes to achieve their climate programming goals <i>Chas Jones (Affiliated Tribes of NW Indians, NW Climate Adaptation Science Center)</i>	

1:25 PM	The meteorological conditions associated with lightning outbreaks in the western United States Dmitri A. Kalashnikov (Portland State University), Paul C. Loikith, Arielle J. Catalano, Duane E. Waliser, Huikyo Lee, John T. Abatzoglou	Climate Adaptation in Spokane, Washington Kara Odegard (Climate Impacts Research Consortium), Brian Henning, Karl Rains, Levi Keesecker, Mike Petersen	Mental Health Resilience	Understanding Climate Change Impacts on the Nutrition and Cultural Benefits of the Makah Tribe's Traditional Seafood Species Laura K. Nelson (University of Washington)
1:35 PM			Ecoanxiety: From Grief to Action Anna R. Humphreys (University of Washington)	
1:45 PM	Characterizing Trends in the Atmospheric Circulation of the Pacific Northwest with Self-Organizing Maps (SOMs) Nicholas Bond (University of Washington), Karin Bumbaco, Emily Norton	Community Outreach-Livability Ambassador Program Jami Goldman (City of Boise Sustainability Coordinator)		Resources and Tools for Tribes adapting to Climate Change Vicky Salazar (U.S. EPA)
1:55 PM			Let's Talk about Hopelessness, Fear, Depression & Grief! Why Psychology and Mental Health are Essential Components of Climate Resilience Andrew J. Bryant (Climate & Mind)	
2:15 PM	BREAK			
2:30 PM	Afternoon Plenary - Grand Ballroom			
	TBD			

3:15 PM	BREAK				
3:30 PM	Concurrent and Special Sessions				
	Governor Ballroom	Renaissance Room	Grand Ballroom	Library	Billiard Room
	Climate Change and Equity	Coastal and Marine Science	Building Climate Resilience and Adaptation at the Municipal Level: Leading-Edge Case Studies From the City of Portland	Sharing and Exploring Cross Jurisdictional Approaches to Forest Management Under Climate Change: Implementing the CA, WA, & BC Forest Management MOU	Communicating Your Science by Distilling What You Know and Why it Matters
3:30 PM	<p>Understanding Sociodemographic Inequity: Disproportionate Exposure to Climate-driven Detriments Across Kaiser Permanente Members</p> <p>Jackson L. Voelkel (Kaiser Permanente), Vivek Shandas</p>	<p>Positive Temperature Anomalies in Washington's Olympic Coast Nearshore Waters during the 2013-2015 Northeast Pacific Marine Heat Wave</p> <p>Julie Ann Koehlinger (University of Washington), Jan Newton, John Mickett, Terrie Klinger</p>	<p>Special Session [3:30-5:00]</p> <p><i>Facilitator: Alice Browley-Chesworth (Portland Bureau of Environmental Services)</i> <i>Presenters: Kavita Heyn (Portland Water Bureau), Nishant Parulekar (Bureau of Environmental Services), Nicholas McCullar (Bureau of Environmental Services), Kaitlin Lovell (Bureau of Environmental Services), Jonna Papaefthimiou (Portland Bureau of Emergency Management)</i></p>	<p>Special Session [3:30-5:00]</p> <p><i>Presenters: Dan Siemann (Washington State Department of Natural Resources), Thomas White (British Columbia Ministry of Forests, Lands, Natural Resource Operations & Rural Development), Loretta Moreno (California Natural Resources Agency)</i></p>	<p>Special Session [3:30-5:00]</p> <p><i>Presenters: Estelle Robichaux (COMPASS Science Communication)</i></p>
3:50 PM	<p>Social Relationships, Resilience, and Equity</p> <p>Julie Early Sifuentes (Oregon Health Authority), Edna Nyamu, Angie Kuzma</p>	<p>Oregon's Coordinating Council on Ocean Acidification and Hypoxia: Why We Need It, Where We Are</p> <p>Charlotte Regula-Whitefield (Oregon Dept. of Fish & Wildlife), Caren Braby, Jack Barth</p>			

4:10 PM	Centering Equity and Culture within Tribal Climate Resilience Planning Michael H. Chang <i>(Makah Tribe), Katie Wrubel, Haley Kennard</i>	Acid in the Intertidal: Possible benefits of ocean acidification to anemone-algal symbiosis Natalie B. Coleman <i>(Western Washington University)</i>			
4:30 PM	Local Climate Change Adaptation Planning in Washington State: A Comparative Analysis of Intersectional Equity Considerations William M. Golding <i>(Evergreen State College)</i>	Salt Marsh Response to Sea Level Rise Martin Lafrenz <i>(Portland State University), Catherine de Rivera, Sarah Eppley</i>			

