Successful Chapter Meeting in Bellingham!

By Leandra Cleveland, PNW Chapter President

This year’s chapter meeting in Bellingham at the end of April was a huge success. Our theme for the conference “Isolated Wetlands…Discovering Connections” focused on isolated wetlands and their importance in the landscape. To start off the conference, our plenary speaker Robert Michael Pyle, naturalist and author, spoke about the special places we all have found and the importance of maintaining those places for us and future generations.

More than 215 participants attended this year’s meeting. The conference included over 70 speakers presenting technical sessions on a variety of topics ranging from regulatory updates, hydric soils, archaeology, FEMA, linear transportation projects, and restoration/mitigation. Our workshops and fieldtrips were also a hit. For a full list of program abstracts and participants please visit the chapter website at http://pnw.sws.org/area_meetings.html.

In addition to the technical sessions we conducted another successful silent auction to raise funds for our Student Scholarship which funds one student to attend the chapter meeting and one student to attend the international meeting each year. Our student for this year was Nate Hough-Snee, a graduate student from the University of Washington.

At our Thursday evening social, we brought back the talent/fashion show. With several classy wardrobe ensembles featuring the latest in field gear clothing and the return of the Water Beatles it certainly did not disappoint. Thanks to all those that participated in the event and for closing out the evening with the band.

This conference would not have been a success without the hard work of the conference organizing committee and the generosity of our conference sponsors.
Committee members included (members listed in alphabetical order): Marc Auten, Elizabeth Binney, Atina Casas, Leandra Cleveland, Janet Cray, James Guzman, Jon Hall, Vikki Jackson, Becki Kniveton, Karla Van Leaven, Scott Luchessa, Ed Miller, Tina Mirabile, Lyn Morgan-Hill, Clover Muters, Jeff Ninnemann, Molly Porter, Ken Sargent, Yvonne Vallette, Perry Welch, Jim Wiggins, Jan Kvamme/Syd Fredrickson (UW), and the PNW-SWS Chapter Board. Thank you to all.

**President’s Corner**

*By Leandra Cleveland, PNW Chapter President*

Greetings to everyone,
Our chapter continues to be very active and involved throughout our region and at the international level – it makes us one of the most active chapters in the entire society. Our recent conference in Bellingham in April demonstrates our membership’s continued enthusiasm.

We had over 215 attendees and 70 speakers for our meeting. In addition, our chapter supported one graduate student to attend the conference. Thanks to everyone on the planning committee for their time and dedication to make this conference the success that it was. If you want to be part of the next conference planning efforts, now is the time to get involved as we are forming our committee now to begin preparations for the next chapter meeting in 2012 in Boise, Idaho.

If you are looking for other opportunities to become involved with the chapter, there are plenty of things to volunteer for. Our chapter needs your participation! We are looking for members to assist with the standing and special committees, workshop and short courses ideas, and any other initiatives you may be interested in developing. You are always welcome to attend the chapter board meetings. Our next meeting is scheduled for September 12, 2010 via conference call.

As always please feel free to contact me if you have any questions or concerns.

*Leandra Cleveland, President*

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**Life Time Achievement Award Recipient**

*Congratulations to our 2010 Life Time Achievement Award Recipient – Yvonne Vallette*

The Life Time Achievement Award is to honor individuals and/or groups that have performed outstanding service and dedication in leading and promoting the functions and activities of the Pacific Northwest Chapter of SWS. Yvonne has done just that through her many years of service. She has volunteered in just about every known capacity for the PNW Chapter of SWS since the mid 1990s and has been a board member for well over a decade. She is tireless in her volunteer efforts, perpetually pleasant and upbeat, and is always encouraging volunteers to engage in the society’s meeting and activities. She is involved with many other organizations and is responsible for a broad range of wetland programs and initiatives for the EPA in Oregon. We thank Yvonne for her years of dedication and congratulate her in receiving this honorable award from the PNW Chapter of SWS.

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**Invasive Species Corner**

*By Wendy Descamp, Pacific Northwest Invasive Plant Council*

*Lamiastrum galeobdolon*, commonly called yellow archangel, is a groundcover in the mint family (Lamiaceae) that is available worldwide in the horticulture trade. It has escaped cultivation in a number of countries, including the United States. In the Pacific Northwest, this plant has naturalized in many locations. It is commonly found along riparian corridors and is primarily west of the Cascades with new populations being discovered continuously. It is listed as a class C noxious weed in Washington State, and is currently under review by the Washington State Noxious Weed Control Board to be changed to a class B noxious weed.

