



Ooze News



Society of Wetland Scientists Pacific Northwest Chapter

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<http://www.sws.org/pacific-northwest-chapter>

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President's Corner

By Yvonne Vallette, PNW Chapter President

Wow, it's finally 2017! For many reasons (like the constant politicking and campaigning), I'm glad to have 2016 be finished. Though 2017 is off to an interesting start with major changes in federal leadership, we lucked out with relatively little change within our states. It's hard to tell what the future holds concerning resources like wetlands and streams, or advancing issues like climate change under this new leadership. However, I'm hopeful that here in the Pacific Northwest, interests from the academic community and our states and tribes will continue to prevail in efforts for development of sound policies and practices at the state and local level to ensure that these topics continue to be relevant.

As an organization, the Society of Wetland Scientists (SWS) is exploring different avenues to communicate to officials at the federal level. Most especially, continued U.S. support of international and domestic agreements addressing climate change and the application of sound science in policies regarding the management or regulation of wetlands and other natural resources. Meanwhile, through the Consortium of Aquatic Science Societies (CASS), SWS signed on to a letter addressed to then President-Elect Trump, encouraging him to seek out the expertise of the membership organizations in making future decisions regarding our Nation's waters.

On the local front, our Chapter is finalizing plans for a **joint meeting with the Society of Ecological Restoration's Northwest Chapter (SERNW) in October 2018** in Spokane, Washington. This should be an exciting and dynamic meeting for both of our organizations. Spokane in the fall offers lots of wonderful opportunities to explore the east side of our region and participate in a variety of field trips and workshops. The Pacific Northwest Chapter of SWS has hosted several joint meetings with SERNW, so we look forward to another successful collaboration. Meanwhile, we are planning for a sort of mini-meeting forum in the May timeframe to provide our members an opportunity for technical and policy dialogue as well as some organized fieldtrips and workshops.

For those that are starting to get a little tired of this long and cold winter, and looking for a bit of warmth and sunshine, then think about attending this year's **International SWS meeting in San Juan, Puerto Rico**, on June 5-8. Other future SWS meetings in the works include: Denver, Colorado in 2018; Baltimore, Maryland in 2019; Quebec City, Canada in 2020; and possibly in Alaska or the Pacific Northwest in 2021. So we'll soon be needing volunteers to help with putting together plans for that potential 2021 meeting. It's never too early to start planning an international meeting.

For anyone that would like to share a little of their time volunteering to serve on the Chapter Board or to help plan a future meeting or workshop, please don't hesitate to contact any of us on the Board. We are also working to update our chapter website. Since migrating over to the SWS National webpage, it has been a bit of a challenge to keep our chapter content up to date. But we hope to work with the new outreach person at the SWS Business Office to establish a process for easier and faster content updates to our webpage. If there is anyone interested in serving as our Chapter liaison to help keep our webpage content up to date, please contact one of us on the Chapter Board. Also, if anyone has ideas for what more this chapter can do to provide services or benefits to our membership, please pass those along as well.

In closing, 2017 promises to be an interesting and dynamic year. Just hope that as this year progresses, things don't get too bumpy along the way that we wind up going backwards instead of moving forward on issues like climate change and wetlands. Mostly I hope that everything works out for the best for everyone regardless of who they voted for.

Upcoming SWS-PNW Conferences

By Katrina Poppe, Co-Secretary

SWS-PNW is currently planning a mini-meeting in early to mid-May 2017, with a second day for field trips and workshops. The meeting will be held at the Water Resources Education Center in Vancouver, WA. Registration is expected to be under \$100. Exact dates and more details will come soon, and will be sent to members via the chapter email list.

The joint conference with SWS-PNW and SERNW is planned for October 15-18, 2018 at the Davenport Hotel in Spokane, WA.

First Joint Wetland and Fish Mitigation Bank in WA

By Maki Dalzell, Co-Secretary

On May 5, 2016, Washington Department of Ecology (Ecology), the U.S. Army Corps of Engineers (Corps), and NOAA Fisheries have certified the establishment and operation of the Coweeman River Mitigation Bank in Cowlitz County, Washington. The Coweeman Bank is the first joint wetland mitigation and fish conservation bank in Washington State. The bank is located east of the City of Kelso along the Coweeman River. Specifically, Habitat Bank LLC will establish, re-establish, rehabilitate, enhance, and preserve approximately 302 acres of wetland and associated upland habitat to create the bank. The bank will use a novel approach to fund restoration and long-term protection of prime wetland and river habitat along the Coweeman River, promoting recovery of threatened salmon and steelhead. Developers may purchase credits from the Coweeman River Mitigation Bank to offset the impacts of new developments within the same region along the lower Columbia River. The credits effectively represent shares in the mitigation bank, whose private sponsor, Habitat Bank LLC, will use the funds to pay for the restoration and continued stewardship of the Coweeman project. For more information, please visit Ecology's mitigation bank site.