6:00 PM	Poster Session and Reception – Governor Ballroom
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7:00 AM	Breakfast (provided)
8:30 AM	Opening Plenary Morning Announcements, Paul Loikith, Conference Chair, Portland State University Invocation, Tanna Engdahl, Tribal Elder, Cowlitz Tribe
8:45 AM	Keynote , Don Sampson, Chief of the Walla Walla Tribe, Affiliated Tribes of Northwest Indians – Grand Ballroom
9:30 AM	BREAK

9:45 AM	Concurrent and Special Sessions				
	Governor Ballroom	Renaissance Room	Grand Ballroom	Library	Billiard Room
	Atmospheric Rivers and Precipitation	Wildfire Impacts	Tribal and Indigenous Peoples Engagement for the National Climate Assessment	Greening and Health: Neighborhoods Adapting to Climate Stressors	Resilient Water Resources in Practice: Case Studies, Stories, and Examples from Practitioners
9:45 AM	<p>A Climatology of Atmospheric Rivers and Associated Heavy Precipitation over the Northwest United States</p> <p>Emily A. Slinskey (Portland State University), Paul C. Loikith, Duane E. Waliser, Bin Guan</p>	<p>Climate, Wildfires, and Air-Quality in the Pacific Northwest</p> <p>Deepti Singh (Washington State University Vancouver), Kesondra Key</p>	<p>Special Session [9:45-11:15]</p> <p>Presenters: Michael Chang (Makah Tribe), Lesley Jantarasami (Oregon Department of Energy), Sascha Petersen (Adaptation International)</p>	<p>Special Session [9:45-10:45]</p> <p>Presenters: Bobby Cochran (Willamette Partnership), Vivek Shandas (Portland State University), Ryan Petteway (OHSU-PSU School of Public Health)</p>	<p>Special Session [9:45-11:15]</p> <p>Facilitator: Alida Cantor (Portland State University) Presenters: Roy Iwai (Multnomah County), Kim Swan (Clackamas River Water Providers), Bobby Cochran (Willamette Partnership), Jamie McCleod-Skinner (Oregon Watershed Enhancement Board), Bobby Brunoe (Confederated Tribes of Warm Springs)</p>
10:05 AM	<p>Multi-model performance of forecasted AR landfall and precipitation in the Pacific Northwest, 2017 - 2019</p> <p>Andrew C. Martin (Portland State University), Laurel DeHaan</p>	<p>Climatic and Human Influences on the Changing Wildfire Regimes of the Eastern Washington Cascades</p> <p>Megan K. Walsh (Central Washington University)</p>			

10:25 AM	<p>Changes to the frequency of meteorological patterns associated with atmospheric rivers</p> <p>Naomi Goldenson <i>(University of California Los Angeles), Alex Hall</i></p>	<p>Fires with benefits: assessing the economic impact of suppression and repair spending of the 2017 Eagle Creek Fire, Oregon</p> <p>Daniel J. Politoski <i>(University of Portland), Ruth Dittrich</i></p>			
10:45 AM	<p>Evaluation of CMIP5 model fidelity at capturing wet season large-scale meteorological patterns over the Pacific Northwest using self-organizing maps</p> <p>Christina M. Aragon <i>(Oregon State University), Paul Loikith, Arielle Catalano, Kavita Heyn, Kristin Anderson, Benjamin Beal</i></p>	<p>How post-fire weather variability affects the balance between sagebrush, exotic annual grasses, and perennial grasses and what it means for climate change</p> <p>Cara V. Applestein <i>(US Geological Survey), Matthew Germino, Trevor Caughlin</i></p>			
11:15 AM	LUNCH BREAK (not provided)				

