



NORTHWEST GEOLOGICAL SOCIETY

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

April, 2010 Newsletter

Volume 24, Number 4

April 13 Program Speaker

Speaker: Paul E. Hammond, Professor Emeritus, Portland State U.
Title: Structure of Grand Ronde Basalt in the Cascade Range foothills, Washington

Speaker Abstract: In the upper Naches River basin seven lava flows of the upper section (R2-N2) of Grande Ronde Basalt lap out on older volcanic rocks of the eastern flank of the Cascade Range and are locally covered unconformably by Ellensburg volcanoclastic deposits. The flows are folded in two directions, axes striking ENE and NNW, and broken and displaced by N- to NW-striking, steeply dipping normal and reverse faults, and ENE-striking, shallowly S-dipping thrust faults. These structures define three domains: to the west the Cascade Range of NW-striking folds and faults; a middle, northward-narrowing domain of ENE-striking, open, upright Yakima folds and thrust faults; and on the east the Olympic-Wallowa lineament (OWL) of NNW-striking folds and reverse and thrust faults, all interpreted to be caused by a northward-directed compressive stress. The talk is a prelude to the June 12-13 NWGS field trip in the area.

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.

PROGRAM DINNER RESERVATIONS: NWGS members: \$35; Non-members: \$40; Full-time students : \$15. Add \$5 for LATE REGISTRATION. Mail check to Ginny Agnew, 935 Pine St., Edmonds, WA. 98020 (must be received by Thursday prior to meeting). Contact her at 425-776-6151 or agnewv@msn.com.

If attending the speaker program only, a \$5 voluntary donation to help defray the meeting room cost is "required."
Location: Pacific Dining Hall at the [Talaris Conference Center](http://www.talaris.com), 4000 NE 41st St., Seattle, WA. Ph 206-268-7000. **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](http://www.talaris.com) entrance on the north (left) side.

Upcoming Speakers and Field Trips

May 18th Speaker (note change to **3rd Tuesday** of May for the poster session): TBA.
Spring, 2010 Field Trip: Paul E. Hammond, Portland State University, Stratigraphy and structure of Grand Ronde Basalt in the Naches River area, south-central Washington, June 12-13, 2010. Contact Greg Ferris to register (see p. 2).
Fall, 2010 Field Trip: Dave Tucker, Western Washington University, Holocene deposits of Mt. Baker, dates TBA.

Other Announcements

New President Elect Selected!!! Thanks and congratulations to Julie Masura, who has agreed to serve as the upcoming President Elect!
The May meeting is student poster night! If you are a student with a research project, bring your project poster to the **May 18 meeting!** There will be several categories (high school, community college, upper level, graduate student), with prizes for each level! All entrants receive free dinner! Register with Lars Gilmour or contact him (see p. 2) for more information. **Big prizes!!!**
On-line dinner reservations are in the works! Watch for details later.
Next Board Meeting: **April 13???**, 4:30pm, [Talaris Conference Center](http://www.talaris.com).

*Please see the [NWGS website](http://www.nwgs.org) for detailed announcements.
Contact webmaster Julie Masura if you have any announcements to post on the website.*

Photo Spotlight

Aerial view of the western end of Yakima Ridge, just north of Yakima, WA., looking northeast. Yakima Ridge is composed of Grand Ronde Basalts of the Miocene Columbia River Basalt Group, and is an asymmetrical anticlinal ridge whose southern limb has been partially breached by erosion of the Yakima River (between ridge and SR 410, center of photo). Yakima Ridge is part of the Yakima Fold Belt, a northwest-southeast-trending zone of folding and related reverse faulting that trends through this area. These structures may prove to be of economic importance, as they have been the focus of hydrocarbon exploration in recent years. Photo by T. Bush.



Your geology photo submissions (~1MB) with captions are appreciated. Please email to Newsletter Editor Tom Bush.

About NWGS

[NWGS](http://www.nwgs.org), a regional association of professionals, students & other persons interested in **geology**, provides a forum for the presentation and discussion of a wide range of geologic topics, emphasizing those of the Pacific Northwest or of fundamental scientific interest.
Program meetings: 2nd Tuesdays, October through May in the Pacific Dining Hall at the [Talaris Conference Center](http://www.talaris.com) in Seattle (see 1st page). Anyone may attend the speaker program, but a reservation is necessary for those wanting dinner (see 1st 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 Treasurer Dan Smith, 10203 40th Ave SW, Seattle, WA. 98146. Please include your name, address, home phone, email, and employer/affiliation (if any).

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Recommended Readings (kindly submitted by John Whitmer)

Butler, R.W.H., and Paton, D.A., 2010, Evaluating lateral compaction in deep-water fold and thrust belts: How much are we missing from "nature's sandbox"? GSA Today, vol. 20, no. 3, 4-10.
Henry, C.D., 2009, Uplift of the Sierra Nevada, California, Geology, vol. 37, no. 6, 575-576.
Miller, R.B. and Paterson, S.R., 2001, Construction of mid-crustal sheeted plutons: examples from the North Cascades, Washington, GSA Bull., no. 113,

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 Secretary Dan Smith at 206.937.5313.
Questions or comments? Contact President John Figge.

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