Local populations are found in habitats such as mixed woodlands (wooded parks), deciduous woodlands, and stream and river banks, as well as in disturbed habitats like roadides and along trails. It has spread into these habitats primarily from discarded yard waste piles.

Yellow archangel is an evergreen groundcover that spreads by vegetative stolons that root at leaf nodes. Secondary and subsequent stolon branching grow to create a dense groundcover layer. In the early spring upright flowering stems are produced that have clusters (verticillasters) of yellow flowers at leaf nodes. Each flower produces four nutlets. It is easy to identify due to its leaves’ silver variegation pattern (two flexuous bands unbroken by leaf veins) on all the stolon leaves and all or some of the flowering stem leaves.
Yellow archangel has the ability to be morphologically plastic, which allows it to grow within varying levels of light and tolerate shading by neighboring plants and canopy plants, making it a greater competitor. The data collected for my thesis research on growth traits under different light treatments show how readily one plant could become a sizeable invading groundcover in a short period of time.

Yellow archangel can vegetatively reproduce as well as produce viable seeds for germination. Though the germination rate was low in one experiment, the few seeds that did germinate, along with seedlings observed in the field prove that germination is indeed possible in the Pacific Northwest. The longevity of its seed in the seed bank is unknown but anecdotally was noted in one location for at least three years after a population was eradicated.

Various methods of mechanical control have been tested for their effectiveness in controlling yellow archangel. Thorough handweeding, the most time-consuming control method, was the most successful method studied. Sheet mulching, whether using layers of newspaper and woodchips or cardboard and woodchips, is also an effective non-chemical method of control. With each method though there are some drawbacks to consider such as seed germination after the handweeding treatment and stems growing up through gaps in the sheet mulch around native plants. Tim Miller of the WSU Mount Vernon Research Center is currently conducting herbicide trials to determine the most effective chemical control treatment. Following control, it is critical to monitor for re-sprouts of missed roots and seed germination. Yellow archangel can quickly re-establish controlled populations without follow up maintenance.

If you have any questions regarding yellow archangel, please feel free to contact Wendy Descamp at wdescamp@u.washington.edu or info@pnw-ipc.org. To report populations, please contact the Washington State Weed Board at noxiousweeds@agr.wa.gov.
The SWS-PNW meeting was a great forum to present my initial results and solicit feedback from folks with decades of experience in wetland ecology and restoration. Being in an applied sub-discipline of ecology, it was an invaluable chance to put my academic work into a real-world context and discuss the applications of my project with seasoned professionals.

Aside from the rewarding experience of speaking, the usual benefits of conference attendance were also fully realized: meeting other students and professionals from across the region, having a chance to catch up with mentors and collaborators, hearing from researchers and practitioners across disciplines and drinking way too much coffee. This year’s roundtable on the Washington State professional wetland scientist certification effort was a timely and informative addition to the program that especially stood out to me. It was a great pleasure to be a part of another outstanding SWS conference. Some serious kudos must be sent to Jim Wiggins, Yvonne Vallette and the rest of the organizing committee for putting together the event.

I must reiterate that my attendance to the Bellingham meeting was only made possible by the student conference scholarship from the SWS-PNW chapter. Because of the savings generated by this award, I am now able to attend the national meeting in Salt Lake City, something that I would not have been able to afford were it not for the SWS-PNW student grant program. Inherently, I’m effectively thanking every SWS-PNW member who has ever bid on a silent auction item or raised funds for the chapter’s scholarship initiatives. I hope that students will continue to apply for these awards and take advantage of the opportunity to network, learn and show off their work. Thanks again SWS—Bellingham was a blast and I can’t wait for Salt Lake City.

Nate Hough-Snee is a graduate student in restoration ecology at the University of Washington where he applies community ecology and plant physiological ecology to wetland design and restoration.

### Soil and Wetland Scientist Certification in Washington – Update

**By Scott Luchessa, Immediate Past President**

For those of you who were unable to attend the meeting and receive an update on the status of state-level certification of soil and wetland scientists and are interested, this is a quick update on the proposed Washington State Title Act. There will be a question and answer session on July 16, 2010 at the Puyallup WSU Extension for any individuals interested in becoming certified. We will be sending out an email describing the exact site location and time soon. Please check your junk-mail files just in case, but also make sure that we have your current email address.

Proponents of the soil and wetland scientist certification in Washington met several times and worked closely with those who had expressed concerns about some of the bill language over the past year. The bill from the 2009 session was modified significantly to respond to those concerns. As a result, the revised bill SSB 5698 made it to the Senate floor during the 2010 session, but due to there being many other bills, and it being a short session (two rather than three months), the bill was not voted upon before the end of session.

