**President’s Corner**

*By Leandra Cleveland, PNW Chapter President*

Happy Spring,

With the nicer weather it actually feels like spring now. All the plants are starting to leaf out and bloom. As I dust off the plant identification books from their winter slumber for some spring hikes and botany, I am struck by how good a chapter we have in the Pacific Northwest. Our members continue to be very active and involved both at the chapter and international levels as well as with SWSPCP. This involvement has kept the chapter alive and growing. We are always striving to improve and provide better quality services to our membership.

Within the last two years we have added podcasts, photo contest (see details inside this edition), Facebook page, and are now working on a LinkedIn site for our chapter. We continue to develop workshops from member suggestions and host a biennial conference. In order to continue to improve and provide you, the members, with useful tools and services we need to hear from you. Your ideas and suggestions for improvements don’t go unnoticed. If you have ideas or suggestions please let us know. You are always welcome to contact any of the board members or attend our quarterly board meetings which are open to all members.

**2012 International Meeting in Orlando, Florida**

*By Leandra Cleveland, PNW Chapter President*

The Society of Wetland Scientists and the Greater Everglades Ecosystem Restoration Conference will meet in conjunction with INTECOL 9 in Orlando, FL June 3-8, 2012. The 9th INTECOL International Wetlands Conference will provide an opportunity to review and collaborate on advances in wetland science in ecological, physical, biogeochemical and social sciences pertinent to wetland management and policy. The conference will be a forum to discuss threats, challenges and integrated solutions for sustainable restoration and management of wetlands in our changing world.

For more information visit the conference website at http://www.conference.ifas.ufl.edu/INTECOL/index.html
Our next SWS Pacific Northwest Chapter Conference will be held September 19-21, 2012 in Boise, Idaho at the magnificent Grove Hotel. This is sure to be an exciting event with new material for the plenary and concurrent sessions. The conference will also follow previously successful formats of poster sessions, exhibitor booths, a raffle and silent auction, chapter business meetings, social functions and field trips or workshops. Idaho has numerous unique wetlands and waters systems near the city of Boise for field trip opportunities. This is a wonderful opportunity for information exchange and connecting with people, so please join us in the fall of 2012!

For more information, check out our website: http://www.sws.org/regional/pacificNW/area_meetings.html

Talk to us! We now have a survey button. Click to tell us if you are planning on attending and any comments you may have and you will be entered to win a $50 gift card. Contact Greta at greta@murdoffcs.com if you would like to help with the meeting.

Congratulations to our student scholarship award recipients for 2012: Todd Lemein and Lexine Long. The Chapter awarded one $1,000 award for the International meeting in Orlando and one $500 award for the PNW Chapter meeting in Boise.

Todd Lemein, our international meeting award recipient, is currently a second year PhD graduate student in the Environmental Sciences Program at Oregon State University. His research aims to predict the response of vegetation in estuaries to natural disasters and to model the morphologic and vegetative community evolution in response to sea level rise.

Lexine Long, our chapter meeting award recipient, is currently a graduate student at Utah State University, pursuing a dual Master’s degree in Ecology through the Department of Watershed Sciences, and in Bioregional Planning through the Department of Environment and Society. Her thesis project is focused on determining the current and future distribution of the invasive wetland grass Phragmites australis (common reed) around Great Salt Lake wetlands.

Although we can only award one scholarship per meeting we want to offer a special thanks to our other applicants for 2012:

- Jessica Carlson, University of Wisconsin
- La Daana Kada Kanhai, University of the West Indies, St. Augustine, Trinidad and Tobago
- Lindsay Darjany, California State University Long Beach

The Pacific Northwest Chapter of the Society of Wetland Scientists is hosting its first annual photo contest! Members are encouraged to submit their original wetland-related photos to be voted on. Twelve winners will be selected by online voters and displayed, giving credit to the photographers, in a beautiful, full-color, high quality calendar available for sale on the Chapter website. Winners will receive a FREE calendar.

Entry Requirements
- Chapter members may submit up to four original photos.
- Entries accepted until midnight on July 31, 2012.
- Wetland related theme, preferably Pacific Northwest Region of the United States.

