

WALPA & OLA JOINT CONFERENCE

COLLABORATIVE LAKE MANAGEMENT

WASHINGTON STATE LAKE
PROTECTION ASSOCIATION



SESSION SCHEDULE

OCT. 16-18
2013

Vancouver Hilton
Vancouver, WA

OREGON LAKES ASSOCIATION

PRE-CONFERENCE WORKSHOPS - *Wednesday, October 16*

AQUATIC WEED SCHOOL - Discovery Room C



Oregon
Department
of Agriculture

SPONSORED BY:



Portland State
UNIVERSITY



8:30 – 9:15 *Physical and chemical characteristics of aquatic ecosystems.* **Angela Strecker**, Portland State University

9:15 – 10:00 *Biology and ecology of aquatic weeds.* **Mark Sytsma**, Portland State University

10:00 – 10:15 **BREAK**

10:15 – 11:00 *Rooted vegetation removal improves salmon habitat conditions downstream of reservoirs.* **Ian Courter**, Cramer Fish Sciences, Mount Hood Environmental and **Joe Merz**, Cramer Fish Sciences

11:00 – 11:30 *State Permitting – Washington.* **Nathan Lubliner**, Washington Department of Ecology

11:30 – noon *State Permitting – Oregon.* **Beth Moore**, Oregon Department of Environmental Quality

Noon – 1:00 Lunch (on your own)

1:00 – 1:45 *Identification of common and high priority aquatic weeds.* **Jennifer Parsons**, Washington Department of Ecology

1:45 – 2:15 *Management of aquatic weeds with biocontrol.* **Eric Coombs**, Oregon Department of Agriculture

2:15 – 2:45 **BREAK & PLANT ID LAB**

2:45 – 3:15 *Physical control options.* **Vanessa Morgan**, Portland State University

3:15 – 4:00 *Chemical control options.* **Terry McNabb**, Aquatechnex

4:00 – 4:30 *Control of weeds in flowing systems.* **Thomas Woolf**, Idaho State Department of Agriculture

4:30 – 5:00 **Wrap up and program evaluation**

LIMNOLOGY 101 - Discovery Ballroom DE

SPONSORED BY:



12:00 - 12:15 *Introduction.* **Chris Knutson**, King County Department of Natural Resources and Parks

12:15 - 1:15 *Water Chemistry.* **Jim Gawel**, Associate Professor University of Washington Tacoma

1:15 - 2:15 *Invasive Species.* **Tom Woolf**, Idaho State Department of Agriculture

2:15 - 2:45 **BREAK**

2:45 – 4:00 *Algae.* **Karl Bruun**, Nostoca Algae Laboratory and **Siana Wong**, Western Washington University

4:00 – 5:00 *Monitoring Techniques.* **Chris Knutson**, King County Department of Natural Resources and Parks & **Randy Hadland**, YSI

POSTERS - *On display throughout conference*

- *Putative Novel Cyanophage Genomes Identified From a Microcystis Bloom Metagenome.* **Connor Driscoll**, Oregon State University
- *A mesocosm study of climate change and eutrophication effects on zooplankton communities in a mercury-contaminated reservoir.* **Meredith Jordan**, Portland State University
- *The Shoreline Management Tool, an ArcMap tool for analyzing water depth, inundated area, volume, and selected habitats, with an example for the lower Wood River Valley, Oregon.* **Dan Snyder**, USGS
- *A Microscopic Overview Of Commonly Encountered Western Washington Cyanobacteria Genera Sharing Similar Morphological Characteristics.* **Karl Bruun**, Nostoca Algae Laboratory
- *Phosphorus Loading and Trophic State History of Waughop Lake: the Most Toxic Lake in Western Washington.* **Jeffrey Tepper**, University of Puget Sound
- *Can Non-Native Species Mitigate Impacts of Urbanization on Washington Lake Food Webs?* **Laura Twardochleb**, University of Washington
- *The response of alpine plankton communities in lakes of different fish stocking histories to atmospheric nitrogen deposition simulations in Mount Rainier National Park.* **Jeffrey Brittain**, Portland State University
- *Oregon Lake Watch, a new volunteer monitoring program for the detection of invasive species and assessment of water quality.* **Angela Strecker, Vanessa Morgan and Rich Miller**, Portland State University
- *Does hypolimnetic oxygenation influence the diets of trout and golden shiner in Twin Lakes, WA?* **Megan Skinner**, Washington State University
- *Trophic status of two shallow urban lakes in Pierce County, Washington.* **Alexandra Ehle, Lynnette Hagen, and Jim Gawel**, University of Washington Tacoma
- *Show Me the Money: Establishing Lake Management Districts When General Funds Disappear.* **Janie Civile**, Water Resources, Thurston County

