

Naomi Huntley

Nhuntley@umich.edu (810)931-2545

<https://NaomiHuntley.wixsite.com/coral>

Education

University of the Virgin Islands Masters in Marine and Environmental Science

Thesis: The Microbiome of purported Stony Coral Tissue Loss Disease

Co-advisors: Dr. Tyler Smith and Dr. Amy Apprill (Woods Hole Oceanographic Institute)

Student Representative

Marine Operations Safety Committee Member

University of Michigan Bachelor of Science

Major: Earth and Environmental Science

Mott Community College Associate of Science with High Honors

Phi Theta Kappa Honor Society

Dean's List May 2010-May 2012

Publications

Sanchez K.F., **Huntley N.**, Duffy M.A., Hunter M.D. (2018) Toxins or Medicines? Phytoplankton diets mediate host and parasite fitness in a freshwater system. *Proceedings of the Royal Society B: Biological Sciences*. <http://doi.org/10.1098/rspb.2018.2231>

Laramore, S., and **Huntley, N.** (2015) Effects of Saltwater Intrusion on Native and Exotic Apple Snails, *Pomacea paludosa* and *P-insularum*. *Journal of Shellfish Research*. 34 (2), 651-651.

Publications in Preparation

Huntley, N., Arrington, B., Diana, O., Gomez, C., Levenson, J., Long, A., Meiling, S., Mele, D., Michael, J., and Schlender, K. Effects of major wind disturbances on the resilience of Mogens Bay Arboretum in the Mogens Bay Watershed Preserve of Saint Thomas USVI: An Altered Basin Moist Forest. *In preparation*.

Huntley, N., Lima, L., DePutron, S. Physiological Response of Atlantic Siderastreids to Low Temperatures. *In preparation*.

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Research Experience

Masters

August 2018 to Present University of the Virgin Islands

Master's Thesis

Co-advisors: Dr. Tyler Smith (University of the Virgin Islands) and Dr. Amy Apprill (Woods Hole Oceanographic Institution)

Thesis: The Microbiome of purported Stony Coral Tissue Loss Disease

Facilitated the collaboration between the University of the Virgin Islands and Woods Hole Oceanographic Institute to study the microbial community of coral with Stony Coral Tissue Loss Disease.

August 2019-June 2020 Woods Hole Oceanic Institution, MA

Guest researcher

Used DNA extraction, PCR, gel electrophoresis, and Next generation sequencing.
Environmental Bioinformatics course.

August 2018 to Present University of the Virgin Islands, U.S.V.I

Research Assistant

PI: Dr. Tyler Smith

-Identified and sampled various species of algae for *Gambierdiscus*, the single cell algae responsible for Ciguatera Fish Poisoning and prepared the samples for DNA extraction and *Gambierdiscus* toxicity and abundance.

-Monitored coral health, benthic community composition, sedimentation rates, and water quality parameters using SCUBA.

-Identified and captured fish using a spear on SCUBA to collect tissue samples for cigatotoxicity analysis.

May 2019-July 2019 Pennsylvania State University -- Seas Your Tomorrow Bridge to PhD

Intern

Rotated through the labs of Dr. Monica Medina, Dr. Roberto Iglesias-Prieto, and Dr. Illiana Baums to learn molecular and photo-physical techniques applied to study coral.

November 2018 Woods Hole Oceanic Institution -- Research Cruise

Guest researcher

F.G. Walton Smith, Chief Scientist: Dr. Amy Apprill, St. John, U.S.V.I

Assisted with coral and seawater collection and metabolomics experiment.

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Undergraduate

January 2016 to January 2017 Freshwater Ecology Lab, University of Michigan

Research Assistant

PI: Dr. Meghan Duffy

Worked as a team with PhD student on her thesis project and independently ran replicate parasite experiments. Used sterile techniques to isolate algal species from polycultures to grow in monocultures.

January 2016 to May 2015 University of Michigan

Laboratory Assistant, Microplastics in the Great Lakes

PI: Dr. Melissa Duhaime

Identified and quantified macro and micro-plastics. Sampled the bacterial community on the surface of microplastics and used PCR and gel electrophoresis to identify potential human pathogens and define the ecological and environmental health risks of plastics in the Great Lakes.

August 2015 to November 2015 Bermuda Institute of Oceanic Science -- National Science Foundation Research Experience for Undergraduates

Intern

PI: Dr. Samantha DePutron

- Worked collaboratively with a Masters student from Instituto de Estudos do Mar Almirante Paulo Moreira, Brazil, to investigate the physiological responses of Atlantic Siderastreids to gradual and sustained low temperature exposure.
- Collected coral colonies, coral husbandry, tank experiments, and coral outplanting.
- *Publication in preparation.*

August 2014 to December 2014 Cardinale Biodiversity Laboratory, University of Michigan

Laboratory Assistant

PI: Dr. Brad Cardinale

Identified and quantified algae cells under a microscope and used sterile techniques to maintain algae monocultures.

June 2014 to August 2014 Aquaculture Laboratory, Harbor Branch, Florida Atlantic University - National Science Foundation Research Experience for Undergraduates

Intern

PI: Dr. Susan Laramore

Independently ran experiments to understand the effects of increased salinity on native and invasive apple snails (*Pomacea sp.*).

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April 2013 to August 2015 Stable Isotope Laboratory, University of Michigan

Laboratory Assistant

Prepared samples sent from laboratories around the world for isotope analysis, organized and managed data, and general laboratory maintenance.

