

## Educational Preparation

- 2021–present** Ph.D. Earth and Environmental Sciences (4th-year)  
*University of Michigan - Ann Arbor*  
Advisor: Dr. Sierra Petersen  
Awards: NSF Graduate Research Fellowship, Outstanding Graduate Student Instructor Award, Mark Robbins Innovative Teaching Award, Science Communication Fellow
- 2017 B.A. Chemistry (Cum Laude), concentration in Maritime Studies (Highest Honors)  
*Williams College (& participant of the Williams-Mystic Maritime Studies Program)*  
Advisors: Dr. Christopher Goh, Dr. Mea Cook, Dr. Anthony Carrasquillo  
Awards: Stephen H. Tyng Scholarship, Dennis W. Nixon Prize for Marine Policy, American Chemical Society Division of Analytical Chemistry Undergraduate Award, Class Musician Award, Sigma Xi Associate Member - Geosciences, Outstanding Teaching Assistant Award - Chemistry

## Coursework Summary

Graduate Coursework: Geochemistry of Natural Waters, Isotope Geochemistry, Determinative Methods in Mineralogical/Inorganic Materials, Data Analysis & Visualization for Geoscientists (Intro Stats in Python), Paleoclimate Seminars (Pliocene, Cretaceous).

Undergraduate Coursework: Inorganic/Organometallic Chemistry, Analytical Chemistry, Quantum Chemistry & Chemical Dynamics, Environmental Organic Chemistry, Thermodynamics & Statistical Mechanics, Introduction to Environmental Science, Oceanographic Processes, Environmental Observation (Methods), Coastal Processes & Geomorphology, General Physics I: Mechanics, Electromagnetism & The Physics of Matter, Multivariable Calculus, Introduction to Differential Equations.

## Professional Employment History

### Research

- 2021–present** University of Michigan, Earth & Environmental Sciences - analyzed traditional stable and clumped isotope data ( $\delta^{13}\text{C}$ ,  $\delta^{18}\text{O}$ ,  $\Delta_{47}/\Delta_{48}$ ) in modern and fossil seashells to reconstruct paleoclimate (i.e., reconstruct sea surface temperatures), paleoceanography (i.e., local hydrology), paleophysiology (i.e., how they precipitate their shells).
- 2018–2021 Williams College, Geosciences - measured and analyzed bulk sediment isotope data ( $\delta^{13}\text{C}$ ,  $\delta^{15}\text{N}$ ) from the Bering Sea to reconstruct how the efficiency of the biological pump changed from the Pleistocene to the present.
- 2018 Woods Hole Oceanographic Institution, Marine Chemistry & Geochemistry - measured weight%,  $\delta^{13}\text{C}$ , and  $^{14}\text{C}$  in foraminiferal and coccolith calcite fractions from core top sediments to interpret dissolution behavior trends.
- 2017–2018 Williams College, Chemistry - used accelerated solvent extraction (ASE), solid phase extraction (SPE), and LC-TOF/MS to quantify concentrations of perfluoro-octanoic acid (PFOA) in vegetables from Bennington, VT.

### Teaching

- 2024 University of Michigan's EARTH Camp - Staff Lead (Upper Peninsula, Ann Arbor trips), Instructor (WY trip).
- 2022–2023 University of Michigan's Department of Earth & Environmental Sciences - Introduction to Environmental Science in the Rocky Mountain West (at the Camp Davis Field Station), Introduction to Oceanography.
- 2021 Williams College's Department of Chemistry - Advanced Chemical Concepts (Gen. Chem II).
- 2017 Regis High School's REACH Program - Teaching Assistant & Academic Counselor (ELA).

### Outreach & Related Work Experience

- 2019–2020 Williams-Mystic Maritime Studies Program: Student Ambassador - writing blog posts, organizing interviews, and actively recruiting students at events to raise awareness for the program.
- 2019 Save The Bay Exploration Center & Aquarium: Education & Aquarist Intern - preparing/feeding food for animals, cleaning tanks, monitoring exhibits, collecting aquarium specimens, assisting with educational programming.
- 2019 Mystic Seaport Museum: Education & Outreach Assistant - researching local businesses to identify for engagement with museum programming and managing contact information.

## Publications

- In prep** **Quizon, A.A.**, Petersen, S.V., deWinter, N.J., Vellekoop, J. Clumped isotope thermometry ( $\Delta_{47}$ ) measurements in marine gastropods suggest equilibrium precipitation.
- In prep** Winkelstern, I., Petersen, S., Curran, H.A., Phillips, C., **Quizon, A.**, Glumac, B., Griffing, D. Cooling Climate Across Last Interglacial High Stands on San Salvador and Great Inagua, The Bahamas.
- In prep** **Quizon, A.A.**, Petersen, S.V., Winkelstern, I.Z., Wehmiller, J.F. Traditional stable and clumped isotope paleoclimate reconstructions reveal end-Last Interglacial cooling transition at Sankaty Head Cliff, Massachusetts.
- In prep** **Quizon, A.A.**, Petersen, S.V., Winkelstern, I.Z., Wehmiller, J.F. Marine Isotope Stage 5a (~80kya) paleoclimate reconstruction and stratigraphy along the U.S. Eastern Seaboard.

- In prep** **Quizon, A.A.**, Petersen, S.V., Gomes, L.D. Systematic salinity and  $\delta^{18}\text{O}$  measurements along the U.S. Eastern Seaboard - implications for paleoclimate and paleoceanography reconstructions.
- 2019 Subhas, A.V., McCorkle, D.C., **Quizon, A.**, McNichol, A.P., & Long M.H. (2019). Selective preservation of coccolith calcite in Ontong-Java Plateau sediments. *Paleoceanography & Paleoclimatology*, 34(12), 2141-2157.

