

APPOINTMENTS

Boston University, Boston, Massachusetts (July 2015 - present)

- Assistant Professor, Department of Earth and Environment.

National Science Foundation Postdoctoral Fellow (July 2014 - June 2015)

- McGill University Department of Earth and Planetary Sciences.

Hobart and William Smith Colleges, Geneva, New York (July 2013 - June 2014)

- Visiting Assistant Professor, Department of Geoscience.

EDUCATION

Ph.D. Geosciences, Pennsylvania State University. August 2013

- Dissertation Title: Cenozoic forearc tectonics in northeastern Japan: Relationships between outer forearc subsidence and plate boundary kinematics.
- Advisors: Donald Fisher and Eric Kirby

M.S. Geosciences, Pennsylvania State University. May 2009

- Thesis Title: Timing and kinematics of deformation within a thick-skinned inner forearc thrust system, northeastern Japan margin.
- Advisors: Donald Fisher and Eric Kirby

B.S. Geological Sciences, highest honors, Lehigh University. May 2005

- Thesis Title: Characterization of the Monument Hill fault system and implications for the tectonics of the Red Rock Valley, Southwestern Montana.
- Advisors: David Anastasio and Frank Pazzaglia

PROFESSIONAL EXPERIENCE

ExxonMobil Upstream Research Company, Houston, Texas

- Intern, Basin Analysis Group (July - Sept 2012).

Consultant, US Bureau of Reclamation

- Seismic hazard near the Clark Canyon Reservoir Dam (Summer 2013, Fall 2014).

International Ocean Drilling Program Expedition 343: Japan Trench Fast Drilling Project

- Shipboard scientists and post expedition research, plate boundary fault and forearc structure in the vicinity of the 2011 Tohoku Earthquake.

TEACHING

Faculty Instructor: Boston University

- Landscape Evolution: Tectonics, Surface Processes, Climate, 4 cr., Graduate;
- Introduction to Climate and Earth Systems Science, 4 cr. plus lab, Undergraduate
- Rock Deformation and Structure, 4 cr. plus lab, Undergraduate,
- Advanced topics in Tectonics, 4 cr., Graduate

Faculty Instructor: Hobart and William Smith Colleges

- Structural Geology, 4 cr. plus lab, Undergraduate, Fall 2013.
- Introduction to Environmental Geology, 4 cr. Fall 2013 and Spring 2014, Undergraduate.
- Mineralogy, 4 cr. plus lab, Spring 2014, Undergraduate.

Graduate Teaching Assistant

- Penn State University: Structural Geology (two semesters), Field Geology (three sessions), Geology of Oil and Gas, Geomorphology, Introduction to Physical Geology (two semesters).
- Lehigh University: Field Geology (two sessions).

ADVISING

Graduate:

- PhD Advisor: Emerson Lynch and Emily Schottenfels, admitted Fall 2016, Boston University.
- PhD committee: Andrew Christ (advisor, Marchant), anticipated graduation Spring 2019; Amani Alabri (advisor, Fagherazzi), anticipated graduation Spring 2020, Boston University.
- PhD Defense Chair: Esther Raymond (advisor, Dalton), defense completed on Jan 6, 2016, Boston University.
- PhD Defense Committee Member: Rohan Kundargi, (advisor, Hall), defense completed on March 14, 2016, Boston University; Kathryn Maneiro, (advisor, Baxter), defense completed on July 22, 2016, Boston University.

Undergraduate:

- Directed Research: XRD analyses of fault zone mineralogy, Kim Hughes, Fall 2017
- Directed Research: Coulomb modeling of stress changes on forearc faults due to Cascadia megathrust slip, Carina Terry, Fall 2017
- Directed Research: Analysis of high-resolution multichannel seismic data from the Japan Trench, Kaveesh Nair, Fall 2016-Spring 2017.
- Directed Research: Holocene rupture history of the Ash Hill fault, Hannah Pangrcic, Fall 2015-Spring 2017.
- Directed Research: Quaternary Activity of the Leech River fault, Vancouver Island, Emily Rogalski, Fall 2015- Summer 2016.
- Directed Research: Fault characterization of the Pacific seamount thrust, Jyotsana Singh, McGill University, (co advised with C. Rowe, McGill University), Fall 2015.
- Directed Research: Cenozoic slip history of the Oritsume fault, Japan, Stephanie Taylor, Penn State University, 2011-2012.

