



# LAKE WISE

*... a voice for quiet waters*

NEWSLETTER FROM OREGON LAKES ASSOCIATION

DECEMBER 2021

Connie Bozarth, Newsletter Manager

## IN THIS ISSUE

### 2021 OLA Conference Session Report

- ☐ CyanoHAB Monitoring and Detection
- ☐ Lake Physiology and Management
- ☐ Our Beautiful Lakes: Past and Present

### OLA Board of Director changes

- ☐ Welcome to new directors  
Tammy Wood, Randy Jones & Lori Campbell
- ☐ Thanks to departing directors  
Steve Wille, Rich Miller & Joe Eilers

### CyanoHABs Corner

- ☐ New update of classic WHO book
- ☐ 2022 CyanoHABs stakeholder meeting

### Dick Lycan: a friend of lakes lost

### Oregon Lakes in the News

- ☐ Microplastics in OR waterways
- ☐ Heavy fall rains bring little drought relief
- ☐ Enjoy Cascade Lakes Scenic Byway
- ☐ Federal Money to Klamath Basin

## Fall 2021 OLA Conference Sessions



**Second successful online conference! Unable to attend?**  
**Recordings of the 3 sessions are available at the links provided in the session summaries below.**

Moving forward, a decision will be made in the coming months whether the annual conference in 2022 will be live (if pandemic permits), virtual, or a hybrid format. Contact a board member to express your thoughts and preference.

At the 10<sup>th</sup> November General Business Meeting, OLA By-laws modifications were presented by the Board. During the following 4 weeks, these were ratified by members' votes.

Find the new By-laws [here](#).

### ***MAKE A 2020 DONATION TO SCHOLARSHIP FUND***

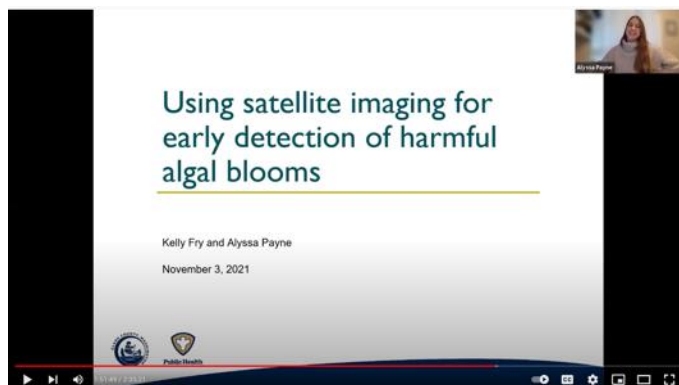
*Encourage participation by the new generation  
[Donate today!](#)*

*[See recent scholarship recipients here](#)*

## 2021 OLA Conference Session Reports

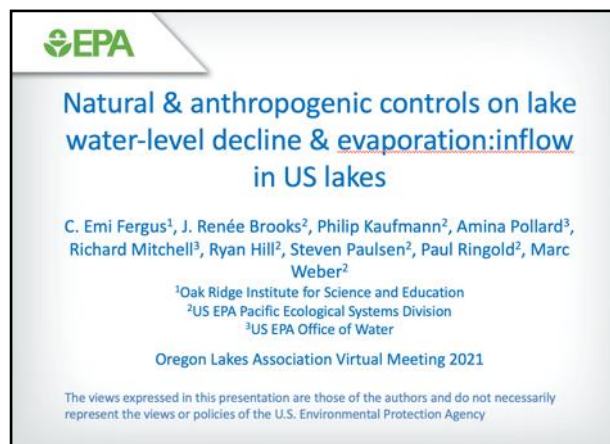
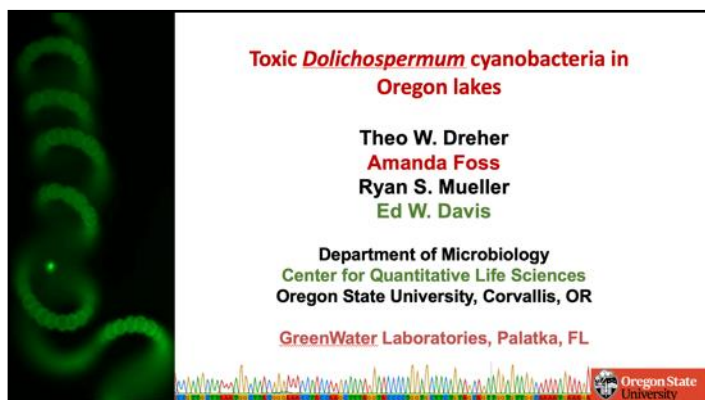
### **I. CyanoHAB monitoring and detection, chaired by Dan Sobota**

