

SARAH TRUBOVITZ

NSF Postdoctoral Research Fellow

Department of Biological Science, Marine & Environmental Biology section
University of Southern California

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Education

Ph.D. in Geology / University of Nevada, Reno / 2021

Dissertation title: *An investigation of radiolarian macroevolutionary dynamics in the tropical and polar Neogene oceans*

Advisors: Paula J. Noble and David Lazarus

M.S. in Geological Sciences / Ohio University, Athens / 2016

Thesis title: *Reconstructing the Great Ordovician Biodiversification Event through brachiopods of Oklahoma*

Advisor: Alycia Stigall

B.A. in Literature (Modern Literary Studies, Russian), Cum laude / University of California, Santa Cruz / 2013

Minor: Earth & Planetary Sciences

Research Fellowships

National Science Foundation Postdoctoral Research Fellow in Biology

University of Southern California / January 2022 – present

Project title: *Integrating genetic-morphologic concepts of diversity in ecological and environmental context*

Faculty mentor: David A. Caron

Schlanger Ocean Drilling Fellow (U.S. Science Support Program)

University of Nevada, Reno / July 2018 – July 2019

Project title: *What drives plankton evolution?: An investigation of the paleoenvironmental impacts on radiolarian macroevolution using the contrasting histories of tropical and polar Neogene oceans*

Teaching Experience

Course Instructor / University of Nevada, Reno / Spring 2021

Earthquakes, Volcanoes, and Natural Disasters (GEOL 100)

Head Teaching Assistant / University of Nevada, Reno / Fall 2020

General Geology (GEOL 101)

Course Instructor / University of Nevada, Reno / Spring 2020

Historical Geology (GEOL 102)

Graduate Teaching Assistant / University of Nevada, Reno / Fall 2019, & Fall 2016 – Spring 2018

General Geology (GEOL 101)

Historical Geology (GEOL 102)

Graduate Teaching Assistant / Ohio University / Fall 2014 – Spring 2016

Earth Materials & Resources (GEOL 3120 [undergraduate] & GEOL 5120 [graduate])

Historical Geology (GEOL 2550)

Principles of Paleontology (GEOL 3400)

Statistical Methods in Geology (GEOL 3050 [undergraduate] & GEOL 5050 [graduate])

Undergraduate Writing Assistant & Tutor / University of California, Santa Cruz / Fall 2010 – Spring 2013

Stevenson College Core Course – Self & Society (STEV 81A & STEV 81B)

UC Santa Cruz Writing Center (Drop-in Tutor)

Awards & Student Grants

Outstanding Graduate Student Award / University of Nevada, Reno / Mackay School of Earth Science & Engineering / 2020

German Academic Exchange Service Student Research & Travel Grant / 2017

Cushman Foundation for Foraminiferal Research / Loeblich and Tappan Student Research Award / 2017

The Paleontological Society Graduate Student Research Grant / 2017

Graduate Student Paper Competition, 2nd place in Science, Math, and Engineering / University of Nevada, Reno / 2017

Graduate Student Association Travel Award / University of Nevada, Reno / 2017, 2018, 2019, & 2020

Outstanding Graduate Student Award / Ohio University Geological Sciences Department / 2016

Ohio University Student Research Expo / 1st place presentation in Geological Sciences / 2016

Geological Society of America Student Research Grant / 2015 & 2017

Ohio University Geological Sciences Alumni Association Research Grant / 2015

Invited Presentations

Geological Society of America Annual Meeting / 2020

Session: T61. Climatic and Biotic Processes through the Paleozoic, Mesozoic, and Cenozoic as Reconstructed from Microfossil Records

Presentation Title: *Radiolarians exhibited a threshold response to temperature change during the Late Neogene*

U.S. Advisory Committee for Scientific Ocean Drilling Meeting / 2019

American Museum of Natural History / New York, NY

Presentation title: *What drives plankton evolution? An investigation of the paleoenvironmental impacts on radiolarian macroevolution using the contrasting histories of tropical and polar Neogene oceans*