To summarize the changes: there are now two paths to certification for a wetland scientist. Individuals who are certified as PWS would qualify for certification, but others who have an adequate level of training through a combination of education, targeted training and experience also qualify. This second pathway provides a more inclusive definition of professional training and/or education than the PWS process. Either a four-year degree from an accredited institution in a related field or other training considered satisfactory to the board is allowed; and 3 rather than 5 years of professional experience is acceptable for the wetland scientist professional. In addition, there is a grandfathering period for the first 3 years of the program that will accept those with “non-standard” education or training, but with good professional experience and good references. There will be no written exam during that 3 year period.

The new and improved bill language can be found on the soil and wetland scientist certification information website at [http://www.soilsscientistlicensing.com](http://www.soilsscientistlicensing.com) (soon to be renamed “www.soilandwetlandscientistcertification.com”) by following the link on the home page. The current version of the bill shows the changes with redline and strikethrough text. Proponents of the bill anticipate introducing this version in the 2011 legislative session. If you have any concerns or questions about the bill language or process, we strongly encourage you to come to the meeting on July 16, 2010 at the Puyallup WSU Extension facility or to contact us directly. For more details on the time and location of the meeting or questions about the bill, please contact Lisa Palazzi at lisa@pacificrimsoilandwater.com, Scott Luchessa at sluchessa@environcorp.com, or Jim Wiggins at atsi@fidalgo.net.
Using Wetland Restoration, Creation, or Preservation to Create Carbon Offsets

By Scott Luchessa, Immediate Past President

Look for a more comprehensive article on this topic in the Summer edition of the National Wetlands Newsletter. For those of you that are interested, this topic continues to gain attention worldwide given the relative importance of wetlands in the global C cycle. Creating carbon offsets through wetland restoration, creation, and avoided degradation continue to receive growing attention. Offsets are emission reduction projects undertaken to address emissions not included in a cap-and-trade program. An offset mechanism enables covered entities to offset their own emissions by purchasing emission reduction credits generated through projects that address emissions not covered by the cap. The primary purpose of offsets is to reduce compliance costs while ensuring the environmental integrity of the cap. There are existing mechanisms for creating carbon offsets for sale or trade on existing regulated international or voluntary carbon markets through project development methods specified by the Clean Development Mechanism (CDM), Joint Implementation (JI), Voluntary Carbon Standard (VCS), and Gold Standard. Afforestation and reforestation projects could conceivably include forested wetland projects though they do not expressly identify or deny these as valid options. These methods are designed to result in real, verifiable, and permanent offset projects.

All wetlands are generally effective at sequestering and storing carbon through photosynthesis and accumulation of organic matter in soils, sediments, and plant biomass. However, many wetlands are net sources of greenhouse gases (GHGs) because they emit methane or nitrous oxides, which have 25 to 298 times the global warming potential of an equivalent amount of carbon dioxide over a 100-year timeframe. Consequently, although all wetlands sequester carbon through photosynthesis, some are net sources of GHGs because of the methane and nitrous oxides they emit.

Some wetlands, such as peatlands, store large quantities of carbon in accumulated peat deposits and are not candidates for offsets because of net annual accumulation of carbon. Peatlands may be appropriate candidates for offsets to prevent release of accumulated carbon through increased oxidation of accumulated peat deposits that may occur from land use changes and alterations to hydrologic regimes that contribute to oxidation of accumulated peat and release of potentially large volumes of carbon dioxide. Avoided degradation of accumulated carbon stored in peatlands is receiving increased attention similar to the ecosystem services and carbon storage provided by tropical rain forests. It is well documented by the Intergovernmental Panel on Climate Change and others that deforestation and forest degradation in the developing world accounts for about 17% of total GHG emissions. As such increasing consideration is being given to development of schemes to pay developing countries for these tremendous carbon sequestration and storage services through reduced deforestation and forest degradation (REDD). Peatlands are receiving similar attention for the carbon they store though it appears questionable whether similar conversion pressures from population growth are responsible for releasing accumulated carbon and policies or programs could be developed or adopted to conserve these. Both avoided degradation of wetlands and tropical forests are receiving increasing attention and seem likely to be part of any future international agreements after the Kyoto Protocol expires in 2012.

It seems certain that restoration of at least some wetlands, such as intertidal salt marshes and perhaps a few other wetland types, that consistently act as net GHG sinks will be part of regional and/or national cap-and-trade programs in the U.S. Restore America’s Estuaries has convened a Blue Ribbon Panel of experts to develop a protocol for creating offsets through tidal wetland restoration. This initiative builds on a tidal wetlands restoration typology developed for the Climate Action Reserve (for more information please see https://www.estuaries.org/climate-change.html). Wetland restoration to reduce GHGs is identified in at least one bill pending before Congress, the Clean Energy Jobs and American Power Act of 2009 (S.1733). No bills have yet passed through the Senate, and it is unclear when or if that might happen. Please get involved and help contribute to solutions to mitigate potential impacts from global warming and climate change. For more information, please contact Scott at sluchessa@environcorp.com.

