

*Dear 2016 Bretzl,*

It's the 7<sup>th</sup> Annual Bretz Club event (dubbed "Flows on Flows") and we are headed to the east side of the Cascades to Rock Springs Ranch, Tumalo, Oregon. (<http://www.rocksprings.com/>)

**The conference talks and scientific program is all-day Friday, May 13, and the field trip is Saturday, May 14. Please plan to arrive Thursday evening.**

**Bretz Club website:** <http://wpg.forestry.oregonstate.edu/2016-bretz-club-conference-field-trip>

#### **Check-in and accommodation**

- **Lodging is included for Thursday and Friday nights.**
- Directions to Rock Springs Ranch are at the end of this letter. Google maps works too. (64201 Tyler Road, Bend, OR 97701: <http://www.rocksprings.com/>). Side note: the Bendistillery (maker of Crater Lake Spirits) is a good landmark for the turnoff Hwy 20 to the Ranch; they close at 5pm.
- Plan to arrive at Rock Springs between 5pm and 9pm on Thursday. When you do, head to the Lodge for your room assignment. If you arrive late, visit the Lodge and follow the instructions to find an open room. We will have an informal meet & greet in the Lodge Thursday night.
- We have exclusive use of Rock Springs for our group. The main gathering/eating will occur in the Lodge. The scientific program will be held in the conference space. Lodging will be in 8 cabins scattered upslope of the lodge. Each cabin has 2-8 double occupancy rooms, each with a single queen bed and ample floor space. This suggests that someone will be sleeping on the floor, unless you know each other real well. If you want to choose your roommate in advance, roommates should send me a joint email to confirm.
- If you opt to camp, you will still be assigned a room so that you have access to shower facilities. Bathrooms are also available in the main Lodge (open all night). The grounds offer some nice spots to pitch tents, but there is no formal "camping" area. You may pitch your tent wherever you can find a flat spot (preferably not in a parking area).
- Bedding/towels: **Bring your own sleeping pad & bag unless you are sharing a bed; the ranch will provide towels.**
- If you're arriving on Friday morning, we will be in the Lodge for breakfast beginning at 8am, then in the conference center after 9am.
- We need to completely check out of our rooms on Saturday morning before the field trip begins, and will not be returning to the Ranch. There is another group coming in after us.
- There is ample parking at the Lodge and close to the cabins.

#### **Food & Beverages**

- Dinner will NOT be provided on Thursday night. Please **plan to eat Thursday dinner before arriving at Rock Springs**. There are restaurants/supermarkets in Tumalo, Bend & Sisters.
- All meals (Friday breakfast, lunch, dinner, and Saturday breakfast) are included and will be served in the Lodge. On Saturday, you'll make sack lunches for the fieldtrip. We are fortunate to be working with a great caterer this year (some of you may remember Annie from our first two years at HJA), so the food will be fabulous and there will be vegetarian, dairy-free and gluten-free options for those who indicated a dietary restriction.
- Hot beverages, including good coffee and tea will be available for our coffee breaks in the conference center. Bring your own snacks if you need sustenance between meals.
- We'll provide some basic snacks and beverages (alcoholic and non), but **please bring your preferred beverages** for Thursday nights informal meet & greet, and Friday night's post-dinner Extravaganza.

#### **Connectivity**

- **There is cell phone coverage at Camp Collins.** For Bretz related questions, late arrivals, etc. my cell phone is 541-602-0181 (txt/cell). In an emergency, call the main office number is 541-382-1957 or the facilities manager Jamie Hildebrandt's cell phone 541-408-1804.

- **There is wifi in the Lodge and in the Conference Center**, but not in the cabins. Password will be provided on-site.

### Field Trip (Saturday)

- We'll depart from Rock Springs Ranch for the field trip at 8:30 am on Saturday morning. We will not be returning to the ranch.
- We will reconvene at the Lava Butte Visitor Center between Bend and Sunriver on Hwy97 at 9:15am. This will be the location for stops 1 & 2. Stop 3 is a short (15 min) drive away, also with ample parking.
- A pdf of the field trip guide will be made available on the Bretz Club website. **You are responsible for printing out a paper copy of the field guide if you want one.** Email me by Wednesday if you cannot print a copy and need me to bring you one.
- The current weather forecast looks warm (70s) with possible thunderstorms on Saturday (high 40s at night). Please be prepared with layers, rain gear and appropriate footwear for walking to our field stops.