<http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/banking/sites/coweeman.html>



Photo credit: Coweeman River Wetland and Conservation Bank Prospectus

WETPOL Conference Comes to U.S. in 2017

By Katrina Poppe, Co-Secretary

The 7th International Symposium for Wetland Systems for Water Pollution (WETPOL) will be held in the U.S. for the first time this year. The symposium will be in Big Sky, Montana on August 22-26. WETPOL brings together scientists, engineers, and practitioners working on the use of wetlands for water quality improvement. The program is focused on domestic wastewater treatment wetlands, urban stormwater wetlands and bio-swales, riparian wetland restoration, wetlands in agricultural settings, and wetland biogeochemistry. More info can be found at <http://wetpol.org/>.

Oregon Spotted Frog Habitat: A Primer and Advice for Wetland Scientists

By Stephen Nyman,
Whatcom County Amphibian Monitoring Program
<https://whatfrogs.wordpress.com/>

The Oregon Spotted Frog (OSF) (*Rana pretiosa*) is an aquatic frog native to lowland ecoregions of western Washington (Puget Trough), Oregon (Willamette Valley), and southernmost British Columbia, Canada (Lower Mainland); and higher elevation ecoregions from southern Washington (East Cascades) discontinuously through Oregon (West and East Cascades, and Klamath Mountains) and adjacent northeastern California (Klamath Mountains). Although once found in at least 13 drainages in western Washington, populations are known to still exist in only 4 of these drainages (i.e., Black River in Thurston County, Sumas River and South Fork Nooksack River in Whatcom County, and Samish River in Whatcom and Skagit County), and there are no recent observations of OSF in the Willamette Valley, the Oregon Western Cascades, or northeastern California. The species was listed as Threatened under the Federal Endangered Species Act in 2014, the only amphibian species in our region to have “earned” that distinction.

Described as a warm-water marsh specialist (i.e., shallow water exceeding 20°C in summer), the OSF is characterized by narrower habitat requirements than those of the closely related Northern Red-legged Frog (*Rana aurora*) and limited capability for overland dispersal (Pearl and Hayes 2004). Understanding OSF habitat requirements and recognizing potential habitat is essential for wetland scientists working in watersheds with known populations of this species, watersheds with historical records where suitable habitats still exist, and in other poorly explored areas. As demonstrated by the discovery of OSF in Whatcom and Skagit counties in 2011 in areas where there were no previous records, OSF cannot be assumed absent without properly executed egg mass surveys, which require a US Fish and Wildlife Service Section 10(a)(1)(A) species recovery permit in occupied watersheds. The OSF is a relatively inconspicuous species, with breeding season vocalizations (i.e., advertisement calls) that are not audible from a long distance and appearance in each life stage superficially similar to the much more common Northern Red-legged Frog. However, observant wetland scientists may have opportunities to detect and provide initial documentation of OSF in areas that have not been formally surveyed.

Summarizations of OSF habitat requirements include this succinct statement from the final listing rule designating OSF critical habitat (89 FR 29335): “For completion of their life cycle, Oregon spotted frogs require shallow, stable water areas for egg and tadpole survival and development; perennial, deep, moderately vegetated pools for adult and juvenile survival in the dry season; and perennial water overlying emergent vegetation for protecting all age classes during cold wet weather.” Although posited as specific to the Black River watershed, Watson et al. (2000) identified three key elements of suitable OSF habitat, which may be generally applicable to other areas in western Washington: “(1) extensive (at least 20 acres) contiguous and shallow palustrine emergent wetland habitat; (2) low gradient stream course or ditch draining the wetlands; and (3) high seasonal hydrologic fluctuations such that water surface is extensive in winter and early spring, and extremely limited in late summer.” The third element may be related to greater likelihood that these habitats will be free from introduced predators (especially American bullfrog, *Lithobates catesbeianus*, and spiny-ray fishes) than habitat complexes where most areas are permanently flooded. A minimum wetland area of 20 acres was based on analysis of known population sites and may indicate that smaller areas are unlikely to support persistent populations. This hypothesis may be tested by discovery of an OSF population in 2015 associated with a tributary of the South Fork Nooksack River where emergent wetlands comprise a total area much smaller than 20 acres.



