

Pacific Northwest Climate Science Conference The Governor Hotel Portland, Oregon 5-6 September 2013



Thursday, September 5			
	Speaker	Title (underlined titles have links to videos)	
8:30	Philip Mote, conference chair	Welcome	
8:50	Richard Spinrad Regional climate science and Pasteur's quadrant		
9:20	Chad Wilsey Climate impacts on wildlife populations		
9:40	Guillaume Mauger From climate scenarios to impacts: Key considerations for managers		
10	break		
10:25	US Senator Jeff Merkley	<u>Keynote</u>	
11:00	Kristen Sheeran Closing the gap between climate science and climate economics		
11:20	Connie Roser-Renouf	Communicating with global warming's six Americas: strategies for building public understanding and issue engagement	
11:45	Amy Snover	Successful adaptation to climate change in the coastal context: Insights from scientists and practitioners	
12:00	Conference lunch Keynote speaker: Yoram Bauman, Standup Economist		

Concurrent session 1 (Heritage Ballroom)

	Speaker	Title	
1:10	Patricia Tillmann	Advancing Climate-Smart Landscape Conservation in the North Pacific LCC Region	human dimensions
1:30	Elina Mu	Regional Agricultural Pathways and Scenarios (RAPS) and Climate Impact Assessment for the Pacific Northwest Agricultural Systems	
1:50	Joanna Parkman	Weed Management from Present to Future: Assessing Wheat Producer and Crop Advisor Decision-making Strategies	
2:10	Trevor Murdock	Comparing a real 200-year flooding event to projected precipitation extremes	
2:30	Dan Isaak	Progress on the NorWeST regional stream temperature climate scenarios for the Northwest U.S.	fish, wildlife, forests
2:50	Lindsey Thurman	In hot water: developmental plasticity in response to a warming climate in a high elevation amphibian assemblage	
3:10	break		
3:30	Polly Buotte	Understanding the effects of climate on mountain pine beetle outbreaks in whitebark pine	
3:50	Constance Harrington	Winter dormancy requirements for Pacific Northwest tree species: Will it be cold enough in future years?	
4:10	Lisa Crozier	Evaluating uncertainty from different sources for population viability analysis under climate change scenarios – what does management need to know? A case study of threatened Chinook salmon	
4:30	Leslie Bliss- Ketchum, Lori Hennings, Rachel Reagan	synthesis and discussion of session 1	

break; move furniture for poster session

Poster session¹ with refreshments 5-7pm

¹ see listing of posters at the end of this document

Concurrent session 2: hydrology, climate, and novel approaches to data (Billiard Room)

	Speaker	Title
1:10	Connie Woodhouse	Klamath River Streamflow Reconstructed from Tree Rings: Extracting Meaningful Information from Imperfect Data
1:30	David Noone	The secrets of the trees: A history of water availability in the Pacific Northwest to enhance management of risk associated with uncertain future precipitation patterns
1:50	Eric Sproles	Vulnerability of Oregon hydrologic landscapes and streamflow to climate change
2:10	Cristina Mateus	Hydrologic sensitivity to changes in climate and land use in the Santiam River Basin, Oregon
2:30	Nick Bond	Positive Trends in Summer Evapotranspiration in Eastern WA State
2:50	Matt Brunengo	Rain-on-Snow Occurrence Across Elevations in the Washington Cascades: Monte Carlo Simulation of Large Storms Under Recent and Projected Climatic Conditions
3:10	break	
3:30	David Rupp	Superensemble regional-scale climate modeling
3:50	Andrea Allan	Analysis of the present and future winter Pacific-North American teleconnection in the ECHAM5 global and RegCM3 regional climate models
4:10	Erich Seamon	Interdisicplinary Data Management and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCHPNA)
4:30	Ted Weick	Leveraging provincial and private weather monitoring networks to enhance the provincial climate record
4:50	Philip Mote	synthesis and discussion of session 2

