



# Association for Women Geoscientists

## Pacific Northwest Chapter

### Winter 2012/13 Newsletter

<http://www.awg-ps.org/>

Please forward this newsletter to all who are interested in women in geoscience issues or to individuals who might like to join the AWG-PNW chapter.

## President's Message

*Marcia Knadle, AWG-PNW Chapter President*

It's the start of another chapter management year at AWG-PNW. I'd like to thank the people who took the time to vote. It was a nice vote of confidence for the slate, mostly returning officers with one addition. Our chapter is in good condition financially, thanks mainly to **Heather Vick's** efforts; our website is well-managed and events get publicized in a timely fashion due to our web manager **Keith Olson**; the newsletters are substantial and are now issued 3-4 times/year thanks to **Jenny Saltonstall**; and I feel well supported by **Shari Silverman** in developing Seattle-area programs. Although not on the chapter board, our Portland-area organizers **Heidi Yantz, Lina Ma, Jill Betts, and Serin Duplantis** have continued to maintain a schedule of 3-4 social/technical meetings and one field trip per year. And congratulations are due to **Lina Ma**, who has been elected AWG Secretary – unfortunately, that means she is leaving our board, but I expect she'll remain in close contact. Our membership is down a bit compared to last year, so we'll probably be putting more emphasis on member recruitment and retention. As in **PLEASE DON'T FORGET TO RENEW YOUR MEMBERSHIP!** I believe a lot of people think they've renewed when they haven't, in part because we keep people on our email lists long after their memberships have lapsed. If you haven't received any email notices about Gaea this year or if you haven't recently received a letter reminding you to renew your membership, yours may have lapsed at the end of 2011.

Next, I'd like to introduce our new secretary, **Theresa Burton**. I'd met with Theresa, a graduate of Central Washington University, a few times on business trips to Moses Lake. One of the more valuable roles AWG can play is to keep women involved with the geosciences during periods of professional exile, whether laid off during down times or when an entire geoscience industry crashes (as happened with the fossil fuel industry during the mid-80s), when taking time off to raise small children, or when living in a town with very few opportunities for geoscientists. Moses Lake is hardly a hot bed of geoscience activity, so Theresa has been eager for opportunities to interact with other geoscientists. Hopefully, she'll develop contacts and learn useful strategies for future professional development. In the meantime,

we're pleased to have her help with chapter management, and she's pleased to be involved and will be working

with Tri-Cities member **Elaine Brouillard** to develop a future field trip east of the mountains. [If you're feeling adventurous (or flush) enough, check out upcoming AWG field trip to Cuba ([http://www.awg.org/trips/cuba13/Cuba\\_AD\\_Insight%20approved.pdf](http://www.awg.org/trips/cuba13/Cuba_AD_Insight%20approved.pdf))!]

Finally, I'd like to ask everyone who is gainfully employed to consider making a donation to the Janet Cullen Tanaka scholarship fund. This scholarship honors one of our chapter's "founding mothers" (and first treasurer) and is awarded to women undergraduates attending colleges in Washington and Oregon. Because we got only a few applications last year, the board decided to increase the size of the scholarship to \$1500. (After all, we started giving out \$1000 in 1994, which has only \$600 worth of buying power in today's dollars, and tuition has risen faster than inflation.) The past two years we've successfully raised \$750 and (with the help of matching funds from AWGF) were able to give out a \$500 second-place award along with the \$1000 main

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### Donate to the Janet Cullen Tanaka scholarship fund!

Please send a check made out to "AWG Foundation" and designate the "AWG-PNW Chapter Tanaka Scholarship" on the check, to:

Rhonda Jacobs  
AWGF Treasurer  
4611 S. Evanston Ave.  
Tulsa, OK 74105

**Corporate sponsorship is welcomed**, and your company or organization's name and logo would be included our newsletters. Please contact us, [edi-tor@awg-ps.org](mailto:editor@awg-ps.org), to discuss sponsorship.