12:45 PM	Concurrent and Special Sessions				
	Governor Ballroom	Renaissance Room	Grand Ballroom	Library	Billiard Room
	Forest Ecology	River Hydrology	The Clackamas Watershed Resilience Project: An Interdisciplinary Model for Conducting Climate Impact Assessment	Communicating Climate Change in the Pacific Northwest: Engaging Students in the Long Story	Envisioning Coastal Resilience through Alternative Futures Modeling – A Graduate Student Perspective
12:45 PM	<p>Drought and Moisture Availability and Recent Western Spruce Budworm Outbreaks in the Western United States</p> <p>Jeffrey A. Hicke (University of Idaho), Bingbing Xu, John T. Abatzoglou</p>	<p>Quantifying and Managing Groundwater Spring Flows for Climate Change Adaptation on the Henry's Fork Snake River</p> <p>Christina N. Morrisett (Henry's Fork Foundation), Rob Van Kirk, Sarah Null, Bryce Contor</p>	<p>Special Session [12:45-2:15]</p> <p>Presenters: Max Nielsen-Pincus (Portland State University), Arielle Catalano (Portland State University), Junjie Chen (PSU), Matt Glazewski (Clackamas County, Water Environment Services), Beth Glidden (PSU, Institute for Sustainable Solutions), Andres Holz (PSU), Paul Loikith (PSU), Andy McEvoy (PSU), Kim Swan (Clackamas River Water Providers), Erin Upton (PSU)</p>	<p>Special Session [12:45-2:15]</p> <p>Presenters: Mark Blaine (University of Oregon), Hollie Smith (University of Oregon), Torsten Kjellstrand (University of Oregon), Deb Morrison (University of Oregon), Dan Morrison (University of Oregon), Kim Sheehan (University of Oregon)</p>	<p>Special Session [12:45-2:15]</p> <p>Presenters: Katherine Stanton (Oregon State University), Amila Hadziomerspahic (Oregon State University), Meredith Leung (Oregon State University), Dylan Sanderson (Oregon State University)</p>
1:05 PM	<p>Coupled ecohydrology and plant hydraulics modeling predicts ponderosa pine seedling mortality and lower treeline in the inland Northwest</p> <p>Solomon Dobrowski (University of Montana), Marco Maneta, Zack Holden, Caelan Simeone</p>	<p>Assessment of Columbia and Willamette River flood stage on the Columbia Corridor Levee System at Portland, OR in a future climate</p> <p>Susan A. Wherry (US Geological Survey-Oregon Water Science Center), Tamara Wood, Hans Moritz, Keith Duffy</p>			

1:25 PM	<p>Forest Thinning and Climate Change in the Interior Northwest</p> <p>Ryan Niemeyer <i>(University of California Santa Barbara), Christina (Naomi) Tague, Jennifer Adam, Chris Schnepf, Andrew Perleberg, Will Burke</i></p>	<p>Collaborative development of future streamflow projections for the Columbia River Basin: following the chain of modeling from emissions scenario down to system regulated streamflow</p> <p>Chris D. Frans <i>(U.S. Army Corps of Engineers), and coauthors</i></p>			
1:45 PM	<p>Urban heat island gradients help in assessing climate resilience of <i>Pseudotsuga menziesii</i> and <i>Sequoiadendron giganteum</i> trees in Portland, Oregon</p> <p>Hannah M. Prather <i>(Reed College), Mark E. De Guzman, Jack Aldrich, Claire E. Brase, Vivek Shandas, Todd N. Rosenstiel, Aaron R. Ramirez</i></p>	<p>Quantifying the role of forest management in maintaining and facilitating watershed hydrologic resilience in the face of climate change in the South Fork Nooksack River watershed, Washington</p> <p>Oliver J. Grah <i>(Nooksack Indian Tribe), Susan Dickerson-Lange, Christina Bandaragoda, Nicoleta Cristea, Jason Hatch</i></p>			

2:15 PM	BREAK				
2:30 PM	Afternoon Plenary – Grand Ballroom				
	<p><i>Emerging climate risks and liability: Understanding risk exposure in the insurance, legal, and water sectors</i></p> <p>Panel Moderator – Kavita Heyn (Portland Water Bureau)</p> <p>Panelists: Paul Fuller (Allied Public Risk), Deanna Moran (Conservation Law Foundation), Edward Campbell (Portland Water Bureau)</p>				
3:15 PM	BREAK				
3:30 PM	Concurrent and Special Sessions				
	Governor Ballroom	Renaissance Room	Grand Ballroom	Library	Billiard Room
	Resilience and Risk	Climate Change and Public Health	Snow and Ice	Decision-Making Tools	Climate Change and Stormwater Management: Notes from the Field
3:30 PM	<p>Increasing Resilience by Crossing Disciplinary Lines Inside Your Organization</p> <p>Alice Brawley-Chesworth (Portland Bureau of Environmental Services), Kaitlin Lovell</p>	<p>Tri-County Collaboration Identifies Health Impacts of Climate Change</p> <p>Kathleen Johnson (Washington County Department of Health and Human Services), Abraham Moland, Brendon Haggerty, Ahmed Mohamed, Jamie Zentner</p>	<p>Four-fold increase in solar forcing on snow in western U.S. burned forests since 1999</p> <p>Kelly E. Gleason (Portland State University), Joseph R. McConnell, Monica M. Arienzo, Nathan Chellman, and Wendy M. Calvin</p>	<p>Visualizing climate change</p> <p>Katherine Hegewisch (University of Idaho), John Abatzoglou, Solomon Dobrowski, Sean Parks</p>	<p>Special Session [3:30-4:30]</p> <p>Presenters: Guillaume Mauger (University of Washington), Jeff Burkey (Dept. of Natural Resources and Parks), Ani Jayakaran (Washington State University), Jordan Jobe (Washington State University)</p>