### Conference Presentations (# = presenting author, \* = session convener)

- 2024 **Quizon, A.#**, Petersen, S.V., Winkelstern, I., Wehmiller, J.F. (2024). Last Interglacial paleoclimate and stratigraphy along the U.S. East Coast. *AGU Fall Meeting 2024*, \*Session PP53B: Everything Last Interglacial: Climate, Sea Level, and Ice (poster).
- 2024 Winkelstern, I., Petersen, S.V., **Quizon, A.**, Curren, A., Glumac, B., Griffing, D. (2024). New Last Interglacial Paleoclimate and Age Data from San Salvador and Great Inagua, The Bahamas. *AGU Fall Meeting 2024*, \*Session PP53B: Everything Last Interglacial: Climate, Sea Level, and Ice.
- 2024 **Quizon, A.A.#**, Petersen, S.V. (2024). The benefits of high-resolution  $\Delta_{47}$ -sclerochronology - a case study with Last Interglacial-age *Mercenaria* fossil shells from Massachusetts. *9th International Clumped Isotope Workshop, 2024* (poster).
- 2024 **Quizon, A.A.#**, Petersen, S.V., de Winter, N.J., Vellekoop, J. (2024). Preliminary insights into marine gastropod precipitation kinetics from dual clumped isotopes ( $\Delta_{47}/\Delta_{48}$ ). *North American Paleontological Convention*, General Session: Mollusks (poster).
- 2022 **Quizon, A.#**, Petersen, S.V., Winkelstern, I.Z., & Wehmiller, J.F. (2022). Reconstructing Last Interglacial Paleoclimate and *Mercenaria* sp. Paleophysiology Through Stable and Clumped Isotope Analysis. *AGU Fall Meeting 2022*, Session PP028: Understanding Climate Change from the Late Pleistocene to Present (oral presentation).
- 2022 Petersen, S.V., Winkelstern, I.Z., Zhang, J.Z., Minnebo, L., **Quizon, A.A.**, Phillips, C.M., Wedel, S.J., & Lanker, S.L. (2022). Last Interglacial Climate in the Coastal Western Atlantic Using Oxygen and Clumped Isotopes in Fossils Mollusks. *GSA 2022 Annual Scientific Meeting*.
- 2022 **Quizon, A.A.#**, Petersen, S.V., Scholz, S., deWinter, N.J., & Vellekoop, J. (2022). Calibrating the Clumped Isotope Paleothermometer ( $\Delta_{47}$ ) for Marine Gastropods. *8th International Clumped Isotope Workshop, 2022* (poster).
- 2022 **Quizon, A.A.#**, Petersen, S.V., Scholz, S., & deWinter, N.J. (2022). Reconstructing Seasonality from Marine Gastropods Using  $\delta^{18}\text{O}$  Sclerochronology and Seasonally Targeted  $\Delta_{47}$ . *Virtual International Sclerochronology Conference, 2022* (poster).
- 2021 **Quizon, A.#**, Cook, M.S., Ravelo, A.C. (2020). Nutrient utilization and the efficiency of the biological pump during late Pleistocene glacial-interglacial cycles in. *AGU Fall Meeting 2020*, virtual (oral presentation).

### Funding

- 2023-present** NSF Graduate Research Fellowship (NSF-GRFP) - 3-year
- 2023-2024 Rackham Graduate Student Research Grants (Pre-Doctoral, Candidate)
- 2021 UM Earth & Environmental Sciences Department Fellowship - 1-year
- 2021-2024 UM Earth & Environmental Sciences Graduate Turner Award (yearly)

### Field Research Experience

- 2023 Field expedition to Plio-Pleistocene shell quarries in southeastern Florida.
- 2021 Field expedition to early/mid-Pleistocene high-stand shell deposits in South Carolina.
- 2019 10-day educational expedition (including CTD measurements) on the *SSV Corwith Cramer* in the lower Antilles.

### Mentorship

- 2024-present** SACNAS Graduate School Application Mentor.
- 2023-present** Paleoclimate Graduate Student Reading Group - Lead.
- 2022-present** EARTH ForALL Preview Mentor.
- 2021-present** Research Mentor for undergraduate Cecilie Phillips (thesis student, former UROP student).
- 2022 EARTH Camp College Application Mentor.

### Committee & Service Work (University of Michigan)

- 2024-present** DEI Committee (Earth & Environmental Sciences) - Graduate Student Representative.
- 2024-present** GeoClub - Outreach & Career Development Committee Member.
- 2022-present** Michigan Geophysical Union (MGU) Conference - Organizing Committee Member, MGU 2025 co-chair.
- 2023 Unlearning Racism in Geosciences (URGE) - Pod Facilitator.
- 2022-2023 Center for Research on Learning & Teaching (CRLT)'s Foundational Course Initiative (FCI) - Team Member (for restructuring EARTH 222/223: Introduction to Oceanography).
- 2021 GeoClub - Graduate Student Representative (Faculty Meeting Representative).

### Skills

Programming languages: R, Matlab, Python, Java, Mathematica.

Software: Microsoft Office (Word/Excel/PowerPoint), ArcGIS Pro, Adobe Illustrator.

Analytical Methods: IRMS ( $\delta^{15}\text{N}$ ,  $\delta^{13}\text{C}$ ,  $\delta^{18}\text{O}$ ,  $\Delta_{47}/\Delta_{48}$ ), SEM/EDS, IR/Raman, UV-Vis, GC/LC-MS.