



# 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 2015 Newsletter

Volume 29, Number 4

### April 14 Program Speaker

**Speaker:** Jim Aldrich, Los Alamos National Laboratory (retired)

**Title:** Deformation and Tectonism of the Olympic Mountains

**Abstract:** The Olympic Mountains of Washington are the result of the Juan de Fuca plate descending beneath the North American plate at the Cascadia subduction zone, accreting oceanic crust onto the Cascadia subduction wedge. The accreted oceanic sediments, structurally overlain on the east by Coast Range terrane, are largely below sea level but are exposed on land in the Olympic Mountains. As the subducting Juan de Fuca plate moves toward the overriding North American plate at about 36 mm/yr, accretion of oceanic sediments occurs mostly at the leading edge of the North American plate, creating a doubly vergent wedge that progressively increases in size, maintaining a self-similar form as it grows. Detailed mapping and analysis of structures in the Hoh Formation, mélangé, and Pleistocene sediments on the western edge of the exposed wedge indicates that, since the Late Miocene, north to northwest-directed compression has played a significant role in development of the extant structures along with the northeast-directed compression associated with the subducting Juan de Fuca plate.

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:** NWGS members: **\$40**; Non-members: **\$45**; Full-time students : **\$20**. Add \$5 for LATE REGISTRATION. Make your reservation and payment on-line at [www.nwgs.org](http://www.nwgs.org) (or mail your payment to *Northwest Geological Society, 4616 25th Ave NE #397, Seattle, WA. 98105* (must be received by Thursday prior to meeting)). Contact Secretary [Beth Tanner](#) with questions about dinner reservations.

*If attending the speaker program only, a \$5 voluntary donation to help defray the meeting room cost is requested.*

**Location:** Pacific Dining Hall at the [Talaris Conference Center](#), 4000 NE 41st St., Seattle, WA., 98105. **Directions:** See [on-line directions with map](#), or: from I-5 northbound or southbound in Seattle, take Exit 168B (NE 45th St.). Drive east on NE 45th St. past UW down the hill and past University Village. Turn south (right) onto Mary Gates Memorial Drive at the 5-way intersection. MGM Drive will curve east (left) and become NE 41st St. Continue several blocks to the [Talaris Conference Center](#) entrance on the north (left) side. We meet in the Pacific Dining room on the left.

### Upcoming Speakers and Field Trips

**May 12:** Timothy Melbourne, CWU Cascadia Hazards Institute, Real-time GPS for Hazard Monitoring.

**Spring Field Trip:** Eric Cheney, Don Easterbrook, and Terry Swanson, Fidalgo Island and nearby areas, April 24-26. See *Announcements* below.

**Fall Field Trip:** Jim Aldrich, Deformation and Tectonism of the Olympic Mountains, October 2-4.

**Spring, 2016 Field Trip:** Chris Darmon, Down to Earth, Geology of Scotland, June 21–July 1, 2016. See *Announcements* below.  
If you would like to volunteer to give a talk or lead a field trip for NWGS, please contact President [Grace Winer](#).

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

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

## Announcements

- The **spring field trip** to Fidalgo Island and nearby areas, April 24-26 is FULL, but contact [Kathleen Goodman](#) if you would like to be added to the waiting list.
- Look for announcements later this spring or summer about the **fall field trip** to the Olympic Mountains with leader Jim Aldrich, October 2-4.
- The list of interested participants for the **Geology of Scotland** field trip on June 21–July 1, 2016 is FULL, but contact [Kathleen Goodman](#) to be added to the waiting list. Trip cost will be ~\$3,000 plus airfare (\$400 down payment due June 30, 2105). **Spots may open up when payment time arrives!!!**
- The 10th annual [Washington Hydrogeology Symposium](#) will be held in Tacoma April 14-16. Please see their [web site](#) for details and to register.
- Next Board Meeting: April 14, 4:30 p.m., Talaris Conference Center.

## Photo Spotlight



Folded Hoh formation on the Pacific Coast north of Kalaloch, WA. The middle Miocene rocks in the picture are fairly representative of the Hoh turbidites. Jim Aldrich photo.

## About NWGS

**NWGS**, a regional association of professionals, students & other persons interested in **geology**, provides a forum for the presentation and discussion of a wide range of geological topics, emphasizing those of the Pacific Northwest of fundamental scientific interest.

*YOU would like to be involved!*

**Program meetings:** 2<sup>nd</sup> Tuesdays, October through May in the Pacific Dining Hall at the [Talaris Conference Center](#) in Seattle (see 1<sup>st</sup> page). Anyone may attend the speaker program, but a reservation is necessary for those wanting dinner (see 1<sup>st</sup> page). **Field trips (members only):** one in late spring/early summer and one in late summer/early fall, usually of 1-3 days in length. **Membership** is open to anybody with a professional or amateur interest in geology. **Annual dues:** Professional: \$30; Student: \$5. **To join or pay annual dues:** send a check payable to NWGS to Secretary [Beth Tanner](#), 4616 25th Ave NE #397, Seattle, WA. 98105. Please include your name, address, home phone, email, and employer/affiliation (if any). Professional dues may now also be paid at [www.nwgs.org](http://www.nwgs.org).

*YOU would like to be involved!*

## Recommended Readings

Harris, A.G., Tuttle, Esther, and Tuttle, S.D., [Geology of National Parks](#), Chapter 30, Olympic National Park (pp. 417-436), Kendall/Hunt Pub., Dubuque, 882 p.

Tabor, R.W., 2014, Geology of Olympic National Park, U.S. Geol. Survey Geology in the Parks, <http://geomaps.wr.usgs.gov/parks/olymp/index.html>.

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 [Grace Winer](#).

## NWGS Board

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## Other Personnel

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Bennett Consulting

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