The 2021 Oregon Lakes Association Online Seminar Series kicked off on November 3<sup>rd</sup> with a session on Cyanobacteria Harmful Algal Blooms (CyanoHABs) Monitoring and Detection. Consisting of six presentations, topics included modeling cyanotoxin fate and transport, treatment options for cyanobacterial control, and use of satellite imagery to detect, monitor, and analyze cyanobacteria in lakes and reservoirs. Theo Dreher and Aaron Borisenko (Oregon DEQ) also provided updates on the status of funding for CyanoHABs monitoring and management in Oregon, which includes recent additions to Oregon DEQ water quality monitoring staff and purchases of new ELISA and nutrient analyzers. Presentations were viewed by 53 participants from across the United States. A recording of the session is available [here](#).



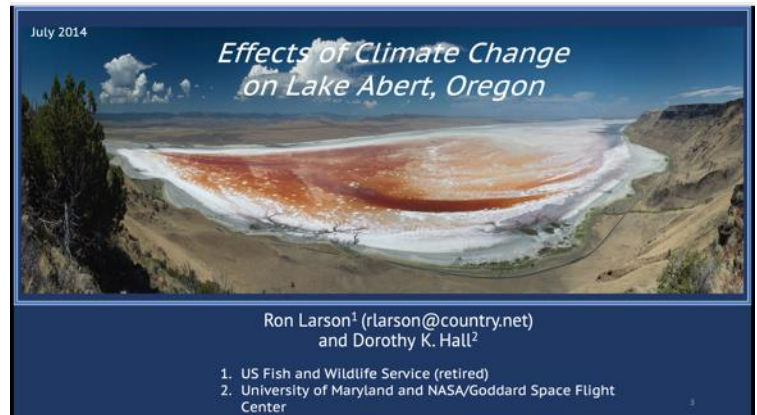
### **II. Lake physiology and management, chaired by Desiree Tullos**

The second of the 2021 Oregon Lakes Association Online Seminar Series, as well as the annual OLA business meeting, was held on November 10<sup>th</sup>. The business meeting covered the treasurer's report, some changes to OLA by-laws, and the transitioning of board members (see article below). Presentations followed the business meeting, covering a range of topics that included: description of the genomes of *Dolichospermum* across Oregon lakes; hydrologic controls on lake levels across the US; mixing for control of HABs; best practices for water quality modeling in lakes using the widely used CE-QUAL-W2 model developed at Portland State University; modeling ways for abating CyanoHABs that occur in Ross Island Lagoon and affect the Willamette River; and technologies and strategies for preventing the spread of invasive species in lakes. Presentations were viewed by 48 participants. A recording of the session is available [here](#).



### **III. Our beautiful lakes: past and present, chaired by Ron Larson**

The third and last of the 2021 Oregon Lakes Association Online Seminar Series was held on December 1<sup>st</sup> and consisted of five presentations covering a diversity of topics. The first presentation was by Jamila Baig, PhD candidate, University of Oregon, who was the 2021 OLA Scholarship recipient. Her presentation was about her effort to reconstruct changes in temperature, vegetation, fire history, and lake productivity over many thousands of years at Gold Lake in the Willamette National Forest based on sediment cores. Next was Casie Smith, USGS, Bend, and her topic was on efforts to understand the causes and mitigation of the high turbidity that limits aquatic plant growth in Malheur Lake. The third presentation was by Ron Larson, USFWS retired. His presentation was on the effects of climate change on Lake Abert, an ecologically-important, salt lake located in southcentral Oregon. Dorothy Hall, with the Earth System Science Interdisciplinary Center/University of Maryland and Cryospheric Sciences Laboratory, NASA/Goddard Space Flight Center was the next presenter. Her presentation was on the initial results of a study of the effects of climate change on Great Basin playa lakes in Oregon using mostly satellite data. The final presentation was by Judy Sims and was titled “We just bought a lake. Now what?” Her presentation was about a small reservoir they recently purchased and the questions and concerns she had about how to manage it so it would be healthy. During the question session that followed, she got numerous offers from OLA members to assist her. Presentations were viewed by 48 participants from across the United States. A recording of the session is available [here](#).



