



Ooze News



Society of Wetland Scientists Pacific Northwest Chapter

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<https://members.sws.org/pacific-northwest-chapter>

President's Corner

By Josh Wozniak, PNW Chapter President

Happy Spring Everyone,

Although it is snowing at my low-elevation site, my soil thermometer says “growing season”. Must be April in Puget Sound!

It has been a busy winter for SWS. Lots of conference planning and organization going on for the upcoming June event in Spokane. Thank you, thank you (!) to all the folks who have volunteered their time to support his effort. From review abstracts to planning field trips, the PNW chapter has really stepped up and the program is looking great! The PNW chapter will have a group meeting at the event if you are able to attend.

Very special thanks to several chapter members who offered to contribute content to this newsletter. Their excellent content can be enjoyed in this and future editions. Please send us your short to long articles, photos from the field, and links to events. We'd love to share them!

The Chapter has maintained the focus of its mission: to support education around wetlands and the development of those in the field. We spend the bulk of our funds (from your SWS fees – thank you!) on scholarships and funding learning opportunities. We have sponsored the [SWaMPP program](#) and [University of Washington's Wetland Science and Management program](#) and are looking at more opportunities to support training in Oregon, Idaho, and Alaska. We also sponsored the UW restoration symposium, and we are able to provide scholarships for 4 students to attend and are providing travel stipends for PNW students presenting at the Spokane conference. We are looking for (and appreciate input on) more opp

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opportunities to support and mentor students and early career professionals.

Finally, it is a nice chilly day to dream about the warmth of May and Wetlands Month. We will be compiling and sharing recommended wetland walks and hope you enjoy and share your experiences with us and the chapter during May. Wishing you all the best.

***SWS 2023 Annual Meeting in Spokane, WA
- SAVE THE DATE -***



SWS 2023 Annual Meeting | June 27-30, 2023 | Spokane, WA

SWS is hosting its annual meeting at the Davenport Grand Hotel in downtown Spokane, on June 27-30, 2023. This year's theme is "Wetland Adaptation from Floodplains to Ridgelines." There will be lots of interesting symposia, oral and poster presentations, and field trips! If you haven't already, please register [here](#). Some of the SWS-PNW board members will be attending, and we would love to see you there!

2022 SWS PNW Mini - Chapter Conference in Lacey, WA

By Maki Dalzell, Co-Secretary

On November 3, 2022 the PNW Chapter held an all day, in-person conference at the Lacey Community Center in Lacey, Washington. The hall was packed with enthusiastic wetland scientists with over 100 in attendance. A great lineup of speakers presented on scientific, management and regulatory topics from all over our region. Thank you all for coming to Lacey for our one-day get together! We hope you learned something new from the meeting and connected with friends and colleagues. We would also like to thank the presenters for their valuable contributions and keeping us informed on new tools, regulations, and research findings. Presentation

slides are available to download in [our chapter website](#).



Josh Wozniak, PNW Chapter President. Photo: Maki Dalzell



2022 Lacey Mini-Chapter Conference. Photo: Maki Dalzell

SWS Funds Available for Wetlands Workshops

By Maki Dalzell/Katrina Poppe, Co-Secretaries

The PNW Chapter Board is encouraging applications for SWS support to conduct workshops on relevant topics. The application can be found on the chapter website:

<http://www.sws.org/Pacific-Northwest-Chapter/pacific-northwest-chapter-events.html>

May is American Wetlands Month!

By Maki Dalzell, Co-Secretary

May is just around the corner, and it's the month to celebrate and acknowledge the value of wetlands. Do you have your favorite wetlands you want to share

with other members? Please share pictures or information about the wetland with us on our Facebook group or by [emailing us](#):

You can also check out some cool stories on wetlands around the country in the [U.S. Fish and Wildlife's website](#).