August 2012 to May 2013 Department of Cardiovascular Surgery--University of Michigan

Research Assistant

P.I. Dr. Donald Likosky

Evaluation and Improvement of Cardiac Surgery

Worked with a team of researchers to develop, test and implement a series of quality control dashboards for the clinical faculty to identify areas for targeted quality improvement, and grounding conversations with patients in shared decision-making.

Grants and Awards

2019 International Coral Reef Society Graduate Fellowship (\$2500)

Lana Vento Charitable Foundation Research Grant (\$620)

Lana Vento Charitable Foundation Travel Grant (\$310)

2018 Lana Vento Charitable Foundation Research Grant (\$1000)

Lana Vento Charitable Foundation Travel Grant (\$500)

2016 University of Michigan Scott Turner Award (\$400)

Bermuda Institute of Ocean Sciences/NSF Travel Grant (\$1800)

2015 Bermuda Institute of Ocean Sciences/NSF REU (\$6000)

2014 Florida Atlantic University, Harbor Branch/NSF REU (\$4500)

Scientific Presentations

2019 Huntley, N.E. Effects of major wind disturbances on the resilience of Magens Bay Arboretum in the Magens Bay Watershed Preserve of Saint Thomas USVI: An Altered Basin Moist Forest. Research Day, University of the Virgin Islands.

Huntley, N.E. The Microbiome of purported Stony Coral Tissue Loss Disease. Student Research Seminar. University of the Virgin Islands.

2018 Huntley, N.E. Coral-Ramircrusta microbial interactions. Student Research Seminar. University of the Virgin Islands.

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- 2016 Huntley, N.E. Ecophysiology of a Coral Species in the Northernmost Atlantic Reef System: Effects of Low Temperatures on *Siderastrea radians* in Bermuda. International Coral Reef Symposium. Honolulu, HI.
- 2015 Huntley, N.E. Ecophysiology of a Coral Species in the Northernmost Atlantic Reef System: Effects of Low Temperatures on *Siderastrea radians* in Bermuda. Summer Student Research Seminar; Bermuda Institute of Ocean Sciences, St. George, Bermuda.
- 2014 Huntley, N.E. Effects of saltwater intrusion on native and exotic apple snails, *Pomacea paludosa* and *P. maculata*. Summer Student Research Seminar; Harbor Branch, Florida Atlantic University.
- 2013 Huntley, N.E.; Likosky, D. Evaluation and Improvement of Cardiac Surgery. University Research Opportunity Program Symposium, University of Michigan.

Attended Conferences

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- 2019 Gordon Research Conference -- Marine Molecular Ecology
2019 University of the Virgin Islands Research Symposium
2018 University of the Virgin Islands Research Symposium
2016 International Coral Reef Symposium
2014 Harbor Branch Summer Student Research Seminar
2013 University Research Opportunity Program Symposium

Professional Skills

Computer software--R, Microsoft Office, Adobe Creative Suite.

Photography (Land and Underwater)--photographs used at BIOS stakeholder meeting.

Trained in NOAA National Coral Reef Monitoring/ AGRRA coral and fish survey protocols.

Certifications

CPR and First Aid

Oxygen Administration

Rescue Diver

American Academy of Underwater Scientific diver

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Community Involvement & Outreach

Masters

Discovery Space

Independently developed and implemented a four-part outreach activity for children 3 to 14 years old to explain the importance of coral and fish biodiversity on a reef and the impacts of coral disease on diversity.

Research Day

Judged undergraduate poster at the University of the Virgin Islands Research Symposium and provided feedback for students to use to improve their posters in the future.

Reef Fest

Worked with fellow students to develop outreach activities and independently developed an educational coloring sheet using photoshop.

Great mangrove cleanup

Safely lead a group of community members in a kayak and practiced speaking with an audience about the importance of mangrove ecosystems and the impact trash is having on the environment.

Science Saturdays

Engaged children and parents in various marine related science activities.

Beach cleanups

Led community beach cleanups and shared information about the effects our habits and trash have on the marine ecosystem.

Art exhibit

Organized an art exhibit to increase awareness of the research being conducted by at UVI by my cohort. Coordinated the collection of UVI faculty and students contributed art pieces made with a variety of media. Arranged a location to host the event, food donations, and ballet performance.

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Meet the bats

Led groups of local Virgin Island community members in various activities to educate and spread awareness about the importance of bats and the difficulties they are facing following Hurricanes Irma and Maria in an attempt to reduce fear of bats and resulting extermination when bats end up in people's homes.

Undergraduate

Founder of the Environmental Crafts Organization (ECO)

- Upcycled materials into imaginative crafts to sell and raise money to donate to Florida Keys Turtle Hospital.
- Organized community outreach events to inform the community of the negative impacts we are having on the ocean --something often overlooked by Michiganders living far from the ocean-- and how we can reduce them.
- Organized guest speakers, including professors and students, to share research.

Boys and Girls Club of Greater Flint

Tutored and mentored at risk children from my home town and recruited members of ECO to expand my personal efforts.

Invited motivational/guest talks at anger management classes.

Shared personal experiences with at risk youth from my home town in hopes to inspire their perseverance through their teenage years and continuation to bettering their life.

ESL conversation partner at the Michigan Language Center

Conversational partner for students both visiting and newly transferred to the University of Michigan.

Undergraduate student mentor

Supported an undergraduate student to develop their first research project, taught them the methodology, and provided feedback on their writing.

Beach Cleanups

Led community beach cleanups and shared information about the effects our habits and trash have on the marine ecosystem.