**CD<sup>3</sup>**

**CLEAN  
DRAIN  
DRY  
DISPOSE**

**CD<sup>3</sup> Systems**  
www.cd3systems.com  
612-467-9441

**CD<sup>3</sup> SYSTEMS FACILITATE A  
70% DECREASE  
IN AIS VIOLATIONS**

StopAIS@cd3systems.com

Find us on:  
**GSA Advantage!**

**\$1 SPENT IN  
AIS  
PREVENTION** = **\$100 IN  
ECONOMIC  
BENEFIT**



## Changes to the OLA Board of Directors

### *Welcome to New Directors!*

**Tammy Wood** Tammy is an emeritus hydrologist at the US Geological Survey, since retiring in 2020. Over the course of her 28-year career, Tammy had the good fortune to study lakes in iconic Oregon landscapes, from the High Desert to the High Cascades. She worked on many different kinds of problems, including nutrient-driven eutrophication and hydrodynamic modeling (Upper Klamath Lake), climate change effects on physical limnology (Crater Lake), and sediment suspension and turbidity (Malheur Lake). As an OLA board member, Tammy is interested in supporting OLA's advocacy for the closed-basin lakes in south-central Oregon, which captured her interest during long drives between the Willamette Valley and the Malheur National Wildlife Refuge. She also is interested in determining how OLA can facilitate a successor to Citizen Lake Watch. She believes that citizen science has value as an educational tool and as a means to connect citizens to the landscapes they inhabit and recreate in.



**Randy Jones** Randy is an Oregon-grown geographer who has seen water and natural resources management as the center of his career in the state. “Afflicted” at an early age by rivers and lakes, “I found myself fortunate to help develop the Atlas of Oregon Lakes, then use the Atlas data to complete a Master’s thesis at Portland State University.” From wetland science to lake-watershed investigations, to large-ranch habitat and water master planning, and smart-growth new-urbanism community design and construction, “these many years I always held water and water resources out in front of me.”



Randy currently represents Oregon DEQ on the Eastern Oregon *Regional Solutions* team, a collaborative governance model and arm of the Governor’s office. He is a Board of Trustees member for Oregon Parks Forever and is chair of the BLM John Day/Snake River Resource Advisory Council, and has been an adjunct faculty member at Eastern Oregon University. Randy brings 34 years of Oregon experience in water resources science and management to the OLA Board. He resides in Bend, close to some of his favorite lakes.

“I am excited to serve OLA, its members and mission, and am interested in a focus on citizen-science and lake education because understanding and knowledge can lead to heightened appreciation, and appreciation of Oregon lakes can lead to proper valuation of the resource.”

**Lori Campbell** Lori has worked in Central Oregon for the Environmental Services Department of Portland General Electric Company since 2005. She has worked in environmental resources for over twenty-five years and has an affinity for lakes and rivers. On the OLA board she has an interest in advocating for protecting lakes in light of increasing pressures from climate change and is also interested in supporting prevention and monitoring of AIS in Oregon. Her play time interests include horses, hiking and music.



---

*And thanks to outgoing Directors*

**Steve Wille** Past President 2013-14, contributed enormously in OLA fundraising; expertise included ephemeral lakes and microinvertebrates while on the Board.



**Rich Miller** Contributed expertise on lake monitoring, LakeWatch citizen involvement activities, and served as OLA webmaster.



**Joe Eilers** Contributed expertise on dryland lakes, especially as an advocate for Lake Abert.



**Thank you!**

---



## Harmful Algae Blooms (HABs) Corner

Contributed by Theo Dreher, President, OLA, Professor Emeritus  
of Microbiology, Oregon State University

### **New update of classic book on toxic cyanobacteria from World Health Organization**

Chorus, I. and Welker, M., 2021. *Toxic cyanobacteria in water: a guide to their public health consequences, monitoring and management*. CRC Press, WHO. eBook ISBN 9781003081449

Open access, download at the following website:

<https://www.taylorfrancis.com/books/oa-edit/10.1201/9781003081449/toxic-cyanobacteria-water-ingrid-chorus-martin-welker>

