



## 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

### April, 2025 Newsletter

Volume 39, Number 4

#### April 8 Program Speaker

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

**Speaker:** Akshay Mehra, Assistant Professor UW

**Title:** Big data, deep time: combining field observations with computational analyses to reconstruct Earth history

**Abstract:** Large datasets of field and lab observations have long helped researchers probe Earth's geological record. Today, advances in the acquisition, compilation, and analysis of geologic data---including the advent of computational methods such as machine learning and artificial intelligence (AI/ML)---are supercharging our ability to use rocks to derive critical insights about our planet. In this talk, I present three vignettes that combine multiscale field observations with computational analyses to reveal the histories of ancient lifeforms and environments on our planet. I begin with a story about the remains of a putative Precambrian biomineralizing (shell-building) organism. I then share how three-dimensional reconstructions of outcrops tell us about sea level during the late Ordovician. Finally, I demonstrate how researchers can use large data compilations to extract meaningful time trends from geochemical data.

#### 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/](http://nwgs.org/meeting-registration/)) by the Thursday prior to the meeting.

**Catered menu:** Social hour appetizers, chicken Adobo (rich chicken stew with potatoes), beef asada (slow simmered chunks of beef in a hearty stew served with rice or potatoes), steamed white rice, pancit (vegan noodle dish), Asian salad, street rolls

**Location:** Fautleroy YMCA next to the Fautleroy 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

**May 13:** Baptiste Journaux, Assistant Research Professor, UW, Is ice a mineral?

**Spring FT:** George Bennett, Kurt Siegfried, and David Boyer, Cascade Quarry and Proctor Creek Mines near Gold Bar, WA., Saturday, May 3. **There are a few spots left, so contact [Kathleen Goodman](#) to register.**

Fall FT: TBD

Oct 14: TBD

Nov 11: TBD

Dec 9: TBD

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

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 are still several Board positions open. These include the critical **President Elect** position. This position is generally filled at the end of the calendar year and is essential for the smooth functioning of our gatherings. The primary responsibility is to start lining up speakers starting in a year, so it does not require a large time commitment. Please contact President [David Boyer](#) or any Board member for more information. Shared governance is critical for the continued viability of our organization.
- There are still a few openings for the **spring field trip on Saturday, May 3** to the **Cascade Quarry and Proctor Creek Mines** near Gold Bar, led by George Bennett, Kurt Siegfried, and David Boyer.
- Next **Board of Directors meeting**: Tuesday, **April 15**, 6:00 pm via Zoom. Members are welcome to attend. Please email [nwgs.secretary.com](mailto:nwgs.secretary.com) for the Zoom link.

## Photo Spotlight



Jon Husson (Assistant professor, University of Victoria) standing amongst the Ediacaran rocks of Salient Mountain in British Columbia, Canada, which contain fossils of Earth's first shell-building animals.

## 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 2<sup>nd</sup> 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

Mehra, A., Watters, W.A., Grotzinger, J.P., Maloof, A.C. 2020. Three-dimensional reconstructions of the putative metazoan Namapoikia show that it was a microbial construction, *Proceedings of the National Academy of Sciences of the United States of America*, [Link](#).

Mehra, A., Keller, B., Zhang, T., Tosca, N.J., McLennan, S.M., SGP Authors, Strauss, J.V. 2021. Curation and analysis of global sedimentary geochemical data to inform Earth history, *GSA Today*, [Link](#).

Mehra, A., Howes, B., Manzuk, R., Samuels, B., and Maloof, A.C. 2022. A novel technique for producing three-dimensional data using serial sectioning and semi-automatic image classification, *Microscopy and Microanalysis*, [Link](#).

Donaghy, E.E., Eddy, M.P., Ridgway, K.D., Ickert, R.B., 2024. Sedimentary record of oceanic plateau accretion: Revisiting the Eocene to Miocene stratigraphy of the northern Olympic Peninsula, Washington (USA), *Geosphere*, vol. 21, no. 1, pp. 49-73, <https://doi.org/10.1130/GES02778.1>.

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 [David Boyer](#).

## Board of Directors

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