



NORTHWEST GEOLOGICAL SOCIETY

A regional association of professionals, students & others interested in geology
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December 2012 Newsletter

Volume 26, Number 8



December 11 Program Speaker

Speaker: Kathy Troost, Troost Geosciences, Inc. & UW Professional Masters Program in Applied Sciences

Title: The 14,000-Year Geologic History of Lake Washington and Lake Level Rise

Abstract: Ms. Troost evaluated the 14,000-year history of Lake Washington lake level rise and landform development to assess potential for submerged island and shoreline occupation. She developed a lake-level-rise curve for Lake Washington, Union Bay and Portage Bay. She also identified submerged shorelines and their associated times of development. Her work utilized multiple techniques including geomorphic analyses of bathymetry, microscopic analyses of sediment and peat, radiocarbon dating, facies characterization, tephra analyses, and submerged plant identification. She was also able to determine changes in sedimentation rates in the basins over their 14,000 years of existence. In another archeological project, Ms. Troost modeled the growth of the West Point spit to anticipate potential cultural surfaces to minimize construction delays. Her model incorporated subsidence from the Seattle fault and she developed a sea level rise curve for the site. She was successful at predicting the direction of growth and elevations of sand spit surfaces thereby focusing archaeological investigations.

5:30pm: No-host social hour

6:30pm: Buffet dinner

7:30pm: Speaker program

All are welcome to attend –
reservations are required
if coming for dinner.

► [Reservations here](#) 

PROGRAM DINNER RESERVATIONS: NWGS members: **\$40**; Non-members: **\$45**; Full-time students : **\$20**. \$45 for LATE REGISTRATION. Make your reservation and payment on-line at www.nwgs.org (or mail your payment to *Northwest Geological Society, 4616 25th Ave NE #397, Seattle, WA. 98105* (must be received by Thursday prior to meeting)). Contact [Dan Smith](mailto:Dan_Smith@nwgs.org) at 206-937-5313 or nwgeo@yahoo.com.

If attending the speaker program only, a \$5 voluntary donation to help defray the meeting room cost is requested.

Location: Pacific Dining Hall at the [Talaris Conference Center](#), 4000 NE 41st St., Seattle, WA. Ph 206-268-7000. **Directions:** See [on-line directions with map](#), or: from I-5 northbound or southbound in Seattle, take Exit 168B (NE 45th St.). Drive east on NE 45th St. past UW down the hill and past University Village. Turn south (right) onto Mary Gates Memorial Drive at the 5-way intersection. MGM Drive will curve east (left) and become NE 41st St. Continue several blocks to the [Talaris Conference Center](#) entrance on the north (left) side. We meet in the Pacific Dining room on the left.

Upcoming Speakers and Field Trips

January 8: TBA

February 12: TBA

March 12: TBA

April 9: TBA

May 3-5: Second NWGS Symposium. See more in the *Announcements* section on the next page.

Spring, 2013 Field Trip: May 5, Eric Cheney, UW ESS, Fidalgo Island (Second NWGS Symposium field trip).

Fall, 2013 Field Trip: TBA

Please see the [NWGS website](#) for detailed announcements.

Contact webmaster [Julie Masura](#) if you have any announcements to post on the website.

Announcements

- The **Second NWGS Symposium, *The Paths Ahead for Northwest Geosciences*** is scheduled for **May 3-5, 2013** at the University of Washington:
 - * **May 3:** dinner for speakers, past & present NWGS officers, & organizing committee members;
 - * **May 4:** symposium main event at Kane Hall, UW, with 11 speakers, coffee service, lunch, and reception afterwards;
 - * **May 5:** symposium field trip to Fidalgo Island led by Eric Cheney, UW Dept. of Earth and Space Sciences;
 - * Please contact [Dave McCormick](#) (206-838-5834) if you would like to **contribute to the symposium as a sponsor**;
 - * Details will be posted at [NWGS website](#) as they become available.
- **Next Board meeting:** December 11, 4:30 P.M., Talaris Conference Center.
YOU would like to be involved!

Photo Spotlight



Aerial view of the southern end of Lake Washington and Mercer Island looking south from about over the I-90 Floating Bridge. Seward Park forms the small vegetated peninsula in the center, and Mt. Rainier lies in the distance. Lake Washington occupies one of several first order glacial troughs throughout the Puget Lowland. T. Bush photo.

About NWGS

NWGS, a regional association of professionals, students & other persons interested in **geology**, provides a forum for the presentation and discussion of a wide range of geological topics, emphasizing those of the Pacific Northwest of fundamental scientific interest.

YOU would like to be involved!

Program meetings: 2nd Tuesdays, October through May in the Pacific Dining Hall at the [Talaris Conference Center](#) in Seattle (see 1st page). Anyone may attend the speaker program, but a reservation is necessary for those wanting dinner (see 1st page). **Field trips (members only):** one in late spring/early summer and one in late summer/early fall, usually of 1-3 days in length. **Membership** is open to anybody with a professional or amateur interest in geology. **Annual dues:** Professional: \$30; Student: \$5. **To join or pay annual dues:** send a check payable to NWGS to Secretary [Dan Smith](#), 10203 40th Ave SW, Seattle, WA. 98146. Please include your name, address, home phone, email, and employer/affiliation (if any). Professional dues may now also be paid at www.nwgs.org.

YOU would like to be involved!

Recommended Readings

Troost, K.G., Mahoney, J.B., Booth, D.B., and Borden, R.K., 1998, Discriminating glacial from nonglacial deposits in Pleistocene sediments of the south-central Puget Lowland: Association of Engineering Geologists Annual Meeting, Seattle, WA.

Troost, K.G., Booth, D.B., Sarna-Wojcicki, A., Meyer, C.E., and Hagstrum, J.T., 1997, Chronology, mineralogy, and correlation of Quaternary tephra and mud-flow deposits in the Central Puget Lowland, Washington state, Abstracts with Programs, 1997 Annual Meeting of the Geological Society of America, Salt Lake city, Utah, p. A-411.

Please send your reading recommendations to Newsletter Editor [Tom Bush](#).

To report a change of email or postal address or request to be removed from mailings, notify Secretary [Dan Smith](#) at 206.937.5313. Questions or comments? Contact President [Julie Masura](#).

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