WNHP Data Explorer

By Jenny Sandifer, Volunteer and Maki Dalzell, Co-Secretary

The Washington Department of Natural Resources is replacing the Washington Wetlands of High Conservation Value (WHCV) map viewer with the [Natural Heritage Program \(WNHP\) Data Explorer](#) application. The WNHP Data Explorer application includes two maps; one map displays all publicly available rare plant and ecosystem locations in the DNR's database, and the other map presents available Ecological Integrity Assessment data. To learn more about the explorer, please see the WNHP Data Explorer [User Guide](#).

Klamath Lake Wetland Restoration

By Lauren Zatkos, Volunteer

The aquatic and semi-aquatic worlds of the Klamath Basin area are slated to experience a lot of change in the next few years. As the largest freshwater lake west of the Rocky Mountains, the Klamath Lake holds cultural, economic, and ecological importance in western Oregon. Recent efforts have been made to bolster populations of the endangered shortnose sucker fish (*Chasmistes brevirostris*) in the lake, and the world's largest dam removal project is ramping up to begin on the lower Klamath River this year.

In addition, the largest wetland restoration project on Klamath Lake thus far is also scheduled to start in 2023, which would provide a variety of benefits to the lake and downstream ecosystems.

Mark Buettner, an Environmental Scientist with the Klamath Tribes, is excited to finally get the project rolling. "The restoration itself is in planning," he explained, "it's been a couple years of planning and doing the environmental impact statement. We'll start

some work this summer and continue restoration activities next year."

With funding from the US Fish & Wildlife Service, levees that currently separate two areas of the Upper Klamath National Wildlife Refuge (the Barnes and Agency Lake Units) from the northern arm of the Klamath Lake will be breached, and hydrology will once again be connected to over 14,000 acres of what had once been important fringe wetlands along the lakeshore.



Klamath Marsh National Wildlife Refuge (Photo: USFWS)

In the 1940's, levees were built along these areas to dry the land for agricultural use. This action was repeated again and again along the shores of Klamath Lake, until nearly all the riparian and fringe wetland habitats were gone. This has had lasting and damaging impacts on the lake's water quality and wildlife and fish habitat.

But connecting these two refuge units to the hydrology of the lake will restore some of that meaningful ecosystem functioning and will be beneficial to culturally and ecologically important flora and fauna.

"We expect this project to provide various benefits to Klamath Lake," Buettner said. "The tribe historically utilized certain wetland plants for food and shelter... the tribes have an interest in wetland resources. Yellow pond lily flowers [referring to *Nuphar lutea*], which the Tribes call 'wocus', would be harvested and seeds would be ground into a flour, it was one of their staples."

In addition to historically significant flora, this restored fringe wetland would provide critical rearing grounds for native trout and the shortnose sucker fish. Buettner is especially eager for this, as the endangered

sucker juveniles have been suffering in the Klamath Lake due to the absence of this habitat.

“Usually, they would rear in emergent shore wetlands. Those shoreline wetlands are currently missing. So the new wetlands should create much more rearing habitat,” he explained.

Monitoring of the fish and lake conditions has identified poor water quality as a major issue for sucker survivability, specifically high temperatures, high pH, and blue green algae blooms which decrease oxygen levels and often result in anoxic conditions.

“We’ve seen fish kills specifically juveniles,” Buettner said, adding that the hope is this large swath of new rearing habitat could buffer juvenile fish until they are older and resilient enough to handle the harsher conditions in the lake.



Shortnose sucker fish (Source: USFWS website: Photo by Jason Ching/University of Washington)

When asked about the logistics of the restoration plan, Buettner explained there are a few key strategies the planning team has included in the design that will maximize the diversity and success of the project.

“The area has been farmed for 40 years. The land subsided during that time, so some areas of the property will be deep and will support different habitats. There will be transitions between different types of wetlands based on topography and low-lying areas created during farming.”

Approximately 5,000 to 7,000 acres of the property will be maintained as PEM/PSS wetland, while the

rest of the restored land will be inundated most of the year.