Emergent wetland breeding habitat in the Samish River drainage. OSF egg mass cluster is located by the flag. (Photo: Chris Brown, February 2016)

Habitats used by existing populations in western Washington include seasonally flooded meadows and pastures, floodplain pools, ponds, marshes, springs, low gradient streams, and ditches. Undoubtedly, naturally occurring lakes and permanent ponds with shallow margins represented an important component of historical

OSF habitats in the Puget Trough. However, none of the known surviving lowland populations are associated with lakes, although some populations occur at excavated ponds. Similarly, the known populations are situated near headwaters and not on the lower floodplains of large, mainstem channels, such as the Skagit River, where loss and modification of wetlands to urban and agricultural developments is most extensive, and flood-control projects limit hydrologic recharge of wetlands.



This OSF habitat on Dempsey Creek in the Black River Drainage (Thurston County, WA) is subject to controlled grazing to suppress reed canarygrass. (Photo: Stephen Nyman, October 2015)

The primary constituent elements of OSF critical habitat include nonbreeding, breeding, larval rearing, and overwintering habitats, aquatic habitat connections, and refuges from aquatic predators (89 FR 29335). Suitable habitat for successful breeding and larval rearing requires inundation for a minimum of 4 months. In lowlands of western Washington, this generally equates to the period from late February or early March to at least July. Aquatic habitat connections are considered primary constituent elements up to 5 km (3.1 miles) from breeding habitats. At the micro-habitat scale, breeding OSF select egg-laying (oviposition) sites in shallow (i.e., less than 30 cm deep or on top of vegetation mats near the surface in deeper water), still water, where open and unshaded, with herbaceous growth from the previous year absent (e.g., removed by grazing or stems broken by winter conditions) or compressed below the water surface, and with no more than sparse and low-statured new growth. Provided that suitable openings exist, emergent wetlands dominated by reed canary-grass (*Phalaris arundinacea*) will support OSF breeding, which is fortunate because reed canary-grass is present at all of the known population sites in Washington. However, long-term persistence of OSF populations may require vegetation management to suppress reed canary-grass dominance. As such,

undiscovered populations may be most likely in agricultural areas with livestock grazing and haying, or areas recently removed from these uses.

Non-breeding habitats used by OSF are not limited to emergent wetlands and include riparian thickets and scrub-shrub wetlands of willows (*Salix* spp.) or hardhack (*Spiraea douglasii*), particularly where there is a mixture of shaded areas and openings where the frogs can bask. Similar summer habitat use has been reported under deciduous tree cover of cottonwoods (*Populus trichocarpa*), red alder (*Alnus rubra*), or Oregon white oak (*Quercus garryana*). The use of deciduous forested wetlands as breeding habitat also occurs, although only known for a few populations and in concert with more typical breeding sites. The significance of this behavior at the population level is unknown, but it does suggest that seasonally flooded forested wetlands in watersheds that otherwise meet habitat criteria should be treated as potential habitat, particularly where emergent vegetation is present.

Advice for wetland scientists working in areas with potential presence of OSF is to be prepared prior to field work, alert during field work, and to carefully document possible detections. Preparation is complicated by out-of-date published and on-line field guides and other source materials, many of which do not incorporate findings of OSF since 2011 and provide insufficient visual aids. Useful sources include Bohannon et al. (2012, 2016), Environment Canada (2014), Hallock (2013), and on-line images at CalPhotos (2016) and WCAMP (2016). During field work, frogs in areas without known extant populations may be legally handled (with hands clean of chemical contaminants and adhering to protocols to avoid amphibian disease transmission) and examined, and should be photographed from multiple angles for identification. However, observers should exercise caution to avoid disturbing egg masses and should not unnecessarily handle frogs or tadpoles of any species without having first obtained appropriate federal and state permits. Where identification is uncertain, observers should consult with an OSF expert. Evidence of OSF should be promptly reported to USFWS with the understanding that confidential information will not be publicly disclosed with landowner permission.

Literature Cited

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Rosenberg, D.K. 2013. Status of and potential recovery options for Oregon spotted frogs in the Willamette Valley, Oregon. Oregon Wildlife Institute, Corvallis, Oregon. Available online at: <<http://www.oregonwildlife.org>>

Watson, J.W., K.R. McAllister, D.J. Pierce, and A. Alvarado. 2000. Ecology of a remnant population of Oregon Spotted Frogs (*Rana pretiosa*) in Thurston County, Washington. Final Report, Washington Department of Fish and Wildlife, Olympia, Washington.

