



NORTHWEST GEOLOGICAL SOCIETY

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

November, 2019 Newsletter

Volume 33, Number 8

Joint AWG November 12 Program Speaker

Speaker: Emily Cahoon, Portland State University

Title: Rethinking Yellowstone's Volcanic Path Through Oregon

Abstract: Approximately 17 million years ago, the Yellowstone plume produced a great outpouring of basaltic lava known as the Columbia River flood basalts, which covers much of the Pacific Northwest, USA. While flood basalt provinces can be active for millions of years, the majority of lava erupts during the first million years of activity, and represents impingement of the mantle plume with the lithosphere. The spatial extent, geochemistry, and timing of these basaltic lavas allow us to evaluate the evolution of the plume and its interaction with the continental crust. Our discussion focuses one of the main subunits of the flood basalt, the Picture Gorge Basalt, so that we may revisit questions surrounding magma formation, storage, and transport. In tandem, we explore Oregon's state gem, "sunstones" to see if their locations can also illuminate pieces of the Yellowstone plume's footprint.

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: please make dinner reservations at www.nwgs.org by the **Thursday prior to the meeting**. Once you have submitted your reservation, you may pay online using your debit or credit card or your PayPal account (follow the online prompts), or by mailing a check or money order to [Northwest Geological Society, 4616 25th Ave NE #397, Seattle, WA. 98105](#) (must be received by the **Thursday prior to the meeting**). NWGS member dinner: \$45; non-member dinner: \$55; late registration: \$55, student dinner: \$20.

MEETING LOCATION: Silver Cloud Hotel Seattle—University District, 5036 25th Ave NE, Seattle, WA 98105. No-host social hour is in the **Ag47 Bar & Bistro**. Dinner & speaker are in the **Husky Dining Room** downstairs. Parking is free. See [Google Maps directions](#).

Upcoming Speakers and Field Trips

December 10: Ted Doughty, Prisem Geoscience Consulting, The Bakken Oil Shale

January 14: TBA.

February 11: TBA.

March 10: TBA.

Spring Field Trip: Pending Board approval, Skye Cooley of the Idaho Geological Survey may be leading the spring field trip to the Othello area looking at calcrete deposits and their implications regarding Yakima fold belt tectonism and the late(?) rise of the Cascade Range, April .24-26, 2020 (dates pending confirmation).

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

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

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

Announcements

- **2020 member dues are due soon.** Payment may be made at nwgs.org or at each meeting.
- **Reminder: the new meeting venue is the [Silver Cloud Hotel—University District](#),** (see PROGRAM DINNER RESERVATIONS, p. 1 for details).
- To ensure you have a space due to fire code limitations at the new venue, **please make your dinner reservations early!**
- Congratulations to [Kathleen Goodman](#) for being recognized at the October meeting as the most recent recipient of the **Tool of Geology Awards (TOGA)** for her tireless dedication to organizing the NWGS field trips over recent years!
- [Tom Bush](#) is leading a geology field trip to south-central Utah for Pierce College over Spring Break, 2020 that is open to the public (March 26-April 4, \$839). Please contact [Tom](#) for details.
- **Next Board of Directors meeting:** November 12, 4:30 P.M., [Silver Cloud Hotel](#).
YOU would like to be involved!

Photo Spotlight



Basaltic agglutinated tuff coeval with CRBG volcanism, Plush OR. These outcrops host variably colored sunstones, Oregon's state gem (E. Cahoon photo).

About NWGS

The [Northwest Geological Society](#) is a non-profit educational organization which provides a forum for information and discussion on Northwest geology and related topics. The Society sponsors talks by leading academic and professional geologists at its monthly meetings, conducts field trips to locales of regional geologic interest, and publishes meeting summaries and field guides based on those activities. Membership is open to anyone interested in regional geoscience issues.

Program meetings are the 2nd Tuesdays, October through May at the [Silver Cloud Hotel Seattle—University District](#). Anyone may attend the speaker program, but a reservation is necessary for those wanting dinner (see 1st page).

Field trips (members only): The Society sponsors two overnight field trips each year, in the fall and the spring, to locales of regional geologic interest.

Membership is open to anybody with an interest in geology. **Annual dues:** Professional: \$55; Student: \$10. **To join or pay annual dues:** go to www.nwgs.org, or mail a check or money order to [Northwest Geological Society](#) 4616 25th Ave NE #397, Seattle, WA. 98105. Please include your name, address, home phone, email, and employer/affiliation (if any).

Please visit [About NWGS](#) for more details.

Recommended Readings

Johnston, C.L., Gunter, M.E. and Knowles, C.R., 1991. Sunstone labradorite from the Ponderosa mine, Oregon, *Gems and Gemology*, Vol. 27, No. 4, pp.220-233.

Moore, N.E., Grunder, A.L. and Bohrsen, W.A., 2018. The three-stage petrochemical evolution of the Steens Basalt (southeast Oregon, USA) compared to large igneous provinces and layered mafic intrusions, *Geosphere*, Vol. 14, No. 6, pp.2505-2532.

Reidel, S.P., Camp, V.E., Ross, M.E., Wolff, J.A., Martin, B.S., Tolan, T.L. and Wells, R.E., 2013, *The Columbia River flood basalt province*, Vol. 497, Geological Society of America.

Webb, B.M., Streck, M.J., McIntosh, W.C. and Ferns, M.L., 2018, The Littlefield Rhyolite and associated mafic lavas: Bimodal volcanism of the Columbia River magmatic province, with constraints on age and storage sites of Grande Ronde Basalt magmas, *Geosphere*, Vol. 15, No. 1, pp.60-84.

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 [Heather Vick](#).

NWGS Board

President [Heather Vick](#)
Dep. of Ecology

President Elect [Katie Brower](#)
Nelson Geotechnical

Past President [Tom Colligan](#)
Floyd | Snider

Secretary [Amy Knudson](#)

Treasurer [George Bennett](#)
Bennett Consulting

At-Large Board Members [Linda Khandro](#)
Geoscience Instructor

[John LaManna](#)
LaManna Geosciences

Other Personnel

Membership Chair [George Bennett](#)
Bennett Consulting

Field Trip Coordinator [Kathleen Goodman](#), AMEC

Newsletter Editor & Publications [Tom Bush](#)
Pierce College
Puyallup

Poster Chair [Maura O'Brien](#)

Webmaster [Julie Masura](#)
Univ. of Washington

Facebook Pagemaster [Eric Baer](#)
Highline CC