*(President's Message continued)*

award. Now that we feel comfortable that we can raise \$750, even in bad economic times, we want the scholarship to be large enough to attract more applicants. Of course, this means that we're committed to raising \$750, so if you're able to afford it, please send in a check made out to "AWG Foundation." Please make sure you designate the "AWG-PNW Chapter Tanaka Scholarship" on the check so it goes into our fund (there's also a Taaken Scholarship, so they can get confused if you don't also mention the chapter). Remember that donations made out to the AWG Foundation [a 501(c)(3) tax-exempt organization] are tax deductible to the extent allowed by law, and that even small donations add up fast if many people make them. (It's possible to make a donation to AWGF online, but unfortunately, there's no

way to designate a specific fund, so please do it the old-fashioned way and mail a check.) Besides the scholarship, the chapter encourages younger students through judging at science fairs. Our involvement at fairs in Washington State is long-standing, although we can always use more volunteers to judge fairs. We'd like to become involved at Oregon fairs, and we need a local volunteer to help identify and publicize fairs and to recruit judges.

As I enter my third (and, per our bylaws, last) year as chapter president, I'd like to thank you all for helping make the AWG Pacific Northwest Chapter a great organization! As always, please let me know if you have comments or ideas for the chapter at [marci-aAWG@aol.com](mailto:marci-aAWG@aol.com).

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## Message from the Editor

Happy New Year and welcome to the Winter 2012/13 Edition of the AWG-Pacific Northwest Chapter newsletter! Please let me know if you have any announcements or would like to submit articles on local earth sciences issues/events, articles on related to the participation of women in the geosciences, or even book or movie reviews. If you have ideas for how to improve or expand

this newsletter or ideas for AWG events, please drop any of us a line and let us know your ideas! Mark the contributions 'AWG-PNW newsletter' and send them to me at [editor@awg-ps.org](mailto:editor@awg-ps.org). They may be submitted at any time.

**Best regards,**  
**Jenny Saltonstall, AWG-PNW Newsletter Editor**

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## Earth Sciences Week Recap

*Jenny Saltonstall, AWG-PNW Newsletter Editor*

### Earth Sciences Week Recap

I had a wonderful time talking with Ms. Casey's 3<sup>rd</sup> grade classroom in October during the 2012 AGI's Earth Science Week. The theme was "Discovering Careers in the Earth Sciences," to engage young people and the public in learning how geoscientists gather and interpret data about the Earth and other planets. The kids loved looking at my somewhat random collection of rock and mineral samples and were surprised that Newport Hills had been underneath a glacier like on the movie Ice



Age. I was also lucky in that one of our geotech jobs had an excavation into the Blakely (?) formation along Newport Way that encountered a fossil-rich shale that I could bring along. If you are interested in taking part in the 2013 Earth Sciences Week, I'd be happy to exchange notes with you. Not having participated before, it was a little intimidating talking in front of 27 kids about local geology and what a geologist might do in the course of a job. But, really it was wonderful to see the kids doing rock diagrams and looking up minerals in their books, asking good questions about drilling and what might be under their feet. I was very impressed with the interest level.

Above Pictures/Photos. Left, geology drawn by Ms. Casey's students. Top right, fossil-rich shale/mudstone; Bottom right, drill cuttings tray, both examples of data a geologist might gather.

## DIG box and the DIG School



Please pass along to those that might be interested. The Burke Museum and UW have a very cool teaching tool to loan out to teachers. It's called a DIG box, which stands for Discoveries in Geosciences (DIG). They also offer a field camp for K-12 teachers called the DIG School. To learn more about obtaining a DIG Box including fossil specimens and lesson plans on loan, visit [http://www.burkemuseum.org/education/Dig\\_Field\\_School/](http://www.burkemuseum.org/education/Dig_Field_School/) or email [burkepr@uw.edu](mailto:burkepr@uw.edu).

*The DIG Field School is an activity- and inquiry-based introduction to geology and paleontology for K-12 educators. Teachers join scientists at an active field research camp for a multi-day, immersive experience including field-based scientific inquiry of geology and paleontology, and methods for collecting and identifying fossils. Participation in the DIG Field School, is offered at **no charge** to qualified teachers.*