Photograph Requirements
- 11 x 8.5” with at least 300 dpi (approximately 3300 x 2550 pixels) resolution.
- Landscape (horizontal) orientation.
- Digital jpeg format (minor digital enhancements allowed).
- Black and white, sepia, and/or color.
- No text.

Release Information and Use of Photos
By entering this contest, the contestant warrants that the image submitted is their original work and that they are the owner of the image. While contestants retain all rights to their images, contestant must grant permission for unrestricted use of the image to the Chapter, or its designee, to utilize the image in future publications, exhibits, and on its website to promote the functions and values of wetlands. Release signatures of any recognizable persons in a photograph, other than the photographer, will also be required. Instructions for such will be emailed to you if necessary.
Submissions
Email submissions to bovarshinova@gmail.com. Please include the following information with your submittal: photographer’s name, address, phone number, and e-mail address, an appropriate title for each photograph, and location where each photo was taken. As a tip, it is best to name the jpeg the title you want for your photograph, such as “reflections in a marsh.jpg” or “toad heaven.jpg,” etc., to avoid confusion. Photograph submissions will be posted to the Chapter website as they are received.

Voting
Chapter member voting will begin August 1st and continue through the 15th. Decisions of the voters are final. Notification will be sent by email to contest winners after voting is completed. Please direct any questions to Karla at KarlaVanLeaven@gmail.com.

Nominations for Chapter Officers Needed Now
By Scott Luchessa, Immediate Past President
Here’s your opportunity to shape the direction of the Chapter. Thanks to those of you that have provided nominations. We have a good start on a very capable suite of candidates for President, Executive Vice President, Program Vice President, Secretary/Newsletter Editor, and Treasurer. It would be great to have at least one more nomination for each of these positions. Only active members in good standing (i.e., membership dues have been paid) who have attended at least one of the last three PNW Chapter meetings preceding their nomination shall be eligible for nomination for an elected office. Self-nominations are accepted. For more details and descriptions of the duties and term limits for each position, please see the bylaws on the website at http://www.sws.org/regional/pacificNW/PNW_Bylaws.pdf. Please call me at (206) 336-1654 or email me at sluchessa@environcorp.com with your nominations. I am happy to answer any questions that you might have as well. Nominations are needed by the end of July! Thanks for your assistance and participation!

PNW SWS Chapter Board Meetings
By Leandra Cleveland, PNW 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 next meeting is scheduled for July 23, 2012 from 3:00pm to 5:00pm. If you are interested please contact Leandra Cleveland at leandra.cleveland@hdrinc.com to receive the agenda and conference call information.

The 2012 National Wetland Plant List
By C. Mirth Walker, Secretary/Newsletter Editor
As of April 25, 2012, the 2012 National Wetland Plant List (NWPL) is in the final stages of becoming the new plant list for use under the Clean Water Act, Swamp Buster, and National Wetlands Inventory. This process required an update of nomenclature and wetland ratings, an announcement in the Federal Register with a public comment period, an evaluation of all input, responses to comments from the Federal Register, and the development of a NEPA document describing impacts. Steps involved in the finalization of the NWPL consisted of:

- Federal Register (FR) public comments: All comments have received a response, and the detailed responses are posted on this web site.
- External Peer Review: This is complete and posted on this web site.
- NEPA document: This has been completed.
- Final Draft Wetland Ratings: All species have been assigned a final draft rating. The ratings are posted on the results page of this web site.
- Briefings: PowerPoint briefings on the process and results of this effort were made to the headquarters offices of each of the four agencies involved in this process (U.S. Army Corps of Engineers [USACE]; EPA, USFWS, and the Natural Resources Conservation Service).
- Second FR notice: The USACE has prepared a second FR notice that summarizes the comments and responses made during the public comment period. This FR notice is waiting to be sent to the White House Office of Management and Budget for its final announcement.
- Political Appointee Briefings: The signature for each agency will be at the politically appointed level, and these people have not been briefed yet. USACE expects this to happen during March 2012.
- The NWPL will be signed by the four cooperating agencies for use under the Clean Water Act, Swamp Buster, and the National Wetlands Inventory. USACE is anticipating final signature in late March or April 2012.