Thursday – October 17th

8:00 - Registration

Raffle & Silent Auction Open

8:30 - Plenary Session

Discovery Ballroom AB

- *Messages from the Mountain: Reflections on 33 years of ecosystem responses following the 1980 eruption of Mount St. Helens.* **Charlie Crisafulli**, USFS

10:30 - Sessions 1A & 1B

SESSION 1A - HABS Technical - Discovery C

- **Joan Hardy**, Session Chair
- *Comparing Risks of Applying Copper Algaecides to the No Action Alternative.* **West Bishop**, SePro Corporation
- *Genetics and toxigenicity of Anabaena-dominated blooms in the Pacific Northwest.* **Theo Dreher**, Oregon State University
- *Cyanobacteria biomass dynamics within Oswego Lake, Oregon, 2000 through 2012.* **Lillian Gehres**, Portland State University
- *Application of high throughput molecular diagnostics to better inform cyanobacterial harmful algal bloom monitoring strategies.* **Timothy Otten**, Oregon State University
- *Microcystin in Puget Sound Mussels.* **Ellen Preece**, Washington State University

SESSION 1B - Aquatic Ecology - Discovery DE

- **Angela Strecker**, Session Chair
- *Biotic and Abiotic Factors Influencing the Survival of Juvenile Salmonids Migrating Through the Lower Columbia River Hydrosystem.* **Tim Elder**, Portland State University
- *Patterns in bacterial community responses to eutrophication in Puget Sound Lakes.* **KathiJo Jankowski**, University of Washington
- *Larval fish mortality in lakes.* **Doug Markel**, Oregon State University
- *Influences of landscape connectivity and environmental drivers on zooplankton community composition in lakes of the Columbia Plateau, Washington.* **Angela Strecker**, Portland State University

12:00 - Lunch

Discovery Ballroom AB

- *Klamath Basin and Water Rights.* **Dennis Lynch**
- **Awards & Elections**

1:30 - Sessions 2A & 2B

SESSION 2A - HABS Programmatic - Discovery C

- **David Farrer**, Session Chair
- *Oregon Harmful Algae Blooms Surveillance Program Guidelines and Illness Trends.* **David Farrer**, Oregon

Health Authority

- *Washington's Freshwater Algae Program.* **Lizabeth Seebacher**, Washington State Department of Ecology
- *Monitoring Results of Four Cyanotoxins in King, Pierce, and Snohomish Counties, Washington.* **Joan Hardy**, Washington Department of Health
- *The 2013 Harmful Algae Bloom Season; Bloom Trends; Outreach Efforts and Future Activities.* **Rebecca Hillwig**, Oregon Health Authority
- *Rapid Indicators for Assessing the Potential for Toxic Algal Blooms.* **Gene Williams**, Snohomish County Surface Water Management

SESSION 2B - Urban Lakes - Discovery DE

- **Ben Johnson**, Session Chair
- *Increased development in the last 17 years has not raised phosphorus in Lake Sammamish as predicted: Why?* **Debra Bouchard**, King County & **Gene Welch**, Tetra Tech, Inc.
- *The Long-Term Impact of Metal Smelting Operations on Arsenic Availability in Urban Lakes of the South-Central Puget Sound Region.* **Jim Gawel**, University of Washington Tacoma
- *Identification of stressors to stream benthic communities that result from stormwater impacts originating from drainage network ponds and direct input.* **Robert Plotnikoff**, Tetra Tech, Inc.
- *Identifying dominant phosphorus sources in the Lake Loma watershed.* **Mindy Roberts**, WA Dept. of Ecology