Poster session² with refreshments 5-7pm

 $^{^{2}}$ see listing of posters at the end of this document

Friday, September 6

Concurrent session 3: Modeling (Heritage Ballroom)

	Speaker	Title	
8:25	Philip Mote	Toward integrated scenarios of climate, hydrology, and vegetation for the Northwest	Integrated Scenarios of
8:40	Javier Homero Flores Cervantes	Integrated scenarios in the Pacific Northwest: hydrology	Future Environment
9:00	Dominique Bachelet	Simulating vegetation change, carbon cycling and fire over the western US using CMIP5 climate projections	
9:20	Earth System Model to Inform Agricultural earth		Regional earth system modeling
9:35	Nathalie Voisin	Assessment of uncertainties on the impact of climate change on water resources management using an integrated Earth System Model: application over the Columbia River Basin	
9:55	Ruby Leung	Extreme events in dynamically downscaled climate change scenarios for North America	
10:15	Katy Serafin	Impact of projected changes in wave climate on extreme total water levels in the US Pacific Northwest	
10:30	break		
10:50	Heejun Chang	Incorporating stakeholders' perspectives into ecosystem services assessment under climate change and land conversion scenarios in the Lower Willamette Valley	Ecosystem Services: Lower Willamette
11:05	Wes Hoyer	Assessment of water-related ecosystem services in the Tualatin and Yamhill basins under climate and land cover change: A scenario-based approach	Valley
11:25	Tammy Winfield	Evaluation of a Soil and Water Assessment Tool stream temperature model for assessing the impact of climate and land use change on stream habitat conditions in the Lower Willamette Valley	
11:45	Guillaume Mauger	synthesis and discussion of session 3	

Concurrent session 4: Adaptation (Billiard Room)

	Speaker	Title	
8:30	Mary Gwyneth Myer	Interagency and Community Collaboration to incre resiliency in a Changing Climate	ease_
8:50	Lucy Gelderloos	Can cities achieve what Kyoto failed to do? A case Seattle's climate policy	study of
9:10	Harry Nelson	Translating Climate Futures Into Forest Management Guidance: the experience form British Columbia	Principles in Practice
9:30	Amy Snover	Identifying actionable adaptation pathways for aquatic ecosystem management within the Pacific Northwest Region of the USFS	
9:45	Susan Dickerson- Lange	Predicting optimal forest management strategies to maximize snowpack duration across the Pacific Northwest	
10:05	Bart Johnson Spatial and temporal partitioning of wildland-urban interface fire regimes under future climate, development and managment scenarios		
10:25	break		
10:45	Roger Fuller	Green infrastructure solutions: a Salish Sea case stue evaluating the role of wetlands in protecting commincreasing storm impacts	
11:05	Andrea Martin	The Climate Impact - Decision Support Tool (CIM (CIMPACT-DST): A Platform for Integrating Clim Science Information into Everyday Decision Makin	nate
11:25	Kaitlin Lovell	Strategic prioritization of restoration projects in an stream under climate change	<u>urban</u>
11:45	Kirsten Winters	synthesis and discussion of session 4	

12:00-1:15 Lunch - on your own

Closing plenary

	Speaker	Title	
1:15	Kathy Jacobs (keynote)	The US National Climate Assessment: A Foundation for Adaptation	
2:00 Philip Mote		Northwest Climate Assessment Report 2013	
2:20 Kathy Lynn		Northwest Tribal Approaches to Climate Change	
2:40 Dennis McLerran (invited) closing keynote		closing keynote	
3:00-3:15	Conference committee	final wrapup; awards	