Once the NWPL is finalized and signed for use, it replaces the 1988 USFWS wetland plant list. Late breaking news: You can now download the NWPL 2102 plant lists by USACE Region and State, using Firefox as your browser: http://geo.usace.army.mil/wetland_plants/index.html.
Are There Wetlands of International Importance in the Pacific Northwest?

By Heather MacKay, Scott Luchessa, Lizbeth Seebacher

The Pacific Northwest is rich in wetlands, many of which are protected by federal, state, and local government laws, rules, and regulations. But do we have any wetlands which are so extraordinary and significant that they also deserve designation as Wetlands of International Importance under the Ramsar Convention on Wetlands? That is the question the authors would like to explore with other Pacific Northwest wetland scientists.

What is a Wetland of International Importance?

Wetlands of International Importance, also called “Ramsar Sites,” are those wetland sites designated by member countries of the Ramsar Convention on Wetlands (http://www.ramsar.org) as being especially important “for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits/services.” As of April 2012, there are 2,005 Ramsar sites worldwide, covering a total surface area of 192,819,251 hectares. Recalling that a hectare equals 2.47 acres and 640 acres equals a square mile, that is equivalent to about 744,162 square miles! These sites represent a wide range of wetland habitats.

Unlike the definitions of wetlands used by various regulatory agencies in the U.S., the term “wetlands” as it is used in the Convention includes lakes and rivers, swamps and marshes, wet grasslands and peatlands, oases, estuaries, deltas and tidal flats, near-shore marine areas, mangroves and coral reefs, and human-made sites such as fish ponds, rice paddies, reservoirs, and salt pans. The size of Ramsar Sites varies too. The Okavango Delta System in Botswana covers 5,537,400 hectares (~21,371 sq. mi.), which is about 18 times the size of Rhode Island, while the Ganghwa Maehwamarum Habitat in Incheon, Republic of Korea is just 1 hectare. Several Ramsar Sites have been jointly listed as World Heritage Sites or UNESCO Biosphere Reserves, while many also have some form of domestic protected area designation.

What is the Ramsar Convention on Wetlands?

The Ramsar Convention is the oldest of the modern global environmental agreements. It was adopted in the Iranian city of Ramsar in 1971, and now has 160 member countries spread across all regions of the world. The mission of the Convention is to ensure “the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”. The original text of the Convention, although it predates the three Rio Conventions on Biodiversity, Climate Change and Desertification (which derive directly from the 1992 Earth Summit) by some years, was visionary in its adoption of the concept of wise use (which is consistent with more modern terminology of sustainable use), and the recognition of the benefits and services that wetland ecosystems provide for humans.

Turkey-gediz Delta

In joining the Convention, member countries commit to: the wise use of all wetlands in their territory; the designation and protection of at least one Wetland of International Importance; and international co-operation in achieving the mission of the Convention. The U.S. has been a Contracting party to the Ramsar Convention on Wetlands since 1987 and has designated 31 Ramsar Sites covering a total surface area of 1,651,100 hectares (see map next page).

1 Heather MacKay is currently a member of the Ramsar Scientific and Technical Review Panel (STRP) and of the PNW Chapter of SWS.


3 See the full Convention text at http://www.ramsar.org/cda/en/ramsar-documents-texts-convention-on/main/ramsar/1-31-38%5E20671_4000_0
You can find out more about Ramsar Sites in the U.S. through links on the National Ramsar Committee webpage. Additional information on the various designated Ramsar Sites in the U.S. can be obtained through the Ramsar Sites Information Service (RSIS). Wetlands International maintains the RSIS, under contractual agreement with the Ramsar Secretariat. The RSIS includes a searchable database of all Ramsar sites worldwide.

What makes a wetland worthy of designation as “internationally important?”

There are nine criteria assessed to determine if a site is worthy of the designation as a Wetland of International Importance. These criteria address a number of different biophysical and ecological aspects (see Box 1) and many wetlands qualify under more than one criterion. Wetlands do not have to be in pristine condition to be considered, but if a wetland is designated then the country applying for designation must commit to protecting and restoring the site as appropriate.