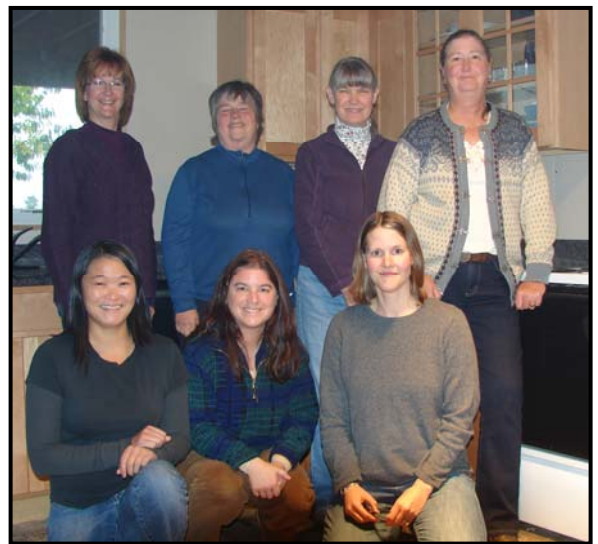
## 2012 Program in Review and October 2012 Board Meeting Summary

*Jenny Saltonstall, AWG-PNW Newsletter Editor*

The executive board met in Seattle on October 27, 2012. Heather Vick graciously hosted. In attendance were Marcia Knadle, Heather Vick (host), Shari Silverman, Jenny Saltonstall, Theresa Burton, Pat Reed, and Lina Ma (now AWG Secretary). Introductions were followed by a summary of chapter history, organization and general activities (Marcia). Heather went over financials, and we have a healthy balance in the bank. Our end-of-year financial report has been sent into AWG national. Discussion was held on the 2013 program regarding upcoming and potential speakers, field trip planning and involvement with AEG's Annual Meeting in Seattle in Sept. 2013. Outreach efforts include the Pacific Northwest Janet Cullen Tanaka scholarship and Science Fair judging.

Our **2012 program** included a February social mixer at the Deschutes Brewery in Portland; a March chapter meeting in Bellevue with a talk by Brandy Rinck, Geoarchaeologist, SWCA, Inc. titled *Micromorphological Analysis of a Stratigraphic Profile at the Paleolithic Site of Bear Creek, Redmond, WA*; a May joint meeting (Northwest Geological Society) with a talk by Oregon State Geologist Dr. Vicki McConnell titled *Everything you always wanted to know about state geological surveys, but whom to ask?*; an AWG-PNW day field trip to the Cedar River Watershed in June; an AWG-PNW day field trip to Mt. St. Helens in September, and a December joint meeting ( Association for Women in Science) with a talk by Susan Petty, CTO of AltaRock Energy, Inc. titled *Developing Geothermal Energy in the Pacific Northwest*; and a December joint meeting (AEG) in Portland with a talk by Dulci Berry from PBS Engineering + Environmental titled *Dry Cleaners Remediation: Case Studies, Evolving Science and Approach*.

Our **preliminary program for 2013** includes a Seattle speaker on Geologic Disasters – One Municipality's Plan, a potential field trip in eastern Washington, and co-sponsoring meetings with NWGS (Seattle) and/or AEG (Portland and Seattle). The **next board meeting** will be via conference call, tentatively scheduled for Thursday January 24. Please let us know if you would like to be a part of planning activities for 2013.



Left to right, Back row: Teresa Burton, Heather Vick, Marcia Knadle, Pat Reed; Front row: Lina Ma, Shari Silverman, Jenny Saltonstall.

### Opportunity for Recent Grads to Write for EARTH Magazine

*With the October 2012 issue, EARTH Magazine has begun a casual series of articles written by recent geoscience graduates about their early experiences in the workforce. This series is in part a response to some common inquiries we've encountered— students and graduates often wonder what to expect in their job search and what employment will really be like in the geosciences. ...the first of these EARTH articles, "The Bakken Boom and the New Wild West – A Young Geologist's Perspective." ... Recent graduates – within the last two years – who are currently working in the geosciences and might be interested in writing a piece about their unique perspectives and experiences, contact EARTH Managing Editor Meg Sever at [earth@earthmagazine.org](mailto:earth@earthmagazine.org).*

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## Hike/Outing on the south-side of Mount St. Helens – Brief Summary

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More info and pictures to follow in the spring!

