

# Association For Women Geoscientists Pacific NW Chapter

FALL 2010

## Inside This Issue

Editor's Corner	1
President's Message	1
Member Spotlight	2
Winner of the 2009 Janet Cullen Tanaka \$1000 Scholarship Award	3
Science Fairs 2010 and Updates	4
May 2010 Field Trip	5
AWG-PNW Contacts	7

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## Happy Hour

## Tap House Grill

Dec. 8: 5-7 pm



*How's that year 2010 been  
working out for you?*

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**Meet + Talk + Fun  
(1506 6<sup>th</sup> Ave.)  
Downtown  
Seattle**

## Editor's Corner

By Holly Glaser

The chapter changes to make it easier for members to socialize, share, network and meet while continuing to advocate for women in geoscience. Change is good.

Celebrate with us on Dec. 8 if you are near Seattle.

- Meetings are shifting to weeknights –making it easier to get together with each other for social and professional events.
- There will be two late summer field trips in 2011. We'll explore the Oregon Coast as a chapter and the Olympic Coast in partnership with other geologists.
- Change a student by becoming a science fair judge! You may be the first geoscientist that a student talks to.

## It's Déjà Vu All Over Again

By Marcia Knadle, President AWG-PNW

This is the first time I've been president of the Pacific Northwest Chapter, and I find myself excited at the prospect.

Events hosted by the chapter have been a bit thin on the ground the past few years, and I'd like to turn that around. We'll likely try a combination of weeknight events, including meetings with a speaker and strictly social happy-hour networking events. Local weekend day hikes or one-day field trips during spring and fall are also under discussion, although we've lost decent fall weekend weather. Please contact me if you have an idea for a day hike/one-day field trip or if you have a talk you'd like to give at a meeting.

We have two field trips being organized for September 2011 – one to the Oregon Coast the weekend after Labor Day and one (jointly with the Association of Engineering and Environmental Geologists) to the Washington Coast the following weekend. We hope many of you will be able to attend at least one of them, so please mark your calendars.

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*After several years in other roles,*

*I find myself chapter president once again.*

*Over the years, I was twice president of the Puget Sound Chapter of AWG, during fiscal years 1989-90 and 2001-2004, for a total of 6 years.*

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*Kudos*



*Heather Vick*

Tireless and terrific as AWG-PNW chapter president the past 3 years, Heather continues her service to the chapter as our new treasurer, past-president and science fair coordinator.

*Continued from pg. 1*

Beyond that, we continue to sponsor two outreach projects with matching support from the AWG Foundation.

The scholarship is the oldest and most generous project, and we're always in search of donations from individuals and businesses. Please contact Pat Reed ([pat.reed@amec.com](mailto:pat.reed@amec.com)) if you work for an employer who may be interested in making a donation.

The science fair project is less costly than the scholarship but probably influences a lot more students. For this we don't need money so much as people who are willing to spend a day or so going to fairs and talking with students about their projects, which is quite rewarding.

The Washington fairs are typically held on Saturdays from mid-March to early April (stay tuned for exact dates). We would also like to start establishing a presence at the Oregon fairs, at least the ones in the Portland area. Please contact Heather Vick ([heatherk@seanet.com](mailto:heatherk@seanet.com)) if you're interested in helping judge.

*Welcome  
New Members*

*Sarah  
Nagorsen*

*Sarah Weeks*

*Taryn Meyer*

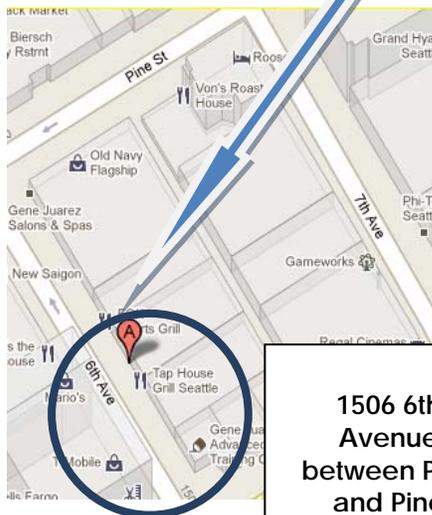
**Our next event will be a Happy Hour at the (1506 6th Ave.) in downtown Seattle from 5-7 pm on Wednesday December 8.**

I hope those of you who work downtown or are close enough to make the trip into town will join us. If you'd like to come, I'd appreciate an RSVP just so I have some idea how large a table to reserve; we'll send out a reminder email. There is no set topic, but I'd especially like to hear about how work is going (or not) in these challenging economic times.