PUBLICATIONS

* denotes student author

Peer Reviewed Journals:

- Regalla, C.**, Rowe, C.D, Harrichhausen, N.* , Tarling, M.* , Singh, J.* , *in press*, Styles of Underplating in the Marin Headlands Terrane, Franciscan Complex, California, *GSA Special Publications*.
- Ge, L.* , Liy, Y., **Regalla, C.**, Morell, K., *accepted*, Seismicity relocation and fault structure near the Leech River Fault Zone, southern Vancouver Island, *Journal of Geophysical Research*.

- Regalla, C.**, Fisher, D.M., Kirby, E., Oakley, D.* and Taylor, S.* , 2017. Slip Inversion Along Inner Fore- Arc Faults, Eastern Tohoku, Japan. *Tectonics*, 36(11), pp.2647-2668.
- Morell, K., **Regalla, C.**, Leonard, L., Amos, C., Levson, V., 2017, Evidence for Late Quaternary rupture along a crustal fault system beneath Victoria, British Columbia, *GSA Today*, v. 7.
- Kirkpatrick, J. D., Rowe, C. D., Ujiie, K., Moore, J. C., **Regalla, C.**, Remitti, F., Toy, V., Wolfson-Schwehr, M., Kameda, J., Bose, S., Chester, F. M., 2015, Structure and lithology of the Japan Trench subduction plate boundary fault, *Tectonics* 34, no. 1 53-69.
- Bose S, Saha P, Mori JJ, Rowe C, Ujiie K, Chester FM, Conin M, **Regalla C**, Kameda J, Toy V, Kirkpatrick J., 2015, Deformation structures in the frontal prism near the Japan Trench: Insights from sandbox models, *Journal of Geodynamics*, 89, 29-38.
- Regalla, C.**, Fisher, D.M., Kirby, E., Furlong, K. P., 2013, Relationship between outer forearc subsidence and plate boundary kinematics at the Northeast Japan non-accretionary margin, *Geochemistry, Geophysics, Geosystems*. doi: 10.1002/2013GC005008.
- Chester, F.M., Rowe, C., Ujiie, K., Kirkpatrick, J., **Regalla, C.**, Remitti, F., Moore, J.C., Toy, V., Wolfson-Schwehr, M., Bose, S., Kameda, J., Mori, J., Brodsky, E., Eguchi, N., Toczko, S., and Expedition 343 and 343T Scientists, 2013, A thin and weak plate-boundary décollement in the region of maximum slip, 2011 Tohoku-oki earthquake, *Science*, Vol. 342 no. 6163 pp. 1208-1211.
- Regalla, C.**, Kirby, E., Fisher, D., 2013, Spatially variable uplift inferred from fluvial incision patterns in the Tohoku forearc, NE Honshu, Japan, *Geomorphology*. 195, 84-93.
- Nakamura, Y., Kodaira, S., Miura, S., **Regalla, C.**, Takahashi, N., 2013, High-resolution seismic imaging in the Japan Trench axis area off Miyagi, northeastern Japan, *Geophysical Research Letters*.
- Lin, W., Conin, M., Moore, J. C., Chester, F. M., Nakamura, Y., Mori, J. M., Anderson, L., Eguchi, N., **Expedition 343 Scientists**, 2013, Stress state in the largest displacement area of the 2011 Tohoku-Oki Earthquake, *Science*, v. 339, p. 687-690.
- Regalla, C.**, Fisher, D., Kirby, E., 2010, Timing and magnitude of shortening within the inner forearc of the Japan Trench, *Journal of Geophysical Research*, v. 15, B03411.
- Anastasio, D.J., Majerowicz, C.N., Pazzaglia, F.J., **Regalla, C.A.**, 2010, Late Pleistocene - Holocene ruptures of the Lima Reservoir fault, SW Montana, *Journal of Structural Geology*, v 32, is 12, pp 1996-2008.
- Regalla, C.A.**, Anastasio, D.J., Pazzaglia, F.J., 2007, Characterization of the Monument Hill fault system and implications for the active tectonics of the Red Rock Valley, Southwestern Montana, *Journal of Structural Geology*, v. 29, n. 8., p 1339-1352.
- Wegmann, K.W., Zurek, B.D., **Regalla, C.A.**, Bilardello, D., Wollenberg, J.L., Kopczynski, S.E., Apgar, J.D., Haight, S.S., Zhao, C., Ziemann, J.M, Pazzaglia, F.J, 2007, Position of the Snake River watershed divide as an indicator of geodynamic processes in the greater Yellowstone region, western North America, *Geosphere*, v. 3, no. 4, p. 272–281.