On Saturday, September 15, a number of our members spent the day on the southwestern flanks of Mount St. Helens (MSH) for a moderate hike over the varied terrain of the volcano's "back-side". The hike included an approximate 6-mile loop through a flow of Cave Basalt and an old growth forest providing access to two debris flows that occurred during a heavy winter storm of 2006. The hike was led by Keith Olson, a Portland State graduate student, who gave a brief overview of the area and discussed some of the details of his recent study of the debris flows on MSH.

Key field trip stops:

--Prior to beginning the hike, a short stop at the Swift Creek Reservoir lookout to briefly view the dam and the morphology that makes up the south side of MSH

--Red Rock Trailhead where the hike begins and ends.

--Along the trail, views from the Blue Lake depositional zone and

the Cave Basalt flow will offer views of the mountain (weather permitting).

--After the hike, one or two roadside exposures along the way.

--Bonus option: approximate 2-mile in and out stroll through the Goat Marsh Research Natural Area to view the dacite dome of Goat Mountain and Goat Marsh Lake.



Photo: On the trail crossing the Butte Camp Dome debris flow depositional area and looking back at Mt. St. Helens.

### ***You know you've been in the field too long if...***

- You choose the shirt you're wearing today based on whether it will clash with your safety vest
- You consider earplugs on a cord a fashion accessory
- While driving, you get distracted by "yellow metal" on the road
- Your suntan washes off at the end of the day
- When you go to replace your men's size 10 worn-out boots, the clerk asks what your husband does (yes, it really happened to me)
- You haven't vacuumed the floor mats in your vehicle in three years, because they will just get trashed again right away
- The tool collection in your vehicle rivals that of a small auto body shop
- There is always at least one "nice" rock in the vehicle somewhere

*(compiled by Pat Reed, please send in some more!)*

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# Volunteer at Washington State Science and Engineering Fairs!

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*Jenny Saltonstall, AWG-PNW Newsletter Editor*

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The AWG Pacific Northwest Chapter helps support expenses for members who volunteer to represent AWG as judges to regional and state science fairs.

## What can you do?

- Be a judge on the day of the fair. A short training session is provided with guidelines for judging; offer critiques, compliments, and encouragement. And AWG-PNW will provide a prize to your selected winner.
- Be a networker. Connect students interested in specific topics with scientists and engineers you know in relevant fields.
- Be a mentor. Help students develop research ideas and design projects.

## Whom should you contact?

Let us know if you are interested in volunteering – it would be wonderful to AWG judges at several fairs. Please let us know by end of January so that AWG-PNW arrange for an AWG-PNW sponsored award.

In Oregon, the Northwest Science Expo System puts on several science fairs, please see <http://nwse.org/regionalfairs>.

In Washington, here are some fair dates and locations:

- March 3, 2013, Washington Homeschool Science & Engineering Fair, Kent, <http://dorealthings.com/>
- March 7-9, 2013, Mid-Columbia Regional Science and Engineering Fair, Kennewick, [www.mcsf.net/](http://www.mcsf.net/)
- March 9, 2013, Central Sound Regional Science and Engineering Fair, Bellevue College, <http://scidiv.bellevuecollege.edu/sami/scifair>
- March 9, 2013, Southwest Washington Science and Engineering Fair, Vancouver, Fair Director: [carolramsey1@comcast.net](mailto:carolramsey1@comcast.net)
- March 23, 2013, South Sound Regional Science Fair, Pacific Lutheran University, Tacoma, [www.plu.edu/scifair/](http://www.plu.edu/scifair/)
- April 5-6, 2013, Washington State Science and Engineering Fair, Bremerton, [www.wssef.org/](http://www.wssef.org/)

## Non-AWG Events

April 23–25, 2013, **Washington State Hydrogeology Symposium Conference** in Tacoma: [www.wahgs.org](http://www.wahgs.org).

Keynote Speakers include: Dr. Steve Silliman – 2011 NGWA Darcy Lecturer; Dr. Jeff McDonnell – 2011 GSA Birdsall-Dreiss Lecturer; and Dr. Susan Hubbard – 2010 GSA Birdsall-Dreiss Lecturer. This regional conference offers the opportunity to learn about best practices, enhance your knowledge of current research and connect with other professional hydrogeologists, geologists, and hydrologists from throughout the Pacific Northwest. Activities will include keynote and platform sessions, posters, workshops, fieldtrips, luncheons and an evening reception.