Posters

P #	Name	Abstract Title
		Climate Change Adaptation in U.S. Federal Land Management Agencies:
1	Halofsky, Jessica	Progress and Next Steps
		Climate Change Adaptation in the National Parks and Forests of the North
2	Raymond, Crystal	Cascades Region, Washington
		Climate Change Adaptation and Access Management in North Cascades
3	Rochefort, Regina	National Park Complex
4	Diaz, David	Free online decision support for Pacific Northwest forest managers
		An Experimental Approach to Science Delivery: The Big Wood Basin
5	Stevenson, John	Alternative Futures Project Knowledge to Action Network.
		An Experimental Approach to Science Delivery: A Collaborative Modeling
6	Marshall, Allison	Approach in the Big Wood River Basin, Idaho
7	Kay, Jenna	Helping Communities Proactively Adapt to Climate Change Impacts
		Preparing for Climate Variability: The City of Portland and Multnomah
8	Lovell, Kaitlin	County's Climate Change Preparation Strategy
9	Miller, Ian	Generating local sea level rise projections to support community adaptation
10	Klein, Steven	EPA Region 10 Climate Change and TMDL Pilot
		Lessons learned from adaptation planning in five Oregon county health
11	Hamberg, Andrea	departments
		Using Social Science Methods to Better Prepare Outreach and Engagement
		Professionals to Assist Communities with Climate Change Adaptation
12	Kelly, Miriah	Planning
13	Kraucunas, Ian	PRIMA: The Platform for Regional Integrated Modeling and Analysis
	Whitefield,	Animal Agriculture and Climate Change: An Online Course to Educate
14	Elizabeth	Extension Educators
		Characterizing Pineapple Express Storms in British Columbia's Lower
15	Spry, Christina	Mainland Using Meteorological, Streamflow and Stable Isotope Data
		Modeling snowcover sensitivity to global warming across a climatic gradient
16	Cooper, Matthew	in the Oregon Cascades
		The role of glacial melt and areal recession on historical dry season
17	Frans, Chris	streamflow in the Hood River Basin, Oregon
		Stream temperature monitoring program in Portland, Oregon for detecting
18	Law, Jason	long term, city wide trends in water temperature

