

Lydia Marilyn Staisch

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Education

Ph.D., Geological Sciences, University of Michigan, advisor: Nathan Niemi 2014
B.A., Geology, Carleton College, advisor: Sarah Titus 2008

Professional Experience

Mendenhall Postdoctoral Fellow, United States Geological Survey 2014 – present
Graduate Student Teaching and Research Assistant, University of Michigan 2009 – 2014
Field Assistant in Salta Province, Argentina, University of Arizona 2009
Field Geologist, GeoCorps America Intern, Klamath National Forest, CA 2008

Teaching Experience

Graduate Student Instructor, University of Michigan 2013
Mineral Resources, Economics, and the Environment
Graduate Student Instructor, University of Michigan, Camp Davis 2012 – 2013
Introductory Geology in the Field
Teaching Assistant, Carleton College 2008
Petrology

Honors and Awards

Scott Turner Award in Earth Science, University of Michigan 2013
Outstanding Student Research Paper, American Geophysical Union 2012
GSA Graduate Student Research Grant, Geological Society of America 2012
Scott Turner Award in Earth Science, University of Michigan 2010
NSF Graduate Research Fellowship Program, National Science Foundation 2009
BP Department Fellowship, University of Michigan 2009
AWG Minority Scholarship, Association of Women Geoscientists 2007

Service

IDEAs Seminar Coordinator, University of Michigan 2011 – 2014
GeoClub President, University of Michigan 2010 – 2012
MentorNet Graduate Mentor, independent 2010 – 2012

Professional Affiliations

Geological Society of America, Member 2008 – current
American Geophysical Union, Member 2007 – current
Sigma Xi, Associate Member 2008

Invited Talks

Pacific Science Center: Science Café, Seattle, WA 2015
USGS Earthquake Science Center colloquium, Menlo Park, CA 2016
Northwest Geological Society, Seattle, WA 2016

Publications

- Staisch, L.M., Niemi, N.A., Clark, M.K., Chang, H., 2016, Eocene – late Oligocene history of crustal shortening within the Hoh Xil Basin and implications for the uplift history of the northern Tibetan Plateau, *Tectonics*, vol. 35, no. 4, p. 862-895, doi.10.1002/2015TC003972.
- Bender, A.M., Amos, C.B., Bierman, P., Rood, D.H., Staisch, L.M., Kelsey, H.M., Sherrod, B.L., 2016, Differential uplift and incision of the Yakima River terraces, central Washington State, *JGR Earth Surface*, vol. 121, no. 1, p. 365–384 doi.10.1002/2015JB012303.
- Staisch, L.M., Niemi, N.A., Chang, H., Clark, M.K., Rowley, D.B., Currie, B., 2014, A Cretaceous-Eocene depositional age for the Fenghuoshan Group, Hoh Xil Basin: Implications for the tectonic evolution of the northern Tibet Plateau, *Tectonics*, vol. 33, no. 3, p. 281-301, doi. 10.1002/2013TC003367.

Publications in preparation

- Staisch, L.M., Niemi, N.A., Clark, M.K., Chang, H., *in prep*, Initiation of lateral motion on the Kunlun Fault system, Dongdatan Valley: implications for the establishment of modern elevations in Northern Tibet.
- Staisch, L.M., Kelsey, H.K., Sherrod, B.L., Möller, A., Paces, J., *in prep*, Miocene to Pleistocene deformation history of the Saddle Mountains, central Washington, USA.
- Staisch, L.M., *in prep*, Quantification of the magnitude and spatio-temporal variation in rock uplift rate by integrating stream profile inversion with structural-stratigraphic analysis and potential field modeling, Yakima fold province, central Washington, USA.
- Kelsey, H.M., Ladinsky, T.C., Staisch, L.M., Sherrod, B.L., Blakely, R.J., Pratt, T.L., Stephenson, W.J., Odum, J.K., Wan, E., *in prep*, Late Neogene and Quaternary tectonics of the Yakima folds in the backarc region of the Cascadia subduction zone: the Manastash anticline.

Conference Abstracts

- Staisch, L.M., Miocene to Quaternary deformation history of the Yakima fold province as determined from geomorphic and geologic records: implications for seismic hazard in central Washington, *Geological Society of America*, Rocky Mountain Section Meeting 2016, abstract T9- 276106.
- Staisch, L.M., Bennett, S.E.K., Sherrod, B.L., Kelsey, H.M., Moeller, A., Paces, J., 2015, Holocene to Neogene tectonics in central Washington: assessing seismic hazards from the geomorphic, geologic, and paleoseismic record of the Yakima Folds, *American Geophysical Union*, Fall Meeting 2015, abstract T31B-2892.
- Staisch, L.M., Niemi, N.A., Clark, M.K., Chang, H., 2013, Eocene – late Oligocene crustal shortening within the Hoh Xil Basin, north-central Tibetan Plateau, *American Geophysical Union*, Fall Meeting 2013, abstract T31B-2510.
- Staisch, L.M., Niemi, N.A., Chang, H., Rowley, D.B., Yi, J., Zhang, P., Clark, M.K., 2012, Revised depositional age of the Fenghuoshan Group, Hoh Xil Basin, north-central

Qiangtang terrane: implications for the pre- and early-collisional tectonic evolution of the Tibetan Plateau, *American Geophysical Union*, Fall Meeting 2012, abstract T53F-01.

Staisch, L.M., Clark, M. K., Niemi, N. A., Avdeev, B., 2010, Detrital apatite (U-Th)/He constraints on the exhumational histories of the Arunachal Pradesh Himalaya and the Shillong Plateau, *American Geophysical Union*, Fall Meeting 2010, abstract EP41C-0720.

Staisch, L., Styron, R.H., James, S., Turner, H.L., Ashlock, A., Cavness, C.L., Collier, X., Fauria, K., Feinstein, R., Murphy, R., Williams, B., Mattioli, G.S., Jansma, P.E., and J. Cothren, 2007, Dislocation modeling and comparison with GPS data to assess possible elastic strain accumulation in the Central Lesser Antilles: New constraints from the NSF-REU site in Dominica between 2001 and 2007, *Eos Trans. American Geophysical Union*, 88 (52), Fall Meet. Suppl., Abstract G21C-0656.