

# Curriculum Vitae

Updated February 2018

## **Matthew Morriss PhD Candidate**

Department of Earth Sciences

1272 University of Oregon

Eugene, OR 97403-1272

Phone: (512) 750 1102

Email: [matthew.c.morriss@gmail.com](mailto:matthew.c.morriss@gmail.com) or [mmorriss9@uoregon.edu](mailto:mmorriss9@uoregon.edu)

## **Professional Interests:**

My research falls into fields that help shed light on lithospheric processes, including and not limited to tectonic geomorphology, active tectonics, structural geology, basin analysis, geodynamics, and thermochronology. As larger geospatial datasets become available, geomorphology is taking a new role in understanding the coupling of the lithosphere and mantle. My research interests lie at that intersection. I like to integrate field based observations with predicted model-based results to construct a more robust understanding of the processes that govern construction of the Earth's surface.

## *Current Projects:*

- Tectonic significance of Columbia River Basalt Dikes (writing)
- Thermochronologic history of Hells Canyon: OR-ID border (in progress)
- Quaternary Glaciations of Mongolia – Glacial Asynchrony

## *Published Projects*

- Tectonic and Dynamic landscapes in the Burnt River catchment, eastern Oregon

## **Education:**

- May, 2013 B.A. in Geology (Honors): Whitman College
- September, 2015, M.S. (Geology), North Carolina State University
- September, 2015, - June 2019 (Expected Graduation Date), Ph.D. University of Oregon
- December, 2017 (Advanced to Candidate)

## **Professional & Research Experience:**

- February 2017: 2 week DMR-EOS Paleoseismic Training Course (Mae Chan, Th)
- September 2016: 2 week Apatite U-Th/He laboratory experience (CU Boulder)
- May – June 2016: Primary Researcher, Mapping of late Cenozoic fluvial deposits along the Grande Ronde River, Eastern Oregon
- August 2015: 10 day, Mountain Ranges and High Plateau Summer School (University of Michigan)
- May – July 2014: Primary Researcher, Mapping Surficial deposits along the Burnt River in Eastern Oregon, M.S. Thesis.
- July-August 2012: Researcher, Intracontinental Deformation and Surface Uplift in Mongolia, NSF Continental Dynamics Project, Senior Thesis Research

## Curriculum Vitae

- 2011-2012: Research assistant to Dr. Bill Bull of the University of Arizona. Lichenometry project, looking at paleosiesmology in Transverse ranges, publication forthcoming.
- Fall 2011 – Spring 2012, Paleodrainage of the Eastern Columbia Plateau. A story of the Clearwater-Salmon drainage. (Advisor: Patrick Spencer, Whitman College)
- Spring 2011: Geologic background and itinerary planning for spring break trip to the Trans-Pecos Region of Texas. (Advisor: Robert Carson, Whitman College)
- June-July 2010: Field assistant to University of Arizona graduate student in southwestern Wyoming, examining syntectonic, foreland basins from the Sevier Orogeny

### Teaching Experience:

- Summer 2016, 2017, 2018: Teaching Assistant – UO Field Geology Field Camp
- Winter 2018: Teaching Assistant – Surface and Environmental Geology (UO)
- Spring 2017: Teaching Assistant – Sedimentology and Stratigraphy (UO)
- Winter 2016: Teaching Assistant – Western U.S. Tectonics (UO)
- Winter 2016: Teaching Assistant – Geologic Hazards (UO)
- Fall 2016: Teaching Assistant – Earth's Dynamic Interior (UO)
- Spring 2015: Teaching Assistant – Sedimentology and Stratigraphy (NCSU)
- Fall 2013, 2014: Teaching Assistant – Physical Geology (NCSU)
- Spring 2014: Teaching Assistant – Historical Geology (NCSU)

### Awards & Grants:

- Summer 2017: Collaborative Research: An integrated mantle to surface study of the causes and consequences of high topography in the Northern US Cordillera
- Spring 2016: EarthScope Award for Geochronology Student Research (\$5,972)
- Spring 2016: Geological Society of America Graduate Student Research Grant (\$1875)
- Spring 2016: USGS EdMap Grant: *Modern and Ancient Deformation of the Western Grande Ronde Fault Zone: Examining Miocene to Holocene tectonics in Eastern Oregon* (\$17,500)
- Spring 2015: National Science Foundation, Graduate Fellowship, *Honorable Mention*
- Fall 2014: American Alpine Club: Mountaineering Fellowship (\$200)
- Spring 2014 USGS EdMap Grant: *Surficial Geology and geomorphology of the Burnt River Corridor, Eastern Oregon: Investigating Late Cenozoic Landscape Response to Snake River Downcutting* (\$17,452)
- Spring 2014: American Alpine Club: Live Your Dream Grant (\$800)
- Spring 2014: Mazama Expedition Grant (\$500)
- Fall 2014: American Alpine Club, Mountaineering Fellowship (\$800)
- Spring 2013: Dr. Albert Ripley Leeds Memorial Prize for Excellence in Geology, Whitman College
- Spring 2013: Order of Waiilatpu for Academic Merit, Whitman College.

