



# 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



## March 2015 Newsletter

Volume 29, Number 3



### March 10 Program Speaker

**Speaker:** Greg Wilson, UW Biology and Burke Museum

**Title:** Mammals Inherit the Earth: How the K/Pg Mass Extinction Killed Off Dinosaurs and Opened the Way for Mammals

**Abstract:** Mass extinctions have had a profound effect on the course of evolution. More than just massive losses of species, these geologically abrupt events removed successful groups, devastated otherwise stable ecosystems, and, in turn, generated open ecospace and new opportunities for survivors, some of which were minor ecosystem components that only later became dominant. On land, the Cretaceous-Paleogene (K/Pg) mass extinction event marked the end of Mesozoic dinosaur-dominated faunas and the beginning of an early Paleocene biotic recovery, which later transitioned into an unrivaled adaptive radiation of a previously marginal group—eutherian mammals. My research aims to provide a detailed ecological view from the perspective of mammals. Specifically, I analyze fossil teeth from latest Cretaceous and earliest Paleocene mammals in northeastern Montana to investigate the diversity of latest Cretaceous mammals, the feeding ecology of these animals, the selectivity of the mass extinction event, and the tempo and mode of the post-mass extinction recovery. That is, who were the winners and who were the losers in this critical event in Earth's history and why?

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

**April 14:** Jim Aldrich, Structural Geology and Tectonics of the Olympic Mountains.

**May 12:** Timothy Melbourne, CWU Cascadia Hazards Institute, topic TBA.

**Spring Field Trip:** Eric Cheney/Darrel Cowan, UW, Fidalgo and Guemes Islands, April 24-26 (see *Announcements* for more).

**Fall Field Trip:** Possible trip to the east and north sides of the Olympic Mtns, leader(s) and dates TBA.

**June, 2016:** Ten-day field trip to Scotland (**important: see [Announcements](#) below for more**).

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

- Please contact [Kathleen Goodman](#) if you are seriously interested in the **10-day field trip to Scotland in June of 2016**. All participants must commit by March, 2015.
- The **spring field trip** will be April 24-26, led by Eric Cheney and Darrel Cowan of UW ESS to Fidalgo and Guemes Islands, and may include stops at the Oso and Whidbey Island landslides. Accommodations will likely be at the [Rosario Beach Marine Lab](#) at Deception Pass. Watch for details later.
- There will be an opening on the [Washington State Licensing Board for geologists](#) starting this spring. Please contact [Bill Laprade](#) if interested and qualified.
- Please contact [Grace Winer](#) if you would like to be added to the NWGS Speakers Bureau or would like more information.
- Next Board Meeting: TBA, 4:30 p.m., Talaris Conference Center.

*YOU would like to be involved!*

## Photo Spotlight



Collecting expedition in the lower Hell Creek Formation of Montana (G. Wilson 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 geologic 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

Sprain, C.J., Renne, R.R., **Wilson, G.P.**, and Clemens, W.A., 2015, High-resolution chronostratigraphy of the terrestrial Cretaceous-Paleogene transition and recovery interval in the Hell Creek region, Montana, GSA Bull., vol. 127, no. 1-2, DOI: 10.1130/B31076.1.

Tobin, T.S., **Wilson, G.P.**, Eiler, J.M., and Hartman, J.H., 2014, Environmental change across a terrestrial Cretaceous-Paleogene boundary section in eastern Montana, U.S.A., constrained by carbonate clumped isotope paleothermometry, Geology, vol. 42, no. 4, pp. 351-354.

**Wilson, G.P.**, 2014, Mammalian extinction, survival, and recovery dynamics across the Cretaceous-Paleogene boundary in northeastern Montana, USA, in **Wilson, G.P.**, Clemens, W.A., Horner, J.H., and Hartman, J.H., eds., Through the end of the Cretaceous in the type locality of the Hell Creek formation on Montana and adjacent areas, GSA Special Paper 503, p. 365-393, DOI: 10.1130/2014.2503(15).

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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