I'd also like to hear your ideas for how AWG can help at least morally support women these days. Next, we're rescheduling the talk by Grace Winer on meteorites for sometime in mid-February, so watch for an announcement for that.

Finally, I'd like to thank Heather Vick for her tireless work as president the past 3 years. She continues to provide substantial service to the chapter as our new treasurer, past-president and science fair coordinator. I'd also like to welcome our new Pacific Region Delegate, Lina Ma, to the chapter board.

Marcia Knadle  
President  
AWG-Pacific Northwest Chapter



**1506 6th  
Avenue  
between Pike  
and Pine**

**Alyssa Pratt Awarded AWG-PNW's 2009 Janet Cullen Tanaka Scholarship**

*Alyssa was notified by phone in early January that she had won the scholarship. The scholarship funds were disbursed by AWGF and a check sent to Alyssa.*

**We're especially counting on those of you who are employed and in business and are able to make a donation to the scholarship fund.**

**For 20 years, \$500 from AWG-PNW corporate and member donations matched by \$500 from AWG Fund created the \$1000 for this award. With the current economic climate, corporate donations have all but dried up.**

**As difficult as times are for businesses and individuals, imagine how incredibly challenging it is for college students!**

**Even small contributions add up quickly, so please sit down now and write a check.**



Make it out to "AWG Foundation" and write "AWG-PNW Chapter Scholarship Fund" on the memo line. Mail it to:

The AWG Foundation is a tax-exempt 501 (c) (3) corporation, so your contributions are tax deductible to the extent allowed by law.

Thank you! Pat Reed  
AWG-PNW Scholarship Chair

*In late December of 2009, the AWG-PNW Scholarship Committee awarded its annual \$1000 scholarship to Alyssa Rose Pratt, a junior attending Western Oregon University.*

**Alyssa was chosen to receive the Scholarship based on her financial need, excellent academic record, personal recommendations from her professors, and student work on geology-related projects.** Her academic record is good, with A's and B's in geology, and frequent quarters on the Academic Honor Roll. She was a junior when she applied, and is expected to achieve her B.S. in 2010. Her Advisor and Professor Taylor both strongly recommend her as a diligent and enthusiastic student. She is preparing to go on for a graduate degree, however she has not decided in what aspect of Earth Sciences.

Her Academic Advisor, Dr. Jeffrey Alan Myers, awarded her the Outstanding Earth Sciences Student award in 2007 based on her interest and enthusiasm for the Earth Sciences. *"As a practicing sedimentary geologist and paleobiologist, I recognize in Ms. Pratt an unusual combination of talents and personality traits that are absolutely critical for success in a professional career."* Dr Myers notes that Alyssa has worked with him in a salaried capacity for four years on organizing the annual meeting of the Oregon Academy of Science (OAS) and did an excellent job. She also worked in a salaried position on his project on fossils. The project involved the preparation, cataloguing, and analysis of a large assemblage of fossil plant material from the Late Miocene Anaverde Formation, Palmdale, CA, for Paleo Environmental Consultants of Altadena, CA.



**Linda L. Davis**  
**AWGF Treasurer**  
**Geology Department, PAD 118**  
**Grand Valley State University**  
**Allendale, MI 49401**

## 2010 Update about Marley Iredale, 2009 winner AWG First Prize Award:

Marcia Knadle and Holly Glaser were wiser than they knew at the 2009 WSSEF when they awarded First Prize to Marley Iredale. because they had the chance to recognize her outstanding work before the rest of the world did.