3:00 Break

3:30 Sessions 3A & 3B

SESSION 3A - Aquatic Invasives - Discovery C

- **Mark Sytsma**, Session Chair
- *Building Oregon's first boat wash station to prevent the spread of AIS.* **Glenn Dolphin**, Oregon State Marine Board
- *Developing an understanding of the distribution vectors of invasive species via qualitative surveys of boaters at Tenmile Lake.* **Sam Cimino**, Portland State University
- *State of Oregon Aquatic Invasive Species Prevention Program.* **Glenn Dolphin**, Oregon State Marine Board
- *Invasive mussel monitoring in the Columbia River Basin - past, present, and future.* **Stephen Bollens and Gretchen Rollwagen-Bollens**, WSU Vancouver and, **Tim Counihan and Jill Hardiman**, USGS.
- *Holding The Line Against Aquatic Invasive Species.* **Thomas Woolf**, Idaho Department of Agriculture

SESSION 3B - Vancouver Lake - Discovery DE

- **Rob Zisette**, Session Chair
- *Vancouver Lake Watershed Partnership: How agencies, citizens, neighborhoods, and organizations are working to improve a community treasure.* **Eileen Stone**, PC Trask & Associates
- *Assessing the role of zooplankton grazing on the development*

and decline of harmful cyanobacteria blooms in a tidally-influenced floodplain lake (Vancouver Lake, WA, USA).

Gretchen Rollwagen-Bollens, Washington State University Vancouver

- *The influence of environmental variables on cyanobacteria blooms in Vancouver Lake, Washington.* **Tammy Lee**, Washington State University
- *A water and nutrient budget for Vancouver Lake, Vancouver, WA.* **Rich Sheibley**, USGS

5:00 – 7:00 Social Hour

Poster Session & Raffle

Sponsored by:



Friday – October 18th

8:00 Registration

Silent Auction Open

8:30 Sessions 4A & 4B

SESSION 4A - Volunteer Monitoring - Discovery C

- **Marisa Burghdoff**, Session Chair
- *Mason County's Most Precious Resource: "IT'S ONLY WATER".* **Steve Booth**, Friends of Lake Nahwatzel
- *IdaH2O Volunteer Water Monitoring Program: A Case Study.* **James Ekins**, University of Idaho Extension Water Quality
- *Innovations in Citizen-Based Aquatic Plant Monitoring and Collaborations.* **Matt Johnson**, Contour Innovations, LLC
- *Volunteer Lake Monitoring: The Pierce Conservation District Approach.* **Isabel Ragland**, Pierce Conservation District

SESSION 4B - Nutrient Management - Discovery DE

- **Andy Schaedel**, Session Chair
- *A Slow, but Dramatic Recovery of Lake Spokane following Waste Water Phosphorus Reduction.* **Shannon Brattebo**, Tetra Tech, Inc.
- *Assessing Water Treatment Residuals as a Filtration Media for Phosphorus Removal at Wapato Lake - Tacoma, WA.* **Brian Hite**, Center for Urban Waters at UW Tacoma
- *Three Years of Operational Experience with Phoslock Phosphorus Sequestering Technology.* **Terry McNabb**, Aquatechnex, LLC
- *A phosphorus loading sensitivity analysis for Long (Spokane) Lake using CE-QUAL-W2.* **Michael Brett**, University of Washington

