

Kristin E. Sweeney

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EDUCATION

Ph.D.: Geological Sciences, University of Oregon, Eugene, OR.....2015 (*expected*)

Adviser: Dr. Joshua Roering

Area of focus: Process geomorphology

B.A., magna cum laude: Geology, Carleton College, Northfield, MN.....2009

Adviser: Dr. Sarah Titus

Thesis title: "Characterization of a Partitioned Section of the Höh Serh Fault System: Mongolian Altai"

RESEARCH INTERESTS

Experimental erosional landscapes, soil geomorphology and applications to landscape evolution, bedrock incision in volcanic landscapes, hillslope evolution, hillslope-channel coupling, remote sensing of topography

PUBLICATIONS AND PRESENTATIONS

Peer-reviewed articles

1. Pelletier, J., K.E. Sweeney, J.J. Roering, N. Finnegan, *in review*, **Controls on the geometry of potholes in bedrock channels**, *Geophysical Research Letters*
2. Roering, J.J., B.H. Mackey, J.A. Marshall, K.E. Sweeney, N.I. Deligne, A.M. Booth, A.L., Handwerker, C. Cerovski-Darriau, 2013, **'You are HERE:' Connecting the dots with airborne lidar for geomorphic fieldwork**, *Geomorphology*, doi:10.10106/j.geomorph.2013.04.009
3. Sweeney, K.E., J.J. Roering, P. Almond, T. Reckling, 2012, **How steady are steady-state landscapes? Using visible-near infrared soil spectroscopy to quantify erosional variability**, *Geology*, v. 40, 9, p.807-810. doi:10.1130/G33167.1
4. Frankel, K.L., K.W. Wegmann, A. Bayasgalan, R.J. Carson, N.E. Bader, T. Adiya, E. Bolor, C.C. Durfey, J. Otgonkhuu, J. Sprajcar, K.E. Sweeney, R.T. Walker, T.L. Marstellar, L. Gregory, 2010, **Late Pleistocene slip rate of the Hoh Serh - Tsagaan Salaa fault system, Mongolian Altai and intracontinental deformation in central Asia**, *Geophysical Journal International*, v. 183, 1134-1150

Conference abstracts

1. Sweeney, K.E., J.J. Roering, M. Fonstad, 2013, **Testing bedrock incision models: Holocene channel evolution, High Cascades, OR**, Abstract EP24B-03 presented at the 2013 Fall Meeting, AGU, San Francisco, Calif., Dec 8-13.

2. Sweeney, K.E., J.J. Roering, A.W. Rempel, 2012, **Sediment transport via needle ice: a new method for laboratory hillslope diffusion**, Abstract EP53A-1013 presented at the 2012 Fall Meeting, AGU, San Francisco, Calif., Dec. 3-7
3. Sweeney, K.E., J.J. Roering, P.C. Almond, 2011, **How steady is steady state? Using soil spectroscopy to quantify inter- and intra-basin erosional variability in the Oregon Coast Range**, Abstract EP23C-0775 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., Dec. 5-9
4. Sweeney, K.E., J.J. Roering, G. Grant, K.V. Cashman, N.I. Deligne, and N. Deardorff, 2010, **Rapid bedrock channel incision and gorge formation in a Late Holocene lava flow, High Cascade Mountains, Oregon**. Abstract EP43B-0756 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., Dec. 13-17
5. Sweeney, K.E., 2009, **Characterization of the Hoh Serh and Tsagaan Salaa faults, Hoh Serh Range, Mongolian Altai**, Proceedings of the 22nd Annual Keck Research Symposium in Geology, Lancaster, PA.

RESEARCH EXPERIENCE

Graduate Researcher, *University of Oregon*.....9/10 - present
 Research Assistant, *St. Anthony Falls Laboratory*.....6/09 – 7/10
 Undergraduate Researcher, *Keck Consortium Project, Mongolian Altai*.....Summer 2008
 Carleton College Field Camp, *Coldigioco, Italy*.....Fall 2007
 Survey Crew Volunteer, *NCED Marmot Dam Project*.....Summer 2007

TEACHING AND SERVICE EXPERIENCE

Teaching Assistant, *University of Oregon*.....2010 – present

- Introduction to Geology, Environmental Data Analysis (400-level statistics course), Hillslope Geomorphology, Science Communication, Environmental Geology of Oregon (300-level survey course)

Reviewer, *Journal of South American Earth Science*.....2014
 Writing in the Disciplines Workshop, *University of Oregon*.....Spring 2013
 Graduate representative to the geology faculty, *University of Oregon*.....2012-2013
 Graduate Mentor, *Undergraduate Catalytic Outreach and Research Experiences*....Summer 2011

- Supervised two community college students in field and laboratory research

Graduate union department steward, *University of Oregon*.....2011
 Calculus and Linear Algebra Tutor, *Carleton College*.....Spring 2009
 Teaching Assistant, *Carleton College*.....2008 – 2009

- Introduction to Geology, Tectonics, Structural Geology

Outdoor Science Camp Counselor, *Oregon Museum of Science and Industry*.....Summer 2006

GRANTS AND AWARDS

Mazamas Graduate Research Grant, \$1650.....2014
 Thayer Scholarship for Geomorphology, \$1,000 *University of Oregon*.....2011, 2012, 2014
 NCALM Seed Grant.....2012
 NSF GRFP, Honorable Mention.....2012
 Duncan Stewart Fellowship for departmental leadership, *Carleton College*.....2009
 Phi Beta Kappa, *Carleton College*.....2009