SWS-PNW Treasurer's Report

By Karla Gallina, Chapter Treasurer

- Per the SWS business office as of Sept 30, 2016:
 - Wintrust
 - SWS PNW \$50,623.97
 For comparison:
 - SWS National \$377,797.08
 - SWS Int'l \$43, 146.19
 - SWS Mid-Atlantic \$11,865.39
 - Town Bank Money Market
 - SWS PNW \$3,088.32
 - Town Bank Checking
 - SWS PNW \$27,763.91
- We have discontinued our WA non-profit status, as there is no longer a special exemption for WA State sales tax. This saves us a \$10 annual filing fee.
- We have submitted requested budget information to SWS, including board approved 2017 budget.
- We have awarded 2 winners of the SWS Research Grant Competition at \$500/winner (Stephainie Saffouri and Alexander Rose).
- We have contributed \$1,800 to student mentoring in the SWS Multicultural Mentoring Program.

World Wetlands Day is February 2, 2017

By Katrina Poppe, Co-Secretary

World Wetlands Day is quickly approaching! Go to <http://www.worldwetlandsday.org/> to find information about events and photo contests as well as handouts, posters, comic strips, and other teaching materials.



**World
Wetlands Day**
2 February 2017

Wetlands for Disaster Risk Reduction

Non-Native Rush Subspecies Sold as Native

By Katrina Poppe, Co-Secretary

Information contributed by Cheryl Bartlett, USFS



Our native *Juncus effusus*

For those of us working on restoration projects with native plantings, keep an eye out for non-native subspecies of soft rush being mistakenly sold and used as our native *Juncus effusus* ssp. *pacificus*. Non-native *Juncus effusus* ssp. *effusus* is listed on the Portland Plant List as a Nuisance Plant. This subspecies is from Europe and has become well established, and marked by an ability to tolerate drier habitats than our native subspecies. It also grows in a “wispiest” and less cespitose fashion, perhaps creating a less ideal habitat for amphibians and other wildlife.

Another non-native, *Juncus effusus* ssp. *solutus* (Nova Scotia rush) is a relatively new introduction from the East Coast. This subspecies is a very large rush that is rapidly filling in muddy shorelines and banks in the Columbia Slough and at least a few other sites further south, tolerating a wide range of conditions.

Any shipments of *Juncus effusus* should be carefully inspected before planting out. Please see this [fact sheet](#) for help with distinguishing the three subspecies.

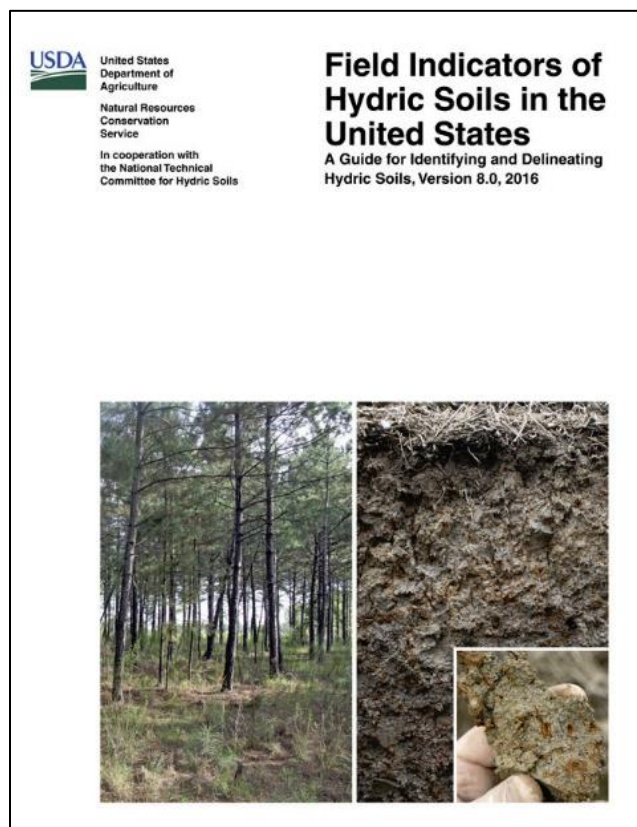
Contact Christa von Behren at

christa.vonbehren@portlandoregon.gov for more info.

Updated Field Indicators for Hydric Soils

By Katrina Poppe, Co-Secretary

The National Technical Committee for Hydric Soils has updated the Field Indicators of Hydric Soils in the United States to version 8.0. The new version includes all changes made in the errata for version 7.0. In addition, format changes were made to some indicators to provide better consistency and clarity that have no effect on the indicator requirements. The newest version is now available as a hardcopy from the [NRCS Distribution Center](#) and in [electronic format](#).



