

HAILEY HATCH

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EDUCATION

Utah State University, Honors College, Logan, Utah

2018 - 2022

Bachelor of Science in Biology

Emphasis: Ecology and biodiversity, Minor: Chemistry

Thesis: *Evolution of Floral Microbes and the Resulting Effects on Pollinator Preference*

RESEARCH EXPERIENCE

Marine Biology Intern

Apr 2023 - July 2023

Reefscapers, Kuda Huraa, North Male Atoll, Maldives

- Propagated corals via asexual fragmentation and transplant
- Monitored coral growth, spawning, and bleaching using underwater cameras
- Assisted with daily husbandry, medical care, and release of rehabilitation turtles
- Initiated data organization, analysis, and visualization for coral bleaching monitoring data

Coral Health and Disease Intern

Aug 2022 - Nov 2022

Mote Marine Laboratory, International Center for Coral Reef Research

Mentors: Dr. Grace Klinges, Marina Villoch

- Completed DNA/RNA extractions for EPA funded disease monitoring project in Dry Tortugas
- Collected physiology measurements of airbrushed coral samples via microplate spectrometry
- Calculated coral surface area using 2D and 3D photogrammetry
- Contributed to the restoration program by microfragmenting and caring for nursery corals

Honors Capstone Thesis

May 2021 - May 2022

Utah State University, Honors College, Department of Biology

Mentors: Dr. Robert Schaeffer, Dr. Grace Freundlich

Project Title: *Evolution of Floral Microbes and the Resulting Effects on Pollinator Preference*

- Quantified shifts in microbial resource use and performance via shifts in sugar concentration (BRIX) and colony-forming units (CFUs) in the nectar environment
- Monitored pollinator behavior while foraging between artificial flowers with inoculated nectar
- Analyzed and interpreted data using R models

Undergraduate Research Assistant

Jan 2021 - May 2021

Utah State University, Department of Biology

Mentors: Dr. Robert Schaeffer, Dr. Grace Freundlich

- Cultured and maintained bacterial stock
- Nurtured and inoculated alfalfa seeds and plants with bacteria
- Conducted behavioral and preference assays with clover root curculio larvae

Study Abroad Course

May 2019

Heron Island Research Station, *Queensland, Australia*

Mentors: Dr. Edd Hammill, Dr. Trisha Atwood

Project Title: *The Effect of Coral Health on Fish Abundance*

- Tracked fish abundance and diversity with GoPro by running transect lines and quadrats
- Evaluated relative coral health using CoralWatch health charts
- Collected sediment core samples to quantify and identify benthic invertebrates via microscopy

WORK AND VOLUNTEER EXPERIENCE

Saltwater Aquarist Volunteer Loveland Living Planet Aquarium	2022 - 2023
<ul style="list-style-type: none">• Assisted saltwater team in daily husbandry and maintenance	
Coral Restoration Dive Volunteer Reef Renewal USA and I.CARE	2022
<ul style="list-style-type: none">• Cleaned in situ coral nursery and outplanted <i>Acropora</i> coral	
College of Science Ambassador Utah State University	2021 - 2022
<ul style="list-style-type: none">• Interacted with prospective students for the College of Science	
Exhibit Interpreter Volunteer and Staff Loveland Living Planet Aquarium	2016 - 2019
<ul style="list-style-type: none">• Gave engaging presentations for adults and children	
Summer Camps Volunteer Loveland Living Planet Aquarium	2016
<ul style="list-style-type: none">• Prepared educational ocean related activities for elementary children	

HONORS AND AWARDS

2022	Undergraduate Research Scholar
2022	Honors Research Fund (\$500)
2021	Ecology Undergraduate Scholarship (\$1,000)
2020	Gene and Ruth Miller Scholarship (\$1,000)
2019	Honors Research Fund (\$500)
2018	USU Presidential Scholarship (\$30,000)
2018	Utah Regents Scholarship (\$5,000)

PRESENTATIONS

Student Research Symposium | Utah State University, Apr 2022. “Evolution of Floral Microbes and the Resulting Effects on Pollinator Preference.” (poster and video)

Undergraduate Research Symposium | Utah State University, Nov 2021. “Evolution of Floral Microbes and the Resulting Effects on Pollinator Preference.” (poster)

Citizen Scholar Conference | Utah State University, Nov 2018. “Ocean Literacy in a Landlocked State: Why Understanding Your Relationship with the Ocean Matters.” (oral)