Peer Reviewed Reports and Proceedings:

- Regalla, C.**, Morell, K.D., Leonard, L., Amos, C., Levson, V., Rogalski, E.* , 2016, Evidence for late Quaternary surface rupture along the Leech River fault near Victoria, British Columbia, Proceeding of the 7th International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology (J.P. McCaLpin & C. Gruetzner, eds.). ISBN 978-0-9974355-2-8, 2016. Published digitally by the Crestone Science Center, Crestone, CO 81131 USA, *Guidebook No. 12; 7th International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology, Crestone (USA)*.

- Chester, F.M., Mori, J., Eguchi, N., Toczko, S., and the **Expedition 343/343T Scientists**, 2013, *Proceedings of the Integrated Ocean Drilling Program*, Volume 343/343T.
- Chester, F.M., Mori, J.J., Toczko, S., Eguchi, N., and the **Expedition 343/343T Scientists**, 2012, Japan Trench Fast Drilling Project (JFAST), *IODP Preliminary Report*, 343/343T.
- Regalla, C.A.**, Reyman, D.K.S., Anastasio, D.J., Pazzaglia, F.J., 2006, Bedrock and Surficial Geologic Map of the Red Rock 7.5' Quadrangle, Beaverhead County, Southwestern Montana, *Montana Bureau of Mines and Geology*, Open File Report 533, scale 1:24,000, 21p.
- Newton, M.L., **Regalla, C.A.**, Anastasio, D.J., and Pazzaglia, F.J., 2005, Bedrock and surficial geologic map of the Monument Hill 7.5' quadrangle, Southwest Montana, *Montana Bureau of Mines and Geology*, Open File Report MBMG 517, scale 1:24,000, 14 p.

SELECTED ABSTRACTS & PRESENTATIONS

** denotes student author*

- C. Regalla**, D. Fisher, E. Kirby, D. Oakley*, S. Taylor*, 2017, Slip inversion in the forearc of Tohoku Japan, over multiple time scales, Geological Society of America Fall Meeting, Seattle, October 2017.
- E. Lynch*, **C. Regalla**, K. Morell, N. Harrichhausen*, 2017, Geomorphic evidence for recent ruptures on the Beaufort Range fault in the northern Cascadia forearc of British Columbia, Geological Society of America Fall Meeting, Seattle, October 2017.
- K. Morell, **C. Regalla**, C. Amos, S. Bennett, A. Graham*, L. Leonard, E. Lynch*, N. Harrichhausen*, 2017, Lidar data, geologic mapping and paleoseismic trenching reveal late Quaternary fault ruptures in the Cascadia forearc of southwestern British Columbia, Geological Society of America Fall Meeting, Seattle, October 2017.
- C. Regalla**, K. Morell, C. Amos, S. Bennett, L. Leonard & V. Levson, 2017, Tectono-geomorphic and paleoseismic evidence for Holocene surface ruptures along the Leech River fault near Victoria, British Columbia, Canada, Canadian Geophysical Union meeting, May 2017
- A. Graham*, K. Morell, L. Leonard, V. Levson & **C. Regalla**, 2017, Field mapping, LiDAR analysis and shallow geophysical methods define the geometry and kinematics of the Leech River fault, Canadian Geophysical Union meeting, May 2017
- G. Li*, Y. Liu, **C. Regalla** & K. Morell 2017, Fault Structure and Seismic behavior revealed by earthquake relocations near the Leech River Fault, southern Vancouver Island, Canadian Geophysical Union meeting, May 2017
- C. Regalla**, K. Morell, L. Leonard, C. Amos, V. Levson, E. Rogalski*, 2016, Evidence for late Quaternary surface rupture along the Leech River fault near Victoria, British Columbia, Proceeding of the 7th International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology.
- C. Regalla**, K. Morell, C. Amos, S. Bennett, L. Leonard, V. Levson, 2016, Evidence for latest Quaternary surface rupture along the Leech River fault near Victoria, British Columbia, Canada, Geological Society of America Fall Meeting, Denver, September 2017.
- C. Regalla**, H. Pangrcic*, E. Kirby, E. McDonald, 2016, Late Holocene rupture history of the Ash Hill fault, Eastern California Shear Zone, Southern California Earthquake Center annual meeting, September 2016
- C. Regalla**, D. Fisher, E. Kirby, K. Furlong, 2015, The northeast Japan margin: an example of slow accretion rather than tectonic erosion?, AGU Fall Meeting, December 2015

GRANTS

Pending:

