



## 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, 2009 Newsletter

Volume 23, Number 2

## February 10 Program Speaker

**Speaker:** Josh Bandfield, UW Earth and Space Sciences

**Title:** Mars: mineralogy, morphology, and more!

**Speaker Abstract:** Data returned from spacecraft over the past decade have revealed a Mars with a diverse and dynamic history. Fluvial and other landforms, such as valley networks, outflow channels, and layered terrains were identified in the 1970s, but the extent of the influence of water on the surface has been greatly expanded using high-resolution imagery.

Mineralogical and elemental measurements have revealed the presence of phyllosilicates, hydrated silica, hematite and goethite, sulfates, carbonates, zeolites, and possibly chlorides. In addition to this diverse aqueous history, there is some indication that Mars may also have a range of igneous compositions, including limited exposures of highly differentiated felsic rocks. These and other observations are beginning to characterize a complex planet that can not be defined by simplistic categorizations.

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: \$30; Non-members: \$35; Full-time students : \$10. Add \$5 for LATE REGISTRATION. Mail check to [Ginny Agnew](mailto:Ginny Agnew), 935 Pine St., Edmonds, WA. 98020 (must be received by Thursday prior to meeting). Contact her at 425-776-6151 or [agnew@msn.com](mailto:agnew@msn.com).

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

**Location:** Pacific Dining Hall at the [Talaris Conference Center](#), 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](#) entrance on the north (left) side.

## Upcoming Speakers and Field Trips

March Speaker: Don Swanson, USGS HVO, [Kilauea, an explosive, not milquetoast, volcano!!](#)

April Speaker: Tim Walsh, Washington DNR Geology, [Tsunami hazards.](#)

May Speaker: Jody Bourgeois, UW, [Does Kamchatka belong to North America?](#)

Spring, 2009 Field Trip: Possibilities are in the works. Send your suggestions to [Greg Ferris](#).

Fall, 2009 Field Trip: Options are being discussed. Send your suggestions to [Greg Ferris](#).

Fall, 2009 Field Trip, Special Edition: Plans are moving forward for a field trip to the Big Island of Hawaii in September!

## Other Announcements

**2009 ANNUAL DUES ARE DUE!** Please send dues (\$30 professional, \$5 student) to [Dan Smith](#), 10203 40<sup>th</sup> Ave SW, Seattle, WA. 98146. *Thank you if you have already paid.*

**Your research posters are requested!** If you have a poster conveying your research, whether at the undergraduate, graduate, or professional level, please **bring it** to our next meeting for display! POSTERS ARE WELCOME AND ENCOURAGED AT ALL MONTHLY GATHERINGS! Also, please contact [Lars Gilmour](#) for information on the official student poster session competition at the *May, 2009* meeting. **Big prizes!!!**

**Résumé board:** The résumé board is now available again. If you are looking for work in geology, bring your résumé to post. If you are an employer looking to hire a geologist, come and peruse the available talent!

**Next Board Meeting:** February 10, 4:30pm, [Talaris Conference Center](#).

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

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

## Photo Spotlight

A small basaltic dike of the Eocene Teanaway formation has intruded along a normal fault in a conglomerate of the Tronsen Creek member of the Swauk formation (also Eocene), MP 172.1, US 97 near Blewitt (correctly, Swauk) Pass, Washington. Note the offset of the light-colored bed in the conglomerate as well as the contact of the conglomerate with the overlying sandstone unit. NWGS members Lars Gilmour (black hat) and Eric Cheney provide scale at the lower right. Photo taken by Tom Bush on the 2007 GSA Cordilleran Sectional Meeting field trip, Regional Tertiary sequence stratigraphy and structure on the eastern flank of the central Cascade Range, Washington, Eric Cheney, leader.



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

## 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 geologic topics, emphasizing those of the Pacific Northwest or of fundamental scientific interest. **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 Treasurer [Dan Smith](#), 10203 40<sup>th</sup> Ave SW, Seattle, WA. 98146. Please include your name, address, home phone, email, and employer/affiliation (if any).

## Recommended Readings

Wells, M.L., and Hoisch, T.D., 2008, The role of mantle delamination in widespread late Cretaceous extension & magmatism in the Cordilleran Orogen, western United States, GSA Bull., Vol. 120, No. 5-6, 531-542.

Hempel, A., et al., 2007, Postglacial slip-rate increase on the Teton normal fault, northern Basin & Range province, caused by melting of the Yellowstone ice cap & deglaciation of the Teton Range?, Geology, Vol. 35, No. 12, 1107-1110.

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 [Donn Charnley](#) at 206.546.3868.

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