Upcoming Webinars

By Maki Dalzell, Co-Secretary

Society of Wetland Scientists:

Register online at <http://www.sws.org/About-SWS/upcoming-webinars-for-members.html>

- Liquid Assets: Building and Sustaining a State-Based Aquatic Ecological Restoration Program: February 16, 10:00 – 11:00 AM PST

Association of State Wetland Managers:

Register online at <http://www.aswm.org/aswm/aswm-webinarscalls>

No webinars scheduled at this time.

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 katrina@nwecological.com.

Coastal Training Program:

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

- Tree and Shrub Identification for Western WA Puget Lowland Habitats: February 1, 2017. Mt Vernon, WA.
- Grass, Sedge, and Rush Identification for Western WA Puget Lowland Habitats: February 15, 2017. Mt Vernon, WA.
- Using the Revised Washington State Wetland Rating System (2014) in Western Washington: March 22, 2017. Lacey, WA.
- Selecting Wetland Mitigation Sites Using a Watershed Approach: March 29, 2017. Lacey, WA.

Northwest Environmental Training Center:

<https://nwetc.org/>

- ArcGIS 10: Geoprocessing-Advanced Techniques for Environmental Applications: March 21-23, 2017. Bellingham, WA.
- ArcGIS 10: An Introduction to Environmental Applications: June 13-15, 2017. Olympia, WA.
- ArcGIS 10: An Introduction to Environmental Applications: August 29-31, 2017. Bellingham, WA.

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

- Grasses, Sedges, and Rushes of the Pacific Northwest: January 30-31, 2017. Portland, OR.
- Basic Wetland Delineation: March 13-17, 2017. Portland, OR.
- River Restoration Part 1 – Physical Processes: March 14-16, 2017. Portland, OR.
- River Restoration Part 2 – Ecological Processes: April 11-13, 2017. Portland, OR.
- Hydric Soil Indicators for Regional Supplements: May 9-10, 2017. Portland, OR.
- Applied River Restoration Field Course: Summer 2017. Portland, OR.
- Wetland Hydrology Indicators and Problem Situations: Summer 2017. Portland, OR.

Richard Chinn Environmental Training, Inc.:

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

- Wetland Delineation: February 27-March 2, 2017. Seattle, WA.
- Regional Supplement Wetland Delineation: March 1-2, 2017. Seattle, WA.
- Wetland Delineation: May 30-June 2, 2017. Boise, ID.
- Regional Supplement Wetland Delineation: June 1-2, 2017. Boise, ID.

The Seminar Group:

<http://www.theseminargroup.net/>

No wetland related courses at this time.

University of Washington – Professional Development Program:

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

No wetland related courses at this time.

Western Washington University:

<http://www.wvu.edu/ee/summersession/>

- Wetland ID and Delineation: June 19–23, 2017. Bellingham, WA. (For info contact Elizabeth Binney at elizabeth.binney@wwu.edu).
- Wetland Plant ID: June 27–29, July 5–6, 2017. Bellingham, WA.

Washington Native Plant Society:

<http://www.wnps.org>

- Grass workshop with Clay Antieau at UW Herbarium: June 28-30, 2017. Seattle, WA.

Wetland Training Institute:

<http://wetlandtraining.com/>

- Basic Wetland Delineation: August 21-25, 2017. Arlington, WA.
- Basic Wetland Delineation eSession with Field Practicum: August 28-29, 2017. Arlington, WA.
- Wetland Delineation Refresher: August 28-29, 2017. Arlington, WA.

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>

SWS PNW Consultant Directory

By Maki Dalzell, Co-Secretary

The PNW Chapter hosts a quarterly updated consultant list on the website:

http://www.sws.org/images/chapters/pacific_northwest/2016-06-10_ConsultantList.pdf

The only requirement to be on this list is current SWS PNW membership. If you would like to be added to the list or have your information updated, contact Maki Dalzell at maki.dalzell@hdrinc.com.

Update your contact information

The Chapter uses the current SWS membership list to email newsletters. Make sure your information is current to receive a copy:

<http://sws.org/>

<https://netforum.avectra.com/eweb/DynamicPage.aspx?Site=SWS&WebCode=LoginRequired>

Chapter Board Meetings

By Yvonne Vallette, Chapter President

The PNW Chapter Board conducts quarterly 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 October 26, 2016 at 9:00 am, and our next meeting date is TBD. If you are interested, please contact Yvonne at vallette.yvonne@epa.gov to receive conference call information.

Ooze News Deadlines for Articles

Articles and announcements are welcomed and appreciated for the spring edition of the Chapter newsletter, Volume 27 Number 2, no later than April 15, 2017. Please send associated documentation to co-secretaries Katrina Poppe at katrina@nwecological.com or Maki Dalzell at maki.dalzell@hdrinc.com. We will review your information for submission to the Ooze News. Thank you.

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 serve 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!