Luca Podrecca

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Education

Bachelor of Science, **Geological Sciences** 2009 – 2013
University of Florida, Gainesville, FL
GPA: 3.4

Master of Science, **Earth and Planetary Sciences** 2016 – 2018
Rutgers University, New Brunswick, NJ
GPA: 4.0

Doctoral Student, **Earth and Planetary Sciences** 2018 – Current
Northwestern University, Evanston, IL
GPA: 3.8

Research Interests

Applying sedimentologic, geochemical, and stratigraphic analyses to building understanding of paleoenvironments and climates; especially concerning past perturbations in the global carbon and sulfur cycles, changes in sea level, and global ice volume (eustasy). Understanding the mechanisms controlling global change in the past is the only means by which we might strive to make informed decisions concerning our future, as such I am also interested in how paleoclimate data may be used to improve future climate modeling.

Professional Academic Summary

Current PhD Candidate in the Earth Sciences at Northwestern University. I have one publication in under review based off of research conducted during my Master's studies. I have given two oral presentations on my research at the GSA annual meeting in Seattle in October 2017 and again in Phoenix in September 2019. I attended an International Continental Scientific Drilling Program training course in November 2017, an Isotope-Astrochronology Workshop in May 2019, and the Urbino School of Paleoclimatology in the Summer of 2019.

Manuscript (in review): *Podrecca, L., Makarova, M., Miller, K. G., Browning J., Wright, J. D. (2020; tentative),* Clear as mud: expanded records of the onset of the Paleocene-Eocene Thermal Maximum in the Appalachian Amazon, (Geology; in review).

Presentation: *Podrecca, L., Makarova, M., Miller, K. G., Browning, J., Wright, J. D., 2019,* Expanded record of the Paleocene-Eocene Thermal Maximum in the Appalachian Amazon, GSA Annual Meeting, Phoenix, AZ.

Presentation: *Podrecca, L., Miller, K. G., Wright, J. D., Browning, J., and Emge, T., 2017,* Clear as mud: Changes in paleoshelf environments and deposition rates at Medford, New Jersey during the Paleocene-Eocene Thermal Maximum, GSA Annual Meeting, Seattle, WA.

Related Work Experience

Adjunct Professor. 08/2019 – 12/2019
Northeastern Illinois University – Chicago, IL

Teach sedimentology/stratigraphy course to upper level Earth Science undergraduate students. Covering the basic physical, chemical, and biological processes that influence and control the formation of sediments and sedimentary rocks, and on the techniques used to place strata within the context of time and space.

Teaching/Research Assistant. 08/2018 – present
Northwestern University – Evanston, IL

Studied sequence stratigraphy, sedimentology, and bulk geochemistry in the Cretaceous Western Interior Basin investigating high frequency, 25+ meter regional sea level changes in a largely ice-free world. Evaluating sedimentology, bulk carbonate percentages and sulfur and carbon isotope geochemistry via mass spectrometry. Ultimately building a comprehensive, high-resolution sea-level record for the region. Teaching Energy sustainability courses in an undergraduate classroom.

Teaching/Research Assistant. 07/2016 – 04/2018
Rutgers, The State University of NJ – New Brunswick, NJ

Studied Paleocene/Eocene boundary sediments from Medford, NJ. Analyzed clay mineralogy via X-ray diffraction, & elemental composition via X-ray fluorescence. Performed grain size analysis using laser diffraction particle size analyzer & evaluated bulk carbonate percentages and isotope geochemistry via mass spectrometry. Ultimately built a paleoenvironment model through interpretation of these various data sets and comparison of previous works done in the region. Helped collect, describe, sample and prep cores for storage at Rutgers Core Repository. Also taught multiple sections of Geology 101 labs each semester and led undergraduate trips into the field.

Outreach Science Teacher 11/2016 – 04/2018
Rutgers, The State University of NJ – New Brunswick, NJ

Traveled to Middle schools throughout New Jersey and taught dozens of hands on science activities aboard a converted tour bus (alternative teaching setting). Taught roughly a dozen activities ranging from 45 to 120 minutes per session, from 3 to 8 sessions per day. The content of the activities ranged from building ecosystems and displaying the importance of salt water marshes to a coastline, to using an agarose gel medium to differentiate various DNA samples via electrophoresis.

Outreach Science Teacher 08/2015 – 05/2016
Mama's Minerals – Albuquerque, NM

Taught various free for the community, introductory earth science lessons to children (age groups ranged 6 to 15) at a Rock and Mineral shop (alternative teaching setting). Taught several different activities lasting 60-75 minutes per session, from 1 to 4 sessions per day. The content of the activities ranged from learning about fossils and fossilization while building trace fossils using art clay and fossil shark teeth/brachiopod shells to the rock cycle and identification of various common rocks and minerals in hand sample.

Wellsite Geologist 10/2013 – 06/2015
Selman & Associates, Ltd. – Midland, TX

Set up and monitored gas measuring equipment. Also collected and prepared drilling samples, on which I would perform microscopic analysis and test for hydrocarbon presence while recording lithology and ongoing drilling parameters in an electronic mud log. Kept real time reports up to date with drilling team and shift end reports with the Operational Geologist.

Fellowships and Awards

ISEN Cluster Fellowship	2019 – 2020
Colorado Scientific Society Research Grant	2019
Award for Outstanding Graduate Teaching Assistant Rutgers University	2017 – 2018
H. Grant Goodell Fellowship in Sedimentary Geology	2018 – 2019