### Other Notes

- Name tags, chocolate, and room assignments, will be handed out when you arrive.
- **Bring a flashlight to navigate to your cabin in the dark.**
- Again this year: **"Bretz" water bottles will be for sale (\$10).** Correct change much appreciated.
- **Posters:** Please bring your poster to the Lodge in advance of the evening poster session; preferably sometime Friday afternoon.
- **Popups:** Upload your popup to the laptop before 2pm. There will be student volunteer to help you.
- **Raffle:** Tickets are available for \$5 and the money goes towards the Bretz Club Sustainability Fund. **Prizes include whatever is donated, no promises. Donate a good one!!**
- **Students:** Each of you should sign up for a volunteer position. Check here for the list:  
<https://docs.google.com/spreadsheets/d/1WcEYJ06D6gpQSe9kPWZKSNAe4tqKoMQMk8rsIto35T4/edit#gid=0>.
- **Please check the attached participant list:** You are encouraged to carpool with your neighbors. If you are not listed correctly, please contact OSU conference services ASAP at 1-800- 678-6311 or email [conferences@oregonstate.edu](mailto:conferences@oregonstate.edu) to correct your reservation. If you have any additional questions, please don't hesitate to call or email us.

# Bretz Club 2016

## Flows on Flows

6<sup>th</sup> Annual Bretz Club Schedule, April 9-11, 2015

**Thursday, May 12, 2016:**

Organizers and Most Participants arrive 5pm-9pm. Check in, Meet & Greet at the Lodge.

**Friday, May 13, 2016: Scientific Program, Rock Springs Ranch, Tumalo, Oregon**

*All talks, popups are in the Conference Center; meals and evening gatherings the in the Lodge.*

- 8am Breakfast / Check-in for Friday Arrivals (*Lodge*)
- 9am Introductions and orientation to Bretz Club & Rock Springs Ranch (*Conference Center*)
- 9am Key note #1: **Andrew Meigs** (OSU - CEOAS)  
Tectonic basis of Cascadia orogenic topography: A simple twist of plate
- 10:30am Coffee Break (*Hot beverages available, bring your own snacks*)
- 11am Key note #2: **Daniele McKay** (OSU - Cascades)  
Evidence for water-magma interaction during the Sand Mountain cinder cone eruption, central Oregon  
Cascades: Killer cinder cones - just add water
- 12:30pm Lunch (*Lodge*)
- 2pm Pop-ups (3-minutes each) on whatever comes to mind (*those who preregister have priority*)
- 3:45pm Coffee break (*ditto*)
- 4pm Key note #3: **Marshall Gannett** (USGS – Oregon Water Science Center)  
Geology, regional groundwater flow, and groundwater-dependent ecosystems in the upper Deschutes  
Basin: Bretz Club meets Fens of the Pleistocene
- 6pm Dinner (*Lodge*)
- 7:00pm Evening Extravaganza: Poster session, raffle and merriment (*Lodge*)

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

# Bretz Club 2016

**Saturday, May 14, 2016: Interrelationships between extension, volcanism, and landscape evolution along the Sisters fault zone and NW Rift of Newberry Volcano:**

