

Steven J. Wedel

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EDUCATION

University of Texas, Austin, TX 78705

Masters of Science in Energy and Earth's Resources

Expected Spring 2023

University of Michigan, Ann Arbor, MI 48104

Bachelor of Science *with honors* in Earth and Environmental Science

Spring 2020

Overall GPA: 3.613 | Major GPA: 3.92

RESEARCH AND PROFESSIONAL EXPERIENCE

Teaching Assistant

Autumn 2021

- Instructing the discussion section for UGS 303: Life in the Universe. Conducting, managing, and delivering the course, grading and topics covered. University of Texas at Austin—Undergraduate Studies.

Senior Associate at Austin Technology Incubator

Autumn 2021 — Present

- Evaluating new company applications, and important decision making on the project pipeline in the Clean Energy and Sustainability start-up incubator. Assist in getting businesses off the ground to succeed post-startup phase. Austin, TX.

Honors Senior Thesis

Winter 2019 – Summer 2020

- **S.J. Wedel**, S.V. Petersen, J. Zhang, I. Winkelstern, K.C. Lohmann, *Temperature and Oxygen Isotope Seasonality of the Last Interglacial (MIS-5e) from Analysis of Stable Isotopes of Bermuda Bivalves* (in preparation) doi: 10.1130/abs/2020NC-347790
- Advisor: Sierra V. Petersen, University of Michigan, Ann Arbor.
- Paleoclimate reconstruction of MIS-5e through stable and clumped isotopes. Using fossilized and modern gastropods (*Lobatus gigas*) and bivalves (*Lucina pensylvanica*), samples were drilled and run for stable and clumped isotopes to develop an interpretation of the paleo conditions in the ocean during the last interglacial period (MIS-5e) to help further the understanding of the future world in this period of climate change.

Turks and Caicos SCTL Research

Winter 2019

- Elmer, F., Y. D. Cruz, C. Dock, A. A. Ortega, **S. J. Wedel** and H. Hertler. 2021. Determining Lesion Progression Rate of Stony Coral Tissue Loss Disease using Structure-from-Motion Photogrammetry. *Gulf and Caribbean Research* 32 (1): SC12-SC17. doi: <https://doi.org/10.18785/gcr.3201.15>
- Advisor: Heidi Hertler, School for Field Studies, Turks and Caicos.
- An outbreaking disease is devastating the Caribbean currently causing mass death of corals. Stony Coral Tissue Loss Disease was observed and monitored in efforts to better understand the poorly-understood disease and protect reef health. 3-D models were created to model and observe disease on scleractinian corals.

Assistant in Research in SCIPP Lab

Autumn 2018 – Summer 2020

- Main project is running the cryogenic vacuum line for use of standards on the MAT 253 mass spectrometer, and sampling by drilling of gastropods and bivalves.

Dive Master at the Georgia Aquarium

Winter 2021 – Autumn 2021

- Deliver the Dive Immersion Programs to guests including Scuba Dive and Shark Cage programs. Ensure the programs are run safely, efficiently, and the guest experience is remarkable.
- Engage guests as an educator and teacher of marine biology, oceanography, and environmental systems.
- Work with other departments in the evaluation and development of enhanced guest experience and public relations opportunities at the Georgia Aquarium in Atlanta, GA.

HONORS, AWARDS, AND GRANTS

UT - EER Fellowship	Fall 2021 – Present
University Honors	Fall 2018 – Summer 2020
University of Michigan Grant	Fall 2018 – Summer 2020
James B. Angell Scholar	Fall 2019 – Spring 2020
LSA Student Global Experience Initiative Scholarship	Winter 2019
Stephen F. Lee Scholarship	Winter 2019
Andreas Family Foundation Scholarship	Winter 2019

RELEVANT SKILLS AND CERTIFICATIONS

Laboratory Skills

- ThermoFinnigan MAT 253 Isotope Ratio Mass Spectrometer and Peripherals
→ *measure clumped isotopes of CO₂ and stable carbon and oxygen isotopes using carbonates*
- Cryogenic Vacuum Line
→ *prepare CO₂ and carbonate samples and standards for analysis on the mass spectrometer*
- ArcGIS
→ *created plots, maps and many various data representations*
- Python
→ *rudimentary understanding and working knowledge of the programming language*

Certifications

- Teaching Certificate
→ *Fundamentals for Teaching Assistants*
- Divemaster (DM #61280)
→ *NAUI certified, highest leadership-level scuba dive certification (under instructor)*
- Master diver
→ *NAUI certified Master scuba diver*
- Rescue Scuba Diver
→ *NAUI certified as a rescue scuba diver*
- Emergency Oxygen Provider, Basic Life Support: CPR and First Aid
→ *NAUI Certified to administer BLS, CPR, First Aid and Emergency Oxygen*

COMMUNITY INVOLVEMENT

Guest Lecturer for Oceanography Grades 6–8	Spring 2021
University of Michigan GeoClub Active Member	Fall 2018 – Summer 2020
Inland Ocean Coalition Founder and Social Chair	Fall 2019 – Summer 2020
South Caicos Community Engagement Mentor	Winter 2019
Center for Global and Intercultural Studies Study Abroad Fair Representative	Fall 2019
Flint Intercity Youth Hockey Program Volunteer Instructor	Winter 2016