SWS Sections – Global Change Ecology

By Leandra Cleveland, PNW Chapter President

Over two years ago SWS embarked on a new venue – Sections – for collectively sharing and collaborating on important issues to wetland scientists. Sections allow SWS members to network and promote activities that address subject areas ranging from science to policy. To date, there are five active sections: Biogeochemistry, Global Change Ecology, Peatlands, Wildlife, and Women in Wetlands. To highlight the new Sections and gain greater exposure, the next several newsletters will provide an overview of each section. This edition will highlight Global Change Ecology.
Global Change Ecology is a forum to advance research and application of global change ecology that regulate wetlands. The Global Change Ecology Section goals are to:

- Organize symposia on important developments in wetland Global Change Ecology.
- Propose and fund initiatives that advance wetland Global Change Ecology research and education.
- Encourage and support students engaged in wetland Global Change Ecology research.
- Interact with other sections to enhance inter-disciplinary research.

The section has also developed a blog for members to use - be sure to check it out: [http://www.sws.org/sections/gce/blog.mgi](http://www.sws.org/sections/gce/blog.mgi)

At the annual meeting in Salt Lake City, the Global Change Ecology Section will be organizing a symposium on wetlands and climate change. Wetland hydrological inputs are a primary driver of wetland ecosystem extent and function. Changes to the frequency, timing, depth and duration of wetland inundation are likely to be a major impact of climate change. Contrasting examples featured in this symposium will be the declining inundation extent and frequency of freshwater floodplain wetlands in regions of declining rainfall, and the increased inundation depth and duration of tidal wetlands resulting from sea-level rise. Loss of wetland is the common outcome, and ecological consequences and mitigation strategies will be discussed.

As a SWS member you can join one or more sections. For more information visit the SWS Sections webpage at: [http://www.sws.org/sections/](http://www.sws.org/sections/)

### Calendar of Wetland Classes and Workshops

**By Leandra Cleveland, PNW Chapter President**

To 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 [leandra.cleveland@hdrinc.com](mailto:leandra.cleveland@hdrinc.com).

**Portland State University Environmental Professional Program.**

Contact: [http://epp.esr.pdx.edu/](http://epp.esr.pdx.edu/)
- Freshwater Mussels of the Pacific Northwest
  - August 10-11, 2010. Portland, OR
- Stream Reconnaissance and Assessment Tool
  - September 21-24, 2010. Portland, OR
- River Restoration Design
  - November 1-5, 2010. Portland, OR

**University of Washington (WNPS and UW Herbarium)**

- Sedge Identification Workshop

**Wetland Training Institute**

Contact: [http://wetlandtraining.com/](http://wetlandtraining.com/)
- Oregon Rapid Wetland Assessment Method
  - September 13-15, 2010. Portland, OR
- Plant Identification

**Oregon Department of State Lands**

Contact: 503-986-5235 to register; [Anna.Buckley@state.or.us](mailto:Anna.Buckley@state.or.us) with questions
- Oregon Rapid Wetland Assessment Method
  - July 28-30 and August 17-19, 2010. Salem, OR

**Washington Department of Ecology Training Opportunities:**

- Wetland Delineation and Management Training
  - September 13-16, 2010. Eugene, OR
- Regional Supplement Wetland Delineation Training
  - September 16, 2010. Eugene, OR

**Coastal Training Program.**

Contact: [http://www.coastaltraining-wa.org/](http://www.coastaltraining-wa.org/)
- Using the Revised Washington State Wetland Rating System in Western Washington
  - October 5-6, 2010. Lacey, WA
- How to Determine the Ordinary High Water Mark
  - October 20-21, 2010. Lacey, WA

**The Seminar Group**

Contact: [http://www.theseminargroup.net/](http://www.theseminargroup.net/)
- 19th Annual Oregon Water Law
  - November 4-5, 2010. Portland, OR

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**SWS Funds Available for Wetlands Workshops**

**By Jeff Walker, Past Newsletter Editor/Secretary**

The PNW Chapter Board is encouraging applications for SWS support to conduct workshops on relevant topics. The application for can be found on the chapter website: [http://www.sws.org/regional/pacificNW/workshop.html](http://www.sws.org/regional/pacificNW/workshop.html)
**SWS PNW Consultant Directory**

The Chapter has posted a consultant list on our website: [http://www.sws.org/regional/pacificNW/SWSConsultantList.pdf](http://www.sws.org/regional/pacificNW/SWSConsultantList.pdf)

The only requirement to be on this list is current SWS membership. If you want to be added or need to update your information, contact Mirth Walker at cmwalker@swca.com with SWS Consultant List in the subject line. The list will be updated quarterly.

