## Friends of the Pleistocene Second Announcement-2009 Pacific Cell Field Trip

## The Great Scarp Hunt September 24-27, 2009

Trip Leaders: Rich Koehler, Tony Crone, Bill Hammond, and Tom Hanks

Focus: Active faults and pluvial lakes in the central Great Basin, Nevada. Relative dating techniques, soils, geomorphology, paleoseismic histories, geodesy, and regional extension rate.

Register now by email to Rich Koehler koehler@seismo.unr.edu

Please indicate T-shirt size

Guidebook will be available for download 1 week before the trip at http://neotectonics.seismo.unr.edu/CNSHome.html

A road log and detailed directions to the Friday and Saturday night camp spot will be available with the guidebook (for those of you who may show up late).

The cost of the trip will be \$35, which will be collected upon arrival (Cash or check only). Price includes a T-shirt, and keg beer for Thursday, Friday, and Saturday night. We will be dry camping in the Cold Springs area on Thursday night and dry camping in Grass Valley on both Friday and Saturday night. Plan to be self-sufficient. A 4X4 vehicle is recommended because most roads we will travel are bumpy relatively flat dirt roads that might hurt your Honda. Carpooling is strongly encouraged. Temperatures are usually nice this time of year but plan for cold evenings and hot days just to be sure. Sturdy walking shoes are required for some of our hikes.

**Thursday, September 24<sup>th</sup>:** Get the day off, quit your job, get on the bus, and head to the meeting spot. Two maps included in this announcement should get you there. Camp is located north of HWY 50 at coordinates 39°24'25.96"N, -117°53'35.55"W. To get to the camp go east on HWY 80 to Fernley, then east on Highway 50 to Middlegate, then continue east approximately10.8 miles to a dirt road heading north (There will be a FOP sign). Coordinates of the turn off are 39°22'35.18"N, -117°52'1.89"W. Camp is about 2.6 miles north of HWY50 on the dirt road.

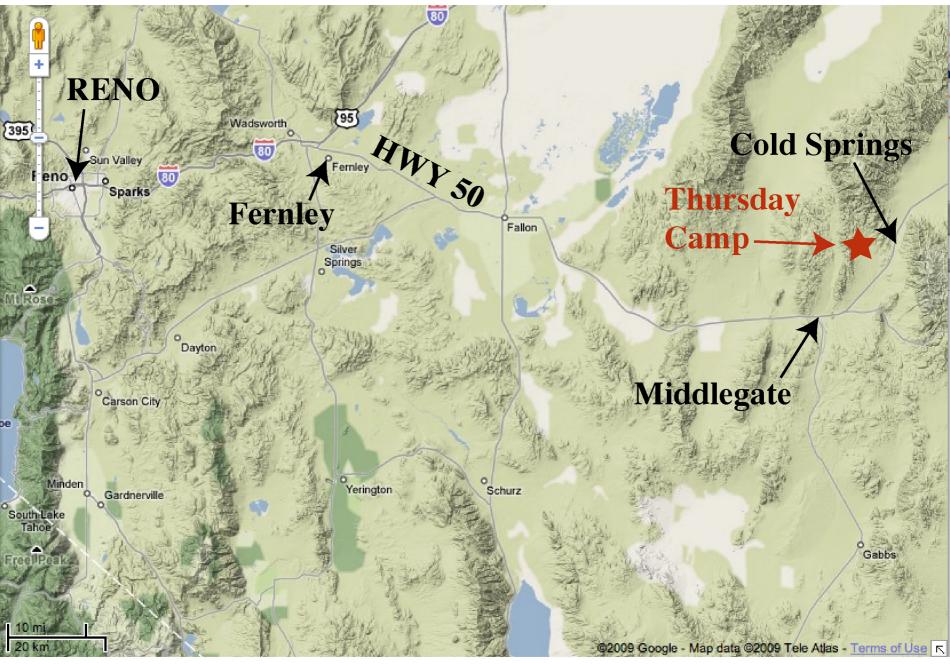
**Friday, September 25<sup>th</sup>:** We will discuss results from paleoseismic studies along the Eastgate fault, eastern Desatoya Range, and eastern Toiyabe Range. Topics include the relative age of faulted fans based on soils, colluvial wedge stratigraphy, event

chronologies, and relative recurrence intervals. Also we will examine surficial geomorphic characteristics and relative age criteria for multiple aged alluvial fans. We have two open trenches, so bring your scrapper.

**Saturday, September 26<sup>th</sup>:** We will discuss tectonic geomorphology along the Simpson Park Mountains fault, fault scarp diffusion modeling, pluvial lake and distal fan sedimentology, and relative age relations between pluvial deposits, alluvial fans, and the most recent rupture. We will evaluate the timing of the late Pleistocene highstand elevation of pluvial lake Gilbert, as well as, possible interbasin connectivity to Lake Lahontan. Additionally, we will discuss results from other paleoseismic investigations across the HWY 50 corridor and present a regional geologic extension rate. We will summarize previous geodetic studies, as well as, on-going EarthScope data with respect to rates of extension in the Great Basin. Finally, we will present a comparison of the geologic and geodetic rates.

**Sunday, September 27<sup>th</sup>:** Continued discussions on the interaction of pluvial lake deposits and faults along the southeastern Desatoya Range. We will visit a spectacular vbar complex that has curious uphill facing scarps. Are the shorelines faulted or not? Are the scarps related to graben formation, underlying bedrock formations, or pluvial lake processes? You be the judge and bring your heckle voice.

Friends of the Pleistocene, Thursday night camp, Sept. 24, 2009



Directions to the Thursday night camp and meeting place.

Map 1: Take HWY 80 from Reno to Fernley. Take HWY 50 from Fernley to Middlegate. Then consult Map 2.