3:50 PM	<p>Washington State Department of Natural Resources' Agency-wide Climate Resilience Strategy: Methods, Results, and Lessons Learned</p> <p>Dan Siemann (Washington State Department of Natural Resources), Lenny Young, Dan Stonington</p>	<p>Optimizing the health co-benefits of climate change policies using health impact assessment</p> <p>Andrew L. Dannenberg (University of Washington), Bethany Rogerson, Linda Rudolph</p>	<p>Community Snow Observations (CSO): Using Citizen Science to Improve Snow Modeling</p> <p>Gabriel J. Wolken (University of Alaska Fairbanks, Alaska Geological Survey), Ryan Crumley, David Hill, Katreen Wikstrom Jones, Anthony Arendt, Jonah Joughin, Landung Setiawan</p>	<p>The Climate Adaptation Integration Tool (CAIT): A Decision Support Framework for Integrating Climate Considerations into Natural Resource Planning and Management</p> <p>Jessi M. Kershner (EcoAdapt), Andrea Woodward, Alicia Torregrosa</p>	
4:10 PM	<p>Assessing Climate Risks at the Provincial Scale – The BC Example</p> <p>Johanna Wolf (BC Ministry of Environment and Climate Change Strategy)</p>	<p>Stress Testing the Capacity of Health Systems to Manage Climate Change-Related Shocks and Stresses: A potential tool for the Pacific Northwest</p> <p>Christopher J. Boyer (University of Washington), Kristie L. Ebi, Peter Berry, Katie Hayes, Samuel Sellers, Paddy M. Enright, Jeremy J. Hess</p>	<p>Modelling future snowpack at high resolution with a process-based energy model in southwestern British Columbia</p> <p>Stephen R. Sobie (University of Victoria), Trevor Murdock</p>	<p>InterACTWEL: A Decision Support System for Adaptation Planning in Food-Energy-Water Sectors of Local Communities</p> <p>Samuel J. Rivera (Oregon State University), Nicholas Alan Giles, Jeff Reimer, Ganti Murthy, Snehasis Mukhopadhyay, Arjan Durreesi, Jenna Tilt, Meghna Babbar-Sebens, Suresh Marru</p>	

4:30 PM	<p>Insurance and Climate Change - the role of insurance regulators in managing climate risk</p> <p>Jay L. Bruns III (Washington State Office of the Insurance Commissioner)</p>	<p>Health Impacts of Climate Change in British Columbia: Challenges and Opportunities for Public Health and Policy</p> <p>Sally J. Maguet (Simon Fraser University), Tim Takaro</p>	<p>Glacier Change in the Olympic Mountains, WA over the past and future 100 years</p> <p>Andrew G. Fountain (Portland State University), Bryce Glenn, Christina Gray, Brian Menounos</p>	<p><i>Climate Change Adaptation Certification Tool: a method to implement climate-informed planning goals and policies</i></p> <p>Lara J. Hansen (EcoAdapt) and Stacey Justus Nordgren (Foresight Partners Consulting)</p>	
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Poster Session [6:00-8:00, October 9th]