10:00 Break

Auction Items Close

10:30 Sessions 5A & 5B

SESSION 5A - Student Research - Discovery C

- **Frank Wilhelm**, Session Chair
- *Elevated pH as a disinfection tool against three invasive mollusks of concern.* **Amber Barenberg**, University of Idaho Fish and Wildlife Sciences Co-op Unit
- *Influence of lake hypolimnetic oxygenation on a brook and rainbow trout fishery.* **Benjamin Cross**, Washington State University
- *Use of high resolution sampling to identify candidate sub-catchments for potential remediation to improve water quality in receiving water bodies.* **Hallie Rajkovich**, University of Idaho
- *Sedimentary History of Loon Lake, Oregon.* **Kris Richardson**, Oregon State University
- *The influence of hypolimnetic oxygenation on the diets of rainbow trout (*Oncorhynchus mykiss*), brook trout (*Salvelinus fontinalis*) and golden shiner (*Notemigonus crysoleucas*) in Twin Lakes, WA.* **Megan Skinner**, Washington State University

SESSION 5B - Frontiers in Limnology - Discovery DE (Final Technical Session)

- **Josh Wozniak**, Session Chair
- *Influence of hypolimnetic oxygenation on the dietary contribution of methane-oxidizing bacteria in lake zoobenthos.* **Andrew Child**, Washington State University
- *Novel flow-through herbicide exposure experiment helps refine weed treatment program in the upper Columbia Basin.* **Lauren Courter**, Mount Hood Environmental
- *Water Level Management Affects Methane Bubble Emissions from Reservoirs of the Upper Klamath River, Oregon.* **Bridget Deemer**, Washington State University
- *Impacts of Dam Removal.* **Laura Schroeder**, Schroeder Law Offices, P.C.
- *Which Blue Lake?* **Richard Lycan**, Portland State University

FIELD TRIP (Meet at Vancouver Lake Sailing Club)

- 1:30 Welcome: *Sailing Club History and Vancouver Lake Partnership* **Gary Kokstis**
- 1:45 *Ecology of Vancouver Lake.* **Dr. Gretchen Rollwagen-Bollens**, Washington State University,
- 2:15 *Plankton Sampling from docks*
- 2:45 *Lakeside talk: Cyanobacteria sampling.* **Bryan Dedoncker & Christine Webster**, Clark Co. Public Health
- 3:00 *Lakeside talk: Upland trails, acquiring land, and protection of sensitive areas.* **Bill Dygert**
- 3:15 *Lakeside talk: Water Quality Monitoring and the Vancouver Lake Partnership Technical Committee.* **Ron Wierenga**, Clark County Environmental Services
- 3:30 *Microscope work and plankton identification.* **Dr. Gretchen Rollwagen-Bollens**

Special thanks to our sponsors

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Additional support for the conference provided by Washington State Department of Ecology

WALPA / OLA JOINT CONFERENCE SCHEDULE 2013	WED	THURS					FRI																			
	8 - 8:30am REGISTRATION	8:30am - 5pm AQUATIC WEED SCHOOL	12 - 5pm LIMNOLOGY 101	8am Registration, Raffle & Auction Open	8:30 - 10am Plenary Session	10 - 10:30am Break	10:30 - Noon Session 1	1A - HABS Technical	1B - Aquatic Ecology	Noon - 1:30pm Lunch Speaker, Elections & Awards	1:30 - 3pm Session 2	2A - HABS Programmatic	2B - Urban Lakes	3 - 3:30pm Break	3:30 - 5pm Session 3	3A - Aquatic Invasives	3B - Vancouver Lake	5:30 - 7pm Social Hour Poster Session and Raffle	8am Registration, Auction Open	8:30 - 10am Session 4	4A - Volunteer Monitoring	4B - Nutrient Management	10 - 10:30am Break	10:30 - Noon Session 5	5A - Student Research	5B - Frontiers in Limnology

IMPORTANT CONFERENCE REMINDERS

Photo Contest: Remember to vote for the best photo

Secchi Disk Award: Presented by WALPA

Best Student Posters: Presented by OLA & WALPA

Register for Applicator Recertification credits

Oct 16 Aquatic Weed School AM and PM sessions with 3 credits each.

Oct 17 Aquatic Invasive with 1 credit.
Total max credits of 7 credits.