Buettner expressed that the planning team was careful with its design and reviewed nearby projects to identify strategies for success. He pointed to a relatively large restoration project near the mouth of the Williamson River, where land had similarly been diked to use for agricultural purposes.

“With that one, large sections of levee were removed, and in that particular area, it wasn’t as successful at allowing PEM wetlands to become established. Wind stirred up water and wouldn’t allowed plants to grow. The current plan for the Barnes and Agency Lake areas is to have small breaches in levee, and add some structure to avoid large, wide-open water that allows wave and wind energy to disturb the bottom,” he said.

When asked about obstacles the restoration project has faced thus far in its planning process, Buettner acknowledged that certain groups are concerned about the need for additional water to fill the large site once levees are breached. Farmers throughout the Klamath Lake area and downstream in the basin rely on water from the lake and its rivers to irrigate crops and livestock, and some agricultural representatives in the Klamath basin have pushed back against the idea for additional water to be allocated to the lake.

“It creates a larger lake, so it will take more water from inflow to fill the lake up,” Buettner said, explaining that he understands the initial reaction irrigators may have when first hearing of the project. “It has an impact on timing and amount of irrigation water that’s available downstream. Downstream tribes are concerned as well... they have an interest in certain stream and river flows to support salmon.”

But Buettner says the planning group has figured out ways to minimize the impacts of additional water needs within the lake by timing restoration work and levee breaching during the wet season and after the dams along the lower Klamath River have come down. Conducting these steps during the wet season provides the best chance that irrigation withdrawals will be low; and also at a time when water levels in the lake and rivers downstream should be the highest. This would ensure that there is enough water to fill the

new wetland restoration area and not compete with other water users.

“Once it’s open to the lake, there should be less of an issue,” Buettner predicts. “In the future by restoring this wetland, we could have greater hydrologic flexibility. Might not need to worry so much about the lake levels, will clean up lake water, provide habitat for water birds and other species. Overall, I think people are having a better understanding of the benefit of this project.”

Social Media Update

By Maki Dalzell, Co-Secretary

Did you know we have official Facebook and Twitter accounts for our chapter? Find us on Facebook as Pacific Northwest Chapter of Society of Wetland Scientists

<https://www.facebook.com/groups/50185811318/>

and Twitter as [@SWS_PNW](https://twitter.com/SWS_PNW). We will post events, training, and articles on our social media, and you can also share with us by joining the Facebook group or following our Twitter account!

Consultant List Updates

By Maki Dalzell, Co-Secretary

The PNW Chapter hosts a quarterly updated consultant list on the website: <http://www.sws.org/Pacific-Northwest-Chapter/pacific-northwest-resources.html>. The only requirement to be on this list is current SWS PNW membership. ***Please note that updates to your SWS member profile through SWS business office do not automatically carryover to the consultant list.*** The PNW Chapter does not get member profile information from the SWS business office, and we need you to keep us informed for updates on the consultant list. If you would like to be added to the list or have your information updated, contact Maki Dalzell at mdalzell@hntb.com.

Calendar of Wetland Classes and Workshops

By Maki Dalzell/Katrina Poppe, Co-Secretaries

To better serve our members we have included a list of wetland related classes and workshops occurring in the Pacific Northwest. If you know of other

organizations that offer classes, please forward the web link to poppek@wwu.edu.

Coastal Training Program:

<http://www.coastaltraining-wa.org/>

- Western Washington: How to Determine the Ordinary High Water Mark - virtual with field site visit: May 2 – 4, 2023.
- Eastern Washington: How to Determine the Ordinary High Water Mark – virtual with field site visit: May 2 – 4, 2023.
- Using the Credit-Debit Method for Estimating Mitigation Needs in Eastern WA: May 10 – 11, 2023.
- Riparian and Wetland Plant Identification in Central and Eastern WA: June 12, 2023.