### **2022 Oregon CyanoHABs Stakeholder Meeting**

We expect to once again host the annual Oregon CyanoHABs Stakeholder Meeting with OHA, DEQ and the Seattle office of US-EPA. The meeting will be during February or March (the date is not yet set), and it has not been decided whether to hold a meeting on the OSU campus as in the past or conduct it remotely via Zoom like last year. If you have an opinion on these, email [theo.dreher@oregonstate.edu](mailto:theo.dreher@oregonstate.edu).

~~~~~

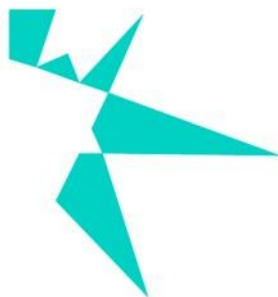
## BETTER LAKE THAN EVER

Active lake circulation is one of the most cost-effective strategies to improve water quality in your lakes and source water reservoirs.

- Mitigate cyanobacteria
- Minimize taste and odor issues
- Reduce iron and manganese
- Monitor water quality

**IXOM**  
WATERCARE

SolarBee® AerationPlus®



**LEARN MORE!**

**CONTACT US TODAY: 866-437-8076 [ixomwatercare.com/lakes](https://ixomwatercare.com/lakes)**

## Dick Lycan: a friend of lakes lost

Dick Lycan, long-time OLA member and Professor of Geography at Portland State University, died suddenly and unexpectedly on 20<sup>th</sup> December, days after his 88<sup>th</sup> birthday. Dick was Department Chair in the 1970's and was influential in producing the [Atlas of Oregon Lakes](#), both the initial printed book and then again when the book was brought on-line in the 21st century. The Atlas remains the definitive book on lakes in Oregon. Dick's involvement brought mapping skills from geography together with biology at PSU to drive the Atlas concept. As a mapper extraordinaire, he led efforts to integrate lake bathymetry data into the state's GIS systems.

Dick worked on the Atlas with two current OLA board members. He was a thesis advisor to Randy Jones, whose MS work contributed to the Atlas. Andy Schaedel was a co-author, and Andy's recollection follows:

"I met Dick very shortly after Oregon received funding for doing Lake Classification work. Section 314 of the Clean Water Act required states to submit to the US Environmental Protection Agency an "identification and classification according to eutrophic condition of all publicly owned lakes in such state." Oregon was the last state to receive federal funding to do such work as the grant was awarded a day prior to President Reagan cutting the funding for the program. As such, we had greater liberty for the production of our final product. The grant was awarded to Portland State University and administered by the Department of Environmental Quality.

The effort was aimed at assembling existing information on Oregon Lakes with a minimum size of 50 acres and reservoirs of 100 acres. In addition, most of the lakes were sampled by PSU to get current water quality data. The project was undertaken by PSU with Dan Johnson as the overall lead for the project, Richard Pedersen leading on limnologic assessments, and Dick Lycan leading the cartography.

While this could have been a technical report that would meet the requirements of the Act, as it evolved, Dick felt that it could be developed into something special that would be of greater use to the wide range of people interested in the lakes of Oregon. It was through his leadership that the *Atlas of Oregon Lakes* 1-2 page format was developed and that the Oregon State University Press took on its publication. Without his efforts, the Atlas would not have been as widely distributed and used.

As the world evolved into the computer age, Dick saw the need to make the Atlas available in an on-line, updatable format. He successfully undertook the work to get the Atlas on-line and continued to explore ways to make it into a format that would link into more current data layers.

Dick had a passion for the quiet waters and enjoyed coming to the OLA annual meeting and special events with his wife, Elaine. He will be sadly missed."