Scientific Publications

Trubovitz, S., Lazarus, D., Renaudie, J., & Noble, P.J. Marine plankton show threshold extinction response to Neogene climate change. *Nature Communications* **11**, 5069 (2020).
<https://doi.org/10.1038/s41467-020-18879-7>

Trubovitz, S., Lazarus, D., Renaudie, J., & Noble, P.J. Marine plankton show threshold extinction response to Neogene climate change [Dataset]. *Zenodo* (2020).
<http://doi.org/10.5281/zenodo.4014322>

Trubovitz, S., & Stigall, A.L. Ecological revolution of Oklahoma's rhynchonelliform brachiopod fauna during the Great Ordovician Biodiversification Event. *Lethaia* **51**, 277-285 (2018).
<https://doi.org/10.1111/let.12233>

Trubovitz, S., & Stigall, A.L. Synchronous diversification of Laurentian and Baltic rhynchonelliform brachiopods: Implications for regional versus global triggers of the Great Ordovician Biodiversification Event. *Geology* **44**, 743-746 (2016).
<https://doi.org/10.1130/G38083.1>

Submitted Manuscripts

Trubovitz, S., Renaudie, J., Lazarus, D., & Noble, P.J. Extinction risk is not related to species abundance: a study of fossil Radiolaria from the tropical and polar Neogene oceans [submitted] (2022).

Trubovitz, S., Renaudie, J., Lazarus, D., & Noble, P.J. Late Neogene Lophophaenidae (Nassellaria, Radiolaria) from the eastern equatorial Pacific [submitted] (2021).

Conference Presentations (selected)

Trubovitz, S., Lazarus, D., Renaudie, J., & Noble, P.J. Radiolarians exhibit a threshold response to climate change during the late Neogene. Ocean Sciences Meeting in San Diego, CA. Abstract no. ME24A-0093 (2020).

Trubovitz, S., Lazarus, D., Renaudie, J., & Noble, P.J. Neogene Radiolarian Climate Sensitivity and its Implications for Ocean Ecosystems and Geochemical Cycling. American Geophysical Union Meeting in San Francisco, CA. Abstract no. B22B-02 (2019).

Trubovitz, S., Lazarus, D., Renaudie, J., & Noble, P.J. Tropical and polar plankton demonstrate contrasting sensitivities to climate change throughout the late Neogene. North American Paleontological Convention in Riverside, CA. Symposium 3 (2019).

Trubovitz, S., Lazarus, D., Renaudie, J., & Noble, P.J. New census of radiolarian communities in the eastern equatorial Pacific reveals unprecedented biodiversity throughout the Late Neogene. North American Paleontological Convention in Riverside, CA. Session 46 (2019).

Trubovitz, S., Lazarus, D., & Noble, P.J. How good are we at inventorying the biodiversity of radiolarian species? InterRad XV in Niigata, Japan. Abstract no. P20-03 (2017).

Trubovitz, S., & Stigall, A. L. Transformation of brachiopod community structure and morphological trends during the Great Ordovician Biodiversification Event in Oklahoma. Geological Society of America Annual Meeting in Denver, CO. Abstract no. 288-1 (2016).

Trubovitz, S. & Stigall, A. L. Ecological Revolution of rhynchonelliform brachiopods during the Great Ordovician Biodiversification Event in the Oklahoma Basin. IGCP 591: The Early-Mid Paleozoic Revolution closing meeting in Ghent, Belgium, session 9 (2016).

Trubovitz, S. & Stigall, A. L. Reconstructing the Great Ordovician Biodiversification Event through brachiopods of Oklahoma. Ohio Academy of Sciences Annual Meeting in Athens, OH, session 3 (2016).

Trubovitz, S., Stigall, A. L., & Anderson, J.A. Reconstructing the Great Ordovician Biodiversification Event through brachiopods of Oklahoma. Geological Society of America Annual Meeting in Baltimore, MD. Abstract no. 78-1 (2015).