Marley, a high school student, revealed Sequim's many local tsunamis in her project, Her work was so complete, she could have used it for a Master's degree.



**She went on to win the International Science Fair's Best in Category 2009 for "Evaluation of Tsunami Risk in Discovery Bay near Sequim".**

The award included a **trip to CERN Large Hadron Collider** in Switzerland. **She will also have a near earth asteroid named after her** by Ceres Connection, a program of the Massachusetts Institute of Technology's Lincoln Laboratory.

**She's still going with science** and was awarded the **WA state United States 2010 Stockholm Junior Water Prize** for her work on "An Evaluation of Invasive Tunicates in Pleasant Harbor, Washington".

## Washington State Science & Engineering Fair 2010 Special Award Report

*By Patricia Reed, Judge  
Bremerton WA, March 26-27, 2010*

### AWG-SAGE AWARDS 2010

First Place, Senior Division: Brittany Brown  
"Physical Properties of Sand that Effect Sand Sculptures"

Brittany observed that some contestants in the annual sand sculpture event at Port Angeles bring their own sand to the competition. She was curious, and asked a sculptor about what type of sand he preferred. He said that 'glacial sand' worked best.

So she obtained five different types of sand, including beach and glacial outwash sand, and tested them. She did analyses for grain size, roundness, and direct shear. The grain size analysis appeared to have been done at a soils laboratory, but she completed the direct shear using equipment she made herself.

The conclusion she came to was that glacial outwash sand was indeed the best sand, because it had the best shear strength. She attributed that to the roundness and well sorted characteristics of the sand. Brittany plans to attend the Colorado School of Mines or another geotechnical college. (Prize: \$50 Gift Card to Barnes & Noble)

Second Place,  
7th-8th Grade: Caroline Shouraboura  
"Could a Dangerous Asteroid Hit the Earth Without Warning?"

Caroline was investigating the number of near-earth asteroids discovered in the past 10 years. She was amazed that the 'Apothis' asteroid was not seen until it was quite close to earth.

Her findings were that the science of asteroid detection is not well developed, especially when asteroids are not reflective. She created a model showing how dark asteroids can be easily unobserved while orbiting in the solar system. She has discovered a greater degree of interest in the planetary sciences than she expected, and plans to continue her explorations of the field. (Prize: \$25 Gift Card to Barnes & Noble) I told both Brittany and Caroline about AWG and our annual chapter scholarship, and gave them a card to contact me if they had questions.

## Recent Events: May Field Trip to the Olympic Peninsula

### AWG Washington Section Julia Turney, Editor

The Washington Section and Pacific Northwest Chapter of the Association for Women Geoscientists co-hosted a three day field trip to the Olympic Peninsula: *From Hurricane Ridge to the Large Landslides of the North Olympic Peninsula Coastline via the Elwha Watershed and Dam Removal Project.*

**Doug Anderson** of WSDOT and **Marcia Knadle** of USEPA were co-organizers of the May 14-16 trip and, with a cadre of expert speakers and helpers, lead 40 attendees on a route that followed glacial outwash channels, climbed through the Crescent Basalt, across the Hurricane Ridge Fault, through intensely-deformed core sedimentary strata to Hurricane Ridge for a overview presentation on the geology.

To end day one we headed out to Ediz Hook to observe shoreline process and the effects of sediment starvation by dams on the Elwha River. And that was just day one!



Hank Schasse (Washington Department of Natural Resources, Ret.) provides an overview of the Olympic Peninsula Geology with the Olympic Mountains as a backdrop.



*At Ediz Hook, Dave Parks, Anne Shaffer and Kristin Lee respectively present the hydrogeologic setting of Port Angeles area, the Elwha nearshore process and the Elwha Nearshore Consortium and evidence of sea-level changes and effects on delta evolution.*

**The removal of the two dams on the Elwha River is one of the most significant river restoration projects proposed in Washington or perhaps the world.**

After ongoing studies and a water treatment plant to prevent problems for downstream users, the dams will be removed in 2011. We looked at the dams, learned about the geology, dam history and stream ecology of the area and then went to look at the mouth of the Elwha River and learned about recent near-shore baseline studies on the marine geomorphology and anticipated impacts from the removal.

