

Bretz Club 2011

Bretz Club Schedule : HJ Andrews Experimental Forest Research Station

Thursday, April 28, 2011 – Some participants arrive
No dinner, just lodging if requested.

Friday April 29, 2011

All events are at McRae Cafeteria unless otherwise noted

- 8 am Check-in for field trip participants
Coffee & Pastries available
Make your own lunch
- 9 am Introductions to Bretz Club and the day's events
- 9:30 am Field trip *Evolution of volcanic landforms in the Western Cascades* departs
from HJA parking lot *See Field Trip guide for details*)
- 6ish pm Field trip ends at HJA parking lot (*optional walking tour*)
- 7 pm Catered Dinner (yum)
- 8 pm Poster Session, Terroir Wine Tasting and general festivities (Conference Hall)

Saturday April 30, 2011

All events are in the Conference Hall unless otherwise noted

- 7 am Catered breakfast (McRae Cafeteria)
- 8:30 am Key note #1: Kathy Cashman (UO) *A Volcanologist's View of Volcano Geomorphology: The Missing Manual*
- 10 am Coffee break
- 10:30 am Key note #2: Jon Major (USGS) *Hydrogeomorphic response to volcanic disturbance-- how much, how fast, how long*
- 12 noon Catered Lunch (McRae Cafeteria)
- 1 pm Pop-ups and Raffle featuring LiDAR posters and maps from DOGAMI and other prizes donated by attendees. Tickets \$10 each. First ticket drawn gets first pick of all prizes until everything is given away.
- 2:30 pm Key note #3: Andrew Fountain (PSU) *The Glaciers on the Volcanoes*
- 4 pm Closing remarks
- 4:30 pm Room inspection by Student volunteers (*please leave your room as you found it or we incur a \$30/hr cleaning fee*)

Ideas without precedent are generally looked upon with disfavor and men are shocked if their conceptions of an orderly world are challenged - J. Harlen Bretz, 1928

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Bretz Club Field Trip, Friday April 29, 2011: Gordon Grant and Fred Swanson

Evolution of volcanic landforms in the Western Cascades.

This year's field trip will focus on geomorphic and erosional processes in an older volcanic landscape (the Western Cascades). Drawing on over 50 years of research at the H.J. Andrews Experimental Forest and surrounding area, we will examine hillslope, small watershed, fluvial, and landscape-level processes over a range of timescales. The emphasis will be on how styles and products of erosion of volcanic landscapes plus subsequent alteration by hydrothermal processes set the stage for long-term landform evolution. Stops will include examples of small watersheds and their alluvial fans, debris flows, earthflow complexes, and fluvial systems. The discussion will complement Jon Major's Saturday talk on contemporary volcano erosion/geomorphology.

Below is a schedule for the field trip. This is spring in Oregon, so please bring appropriate footwear, rain gear, and some warm clothes. We will have lunch between stops 3 and 4 – this will be a bag lunch which you will make yourself Friday morning.

Schedule (weather permitting):

9:00 am Stop 0: HJ Andrews Headquarters

10:15 am Stop 1: Mona Creek

Overview of geologic picture: volcanic rocks (intrusive rocks associated with Blue River mining district, volcanoclastics, up to ridge-capping lava flows), hydrothermal alteration, overall topographic setting

11 am Stop 2: Reservoir Rd

Hydrothermally altered volcanoclastics and dikes; glacial history affecting lower Blue River (landforms and deposits); Mazama ash in WS9 fan

Bag lunch

1:00pm Stop 3 Foley Ridge Viewpoint off Rd 1501

High Cascade / Western Cascade intersection in McKenzie River context

2:00pm Stop 4: WS3 Debris Flow and Fan histories

Debris flow and fan of WS2-3 interfluvium

3:30 pm Stop 5: Lookout Creek Bridge

Lookout Creek valley floor geomorphology

4:00 pm Stop 6: Earthflow

Landforms and movement history, disruption of vegetation

5ish pm Return to HJ Andrews, end of field trip

Optional:

5:30 pm 1 hr walking tour of HJ Andrews (*can also be explored on your own!*)

Lookout Creek channel and big wood changes, USGS Debris Flow Flume, Quaternary deposits exposed on south bank.

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