Erin Upton	New perspectives: examining the nexus of water governance and climate change adaptation in global wine regions
Meridith McClure	A regional standard to guide tree seed source choices for a changing climate
Julie Ann Koehlinger	Establishing an Ocean Acidification Sentinel Site on the Olympic Coast of Washington State
Rachel Jacobson	Growing into Principled Adaptation Professionals and Transforming our Field of Practice: An Inside Look at ASAP's Adaptation Careers Program
Fiona Lo	Forecasting the Allergenic Pollen Season in the Pacific Northwest
Andrew L. Rice	Historic measurements of greenhouse gas mole fraction and isotopic composition from Cape Meares, Oregon (1978-1998) in samples from the OHSU-PSU Air Archive
Kristina A. Dahl	Twenty-first-century century projections of extreme heat frequency and severity in the Northwest
Vicky Salazar	Decision Integration for Strong Communities (DISC) Sustainability Dashboard
Martin Cenek	The data-science driven model construction of coupled socio-ecological system dynamics: development of the decision support tools to study the salmon and caribou subsistence harvest in Alaska.
Joshua Rosenau	Social and Societal Dimensions of Climate Change
Jason M. Vogel	Community-based Adaptation in the United States
J. Michael Hudson	Overview of climate science delivery and integration across programs in the U.S. Fish and Wildlife Service – Region 9
Christopher Still	Leaf temperatures: feedbacks and dynamics across a range of forest ecosystems
Sebastian Busby	High-Severity and Rapidly Repeated Wildfires Alter Forest Recovery in the Central Cascade Range
Robert L. Emmet	Developing an occupancy-based monitoring framework for wolverines in the Cascades
Rose Graves	Potential greenhouse gas reductions from Natural Climate Solutions in Oregon
Tamara Wood	Simulation of deep ventilation and ecological effects in Crater Lake, OR, 1951-2099
Drew S. Lyons	Satellite based vegetation optical depth data detects plant water status and its sensitivity to supply and atmospheric drivers of drought
Katherine B. Swensen	Moist Mixed-Conifer Seedling Hydraulic Performance Following Short-Interval Wildfire
Tim J. Sheehan	Combining Vegetation and Land Use Projections to Assess Climate-driven Environmental and Economic Threats

Sue Wolf	Bringing Order from Chaos: Finding the Heart of Ecosystem-based Planning and Management
Peter A. Bieniek	Evaluating fire weather indices to support fire management decisions in Alaska
Dominique Bachelet	Did we know all this 30 years ago?
Daniel Elefant	Climate Impacts to Groundwater in the Lower Snohomish and Stillaguamish Rivers
Jennifer L. Vanderhoof	There's a Beaver for That: Nature's Best Engineers are Allies in Climate Change Adaptation and Mitigation
Kendra E. Kaiser	Mechanisms for integrating water resource management into biophysical models
Oriana S. Chegwidan	Sensitivities of extreme hydrologic events to climate change in the Pacific Northwest
Jericho A. Bankston	Urban flood management through collaborative planning and design
Gabrielle Roesch-McNally	Building Resilient Agroecosystems in the NW and Beyond: What it will take?
Joseph Zagrodnik	Attribution of extreme weather events to climate change in agricultural regions of Washington State
Jennifer L. Morse	Nitrous oxide emissions as a function of nitrogen fertilizer application in tall fescue in the southern Willamette Valley in Oregon
Rayna E. Koberstein	Arbuscular mycorrhizal fungi associations across multiple salt marsh plant species in mitigating the impacts of sea-level rise
Kathryn N. Braddock	Assessing the state of climate adaptation in the marine and coastal United States
Megan M. Russell	Investigating the effects of elevated seawater temperature and ocean acidification on Surf Smelt embryo and larvae energy demands
Phyllis J. Eide	Environmental and Climate Change Initiatives in Nursing Education
Casey J. Mace Firebaugh	Climate Change and Mental Health Impacts: A Systematic Review
Margaret A. Kitchell	Health Co-Benefits of Climate Action
Arielle J. Catalano	Spatiotemporal variability of twenty-first-century changes in site-specific snowfall frequency over the Northwest United States
Luke G. Reyes	Record Fall Warmth as an Analogue for Future Conditions in the Pacific Northwest
Ellen Koukel	Characteristics of springtime atmospheric ridging over the Pacific Northwest
Alexander D. Stambor	Stable isotope measurements of precipitation as a tool to understand climate change

James E. Powell	A study of urban-scale CO2 emissions in Portland, OR using high resolution emission inventories and meteorological modeling
Christopher Skypeck	Detecting Changes in Extreme Precipitation Events in the State of Oregon
Graham P. Taylor	Assessing Climate Change Impacts on Precipitation Over Bull Run Watershed
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Ronda Strauch	Exploring the Skagit River Watershed by Modeling and Visualizing Historic and Future Streamflows
Sally J. Maguet	Planning for wildfire smoke events as part of a public health response to climate change in Canada, Oregon and California
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