Katelyn Gould Gould054@live.unc.edu

PhD Candidate in Biology, UNC Chapel Hill, NC Carrboro, NC

Coral Ecophysiology and Restoration (303) 406-8799

B.S. in Biology and Environmental Sciences

Regis University, Denver, CO

Research Focus: I study reef-building corals in the Caribbean to understand how temperature determines fitness and responses to climate change. I integrate physiological, ecological, and novel restoration techniques to identify environments and circumstances that lead to increased survival. I aim to publicize my results across the field and within a conservation context around the globe.

CERTIFICATIONS FIELD SKILLS LAB SKILLS ADMINISTRATIVE

 **PADI Master diver Long-term ecological monitoring Coral and fish husbandry Data entry and quality control**

 **CPR, AED, & First Aid Deck hand & boat experience Mesocosm & Aquarist design R statistics and data analyses**

 **Nitrox and Rescue diver AAUS scientific diver Laboratory management SOP & certification auditing**

RESEARCH EXPERIENCE:

**Coral Restoration: Genotype by Environment Interactions** 2019-Present

Florida Keys, FL **Principle investigator**

* Monitored transplanted *Orbicella annularis* in a two-year restoration project
* Assessed seasonal fitness across 4 transplantation sites
* Linked coral variation to local environmental differentiation

**Thermal Sensitivities Across Depth**  2018

Bermuda Institute of Ocean Sciences (BIOS), Bermuda **Principle investigator**

* Created thermal performance curves in 4 species of coral; *Diploria labyrinthiformis, Orbicella franksi,*

*Montastrea cavernosa,* and *Porites astreoides*

* Identified thermal thresholds and potential refuges from climate stress

Gould, K. J., Bruno, J. F., Ju, R., & Goodbody-Gringley, G. (2021). Upper-mesophotic and shallow reef corals exhibit similar thermal tolerance, sensitivity, and optima. *Coral Reefs*.

**Novel Stress-reducing Techniques: Coral Restoration** 2017

UNC-Chapel Hill, NC **Principle investigator**

* Tested aquaculture techniques to enhance coral fitness in *Acropora cervicornis*
* Quantified thermal performance under increasing thermal stress

**Thermal Performance Assessment** 2017

Bermuda Institute of Ocean Sciences (BIOS) **Research Collaborator**

* Measured fitness under thermal stress assay in *Orbicella franksi*
* Characterized localized thermal responses in Bermudian corals for comparative analyses

Silbiger, N. J., Goodbody-Gringley, G., Bruno, J. F., & Putnam, H. M. (2019). Comparative thermal performance of the reef-building coral Orbicella franksi at its latitudinal range limits. *Marine Biology*, *166*(10), 1-14.

**Investigating the Bahamian Pupfish Adaptive Radiation** 2015

UNC-Chapel Hill, NC **Principle investigator**

* Performed mate preference trials across three species of *Cyprinodon*, snail-eater, scale-eater, and generalists
* Investigated developmental plasticity in phenotypic jaw structure in *Cyprinodon* under various feeding modes

WORK EXPERIENCE:

**Biology Laboratory Instructor** 2017-Present

University of North Carolina, Chapel Hill, NC

* Taught undergraduate courses in Biological Sciences (See TEACHING POSITIONS)
* Mentored 5 undergraduate students in laboratory research including physiological sampling and laboratory experiments

**Quality Assurance Manager** 2016-2018

Mettler Toledo formally Calibrate Inc., Chapel Hill, NC

* Worked closely with 35 field technicians to ensure quality system SOPs were implemented and documented
* Lead internal audits of calibration certifications , employee training, and company-wide accreditation and certifications
* Dictated upper-management meetings for Quality Control purposes and internal auditing
* Upheld documentation of training and personal information on all technicians during their employment

**Lab Manager** 2015-2017

University of North Carolina, Chapel Hill, NC

* Managed multiple ongoing research projects in the Martin Lab, including behavioral, genetic, and morphological studies
* Provided logistical planning, administrative coordination, and served as point of contact for lab
* Composed data tables via verbal dictation for multiple ongoing research projects

Martin, C. H., & Gould, K. J. (2020). Surprising spatiotemporal stability of a multi‐peak fitness landscape revealed by independent field experiments measuring hybrid fitness. *Evolution letters*, *4*(6), 530-544.

**Lab Technician** 2014-2015

Lab Corp, Burlington, NC

* Coordinated inoculations and culturing of biologically hazardous samples for pathogen identification
* Maintained privacy data on patients’ medical results and typed personnel files

**Fisheries Biological Observer** 2014 The Bering Sea, Alaska

* Collected fisheries data and reported federal infractions including sensitive confidential data

to the National Marine Fisheries Service

* Data management and input for daily (14hr shifts) catches of up to 5 hulls of 50+ metric tons of catch and bycatch

**Lead Field Technician** 2013-2014 National Ecological Observatory Network, Boulder, CO

* Led operation teams in ecological monitoring
* Established and collected data for use in a national database

**Biology Lab Manager**  2012-2014

Regis University, Denver, CO

* Supervised 15 student employees in lab preparation for undergraduate and graduate level biology courses
* Maintained lab safety protocols and implemened time management skills for independent research
* Isolated and cultivated various microorganisms and invertebrate stocks for experimental manipulation and genetic crosses

TEACHING POSITIONS:

**UNC-Chapel Hill, NC**

* Biology 101 Laboratory 2020- Present
* Biology 101 Lecture 2019

**BIOS, Bermuda** Fall 2018

* Coral Reef Ecology
* Diving Research Methods
* Marine Biology and Oceanographic Research

**UNC-IMS, Beaufort, NC**

* AAUS Scientific Diving Summer 2018

**UNC-Chapel Hill, NC**

* Avian Biology Spring 2018
* Fundamentals of Human Anatomy Fall 2017

GRANTS AND AWARDS:

**UNC-Chapel Hill, NC**  2018- 2019

* AAUS Doctoral Scholarship
* BIOS Grant-In-Aid Award
* AAUS Doctoral Scholarship- Honorable Mention
* PADI Common Grant Foundation Grant

**Regis University, Denver, CO** 2010- 2013

* Research and Scholarship Council Grant
* Spark Grant

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***Cyprinodon Orbicella Diploria Acropora Montastrea Porites Orbicella***

 ***variegates franksi labyrinthiformis cervicornis cavernosa astreoides annularis***