

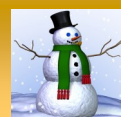
NORTHWEST GEOLOGICAL SOCIETY

A regional association of professionals, students & others interested in geology
Please browse www.nwgs.org for more about us



January, 2018 Newsletter

Volume 32, Number 1



January 9 Program Speaker

Speaker: Ralph Haugerud, USGS UW

Title: Collapse of the SW Margin of the Last Glacial Cordilleran Ice Sheet

Abstract: Interpretation of lidar topography and a handful of recently-acquired ^{14}C ages invite reassessment of the retreat of the Cordilleran ice sheet in northwest Washington State.

Retreat of the Juan de Fuca lobe of the ice sheet induced wholesale reorganization of ice flow in the northern Puget Lowland and the Puget lobe stagnated. The active ice margin stabilized at the Coupeville moraine, then retreated farther northeast. Reinterpretation of core MD02-2496 suggests that collapse of the Juan de Fuca lobe took no more than few hundred years. No more than ~1,000 years elapsed from maximum extent at ~15.5 cal kyr BP to an ice-free Fraser Lowland. Proximal causes for ice margin retreat are uncertain. Roughly synchronous retreat of the Purcell Trench, Okanogan, Puget, and Juan de Fuca lobes suggests regional warming and (or) drying reduced ice production and increased ablation. Fossil sea-surface temperatures indicate warming at the time of Juan de Fuca retreat, which may have increased melting at the marine ice margin. Most intriguing is the likelihood that an eastward-sloping floor of the Juan de Fuca lobe facilitated runaway collapse of the marine-based portion of the ice sheet.

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 (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 (see map p. 3): 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 16-18: 3rd NWGS Symposium, [McCall Hall, Seattle Center](#) (no February 13 speaker) (see p.2 for more)

February 18: 3rd NWGS Symposium Field Trip: Jim Miller, Tom Doe, Brian Sherrod, & Kathy Troost will lead the symposium field trip to Whidbey Island (liquefaction, landslides, coastal erosion, lahar, faulting, tsunamis)

March 13: Lisa Ely, CWU Geological Sciences, Fluvial Geomorphology of Natural Dams in Chile

April 10: Jim O'Conner, USGS, Floods and Columbia River Geology

May 8: Keith Hudson, UW PhD candidate, Moab Fault Chemistry

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

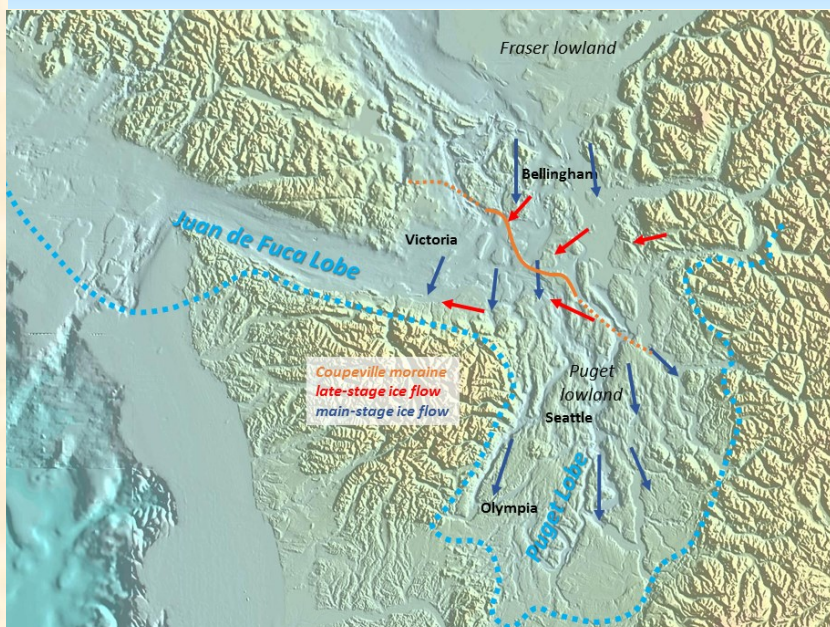
Please see the [NWGS website](#) for detailed announcements.

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

Announcements

- “DUES ARE DUE!” See [NWGS](#) for details.
- The 3rd NWGS Symposium [Living With Earth Hazards in Western Washington](#) is coming!
 - ◇ **Technical Day:** Fri., Feb. 16, McCall Hall, Seattle Center, \$175 (before Jan. 1), \$200 (Jan. 1 or later))
 - ◇ **Public Day:** Sat., Feb. 17, McCall Hall, Seattle Center, identical morning and afternoon sessions (free, no registration is necessary)
 - ◇ **Field Trip:** Sun., Feb. 18, evidence of geologic hazards on Whidbey Island (must attend Technical Day session, additional cost is \$125 (\$100 for 1st 10 students))
 - ◇ See [Brown Paper Tickets](#) for details or to register [now](#).
- If interested in a field trip to [the dolomites of Italy](#) in June of 2019 (7-10 days, ~\$4k), please contact Field Trip Coordinator [Kathleen Goodman](#) by March to be put on her interested parties list.
- We are working on a potential field trip to **New Zealand in 2020!** Watch for developments!
- Next **Board of Directors meeting:** January 9, 4:30PM, Talaris Conference Center.

Photo Spotlight



Map showing main-stage and late-stage ice flow of the Puget Lobe of the Cordilleran Ice Sheet and the Coupeville moraine. Note the change in direction of the ice flow from main-stage to late-stage.

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: 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: \$42; 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.

YOU would like to be involved!

Recommended Readings

Cowan, D.S., and Miller, M.D., 2017, [Roadside Geology of Washington](#), Mountain Press Pub., Missoula, 400p.

Stokes, Ch.R., 2017, Deglaciation of the Laurentide Ice Sheet from the Last Glacial Maximum, Cuadernos de Investigación Geográfica, Vol. 43, No. 2, pp. 327-428, DOI: <http://doi.org/10.18172/cig.3237>.

Wells, R.E., Blakely, R.J., Wech, A.G., McCrory, P.A., and Michael, Andrew, Cascadia Subduction Tremor Muted by Crustal Faults, *Geology*, Vol. 45, No. 6, pp. 515-518.

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 [Tom Colligan](#).

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HOW TO FIND THE NWGS MEETING SITE IN THE PACIFIC BUILDING AT THE TALARIS CONFERENCE CENTER