What are the benefits of designating a site as a Wetland of International Importance?

In many countries which do not have strong legislation for wetland protection, designation as a Ramsar Site may provide the only enforceable protection for the wetland. In the U.S., where there is already effective wetland policy and legislation in place, designation reflects recognition of the special status of a wetland as part of the global wetland resource – the “jewels in the crown.” A recent survey of the benefits of Ramsar Site designation in the U.S. found that potential benefits included increased funding opportunities as a result of higher profile and recognition, more support for protection of the site and surrounding areas, and increased scientific research, education activities and tourism.

What is the process for applying to the Convention to designate a Ramsar Site within the U.S.?

Almost any local government, organization or community can nominate a site for Ramsar designation. Any one (or more) of the nine criteria must be met. A written agreement to submit the application is required from all landowners and a Member of Congress representing the geographic area. Data and information to support the application must be submitted using the Ramsar Information Sheet. A final decision is made by staff at the U.S. Fish and Wildlife Service (USFWS). The USFWS then submits the application to the Ramsar Convention Secretariat for evaluation.

Are there sites in the Pacific Northwest that could be designated as Wetlands of International Importance?

There are no designated Ramsar Sites in the Pacific Northwest as yet. The authors consider that there are several which appear to be good candidate sites in our region, and that as a Chapter we could work with local stakeholders and agencies to help in identifying some of these and to assist with application for designation of one or more Wetlands of International Importance here.

What do you think? We invite you to contact us with suggestions for candidate sites, or if you are interested in helping. We will then take this up with the Ramsar Section of SWS and with the U.S. National Ramsar Committee.

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4 http://www.ramsarcommittee.us/links2.asp
6 For more information on the Ramsar Criteria and how they are interpreted, see http://www.ramsar.org/cda/en/ramsar-documents-guidelines-strategic-framework-and/main/ramsar/1-31-105%5E20823_4000_0___V1
9 The current Ramsar Information Sheet can be found at http://www.ramsar.org/cda/en/ramsar-documents-info/main/ramsar/1-31-59_4000_0___. A restructured and updated Ramsar Information Sheet is being considered for adoption at the 11th Conference of Parties in July 2012.
10 See here for the procedure http://www.ramsar.org/cda/en/ramsar-about-sites/main/ramsar/1-36-55_4000_0___.

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Box 1: Criteria for determining international importance under the Ramsar Convention on Wetlands.

A wetland should be considered internationally important if it meets any of the following criteria:

1. Contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region;
2. Supports vulnerable, endangered, or critically endangered species or threatened ecological communities;
3. Supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region;
4. Supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions;
5. Regularly supports 20,000 or more waterbirds;
6. Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird;
7. Supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity;
8. Is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend;
9. Regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

Look for a link on the PNW SWS website soon where you can find out more and nominate a site. You can also email us directly: heather@fjh3.com; lsee461@ecy.wa.gov; and sluchessa@environcorp.com. We will publish a follow-up article in the next issue of the newsletter on suggested site nominations.

May is American Wetlands Month!

This May will mark the 22nd anniversary of American Wetlands Month, a time when the Environmental Protection Agency (EPA) and its partners in federal, state, tribal, local, non-profit, and private sector organizations celebrate the vital importance of wetlands to the Nation’s ecological, economic, and social health. http://water.epa.gov/type/wetlands/outreach/index.cfm

Invasive Species Corner

By Lizbeth Seebacher, Secretary/Newsletter Editor

Amorpha fruticosa L. (false indigo bush)


Description and Reproduction:

Amorpha fruticosa is a legume, part of the Fabaceae family. It is a perennial shrub and can grow up to 20 feet high and almost double that in width. There are 13 to 25 one to two inch leaflets on green, hairy stems which are typically dotted, resinous and hairy. This species has a highly variable morphology which possibly explains the numerous synonyms (up to 16 according to some references).

False indigo bush typically flowers in July and the flowers are hermaphroditic. It reproduces by seed and one to two seeds are found within pods about 7.5 mm long. The seeds are thought to be dispersed primarily via water.

