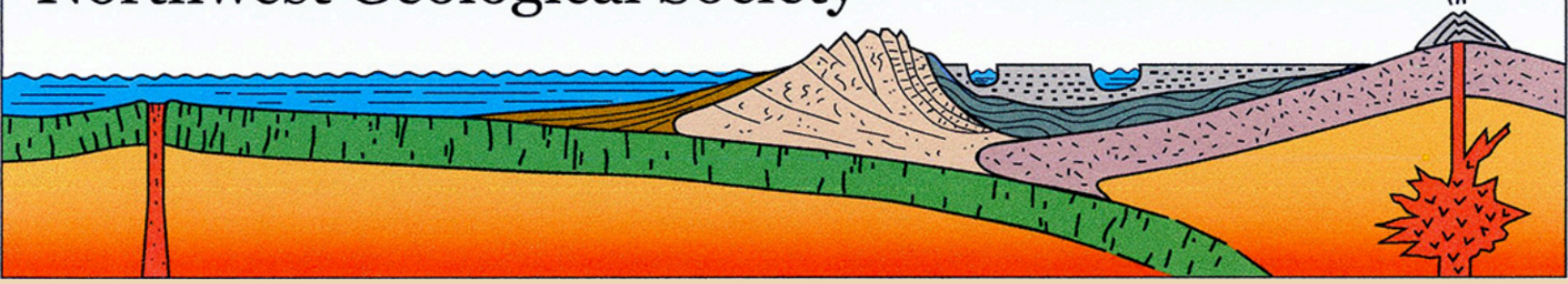
Northwest Geological Society



November 9, 2026 Newsletter

Volume 40, Number 11

Announcements

Microsoft has discontinued the Publisher software, so Maria has redesigned the newsletter, and there will some improvements for the next few months. Feel free to provide feedback to mparente8@hotmail.com.

NWGS has filled the **President Elect** position. Our member Tom Doe will be taking on that role.

Field trip coordinator Kathleen Goodman is working on the details for the **Wales** field trip on September 6–14, 2027 that is organized by Chris Darmon and Colin Schofield. Please contact her to be put on her list.

Next **Board of Directors meeting**: December , 6:00 pm via Zoom. Members are welcome to attend. Please email nwgs.secretary.com for the Zoom link.

Upcoming Speakers and Field Trips

11/9/2026: Dr. Harold J Tobin, Professor of Earth and Space Science, UW, What does the likely Cascadia M9 megathrust rupture look like?
12/8/2026: TBD
1/12/2027: TBD

If you would like to volunteer to give a talk or lead a field trip for NWGS, please contact President Jackson Lundgren.

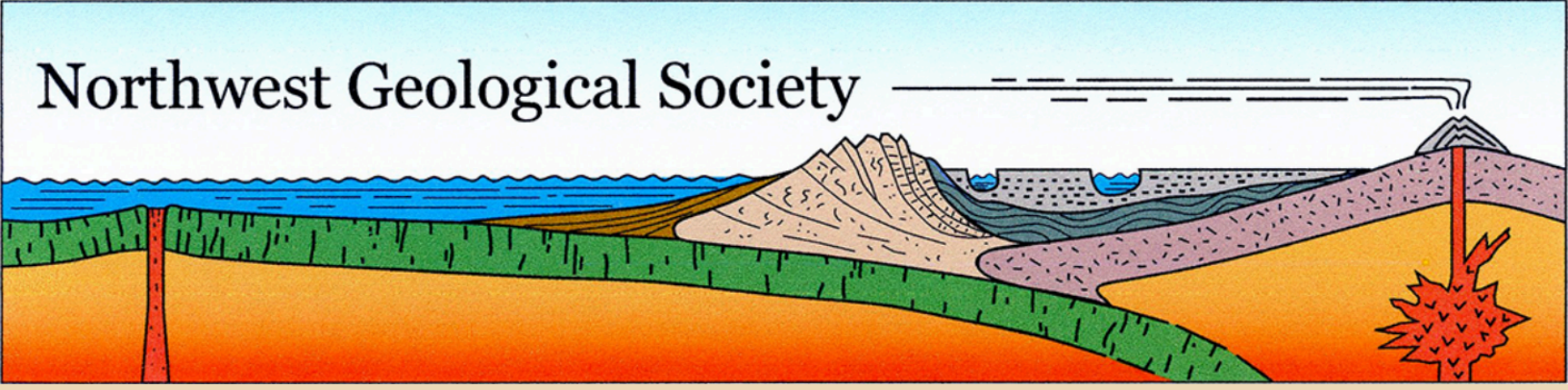
IN-PERSON PROGRAM DINNER RESERVATIONS!

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.

Location: Hotel 116, 625 116th Ave NE, Bellevue, WA. 98004 (**Google Maps driving directions**). Park in the hotel parking area, enter near or through Woods Coffee to a small lobby, then up the stairs to the ballroom.

