

Claire C. McKinley

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EDUCATION

- 2013-Present **Texas A&M University**
 PhD Candidate & Graduate Assistant Researcher, Geological Oceanography
 Advisor: Dr. Debbie Thomas
- 2008-2012 **Boston University, Bachelor of Arts, Earth Sciences**
 Senior Project: *The Geochemical Characterization of Volcanic Ash at Deep Sea Drilling Project Site 52, Northwest Pacific Ocean*
 Advisor: Dr. Richard W. Murray

RESEARCH AND TEACHING EXPERIENCE

- 2016-2017 **Oceanography 251 Graduate Assistant Lecturer** January 2016 to May 2017
 Instructor of record for Oceanography 251, 3 semesters (65, 60, 30 students respectively)
- 2014-2015 **International Ocean Discovery Program Graduate Assistant Researcher**
 X-Ray Florescence (XRF) Instrument Technician at the JRSO
 Maintain the Avatec XRF, train and support visiting scientists
- Spring 2014 **Oceanography 251 Lab Graduate Assistant Teaching**
 Responsible for three 20-person sections of Introduction to Oceanography Lab.
- 2012-2013 **Multnomah ESD Soil Field Instructor** September 2012 to May 2013
 Develop and implement experiential science curriculum, Train, supervise and evaluate High School volunteers in instruction of 6th grade students.
- Summer 2012 **Geochemistry Lab Technician Boston University**
 Prepare sediment samples for analysis on ICP Emission Spectrometer via flux fusion and on ICP Mass Spectrometer via acid digestion
- May 2011 **Hawaii Preparatory Academy Intern**
 Created lesson plans, led invertebrate dissection lab, chaperoned and facilitated weekly 7th grade field invertebrate coral reef study.

AWARDS

- Joe and Doris Watson Endowed Fellowship, 2017-2018
- Graduate and Professional Student Council Travel Award Winter 2016
- Office of Graduate and Professional Studies Research and Presentation Grant, 2016
- Louis & Elizabeth Scherck Scholarship, 2016-2017 and 2017-2018
- Mr. and Mrs. Kenneth P. Pipes Scholarship, 2016-2017
- Louis and Elizabeth Scherck Graduate Fellowship, Fall 2013 – Texas A&M
- Earth Sciences Departmental Service Award, 2011- 2012– Boston University

PUBLICATIONS

Scudder, R. P., Murray, R. W., Schindlbeck, J. C., Kutterolf, S., Hauff, F., Underwood, M.B., Gwizd, S., Lauzon, R., & **McKinley, C. C.** (2016), Geochemical approaches to the quantification of dispersed volcanic ash in marine sediment, *Progress in Earth and Planetary Science*, doi: 10.1186/s40645-015-0077-y

D'Hondt, S., Inagaki, F., Zarikian, C. A., Abrams, L. J., Dubois, N., Engelhardt, T. Evans, H., Ferdelman, T., Gribsholt, B., Harris, R.N., Hoppie, B.W., Hyun, J.-H., Kallmeyer, J., Kim, J., Lynch, J.E., **McKinley, C.C.**, Mitsunobu, S., Morono, Y., Murray, R.W., Pockalny, R., Sauvage, J., Shimono, T., Shiraishi, F., Smith, D.C., Smith-Duque, C.E., Spivack, A.J.,(2015), Presence of oxygen and aerobic communities from sea floor to basement in deep-sea sediments, *Nature Geoscience*, 8(4), 299-304.

Scudder, R. P., Murray, R. W., Schindlbeck, J. C., Kutterolf, S., Hauff, F. & **McKinley, C. C.** (2014), Regional-scale input of dispersed and discrete volcanic ash to the Izu-Bonin and Mariana subduction zones, *Geochemistry, Geophysics, Geosystems* 15, 4369-4379, doi: 10.1002/2014GC005561

UNDERGRADUATE RESEARCH MENTORSHIP (with D.J. Thomas)

Schultz, Alyssa, 2017, The Effects of Volcanic Ash on Dissolved Neodymium as a Water Mass Tracer. (*Undergraduate Research Scholars Project*)

FIELD EXPERIENCE

Winter 2014 **R/V Knorr Researcher's Ridge Expedition**

Geochemistry Science Party, Six weeks at sea collecting dissolved oxygen in pore water data as well as marine sediment samples for analysis.