This species is native to eastern North America and is currently found in every state in the contiguous U.S. other than Montana and Nevada. Researchers disagree as to the original native range, but generally indicate the southeastern states north to Pennsylvania, Ohio and New Jersey, possibly as far north as Connecticut. In any case, this species has spread far beyond its native range. It is now found along rivers as far north as Maine, and along streams and riparian corridors in southern Washington State (according to the UW Herbarium website), and is
This species is banned in Connecticut and is a Class B noxious weed in Washington State and is considered a freshwater invasive species according to the Washington State Department of Ecology. It is a state listed noxious weed due to its continued spread along stream corridors throughout southern Washington, displacing native species. It is not listed on the Idaho or Oregon noxious weed list but in the U.S. Department of Agriculture (USDA) plants database it is noted as being an exotic that is spreading rapidly along riparian areas. This species is capable of nitrogen fixation and the associated bacterium species identified is considered distinct (Mesorhizobium amorphae). The nitrogen fixation allows *Amorpha fruticosa* to tolerate soil poor in nutrients.

It is also considered invasive in Japan and the Czech Republic, Hungary, and Romania. In research papers from these countries, it is described as having great plasticity, high reproduction and as being very aggressive, displacing native species, especially along waterways and grasslands. In western Romania, this invasive is also spreading into protected areas such as national parks. Research in Hungary indicates that *A. fruticosa* is allelopathic, with high juglone levels and significant negative impacts to native vegetation *A. fruticosa* rated the highest levels of juglone of all of the invasive woody species sampled.

**Control Options:**
There is not a lot of information available for control of this species. Researchers in Romania are finding that the *A. fruticosa* bushes are very difficult to remove and it is very costly to do so. A potential native North American bruchid beetle was found in Japan impacting the seeds of *A. fruticosa* and researchers are investigating this species as a potential biocontrol agent. Two similar, more widespread and well known species here in Washington and Oregon, *Cytisus scoparius* (Scotch broom) and *Genista monspessulanus* (French broom) may be good surrogates in looking for control options. They are similar sized, nitrogen fixing shrubs, reproducing by seed and are also very difficult to remove once a population becomes established. Manual removal of the above ground biomass to prevent seeding is the first step and if the below ground biomass resprouts, herbicide application to the cut stem or an herbicide application to the plants when in full leaf seem to be the most effective. See the Element Stewardship Abstract for these species by The Nature Conservancy for additional information on specific herbicides. Since *Amorpha fruticosa* is typically found near aquatic environments, remember to make sure that any herbicide used is approved for aquatic use.

**References:**


Plants for a Future
http://www.pfaf.org/user/Plant.aspx?LatinName=Amorpha+fruticosa

Invasive Plant Atlas of New England

USDA Natural Resources Conservation Service. Plants Profile.
http://plants.usda.gov/java/profile?symbol=AMFR

Burke Museum of Natural History and Culture. WTU Image Collection: Plants of Washington.

**Support Soil and Wetland Scientist Certification in Washington State**

By Scott Luchessa, Immediate Past President

Did you know Wetland Delineation is the Domain of Licensed Geologists?

There are a few licensed geologists that contest that wetland scientists are practicing geology without a license. This is no joke. In fact, here is a link to a website titled “The Independent Campaign for Protection from Unlicensed Geological Practice.” This petition can be viewed at [http://www.change.org/petitions/the-independent-campaign-for-protection-from-unlicensed-geological-practice](http://www.change.org/petitions/the-independent-campaign-for-protection-from-unlicensed-geological-practice). It does not appear to be widely supported, but nonetheless has gained some support with 422 of the needed 1,000 signatures. The petition claims that the Geologist Licensing Board, the entity responsible for enforcing the practice of licensed geologists (see the Revised Code of Washington [RCW] 18.220), has turned a blind eye to the
unlicensed practice of geology, hydrogeology, and engineering geology. The website goes on to identify the Washington State Department of Ecology as one of the most persistent violators and suggests that Ecology personnel use titles such as “Hydrogeologist” without having the license required to use this title. The next sentence then indicates that Ecology’s wetland scientists regularly and openly practice hydrogeology and geomorphology without a license and indicates that Ecology staff have rejected the geological reports of licensed professionals, harming the public welfare and interfering with the right of licensed professionals to practice in their lawful profession. The petition implies that the Geologist Licensing Board is not enforcing the law and protecting public welfare.