P #	Name	Abstract Title
		Assessing Shifts in Hydrologic Ecosystem Services Resulting from Climate
19	Psaris, Mike	and Land Use Changes Using the SWAT Model
	Safeeq,	Spatial distribution of long-term hydrologic trends: Implications for regional
20	Mohammad	streamflow sensitivity to climate warming in the Pacific Northwest, USA
		An Intercomparison Study of Climate Change Scenarios for the Canadian
21	Tohver, Ingrid	Columbia River Basin
22	17 T 10	A quick approach to evaluating climate change projections for trends in
22	Vano, Julie	future streamflow
		Which Climate Scenarios Should We Simulate? A Sensitivity Analysis of MC2 DGVM Simulation Results Using 3 Sparsely Sampled CMIP5
23	Kim, John	Projections.
$\frac{23}{24}$	Eskelson, Bianca	Wildfire effects on forest biomass in the Pacific coast states
	Liskerson, Dianea	Charred Forests Increase Snowmelt: Effects of Burned Woody Debris and
25	Gleason, Kelly	Incoming Solar Radiation on Snow Ablation
		Toward a Regional Droughty Soils Map: Using Legacy Forest Service Soil
26	Ringo, Chris	Resource Inventory Data to Augment NRCS SSURGO Data
		A continental scale approach to understanding climate sensitivity in
27	Restaino, Christina	Douglas-fir
		Incorporating grazing into an eco-hydrologic model: Simulating coupled
28	Reyes, Julian	human and natural systems in grasslands
29	Peterman, Wendy	The importance of soils in vegetation modeling
		Climate change and agricultural intensification impacts on Steelhead
	McMullen, Laura	(Oncorhynchus mykiss) populations in the Umatilla River as evaluated with
30	E.	a species-specific ecosystem model Ecosystem Diagnosis & Treatment
31	Narum, Shawn	Can fish adapt to warmer climates?
20	C 1 1 D 11	Location matters: geographical variation in predicted effects of climate
32	Schwalm, Donelle	change on site occupancy of American pikas (Ochotona princeps)
33	Crook, Geoff	Climate Change Vulnerability Assessment and Adaptation Options for Transportation Infrastructure
- 33	Clook, Geoil	The Economic Value of Water in the Tualatin River Watershed: Potential
34	Hamlin, Samantha	Effects of Land Use Change and Climate Change on Water Provisioning
		A socio-ecological approach to landscape legacy and change in the Rogue
35	Schoenen, Jodi	River Basin, Oregon
36	Yorgey, Georgine	Incorporating Stakeholder Engagement In Regional Earth System Modeling
		Coastal Ecosystem Response to Climate Change: Assessing sea-level rise and
37	Buffington, Kevin	storm impacts to Pacific Coast salt marshes
		Analysis of Carbon Cycling at Different Agricultural Sites in the Pacific
38	Chi, Jinshu	Northwest
20		Regional Approaches to Climate Change for Inland Pacific Northwest Cereal
39	Eigenbrode, S. D.	Production Systems The Cornel Leef Readle and its Parasitaid and day Projected Climates in the
40	Eigenbrode, Sanford	The Cereal Leaf Beetle and its Parasitoid under Projected Climates in the Pacific Northwest
40	Samoru	Climatic Controls of Earthworm Activity / Aestivation in Agroclimatic Zones
41	Hewett, Heath	of the Inland Pacific Northwest
11	Tiewett, Heath	Climatic and Biophysical Constraints on Earthworm Density Across
42	Walsh, Chelsea	Agroclimatic Zones
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P #	Name	Abstract Title
		The Impacts of Wind Speed Trends and Long-term Variability in Relation to
43	Cross, Benjamin	Hydroelectric Reservoir Inflows on Wind Power in the Pacific Northwest
		Quantifying uncertainty in regional climate model projections over British
44	Curry, Charles	Columbia watersheds
		Assessing Climate Change in the Columbia River Basin: A Comparison of
45	Sharp, Darrin	NARCCAP and CMIP5
		Hydro-climatic projections for the Western U.S.: online interface, results, and
46	Mauger, Guillaume	**
		Correlations between inter-annual climate variability and nitrogen wet
47	Nergui, Tsengel	deposition in the United States
		Early results from an effort to downscale a global dissolved inorganic
		nitrogen model to achieve a regional assessment of nitrogen dynamics in the
48	Miller, Cody	Columbia River Basin
49	Salathé, Eric	Projecting Future Hydrologic Extremes
	Flores Cervantes,	The impacts of GCM downscaling on hydrologic projections for the Pacific
_50	Javier Homero	Northwest
F-1)	30 Arc-Second Historical and Forecast Monthly Climate Data: a Case Study
_ 51	Mosier, Thomas	for Oregon
	n d C	Changing Waveforms of Winter Precipation in Western Washington and
52	Bothun, Greg Bachelet,	Oregon
EO	· · · · · · · · · · · · · · · · · · ·	Durani din a dimata ahan sa musi ati ang and imma ata thuan ah datahasin ang
53	Dominique Priore	Providing climate change projections and impacts through databasin.org
54	Buma, Brian	A new watershed-scale research landscape: Berners Bay, Juneau A comparison of approaches to producing downscaled future vapor pressure
55	Dranak Paymand	when it is not provided by the General Circulation Model
- 55	Drapek, Raymond	The Use of Innovative Emissions Accounting Frameworks to Provide
		Multiple Perspectives on Oregon's Contribution to Global Greenhouse Gas
56	Drumheller, Bill	Emissions
	Diuminener, bill	Researcher Teacher Partnerships: Improving climate literacy and the
57	O'Connell, Kari	teaching of science in middle and high school classrooms
	Connen, Kan	Demonstration of Kepler workflows for efficient management of eco-
58	Mullis, Tristan	hydrologic model simulations over the Pacific Northwest region
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