## Curriculum Vitae

- Spring 2013: Winter Adventure Grant: researching backcountry skiing guidebook. (\$1000)
- Spring 2012: American Alpine Club, Live Your Dream Grant (\$400)
- Spring 2012: Sigma Xi, Inducted as an associate member
- Spring 2011: Abshire Award from Whitman College
- Fall 2011: Abshire Award from Whitman College

### Publications and Abstracts:

- **Morriss, M.**, Karlstrom, L., Nasholds, M., Murray, K., 2017, Constraints on the structural and thermal conditions of Columbia River Basalt feeder dikes from a comprehensive regional dataset, IAVCEI meeting: Portland, Oregon, Submission 975.
- Humphreys, E., Perry-Houts, J., **Morriss, M.**, Wogan, N., 2017, The Columbia River flood basalts: Initiated from below, driven from above, IAVCEI meeting: Portland Oregon, Submission 864.
- **Morriss, M.**, Wegmann K., 2017, Geomorphology of the Burnt River, eastern Oregon, USA: Topographic adjustments to tectonic and dynamic deformation: *Geomorphology*, v. 278, 43 – 59 p.
- **Morriss, M.C.**, Wegmann, K. W., 2016, A new terrace chronology and landscape development model from the Burnt River, eastern Oregon, USA: *Geological Society of American Abstracts with Programs*, v. 48, no. 6.
- **Morriss, M.C.**, 2015, Hall Peak, east face, new routes, *The American Alpine Journal*, v. 57.
- **Morriss, M.**, Wegmann, K., Vezie, C., 2014, 1:24,000 Scale Mapping Reveals Dynamic And Climatic Landforms Riding A Kinematic Wave Along The Burnt River, Baker County, Northeastern Oregon, *Geologic Society of America Abstracts with Programs*, V. 46, No. 6, p. 523.
- Leary, R., DeCelles, P.G., Gehrels, G.E., and **Morriss, M.**, 2014, Fluvial deposition during the transition from flexural to dynamic subsidence in the Cordilleran foreland basin: Ericson formation, western Wyoming: *Basin Research*.
- **Morriss, M.C.**, 2013, The Elkhorns, Eastern Rib of Van Patten Butte, Senior Moment: The Wallowas, Traverse Lake cliff, Attempt, *The American Alpine Journal*, v. 55, p. 120.
- **Morriss, M.C.**, Wegmann, K., Carson, R., Gosse, J., 2013, Quaternary glacial sequences in Mongolia – evidence of climatic asynchrony, *Geologic Society of America Abstracts with Programs*, V. 45, No. 7, p. 334.
- **Morriss, M.C.**, Carson, R.J., Wegmann, K., 2013, Paleoclimate implications of glacial sequences in Mongolia, *Oregon Academy of Science*, v. 72.
- **Morriss, M.C.**, Carson, R.J. 2012, Don't Mess with Texas: A Geologic Field Trip to the Trans-Pecos, *Oregon Academy of Science*, v. 71, p. 32.

### Invited Talks:

## Curriculum Vitae

- *Surficial Geology and Geomorphology of the Burnt River corridor, Eastern Oregon: Investigating Late Cenozoic Landscape Response to Snake River Downcutting* (July, 2015)
  - Department of Geology and Mineral Industries, invited speaker for Oregon Geologic Mapping Advisory Committee Meeting
- *The Most Successful Failure, Living With the Alaska Effect* (November, 2014)
  - North Carolina State University, Raleigh North Carolina

### Professional Societies:

- 2011 – Present, The Geologic Society of America
- 2011 – Present, American Geophysical Union
- 2011 – Present, American Alpine Club
- May, 2012 – Present, American Mountain Guide Association
- June, 2012 – Present, Sigma Xi, Associate Member

### Certifications:

- November, 2015 – November, 2017, Wilderness First Responder, Wilderness Medicine Institute