Upon closer inspection, the real rub appears to be that certain licensed geologists believe that people that conduct wetland delineation are practicing geology without a license (see the second comment under “Why People are Signing” claim that wetland delineation is the domain of licensed geologists). This has come out in testimony against ongoing efforts to certify soil and wetland scientists in Washington.

Claims that Ecology wetland scientists are practicing geology without a license appear to be in reference to the conventional practice of examining surface and ground water conditions, which sometimes includes the monitoring of shallow ground water levels for the purpose of determining hydrologic regimes in wetlands and delineating wetland boundaries. RCW 18.22.190 identifies permitted activities for which a geologist license or certification is not required. This section of the code provides a list of activities that can legally be practiced by others without a geology license. The list is found at http://apps.leg.wa.gov/RCW/default.aspx?cite=18.220.190. While the list does not expressly mention wetland delineation, RCW 18.22.190(7) states

“General scientific work customarily performed by such physical or natural scientists as chemists, archaeologists, geographers, hydrologists, oceanographers, pedologists, and soil scientists, providing such work does not include the design and execution of geological investigations, being in responsible charge of geological or specialty geological work, or the drawing of geological conclusions and recommendations in a way that affects the public health, safety, or welfare.”

This could reasonably be construed to include the practice of wetland delineation and determination of hydrology regimes by wetland scientists. Boards are frequently asked to intervene on behalf of their respective professions over concerns about unlicensed practice of a regulated profession, such as geologists. In such cases, a board is limited to the authorities granted under statute to assist in the resolution of such matters and can only address those matters within that context. According to the Washington Department of Licensing, the Geologist Licensing Board has heard complaints from certain licensed geologists expressing concerns about wetland scientists conducting such work. The Geologist Licensing Board provided guidance in 2009 (and reiterated the same guidance in 2011) regarding the area of overlap with wetland delineation and concluded that wetland delineation does not fall within the exclusive scope of practice of hydrogeology. This guidance expressly indicated that the Washington State Geologist Licensing Board will not pursue complaints of unlicensed practice for “Collection of groundwater level data for the sole purpose of wetland delineation.” Despite this guidance, certain licensed geologists have continued to insist such work is the sole domain of licensed geologists.

Regarding the assertion that reports have been “rejected” by Ecology, this appears to be in reference to some recent wetland delineation reports by licensed geologists that were found to be inaccurate. I am personally aware of two such cases and both reports inaccurately reported there were no wetlands when wetlands were present. In both cases, the local municipality was forced to spend additional resources unnecessarily to address report deficiencies. In one of these cases, public monies were wasted on the inaccurate work and additional monies had to be expended on correctly identifying the location and extent of wetlands. The other project financially harmed a proponent of a private development with over $10,000 in unnecessary, duplicative costs.

So my suggestion is that perhaps you might consider looking into this yourself. Also consider if you want to become a state-certified soil or wetland scientist. Otherwise, some individuals will continue to practice wetland delineation producing inaccurate results that adversely affect all of us, whether through permitting backlogs or unnecessary expenditures of your taxpayer dollars on proving that inaccurate work is inaccurate, thus delaying projects and economic development. Worse yet, projects that do not receive adequate scrutiny because of limited resources and receive approval may result in loss of wetlands and the valuable ecosystem services we all benefit from, such as flood control and attenuation, hydrologic support, and fish and wildlife habitat. Worst of all, do you want another profession regulating yours?

The next Geologist Licensing Board meeting is on June 12, 2012. Consider attending the meeting or submitting written testimony expressing your concerns about the activities and behavior of some licensed geologists. Visit the Geologist Licensing Board homepage at http://www.dol.wa.gov/business/geologist/geoboardinfo.html for
more information, such as meetings and minutes, policies, and more.

**Oregon Rapid Wetland Assessment Protocol User Survey**

*By Melody Rudenko, Resource Coordinator, Oregon Department of State Lands*

The Oregon Rapid Wetland Assessment Protocol (ORWAP) was released by the Department of State Lands in May 2009, and is required for permitting wetland impacts greater than 0.2 acres. Overall, the feedback on ORWAP has been positive, but we do know there are areas that could be improved.