Dick was an avid fisherman and canoeist all his life, spending time on water and making boats. His love of lakes and rivers drove his persistent advocacy of limnology in Oregon and the Center for Lakes and Reservoirs at PSU, which continued through his retirement. On 1st December, he assisted Judy

Sims in her presentation at the OLA on-line Conference session “*Our beautiful lakes: past and present.*” In recent years, he was a generous and warm friend and supporter of Judy and her husband’s adventure with their newly purchased lake, Forest Lake Farm in North Plains. Dick Lycan was a constant and humorous thinker, and a kind person who will be greatly missed.

Thanks to Dan Johnson, Mark Sytsma, Andy Schaedel, Randy Jones and Judy Sims for remembrances, and Dan and Judy for photos.

## Oregon Lakes in the News

Contributed by Connie Bozarth, Newsletter Manager

### **Microplastics in Oregon Waterways**

Microplastics have been found in 30 lakes scattered around Oregon, including Detroit Lake, which lies upstream of the drinking water intake for the city of Salem. Microparticles attract heavy metals and chemical contaminants, which then end up in the food chain.



### **Heavy fall rains bring little drought relief**

Heavy fall rains may provide temporary relief from the prolonged drought cycle in Oregon but are not expected to have long term effects unless followed by steady precipitation.



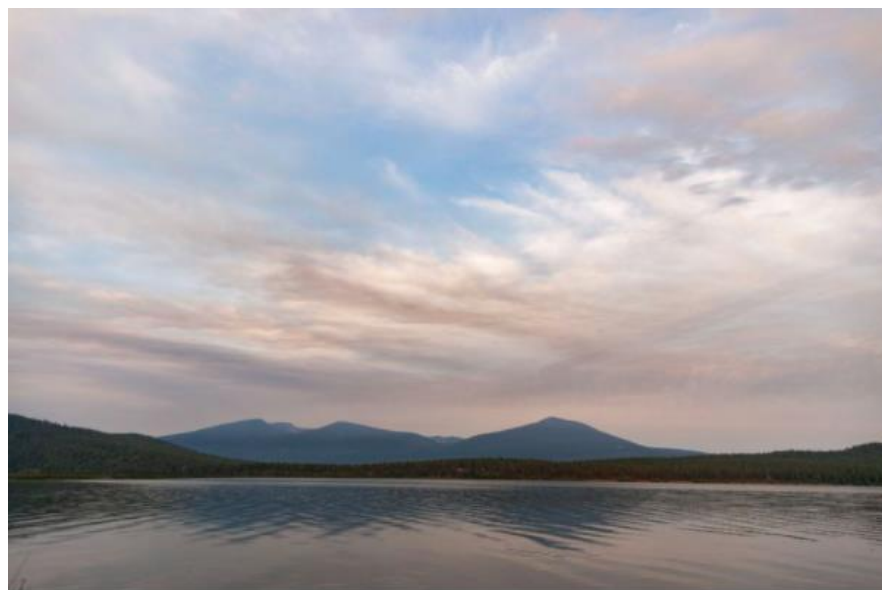


**Enjoy this podcast about the Cascade Lakes Scenic Byway!**



**Small fortune of federal money headed to the Klamath Basin and Upper Klamath Lake**

More than \$160 million will be headed to the Klamath Basin over the next five years, thanks to the recent passage of the Infrastructure Investment and Jobs Act by Congress. One major objective of the funds is to improve the health of Upper Klamath Lake and its ability to sustain viable populations of the two species of endangered suckers, which are of key cultural importance to the region's Tribes.



***OLA BOARD OF DIRECTORS***

Theo Dreher, President

*Unfilled*, Vice President

Andy Schaedel, Treasurer

Lara Jansen, Secretary

Lori Campbell, Director

Ron Larson, Director

Randy Jones, Director

Toni Pennington, Director

Dan Sobota, Director

Desiree Tullos, Director

Tammy Wood, Director

**The Oregon Lakes Association Mission**

OLA, a non-profit organization founded in 1990, promotes understanding, protection and thoughtful management of lake and watershed ecosystems in Oregon. Serving entirely through volunteer efforts, the Oregon Lakes Association puts on an annual conference, publishes a tri-annual newsletter, sponsors Harmful Algal Bloom trainings, and works as an advocate for lakes in the legislative arena. For additional information on OLA, write to the address above, or [visit our website](#)

OLA and *Lake Wise* welcome submissions of materials that further our goals of education and thoughtful lake management in Oregon. OLA is grateful for corporate support that helps sustain the organization. Corporate members are offered the opportunity to describe their products and services to *Lake Wise* readers. These descriptions are not OLA endorsements and opinions appearing in *Lake Wise* are not OLA policy statements.

***Lake Wise***

Oregon Lakes Association  
P.O. Box 345  
Portland, OR 97207-0345

This newsletter and any files transmitted with it are intended solely for the use of the individual or entity to whom they are addressed. If you have received this in error please notify the system manager. Please note that any products mentioned within the context of an article presented in this represent the opinions of the author and do not necessarily represent those of OLA. The recipient should check electronic copies of this newsletter and any attachments for the presence of viruses. OLA accepts no liability for any damage caused by any virus transmitted by this newsletter or otherwise