- *SCEC, Submitted November 2017, status pending: Testing for Holocene clustered earthquakes on the Ash Hill Fault, northern ECSZ, \$34,972, 2/18-1/19 (PI – Regalla, Co-PIs - none)*
- *NSF_EAR Tectonics, submitted August 2017, funded pending FY18 budget approval: Collaborative Research: Permanent forearc strain partitioning in northern Cascadia \$383,685, 1/18 – 12/20 (PI-Regalla, Co-PI – Morell, UCSB)*

Funded:

- *PRIME Seed Grant 2017: Can cosmogenic ²⁶Al and ³⁶Cl basin-averaged erosion rates in carbonates be used to quantify rates of tectonic processes: A case study in Oman, \$6,795, 6/17-5/18 (PI –Regalla, Co-PIs – Fagherazzi, BU, Bierman, UVM)*
- *SCEC: Timing a late Holocene earthquake cluster on the Ash Hill fault, Eastern California Shear Zone, \$1,000, 8/16-10/16 (PI – Regalla)*
- *NSF_EAR Tectonics Postdoctoral Fellow, 2014-2017: Getting over the hump – Effect of seamount subduction on fault geometry and rupture propagation, \$130,500, 7/14 - 12/17 (PI-Regalla, mentors Rowe and Liu, McGill)*
- *IODP Post-Expedition Research Award, 2012-2015: Age and Accretion History of the Frontal Wedge in the Vicinity of the 2011 M9 Tohoku Earthquake \$15,000, 1/13 - 2/15 (student PI- Regalla, faculty PI - Fisher, Penn State)*
- *Student research grant recipient, Geological Society of America, 2010: Late Pleistocene-Holocene rupture history along the Ash Hill fault, Eastern California Shear Zone, (Student PI - Regalla)*
- *Student research grant recipient, Geological Society of America, 2008: Timing and Kinematics of the Futaba Fault, Northeastern Honshu, Japan, Student PI - Regalla)*
- *NSF-EAR Tectonics Grant 0809939, 2007-2011: Mass Balance and Inner Forearc Deformation – Japan Trench \$355,032, 6/08 – 6/13 (contributing author for PIs - Fisher, Kirby and Furlong, Penn State)*

HONORS AND AWARDS

- Doris Curtis Outstanding Women in Science, Geological Society of America (2016)
- GeoPRISMS Student Prize, First Place Oral Presentation, Fall Meeting of the American Geophysical Union (2011)
- Scholten-Williams-Wright Graduate Fellowship, Pennsylvania State University Department of Geosciences (2010-2011)
- Marathon Alumni Centennial Graduate Fellowship, Pennsylvania State University College of Earth and Mineral Sciences (2006)
- Donnel Foster Hewett Award, Lehigh University Department of Earth and Environmental Sciences (2005)
- Presidential Scholarship, Lehigh University (2005-2006)
- Lemon Prize recipient, Roy Eckardt College Scholar Program outstanding senior theses, Lehigh University (2005)
- Roy Eckardt College Scholar, Lehigh University (2001–2005)

INVITED TALKS

- Geological Survey of Japan, AIST, Tsukuba, Japan, Special Lecture for Neotectonics Group, Jan 30, 2018, Title: *Neogene tectonics, geomorphology, and geodynamics in the forearc of eastern Tohoku, Japan*
- University of Colorado, Boulder, Department of Geological Sciences, Departmental Seminar Series, March 22, 2017, Title: *Is the Northeast Japan margin an example of slow accretion rather than tectonic erosion?*
- University of Massachusetts, Amherst, Department of Geosciences, Departmental Seminar Series, March 24, 2017, Title: *A tale of two forearcs: Neotectonics in NE Japan and North Cascadia*
- Colby College, Geology Department, Departmental Seminar Series, Feb 5, 2016, Title: *From the trench to the backarc: New perspectives on the kinematic evolution of the Northeast Japan subduction system*
- University of Connecticut, Center for Integrative Geosciences, Departmental Seminar Series, Nov 10, 2015, Title: *A tale of two forearcs: Neotectonics in NE Japan and North Cascadia*
- American Geophysical Union Fall meeting, Invited speaker for session T54: Active Tectonics, Earthquake Geology, and Surface Processes in South and East Asia, December 18, 2015, Title: *The Northeast Japan margin: an example of slow accretion rather than tectonic erosion?*
- McGill University, Department of Earth and Planetary Sciences, Brownbag Seminar Series, April 2, 2015, Title: *New Perspectives on an old margin: kinematics of the Northeast Japan subduction zone*
- Syracuse University, Department of Earth Sciences, Departmental Seminar Series, January 23, 2014, Title: *New Perspectives on an old margin: kinematics of the Northeast Japan subduction zone*