To that end, the EPA has awarded a grant to retool ORWAP, and one of the components is to incorporate improvements suggested by users – i.e., you.

Please take a few minutes to complete the online ORWAP survey. Note there are several questions that will require you to have a copy of it available for reference. Here is a link to the ORWAP page on the DSL website: [http://oregonstatelands.us/dsl/WETLAND/Pages/or_wet_prot.aspx](http://oregonstatelands.us/dsl/WETLAND/Pages/or_wet_prot.aspx)

Here is the survey link: [http://www.surveymonkey.com/s/TPSJ7RJ](http://www.surveymonkey.com/s/TPSJ7RJ)

The survey will be available until **May 15, 2012**. Please take it at your earliest convenience. If you have any questions about the survey, please contact Melody at: melody.rudenko@state.or.us; (503) 986-5266.

**Erratum**

*By Scott Luchessa, Immediate Past President*

Thanks to reader Mike Merigliano in Idaho for pointing out an error in my story on Ocean Acidification. The pH scale is logarithmic. So, a change in pH of 1 whole unit, such as from a pH of 8.1 to a pH of 7.1 represents a 10-fold decrease. A change in pH of 0.1 unit from 8.2 to 8.1 would represent a change of about 26%, not a ten-fold decrease as suggested. Thanks for catching that error Mike and setting the record straight. Nonetheless a 26% increase is substantial and it is not surprising that this is having a profound impact on at least some calcifiers.

**Calendar of Wetland Classes and Workshops**

*By Leandra Cleveland, PNW Chapter President*

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 Leandra.

**Coastal Training Program.**

Contact: [http://www.coastaltraining-wa.org/](http://www.coastaltraining-wa.org/)

**Northwest Environmental Training Center:**

Contact: [http://nwetc.org/](http://nwetc.org/)

**Portland State University Environmental Professional Program:** [http://epp.esr.pdx.edu/](http://epp.esr.pdx.edu/)

- Wetlands Plants of the Pacific Northwest: June 4-8, 2012. Portland, OR


- Wetland Delineation and Management Training: June 11-14, 2012. Boise, ID
- Regional Supplement Wetland Delineation Training: June 14, 2011. Boise, ID

**The Seminar Group:** [http://www.theseminargroup.net/](http://www.theseminargroup.net/)

- Permitting: May 23, 2012. Seattle, WA
- Wetlands: May 31-June 1, 2012. Portland, OR

**University of Washington – Professional Development Program**

[http://www.engr.washington.edu/epp](http://www.engr.washington.edu/epp)

No wetland specific classes currently offered; other courses available.
Western Washington University:
http://www.acadweb.wwu.edu/eesp/default.shtml
No wetland-specific classes currently offered; other courses available.

Wetland Training Institute: http://wetlandtraining.com/
- Nationwide Permits Reissued 1: March 27, 2012. eSession 1
- Nationwide Permits Reissued 2: May 4, 2012. eSession 2
- Nationwide Permits Reissued 3: July 10, 2012. eSession 3
- Assessing Wetland Functions and Mitigation Credits: May 7-9, 2012. Arlington, WA.

SWS Funds Available for Wetlands Workshops
By Jeff Walker, Past Secretary/Newsletter Editor
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

PNW SWS Group now on LinkedIn!
By Greta Murdoff, Program Vice President
Our Chapter is now on LinkedIn! Join the Society of Wetland Scientists Pacific Northwest Chapter group on LinkedIn and you can start your own discussions, search or post job opportunities, query the members of the group by starting a poll, or simply find more colleagues to network with.

Update Your Contact Information
Update your contact information at the SWS website: http://sws.org
The Chapter receives an updated membership list prior to each newsletter mailing.

SWS PNW Consultant Directory
By C. Mirth Walker, Secretary/Newsletter Editor
The Chapter posts a consultant list on our website: 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 for the Ooze News to Mirth Walker at cmwalker@swca.com and/or to Lizbeth Seebacher at lsee461@ecy.wa.gov.