

Elizabeth W. Patterson

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Professional Appointments

Postdoctoral Researcher 2023-present
William Paterson University, Wayne, NJ

Education

Ph.D. Earth System Science, University of California, Irvine, CA 2018-2023
Advisor: Kathleen Johnson
Thesis: *Southeast Asian autumn monsoon variability over the last 45,000 years*

M.S. Geoscience, University of Arizona, Tucson, Arizona 2016-2018
Advisor: Julia Cole
Thesis: *A northern Australian coral record of stress, hydroclimate, and European settlement (1775- 1982)*

B.S. Geology, Bates College, Lewiston, Maine 2012-2016
Magna cum Laude

Involvement and Service

Unlearning Racism in Geosciences (URGE) 2021-2023
Member of UCI ESS URGE pod to develop new departmental policies focused on Diversity Equity and Inclusion

Climate Literacy, Empowerment And iNquiry (CLEAN) 2018-2023
Climate focused educational outreach program for middle schoolers led by graduate students

- Board Member 2020-2023
- Lead presenter of the paleoclimate a lesson
- Developed online lessons during COVID-19 school closures

Member of Planning Committee for Summer School on Speleothem Science (S4) 2019-2023

S4 is a graduate student-led summer school on speleothem science (cave deposits).

- Planned S4 Online on Zoom (January-February 2022), Mini S4 in Innsbruck, Austria (July 2022), and S4 2023 in Sao Paulo, Brazil (August, 2023)

Professional Reviewer of journal manuscripts for *Geophysical Research Letters*, *Nature Communications Earth and Environment*, *Climate of the Past*, *Quaternary Science Reviews*, and *Journal of Geophysical Research – Atmospheres*.

Panel Reviewer for NSF 2024

Department Seminar Committee (UCI ESS) 2021-2022
Graduate student representative

'Half-baked' Co-organizer 2020-2022
Graduate student-led department seminar series (UCI)

**Mentor for Arizona's Science, Engineering, and Math
Scholars Program (ASEMS)** 2017-2018
Mentoring program for undergraduates from underrepresented backgrounds

Geodaze planning committee 2017-2018
Graduate student-led conference at the University of Arizona, Dept. of Geosciences

Selected Awards

2023 Inclusive Excellence Award, Department of Earth System Science, UCI
2017 Outstanding Student Paper Award, AGU Fall Meeting

Undergraduate mentoring

WPU: Sabrina Ryan ('25)*, Roland Indriksons ('25), Jason Peralta ('25)
UCI: Cesiah Coreas* ('22), Cynthia Abuede ('23), Kumalie Wijesekare ('23), and Rhys-
Jasper Leon* ('23)
UA: Jessie McCraw ('18) and Maria Snyder ('20) *Independent Project/Honors Thesis

Publications

Patterson, E.W., J.E. Cole, K. Dyez, L. Vetter, and J.M. Lough. Pacific-Driven Salinity Variability in the Timor Passage Since 1777. *Paleoceanography and Paleoclimatology*, 38(12), p.e2023PA004702.

Patterson, E.W., K.R. Johnson, M.L. Griffiths, C.W. Kinsley, D. McGee, X. Du, T. Pico, A. Wolf, V. Ersek, R. Mortlock, K.A. Yamoah, T.N. Bui, M.X. Tran, Q. Do-Trong, T.V. Vo, and T.H. Dinh, 2023. Glacial changes in sea level modulated millennia-scale variability of the Southeast Asian autumn monsoon rainfall. *Proceedings of the National Academy of Sciences*, 120(27), e2219489120.

Patterson, E.W., V. Skiba, A. Wolf, K.R. Johnson, and M.L. Griffiths, D. McGee, Reconsidering speleothem oxygen isotope records: The overlooked role of prior calcite precipitation in a stalagmite from Southeast Asia., (In Review at *Nature Communications*).

Professional Affiliations and Societies

American Geophysical Union (2017-present)
Geological Society of America (2014-present)
Phi Beta Kappa
Sigma Xi