

## 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

### February, 2023 Newsletter

Volume 37, Number 2

#### February 14 Program Speaker

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

**Speaker:** Emily Wilbur, MS, University of Copenhagen

**Title:** Glacial Cycle Inception in Greenland

**Abstract:**

Greenland has not always been glaciated, and the ice sheet was likely at a minimum- if it existed at all- about one million years ago (Yau, et al, 2016). Some studies seem to show that the ice sheet has occupied its present location for at least the last 7 million years (Bierman et al., 2016), while others would indicate that the island of Greenland underwent periods of more extreme deglaciation, and was nearly ice-free as recently as 100,000 years ago (Schaefer et al., 2016). This research project hypothesizes that the present day Greenland ice sheet formed approximately one million years ago under minimal ice, or possibly ice-free conditions, following Schaefer et al. (2016). We conclude that there has likely been constant glaciation in Greenland for as long as there have been eastern mountains on the island, although the growth, stability, and geometry of the ice sheet are heavily dependent on poorly constrained parameters (e.g., precipitation).

#### IN-PERSON PROGRAM DINNER RESERVATIONS!

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:** soy-glazed salmon (gf, df), sticky Asian chicken (gf, df), pan-seared tofu (veg, by request), jasmine rice (gf, df, vegan), stir-fried rice noodles (gf, df, vegan), broccoli medley (gf, df, vegan), spring salad (gf, vegetarian), coconut cake (gf, df, vegan), pineapple upside down cake (gf, df, vegan).

**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

March 14: David B. Williams, Author, *Cairns: Messengers in Stone*

April 11: TBA.

May 9: TBA.

Spring Field Trip: TBA.

Fall Field Trip: TBA

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

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

## Announcements

- **Francois Lalague** of Pacific Lutheran University has received unanimous approval by the Board as the new NWGS President! Thanks to Francois for his willingness to contribute in this fashion, and congratulations!
- NWGS is still seeking a talented volunteer to fill the **President Elect** position. The success and future of this fine organization depends on shared governance by its members. The time commitment is not enormous, and this is a rewarding opportunity to contribute to the direction of our fine organization. Please contact President [Francois Lalague](#) for more information.
- We are currently working on filling in the talk and field trip schedules for 2023. Please let [Francois Lalague](#) know if you would like to volunteer or have any suggestions.
- **Next Board of Directors meeting:** TBA.  
*YOU would like to be involved!*

## Photo Spotlight

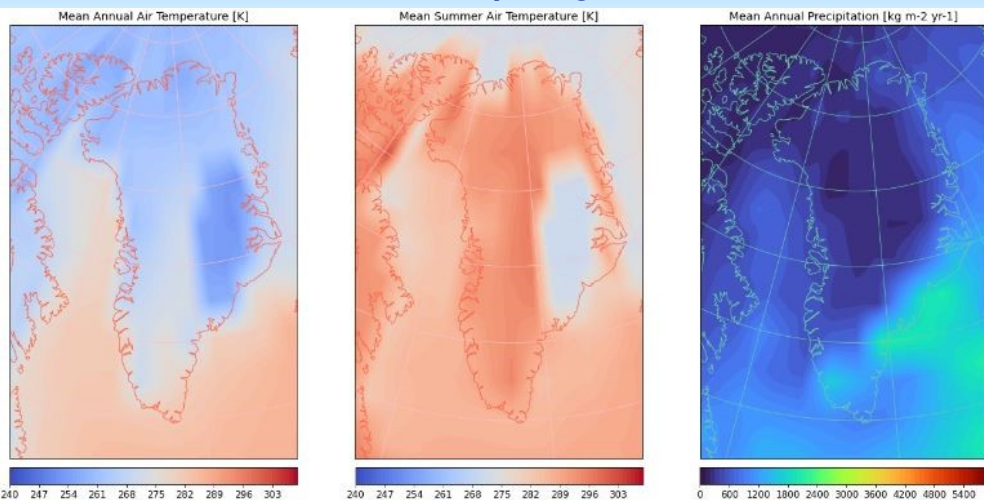


Figure of hypothesized climate around Greenland during a period of intense deglaciation, from the Pliocene Model Intercomparison Project (PlioMIP). Left shows the mean annual air temperature in Kelvin, center shows mean summer air temperature in Kelvin, and right shows the mean annual precipitation (can be snow or rain, etc.). Figure by E. Wilbur.

## 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. We are trying a new in-person venue this month at the [Fautleroy 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 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

- Solgaard, Anne Munck, Johan M. Bonow, Peter L. Langen, Peter Japsen, and Christine S. Hvidberg (2013). "Mountain building and the initiation of the Greenland Ice Sheet." In: Palaeogeography, Palaeoclimatology, Palaeoecology 392, pp. 161-176.
- Keisling, Benjamin A., Lisbeth T. Nielsen, Christine S. Hvidberg, Roman Natterman, and Robert M. DeConto (2020). "Pliocene-Pleistocene megafloods as a mechanism for Greenlandic megacanyon formation." In: Geology 48.
- Knutz, Paul C., Andrew M.W. Newton, John R. Hopper, Mads Huuse, Ulrik Gregersen, Emma Sheldon, and Karen Dybkjær (2019). "Eleven phases of Greenland Ice Sheet shelf-edge advance over the past 2.7 million years." In: Nature Geoscience 12, pp. 361-368.

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

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

## NWGS Board

**President** [Francois Lalague](#)  
Pacific Lutheran Univ.

**President Elect** **OPEN**

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AESI

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**Membership Chair** [George Bennett](#)  
Bennett Consulting

**Field Trip Coordinator** [Kathleen Goodman](#), Wood PLC

**Newsletter Editor & Publications** [Tom Bush](#)  
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