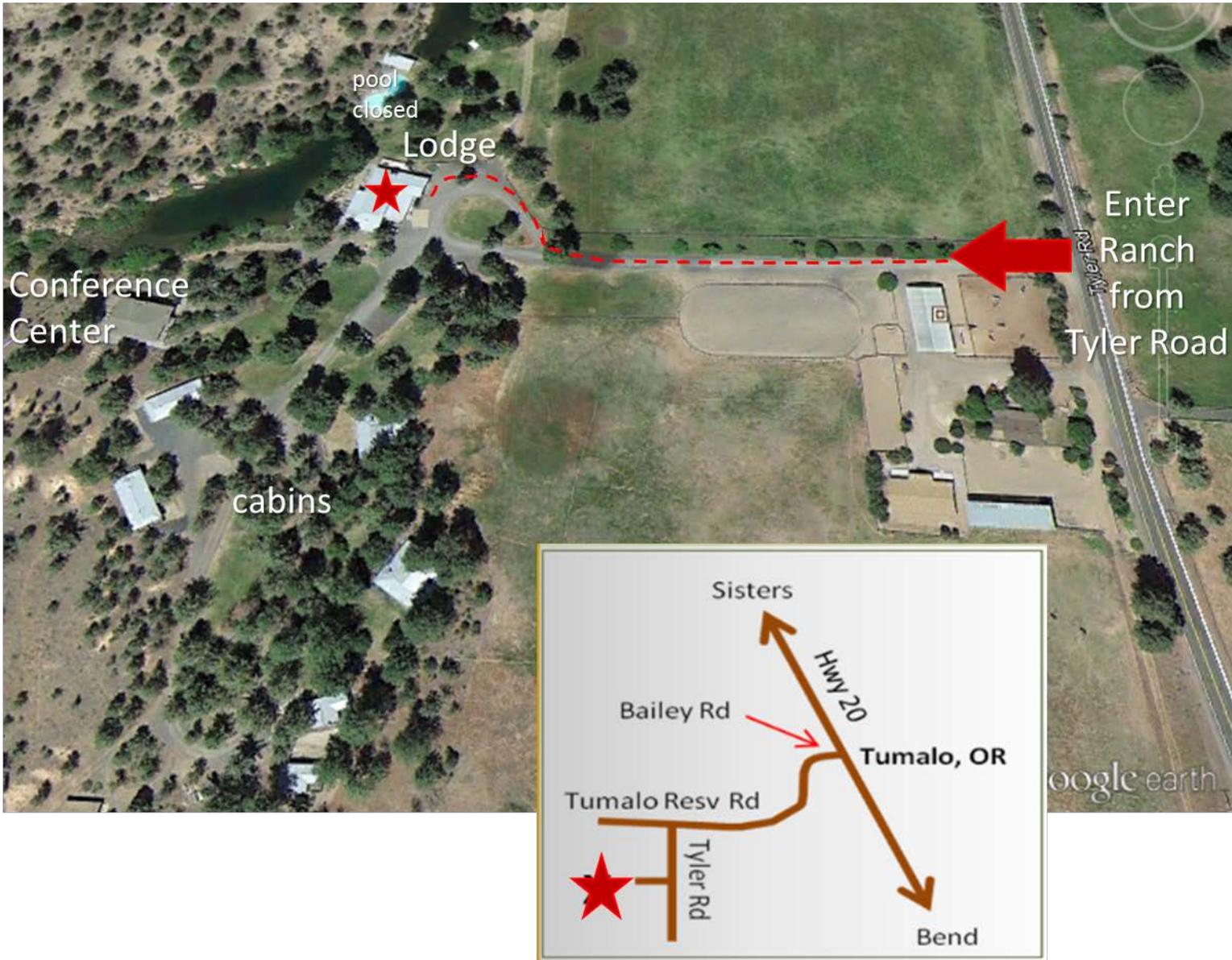
Andrew Meigs, Ellen Lamont, Daniele McKay & Marshall Gannett

- 7:30am Breakfast & make your own bag lunch
- 8:30am Field trip departs Rock Springs Ranch (*see field guide for details*)
- 9:15am Group reconvenes at first stop (Lava Butte Visitor Center) and coordinates carpools. Stop 1: Lava Butte and 7 ka eruptive events. Field trip introduction, Holocene volcanism, and lava and volcano geomorphology.
- 10:15am Walk to Stop 2 from parking lot on a level, smooth abandoned forest road. A driving option is available. Stop 2: Structure of the NW rift and relationship to the Sisters fault zone; fault scarp degradation; fluid flow and fault zones; evidence for Holocene earthquakes.
- 12:15am Drive to stop 3
- 12:30am Lunch at the stop 3 parking lot, which is 4 miles from the Lava Lands parking.
- 1pm 10 minute walk to the principle location followed by a leisurely out-and-back hike. Stop 3: Structural and volcanic interaction with Deschutes River; transient river response to volcano damming, channel width and stream power, and knickpoint migration.
- 3-4pm The hike returns to the cars at leisure at depending on level of animated debate. Early departure is possible and easy at any time.

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Bretzls as of May 9, 2016

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link to carpool googlesheet:		<a href="https://docs.google.com/spreadsheets/d/1BujCoc_Av7XWhtcLvXxFi4rbABb9cKvUtb7WQ2XMcpA/edit?usp=sharing">https://docs.google.com/spreadsheets/d/1BujCoc_Av7XWhtcLvXxFi4rbABb9cKvUtb7WQ2XMcpA/edit?usp=sharing</a>						



Rock Springs Ranch 64201 Tyler Road, Bend OR