## Olympic Peninsula Field Trip Continues



Dick Link of the USBR presents the geology of the Elwha watershed and information on the history of the Glines Canyon and Elwha Dams.

*"Last Dam Summer"*



Joe Donisi, Assistant Clallam County Engineer, Steve Evans and Curtis Mathis of PanGeo present the geotechnical design and foundation construction of the new Lower Elwha River Bridge. The Olympic Discovery Trail is suspended below the bridge deck.

*The beach at one landslide was uplifted nine feet over 500 feet in length.*



Field trip participants enjoying sunshine overlooking the Elwha and saying the unofficial motto of the removal project.

**Day three was all about slope stability** problems along the north Olympic coastline with stops at landslides in the Oligocene-Miocene Pysht Formation. A storm during November 15-20, 2009 delivered almost 14 inches of rain to the north Olympic coasts and triggered four large deep-seated landslides between Crescent Bay and Pillar Point. The beach at one landslide was uplifted nine feet over 500 feet in length. Aerial photographs of the coast in this area show offshore evidence of similar events in the past.

## Olympic Peninsula

Stop three of the day provided an overview of **real-time landslide monitoring on State Route 112**, a lifeline for the north coast communities.

**The road is subject to sudden catastrophic failure and a combination of weather forecasting, instrument monitoring and observation allows WSDOT to monitor and rapidly close the road.**

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Dick Link of the USBR presents the geology of the Elwha watershed and information on the history of the Glines Canyon and Elwha Dams.

The field trip ended at the Crescent Lake Lodge to learn the Lady of the Lake legend and the geology of the lake.

*The field trip ended at the Crescent Lake Lodge*



With Crescent Lake in the background Doug Anderson (far right) presents thank you gifts of homemade raspberry and blackberry jam from his garden to (from the left) Brian Beaman, John DeLaChapelle, Chip Barnett, Brad Thurber, Dave

### Upcoming Events Field Trips

#### Olympic Peninsula Field Trip Series, Part II

September 10-12, 2011

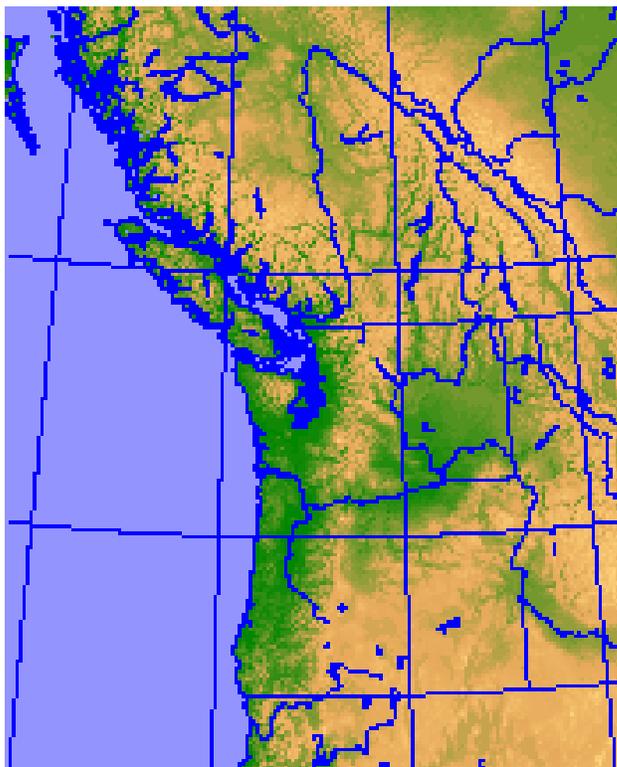
**Oregon Coast Field Trip**  
Planned for  
September 16-18, 2011

Send us  
mail... at our  
**NEW**  
**ADDRESS**



## Contacts:

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Pacific Northwest Chapter**  
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