

NORTHWEST GEOLOGICAL SOCIETY

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

December, 2024 Newsletter

Volume 38, Number 8

December 10 Program Speaker

5:30pm: No-host social hour; 6:30pm: Dinner
7:30pm: Speaker program ([reservations here](#), see below for details)

Speaker: Jeff Tepper, University of Puget Sound

Title: Initiation of the Cascade Volcanic Arc

Abstract: The Cascade volcanic chain, the world's youngest continental arc, was "born" shortly after accretion of the Siletzia oceanic terrane ~50 My ago. That collision, which led to formation of the Olympics, terminated the earlier subduction system and caused a portion of the subducting Farallon slab to break off. When Cascade magmatism began less than 5 My later, there was a new trench located outboard of Siletzia. In this talk I will present a new model, based on petrology, geochronology, plate motion reconstructions, and mantle tomography, that explains how subduction was initiated so quickly and in a setting where the slab was young and hot and in theory too buoyant to subduct.

IN-PERSON PROGRAM DINNER RESERVATIONS!

Cost: NWGS member dinner: \$40; Non-member dinner: \$50; Student dinner: \$10; Talk-only: \$10; Student talk-only: free

To register for attending in-person: please [make your reservation here](#) (nwgs.org/meeting-registration/) by the Thursday prior to the meeting.

Catered menu: Deep Fried Ravioli with marinara dip (vegetarian), sauteed mushrooms (GF, DF, vegan), fritto misto (GF, DF, potato starch coating), baked cod putanesca, chicken cacciatore (pan seared tofu available in both entree sauces), florentine pasta (GF available), roasted root vegetables (GF, vegan), panzanella salad (GF, vegan), assorted cookies

Location: Fauntleroy YMCA next to the Fauntleroy UCC Church, West Seattle, 9140 California Ave SW, Seattle, WA. 98136. Use the parking lot on the north side of the building. Get [Google Maps driving directions here](#).

Cost: NWGS member dinner: \$40; Non-member dinner: \$50; Student dinner: \$10; Talk-only: \$10; Student talk-only: Free

Upcoming Speakers and Field Trips

January 14: Paul Burgi, TBA but likely on current landslide research (Searles Lake ground cracks)

February 11: Ken Petrie, Senior Geologist, Weyerhaeuser, Carbon Capture and Sequestration Overview

March 11: TBD

April 8: Baptiste Journaux, Assistant Research Professor, UW, topic TBD

May 13: TBD

Spring FT: George Bennett, Kurt Siegfried, and David Boyer, Cascade Quarry and Proctor Creek Mines near Gold Bar, WA., late April/early May

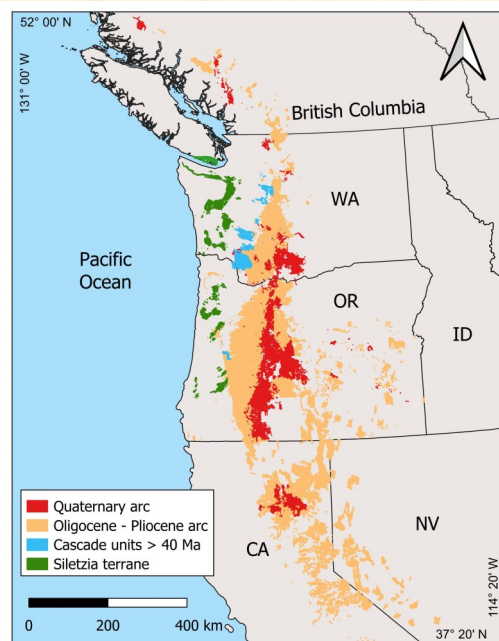
If you would like to volunteer to give a talk or lead a field trip for NWGS, please contact President [Maria Parente](#).

Please see the [NWGS website](#) for detailed announcements.
Contact webmaster [Matthew Porter](#) if you have any announcements to post on the website.

Announcements

- Please notice below that there is still one open Board of Directors position. Please contact President [Maria Parente](#) or any Board member for more information.
- Congratulations to **Chris Kimmel** for receiving the prestigious NWGS Tool of Geology award (TOGA) at the November meeting for her dedicated service as President during the challenging COVID times.
- The **spring field trip** will be a visit to the **Cascade Quarry** and **Proctor Creek Mines** near Gold Bar, led by George Bennett, Kurt Siegfried, and David Boyer. The Cascade Quarry is a hard rock operation and has some excellent exposures along several benches. Proctor Creek Quarry is both a sand and gravel and hard rock operation. There is an excellent outwash exposure in the quarry (that is currently being mined) and there will be drill core and outcrop to look at that is related to the hard rock portion of the mine that is being permitted.
- **Next Board of Directors meeting: Tuesday, January 7, 6:00 pm** via Zoom. Members are welcome to attend. Please email nwgs.secretary.com for the Zoom link.

Photo Spotlight



Map showing age distribution of rocks of the Cascade arc, including in blue, the oldest units that are the focus of this talk.

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 [Fauntleroy YMCA in West Seattle, 9140 California Ave SW, WA, 98136](#). Reservations are required to attend in-person (Member dinner: \$40; Non-member dinner: \$50; Student dinner: \$10; Talk-only: \$10; Student talk-only: free).

Field trips (members only): The Society sponsors two overnight field trips each year, one in the fall and one in 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 the [NWGS website](#), or visit our website for more details. We look forward to seeing you soon!

Recommended Readings

Tepper, J.H., and Clark, K.P, 2024, Initiation of the Cascade arc, *Geology*, Vol. 52, No. 4, <https://doi.org/10.1130/G51888.1>.

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

To update your account information, go to [NWGS.org/membership](https://nwgs.org/membership).
Questions or comments? Contact President [Francois Lalague](#).

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