Northwest Geological Society



Speaker:

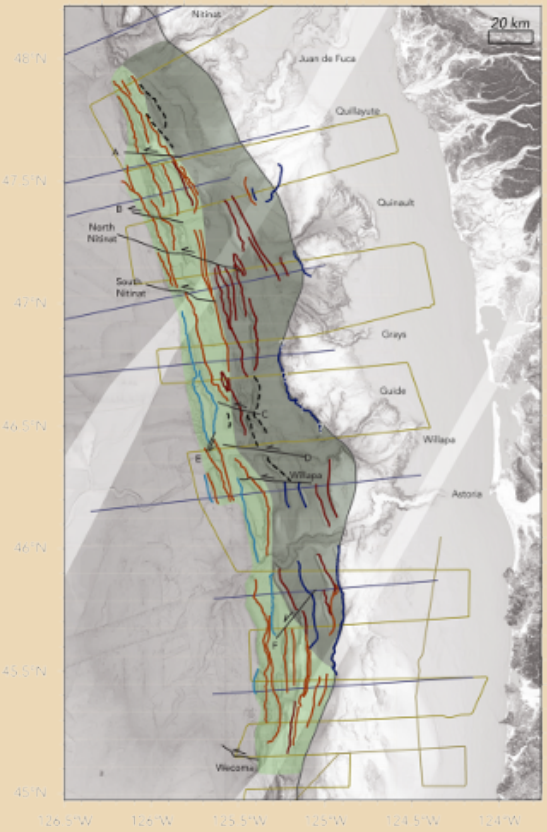
Dr. Harold J Tobin

Professor of Earth and Space Science, University of Washington & Director of the Pacific Northwest Seismic Network

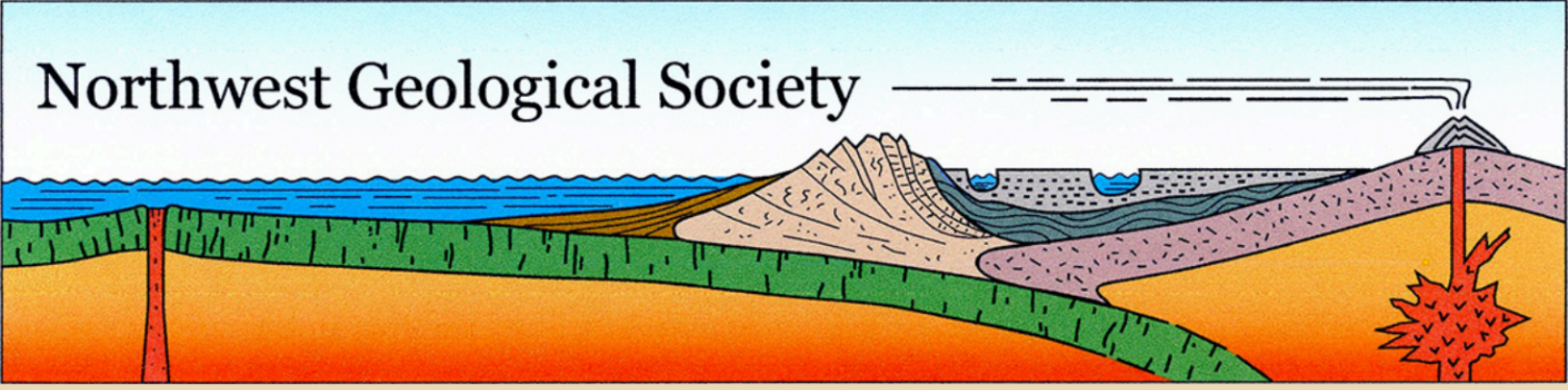
Title:

What does the likely Cascadia M9 megathrust rupture look like? Linking offshore structure to the oattern of tsunamigenesis

When the Cascadia "Big One" happens on the offshore subduction fault, what will the rupture and ensuing tsunami actually look like? While we think of plate boundary faults as monolithic, in fact slip is typically very heterogeneous and may include slip on one or more splay faults that reach the sea floor. That variable slip in turn controls the pattern of seafloor uplift that launches hazardous tsunamis. Geophysical models of where the fault is locked provide clues, but lack detailed resolution. Using recent seismic and bathymetric imaging of the offshore part of the Cascadia subduction zone at a range of scales, the evidence for recent activity of splay faults and the shallow megathrust can be newly evaluated. North-central Cascadia off Washington features a wide and flat accretionary wedge dominated by widely-spaced backthrusts. A synthesis of geology, geodesy, and mechanical analysis leads to the conclusion that this major portion of Cascadia is effectively locked right to the deformation front offshore, and that the most likely scenario for both past and future Cascadia magnitude 9 class events is a large-slip rupture of the megathrust, with slip extending efficiently up-dip to the frontal tip of the décollement fault and branching onto multiple frontal landward-verging splay faults. This interpretation differs in important ways from the scenarios currently favored in tsunami hazard assessments. Careful geological analysis provides insight into tsunamigenic rupture that is otherwise unavailable.



Northwest Geological Society



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, con-ducts 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 Hotel 116, 625 NE 116th Ave NE, Bellevue. 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.org, or visit our website for more details. We look forward to seeing you soon!

Board of Directors

President:
Jackson Lundgren
AESI

President Elect:
John Doe

Past President:
David Boyer
Weyerhaeuser

Secretary:
Lauren Jackson

Treasurer:
Tom Colligan
Retired

At-Large Board Members:
Maria Parente

Other Personnel

Membership Chair:
Open

Field Trip Coordinator:
Kathleen Good-man, WSP

Newsletter Editor & Publications:
Maria Parente

Webmaster:
Matthew Porter

Please send your reading recommendations to Newsletter Editor Maria Parente.

To update your account information,, go to NWGS.org/membership.
Questions or comments? Contact President Jackson Lundgren.