Washington Native Plant Society

<https://www.wnps.org/wnps-annual-events/workshops/1-wetland-id-course>

- Plant Identification and Wetland Delineation Course (Hybrid Edition): June 15 – 24, 2023.

Northwest Environmental Training Center:

<https://nwetc.org/>

- NEPA: The Law, Logic, and Language of the National Environmental Policy Act: June 6 – 7, 2023 and August 1 – 2, 2023. Virtual.
- Habitat Site Restoration: June 8 – 9, 2023. Virtual
- Wetlands: Science and Regulatory Management: June 14 – 16, 2023. Virtual

Portland State University Environmental Professional Program: <https://www.pdx.edu/environmental-professional-program/>

- Hydric Soil Indicators for Regional Supplements: May 2-3, 2023. Portland, OR
- Wetland Hydrology Indicators and Problem Situations: May 4-5, 2023. Vancouver, WA
- Introductions to Common Plants for Wetland Delineation: June 13-15, 2023. Hybrid online and in-class.
- Stream Insect Identification for Restoration Monitoring: July 10-13, 2023. Portland, OR.

Richard Chinn Environmental Training, Inc.:

<http://www.richardchinn.com/>

- Regional Supplement Wetland Delineation Training: June 14-15, 2023. Seattle, WA

The Seminar Group:

<https://www.theseinargroup.net/seminars>

- Oregon Water Law: October 26 – 27, 2023. Portland, OR

- Washington Water Code: November 14 – 15, 2023. Seattle, WA.

University of Washington – Professional Development Program:

<http://www.pce.uw.edu/>

- Wetland Science and Management Certificate Program. 8-month program starting October 2023. Seattle, WA.

University of Washington Botanic Gardens:

<https://botanicgardens.uw.edu/education/adults/professional-continuing-education/>

- Ecological Restoration Monitoring and Maintenance: June 6 – 8, 2023. Virtual

Wetland Training Institute: <http://wetlandtraining.com/>

- Basic Wetland Delineation Refresher Course:
 - June 6-7. Anchorage, AK
 - August 24-25. Marysville, WA
- Beginners Plant ID for Wetland Delineation: August 23, 2023. Marysville, WA

Ooze News Deadlines for Articles

Articles and announcements are welcomed and appreciated for the next edition of the Chapter newsletter. Please send associated documentation to co-secretaries Katrina Poppe at poppek@wwu.edu or Maki Dalzell at mdalzell@hntb.com. We will review your information for submission to the Ooze News.

Board Election Announcement

By Bri Hines, Board Member at Large

The PNW Chapter Board of Directors is gearing up for elections later this year. We are a fun group of wetland nerds who organize events, webinars, and resources for the PNW wetland community, and we would love to have some new faces join us! Our chapter represents Alaska, Washington, Idaho and Oregon and we would love to have representatives from each state to be part of the group to make sure we can do our best in supporting wetland professionals and enthusiasts across the Pacific Northwest. Please consider applying for a position this year and help us continue our mission to foster conservation and understanding of wetlands. If you're interested but unsure if you want to jump in, please feel free to join us at a board meeting to see what we're about. Please email us at

pnwchapter.sws@gmail.com if you'd like to know more!

Chapter Board Meetings

By Josh Wozniak, Chapter President

The PNW Chapter Board conducts monthly board meetings via conference call. These meetings are open to the general membership, and you are encouraged to attend. If you have questions, concerns, want to get involved or are just curious please feel free to attend the meetings. Our last meeting was held on March 9 at 12:00 pm, and our next meeting dates are April 13 and May 11 at 12:00 pm. If you are interested, please contact us at pnwchapter.sws@gmail.com to receive conference call information.

SWS PNW Member List Serve

By Maki Dalzell/Katrina Poppe, Co-Secretaries

Of the many benefits of becoming a SWS-PNW member, members enjoy being on an exclusive list serv which provides up to date information regarding events, workshops, news, etc. If you're not a member already, please consider becoming one or encourage your colleagues, employees, or the like to join. Thank you!