Adam Hallaj

362 W. Glenn Avenue, Unit 212
Auburn, AL 36830
Phone: (610) 609-0867
Email: adhallaj@gmail.com
adhallaj.github.io

Field/Career interests

Bioinformatics, Biomimicry R&D, CAD/CAM, sustainable design.

Education

B.S. in Biology. Temple University, Philadelphia, PA — December 2019

Professional Experience

Undergraduate Researcher with the Cordes Laboratory, Temple University. — June 2017 - January 2020

- Assist in designing, setting up, and conducting ecological experiments in aquaria.
- Live invertebrate specimen care (mainly cnidarians).
- In-laboratory cold-water recirculating aquarium setup and maintenance.
- Water chemistry analysis: perform titrations on a Mettler Toledo DL15 titration device to assess total alkalinity of water samples acquired from fieldwork, in-lab experiments, and for routine lab aquaria maintenance.

Lab Technician with the Bernal Laboratory, Auburn University. — June 2017 - Present

- Optimization of aquarium monitoring system for remote access using a raspberry pi computer.
- Assembly of Lutjanus synagris transcriptome using the Alabama Supercomputer.
- Management of monthly spending statements.

Field Work

Costa Rica Margin Expedition (ROCHITS) aboard the *R/V Atlantis* with *HOV Alvin*. 10 days at sea. Chief Scientist: Erik Cordes. — October 2018

- Identified and processed deep-sea biological samples collected during HOV dives.
- Assisted in the deployment and retrieval of CTD rosettes, analyzed accompanying data, and preserved water samples for further lab analysis.
- Set up and managed water filtration system to provide fresh seawater for live samples.

Experimental Experience

Cold water coral response to multiple stressors: *High temperature affects recovery from short term pollution exposure* — Published, *Scientific Reports*

Weinnig A.M., **Hallaj A.**, Gomez C.E., Cordes E.E.

- Aquarium maintenance.
- Perform RNA extractions for transcriptomic analysis.

Effects of temperature increase on the metabolic performance of the cold-water coral Lophelia pertusa — Manuscript in prep

Gomez C.E., Gori A., Weinnig A.M., **Hallaj A.**, Keller A., Cordes E.E.

- Perform incubations with live coral to assess changes in excretion, respiration, and feeding rates.
- Aquarium maintenance.
- Statistical analysis of resulting data using excel and R.

Presentations

Physiological Response of the Cold-Water Coral Lophelia pertusa to short term temperature changes at the Symposium for Undergraduate Research and Creativity — April 2019

References

Erik E. Cordes, Ph.D.

Biology Professor, Temple University

E-mail: ecordes@temple.edu

1900 N 12th Street, Room 315

Philadelphia, PA 19122

Jay Lunden, Ph.D.

Biology Professor, Temple University

E-mail: jlunden@temple.edu

1900 N 12th Street, Room 313

Philadelphia, PA 19122

David Liberles, Ph.D.

Biology Professor, Temple University

E-mail: daliberles@temple.edu

1900 N 12th Street

Philadelphia, PA 19122