May 3-5, 2013, **NWGS 25-year Anniversary Symposium, The Pathway Ahead for Northwest Geosciences** at the University of Washington: [nwgs.org](http://nwgs.org)

May 5, 2013: **NWGS Spring Field Trip, Geology of Fidalgo Island**, led by Eric Cheney (UW ESS).

The scenery, accessibility, weather, and variety of rocks make Fidalgo Island an ideal place for a field trip at any time of the year. Fidalgo Island is the southernmost of the San Juan Islands of northwestern WA. These islands are underlain by a stack of southeasterly dipping thrust sheets or terranes involving Paleozoic and Mesozoic rocks, most of which are in greenschist facies. Fidalgo Island is in the uppermost thrust sheet. This trip will test the hypothesis that the island is underlain by an ophiolite complex. We will inspect ultramafic rocks, layered gabbro, unlayered gabbro, coarse volcanoclastic rock, manganese-rich sediment, ribbon chert, and feldspathic sandstone. We will use the previously mapped distribution of these rocks to infer major unconformities and structures. The rocks crop out at such scenic localities as Mt. Erie, Deception Pass, Rosario Head, Washington Park, and Cap Sante.

September 10-13, 2013, **Association of Environmental & Engineering Geologists Annual Meeting**, Seattle: [www.aegwashington.org](http://www.aegwashington.org)

## 2011-2012 Contact Information

**Association for Women Geoscientists**  
**Pacific Northwest Chapter,**  
*Established in 1985 as the Puget Sound Chapter*

### Mailing Address

AWG – Pacific Northwest Chapter  
P.O. Box 28391  
Seattle, WA 98118

### AWG GOALS

- **Encourage** the participation of women in the geosciences
- **Exchange** educational, technical, and professional information
- **Enhance** the professional growth and advancement of women in the geosciences

Office	Name	Contact Phone	Contact Email
President	Marcia Knadle	(206) 553-1641	<a href="mailto:president@awg-ps.org">president@awg-ps.org</a> OR <a href="mailto:marciaAWG@aol.com">marciaAWG@aol.com</a>
Past President:	Heather Vick	(206) 850-9248	<a href="mailto:ppresident@awg-ps.org">ppresident@awg-ps.org</a>
Vice President	Shari Silverman	(206) 343-0226	<a href="mailto:vpresident@awg-ps.org">vpresident@awg-ps.org</a>
Secretary	Teresa Burton		<a href="mailto:secretary@awg-ps.org">secretary@awg-ps.org</a>
Treasurer	Heather Vick	(206) 850-9248	<a href="mailto:treasurer@awg-ps.org">treasurer@awg-ps.org</a>
Newsletter Editor	Jenny Saltonstall	(425)827-7701	<a href="mailto:editor@awg-ps.org">editor@awg-ps.org</a>
Webmaster	Keith Olson	(541) 669-0326	<a href="mailto:webmistress@awg-ps.org">webmistress@awg-ps.org</a>
Scholarship Chair	Pat Reed	(206) 391-6609	<a href="mailto:scholarship@awg-ps.org">scholarship@awg-ps.org</a>

## About AWG

The Association for Women Geoscientists is an international organization devoted to enhancing the quality and level of participation of women in geosciences and to introduce girls and young women to geoscience careers. Membership is open to anyone who supports AWG's goals. Our members include:

- professional women and men from industry, government, museums, academia, and K-12 teachers
- students
- retirees
- others interested in supporting our goals.

Our diverse interests and expertise cover the entire spectrum of geoscience disciplines and career paths, providing unexcelled networking and mentoring opportunities. Our membership is brought together by a common love of earth science and the desire to ensure rewarding opportunities for women in the geosciences.

### MEMBERSHIP

If you are interested in becoming a member of AWG, please contact the Chapter Executive Committee. More information is available at the AWG home page: <http://www.awg-ps.org/>

#### Reminder to renew membership – please support the chapter!

Please take the time **now** to go online or mail in your membership renewal. Also, please remember that if your contact information changes during the year, you can go online and update it yourself. This is especially important if you change your email address. If you've decided not to renew your membership for a specific reason, we'd appreciate knowing why – please contact me at [president@awg-ps.org](mailto:president@awg-ps.org).