**Ooze News Deadlines for Articles**

July 15, October 15, January 15, April 15

Please send articles and announcements to Lizbeth Seebacher at Lizbeth.A.Seebacher@usace.army.mil or Mirth Walker at cmwalker@swca.com

**Going Digital**

*By Mirth Walker, Newsletter Editor/Secretary*

The Chapter Board voted unanimously in Bellingham to experiment with electronic delivery of the *Ooze News*. We expect that this will save the Chapter $2,500 a year, to be better spent to meet the needs of our members, as well as reducing our environmental footprint. Let us know if you have any problems, concerns, or suggestions.

**Ooze Newsletters are available at:**


**Update your contact information at the Society of Wetland Scientists website:**

[http://www.sws.org/login.mgi?r=address](http://www.sws.org/login.mgi?r=address)

The Chapter receives an updated membership list prior to each newsletter mailing.

**CROSSWORD PUZZLE**

**Across**

1. A gully or dry bed of a stream.
3. Name of the tide when there is the least difference between high and low water.
5. Receding tide.
8. Oregon tree adapted to saturated conditions.
10. Not alkaline.
12. What cottonwood plantations are grown for.
13. Freshwater wetlands dominated by low-growing woody vegetation (abbr.).
16. In other words (abbr.).
19. __ and fro.
20. Lines on a tree or bridge structure that represent the maximum static water level reached during an inundation event.
22. Hospital ward (abbr.).
23. A unit of soil structure (aggregate, crumb, prism, block, or granule) formed by natural processes.

**WETLANDS 101**

by C. Mirth Walker 1/2010
25. Fish eggs.
26. Large forlorn swamp (Virginia and N. Carolina).
29. Table rock.
31. Water bird with a plaintive cry.
33. Less permanent than intermittent.
36. Attach wetland delineation flagging.
37. State in the Pacific Northwest (abbr.).
39. New word for marshy or wet; splashy.
41. Large inland body of water.
43. A pit in which water is collected.
44. Accomplish.
45. Not yes.
46. For example (abbr.).
48. A long-playing phonograph record (abbr.).
49. Freshwater wetlands dominated by persistent herbaceous vegetation, forbs, mosses or lichens (abbr.).
51. Freshwater wetlands dominated by trees (abbr.).
52. Sand, silt, clay, rock and mineral particles, and humus.

**Down**
1. Full of moisture; soaked.
2. The salt waters that cover the greater parts of the earth's surface (ocean).
3. No ind.
4. Cowardin classification for freshwater wetlands (nontidal wetlands or tidal wetlands with very low salinity) dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens.
6. Hustle and ____.
7. Bridge support.
9. Species (abbr.).

11. Stream corridor in the Sonoran Desert (Spanish variant of swamp).
12. Deep rooted plant that absorbs water from the ground water table below streambeds.
14. ____ what?
15. Willow swamp.
18. Smoggy city in CA.
20. Us.
21. A stretch of swampy or boggy ground (not muck!).
23. Native open grassland.
27. A refreshing drink.
29. Old name for redoximorphic features.
30. Springs.
32. Lowland region permanently saturated with water; typically forested or scrub-shrub.
34. Field of grasses.
35. A body of salt water separated from the sea by sand or coral reefs.
38. Snake.
40. Quiet before the storm.
42. Knock out (abbr.).
45. Natl. forest.
47. Come and ____.
49. Father.
50. Mother.
51. 3.14159...

**SOLUTION NEXT PAGE**
Not to waste white space, here is a note regarding our membership. I am happy to report that the membership numbers presented at our Chapter business luncheon in Bellingham were in error (thank goodness!).

We currently stand strong at 353, with 184 Washington, 104 Oregon, and 14 Idaho members (and 4 Alaska members). Other members hail from Alabama, California, Colorado, Delaware, Florida, Georgia, Indiana, Louisiana, Maryland, Minnesota, Montana, North Carolina, New Hampshire, New Jersey, Ohio, Pennsylvania, South Carolina, Virginia, and Wyoming. International members include Australia, Canada (British Columbia and Ontario), the Czech Republic, and Nigeria. Thanks for being members!

Have a great time in Salt Lake City to all those who are fortunate to be attending - Mirth Walker