

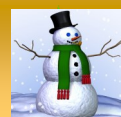
# NORTHWEST GEOLOGICAL SOCIETY

A regional association of professionals, students & others interested in geology  
Please browse [www.nwgs.org](http://www.nwgs.org) for more about us



## January 2015 Newsletter

Volume 29, Number 1



### January 13 Program Speaker

**Speakers:** Michael Polenz and Trevor Contreras, Washington State Department of Natural Resources, Division of Geology and Earth Resources

**Title:** Hood Canal on the Rocks: Seven Years of Mapping Rocks, Faults, and the Effects of (Sometimes Frozen) Water Along Hood Canal

**Abstract:** The Washington State Geologic Survey recently mapped all 7.5-minute quadrangles along the shore of Hood Canal. Key findings include:

- Deposits associated with stagnant ice cover much of the western Puget lowland. Lodgment till is patchy on the fluted upland and should not be assumed to provide a coherent aquitard.
- The Tacoma and Seattle faults extend west to at least Hood Canal. An unnamed northeast-trending fault southwest of Belfair may be associated with the large Alderwood landslide complex. The previously unmapped Lucky Dog fault likely has contributed to frequent flooding of the lower Skokomish Valley. Convergence of the Seattle uplift, Tacoma fault, Lucky Dog fault, and Saddle Mountain fault zone is tectonically complex and remains poorly explained. The Dabob Bay fault zone appears to be a flower structure that parallels the Southern Whidbey Island fault zone. Bedrock near Discovery Bay and Port Ludlow is heavily faulted but the age of deformation remains unknown.
- Late Holocene submarine delta-collapse landslides occurred in Hood Canal.
- Bretz was wrong. The discharge that built the Shelton delta was not fed by a lake in the Skokomish Valley.
- New age control constrains the advance and recession of the Vashon-age Puget ice lobe in the western Puget Lowland.
- Evidence for late Wisconsinan advances of alpine ice is limited in most of the eastern Olympic Mountains. Older drift was deposited in the Puget Lowland and voluminous outwash extends eastward to at least Bangor.
- Extensive nonglacial deposits north of the Seattle fault zone resemble and appear laterally continuous with outwash farther north.
- Pre-Vashon sediment along Hood Canal includes some of the oldest Quaternary deposits recognized in western Washington.
- Volcanic rocks along Hood Canal are mostly Eocene basalt. Isolated exposures of adakite (andesite and dacite) are present in the Bremerton Hills, the Quimper peninsula, and elsewhere. Sedimentary rocks are generally marine-turbiditic and range from Eocene to at least Oligocene age.

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**. Add \$5 for LATE REGISTRATION. Make your reservation and payment on-line at [www.nwgs.org](http://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 Secretary [Beth Tanner](#) with questions about dinner reservations.

*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., 98105. **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

February 10: TBA.

March 10: TBA.

Spring Field Trip: TBA.

Summer: there is some talk of putting together a Scotland field trip! Stay tuned!

Fall Field Trip: possible trip to the east and north sides of the Olympic Mtns.

If you would like to volunteer to give a talk or lead a field trip for NWGS, please contact President Elect [Grace Winer](#).

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

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

## Announcements

- There have been discussions about resurrecting the outstanding publication **Washington Geology**, originally published by WA DNR, with people from NWGS acting as *Scientific Editor* and *Technical Editors*. If interested, contact [Dan Smith](#).
- The **Montana Minerals & Mining Symposium**, supported by the Montana Bureau of Mines and Geology, will be held May 8-10, 2015 at Montana Tech in Butte. Contact [Stanley Korzeb](mailto:skorzeb@mtech.edu) ([skorzeb@mtech.edu](mailto:skorzeb@mtech.edu)) for more info.
- Please contact [Grace Winer](#) if you would like to be added to the NWGS Speakers Bureau or would like more information.
- NWGS member and co-refounder **Donn Charnley** will be speaking on How Plate Tectonics Helped Build Our North Cascades at the Seattle Mountaineers Program Center at Magnuson Park, Jan. 17, 7:00 PM.
- Next Board Meeting: Tuesday, January 13, 4:30 p.m., Talaris Conference Center.  
*YOU would like to be involved!*

## Photo Spotlight



View to east of north-up, right-lateral oblique reverse deformation along the newly documented Dabob Bay fault zone on the west shore of the Toandos Peninsula. Photo submitted by M. Polenz.

## 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 geologic topics, emphasizing those of the Pacific Northwest of fundamental scientific interest.

*YOU would like to be involved!*

**Program meetings:** 2<sup>nd</sup> Tuesdays, October through May in the Pacific Dining Hall at the [Talaris Conference Center](#) in Seattle (see 1<sup>st</sup> page). Anyone may attend the speaker program, but a reservation is necessary for those wanting dinner (see 1<sup>st</sup> 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 [Beth Tanner](#), 4616 25th Ave NE #397, Seattle, WA. 98105. Please include your name, address, home phone, email, and employer/affiliation (if any). Professional dues may now also be paid at [www.nwgs.org](http://www.nwgs.org).

*YOU would like to be involved!*

## Recommended Readings

Polenz, Michael, Contreras, Trevor A., and others, 2013, Geologic map of the Seabeck and Poulsbo 7.5-minute quadrangles, Kitsap and Jefferson Counties, Washington: Washington Division of Geology and Earth Resources Map Series 2013-02, 1 sheet, scale 1:24,000, with 39 p. text. [URL: [http://www.dnr.wa.gov/Publications/ger\\_ms2013-02\\_geol\\_map\\_seabeck-poulsbo\\_24k.zip](http://www.dnr.wa.gov/Publications/ger_ms2013-02_geol_map_seabeck-poulsbo_24k.zip)]

Polenz, Michael, Contreras, Trevor A., and others, 2010, Supplement to geologic maps of the Lilliwaup, Skokomish Valley, and Union 7.5-minute quadrangles, Mason County, Washington--Geologic setting and development around the Great Bend of Hood Canal: Washington Division of Geology and Earth Resources Open File Report 2010-5, 27 p. [URL: [http://www.dnr.wa.gov/Publications/ger\\_ofr2010-5\\_lilliwaup\\_skokomish\\_valley\\_union\\_suppl\\_24k.pdf](http://www.dnr.wa.gov/Publications/ger_ofr2010-5_lilliwaup_skokomish_valley_union_suppl_24k.pdf)]

Polenz, Michael, Contreras, Trevor A., and others, 2010, Geologic map of the Skokomish Valley and Union 7.5-minute quadrangles, Mason County, Washington: Washington Division of Geology and Earth Resources Open File Report 2010-3, 21 p., 1 plate, scale 1:24,000. [URL: [http://www.dnr.wa.gov/Publications/ger\\_ofr2010-3\\_geol\\_map\\_skokomish\\_valley\\_union\\_24k.zip](http://www.dnr.wa.gov/Publications/ger_ofr2010-3_geol_map_skokomish_valley_union_24k.zip)]

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 Membership Chair [George Bennett](#). Questions or comments? Contact President [Grace Winer](#).

## NWGS Board

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