January 2014 **Flower Garden Banks and National Marine Sanctuary**

Volunteer Science Party January 17th-21st 2014, Multi-beam Survey of Coffee Bank aboard the R/V Manta

Spring 2011 **Earth and Environmental Systems Field Semester**

Cornell University Hawaii based Field Semester.

Instructors: Dr. Alexandra Moore, Dr. Louis Derry, Dr. Charles Greene

COURSEWORK

Texas A&M: Chemical Oceanography, Geological Oceanography, Physical Oceanography, Global Physical Oceanography, Proxy Reconstruction of Late Cenozoic Climate, Geochronology, Marine Sediment Processes, MATLAB Programming for Ocean Sciences and College Teaching.

Boston University: Sedimentology, Geodynamics & Geophysics, Geochemistry, Ice Age Systems, Terrestrial Biogeochemistry, Mineralogy, Marine Geology, Adolescent Development

Cornell, Earth & Environmental Systems Field Semester: Biogeochemistry of the Hawaiian Islands, Conservation Oceanography

CONFERENCE ABSTRACTS

McKinley, C.C., Thomas, D.J. (2016). Authigenic oxide Neodymium Isotopic composition as a proxy of seawater: applying multivariate statistical analyses. EOS, Transactions, American Geophysical Union, Fall Mtg. Supplement, Abstract PP11A-2003.

Scudder, R.P., **McKinley C.C.**, D. Thomas D.J., and R. Murray R.W., (2016), The Role of Authigenic Volcanic Ash in Marine Sediment, *Eos Trans. AGU, Fall Meet. Suppl.*, Abstract, PP13D-01. *Invited.*

Estes, E., Hansel C., Orsi W., Anderson C., Murray R.W., Wankel S., Johnson D., Nordlund D., Spivack A., Sauvage J., **McKinley C.C.**, Homola K., Present T.M., Pockalny R.A., D'Hondt S. (2016), Insight into metabolic potential of carbon-poor pelagic sediments derived from the abundance and composition of organic carbon. American Geophysical Union, Ocean Sciences Meeting, Abstract MM44B-0493

Anderson, C., Estes, E., Dyar, M., Murray, R.W., Spivack, A., Sauvage, J., **McKinley, C.C.**, Present, T.M., Homola, K., and Pockalny, R. (2015), Iron Cycling in Sediment of the North Atlantic: Preliminary Results from R/V Knorr Expedition 223. EOS, Transactions, American Geophysical Union, Fall Mtg. Supplement., Abstract, PP43A-2250

McKinley, C.C., Thomas, D.J., Scudder, R.P., Dunlea, A.G., and Murray, R.W. (2015). Down Core Fidelity of Authigenic Oxyhydroxide Coatings: Tracing Paleogene Water Mass Evolution. EOS, Transactions, American Geophysical Union, Fall Mtg. Supplement, Abstract PP43A 2257

Rolewicz, Z., Thomas, D.J., **McKinley, C.C.**, (2014) Potential Influences of Pacific Meridional Overturning Circulation on Climate Change Across the Mid Eocene Climatic Optimum (MECO), EOS, Transactions, American Geophysical Union, Fall Mtg. Supplement, Abstract PP51B-1114

McKinley, C.C., Scudder, R.P., Murray, R.W., Kutterolf, S., and Schindlbeck, J.C. (2012), The chemical characterization of dispersed ash and ash layers at DSDP Site 52, Izu-Bonin. EOS, Transactions, American Geophysical Union, Fall Mtg. Supplement, Abstract PP13A-2070.

CONFERENCES AND WORKSHOPS ATTENDED

- Session co-convener of *Geochemistry and Microbiology of Oxidic and Suboxic Deep-Sea Pelagic Sediments* at AGU Fall Meeting 2015
- Earth Educator's Rendezvous, Madison WI, Summer 2015
- Session co-convener of *Authigenic Processes in Marine Sediment* at AGU Fall Meeting 2016

SERVICE

- President of the Oceanography Graduate Student Council (OGC) 2015-2016, and 2016-2017
- Student Representative to AGU's Paleoceanography and Paleoclimate Focus Group
- Graduate and Professional Student Council Delegate 2013-2014
- AGU Digital Transformation Advisory Working Group

PROFESSIONAL MEMBERSHIPS

- American Geophysical Union
- National Association of Geoscience Teachers