DR. SERENA HACKEROTT, PH.D.

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INTERESTS

Eco-Physiology, Acclimatization, Phenotypic Plasticity, Resilience, Coral Reef Ecology, Molecular Biology, Environmental Epigenetics, Marine Conservation

EDUCATION

2018-2024 PH.D. BIOLOGY, FLORIDA INTERNATIONAL UNIVERSITY

Primary Advisor: Dr. Jose Eirin-Lopez; Environmental Epigenetics Lab (EELab)

Dissertation Title: Evaluating the capacity and molecular underpinnings of phenotypic plasticity and environmental memory in Caribbean *Acropora* corals. ***Awarded FIU SEAS Best Dissertation***

2013-2014 M.S. MARINE SCIENCES, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Primary Advisor: Dr. John Bruno

Thesis Title: The effect of invasive lionfish on reef fish community structure along the Mesoamerican Barrier Reef.

2009-2013 B.S. BIOLOGY, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Minors in Chemistry and Marine Sciences GPA: 3.673

Research Advisor: Dr. John Bruno

Thesis Title: Native predators do not influence invasion success of Pacific lionfish on Caribbean reefs. ***Highest Honors and Carolina Research Scholar***

POSITIONS

BEGINS DEC 2025	National Science Foundation (NSF) Ocean Sciences Postdoctoral Fellow, University of Delaware (UD) School of Marine Science and Policy, College of Earth, Ocean, and Environment
MAY 2024- PRESENT	Postdoctoral Researcher, UD School of Marine Science and Policy
AUG 2019-APR 2024	Teaching and Research Assistant, Florida International University (FIU) Biological Sciences Department
AUG 2018-APR 2024	NSF CREST Graduate Research Fellow, FIU Center for Aquatic Chemistry and the Environment (CAChE)
APR- JUL 2018	Data Analysis Consultant, Marshall Islands Conservation Society (MICS) and Marshall Islands Marine Resource Authority (MIMRA)
AUG 2017-DEC 2017	Marine Science Certificate Program Coordinator, College of the Marshall Islands (CMI), STeM Department
JAN 2016-DEC 2017	Marine and Environmental Science Faculty, CMI STeM Department
JAN-JUL 2015	Teaching and Research Assistant; Instructor, Council on International Educational Exchange (CIEE) Research Station Bonaire
AUG 2013-DEC 2014	Teaching Assistant, University of North Carolina at Chapel Hill (UNC), Biology Department

PUBLICATIONS

Available on ORCID and Google Scholar

(11) **Hackerott, S.[1],** H. A. Martell[1], S. Mansoor[+], D. G. Souto, J. M. Eirin-Lopez. (2025) DNA methylation dynamics in response to acute thermal exposure reveal the influence of heating, dose, and recovery in the staghorn coral *Acropora cervicornis*. *Journal of Thermal Biology* 134: 104338 *(1: Shared first-authorship with interchangeable order; +: Undergraduate mentee)* **IF: 2.9 (Q2)**

(10) **Hackerott, S.,** L. Gregory[+], J. Howard[+], J. M. Eirin-Lopez. (2025) Picture of health: Testing an accessible method for quantifying coral bleaching. *Coral Reefs* 44: 1327-1340 *(+: Undergraduate mentee)* **IF: 2.9 (Q1)**

(9) **Hackerott, S.,** F. Virdis, J. M. Wong, P. J. Flood, C. Travers[+], J. M. Eirin-Lopez. (2025) The influence of environmental history on the performance of *Acropora cervicornis* corals varies spatially and temporally. *Science of the Total Environment* 977: 179385 *(+: Undergraduate mentee)* **IF: 8.0 (Q1)**

(8) Fuller, C. N., S. Mansoor[+], S. J. Guzman, L. V. Tose, **S. Hackerott**, J. Rodriguez-Casariedo, J. M. Eirin-Lopez, F. Fernandez-Lima. (2025) Mapping heat stress-induced core histone post-translational modifications in *Acropora cervicornis*. *Environmental Epigenetics* 11(1): dvaf017 *(+: Masters student mentee)* **IF: 3.2 (Q2)**

(7) **Hackerott, S.,** F. Virdis, P. J. Flood, D. G. Souto, W. Paez[+], J. M. Eirin-Lopez. (2023) Phenotypic plasticity is associated with epigenetic variation in two Caribbean *Acropora* corals. *Molecular Ecology* 32(17): 4814-4828 *(+: Undergraduate mentee)* **IF: 4.5 (Q1)**

(6) Beal A. P., **S. Hackerott,** K. Feldheim, S. Gruber, J. M. Eirin-Lopez. (2022) Age group DNA methylation differences in lemon sharks (*Negaprion brevirostris)*: Implications for future age estimation tools. *Ecology and Evolution* 12: e9226 **IF: 2.6 (Q2)**

(5) **Hackerott, S.,** H. A. Martell, J. M. Eirin-Lopez. (2021) Coral environmental memory: Causes, mechanisms, and consequences for future reefs. *Trends in Ecology and Evolution* 36 (11): 1011-1023 ***(Cover Article)*** **IF: 20.6 (Q1)**

(4) Beal A. P., **S. Hackerott,** B. Franks, S. Gruber, K. Feldheim, J. M. Eirin-Lopez. (2021) Epigenetic responses in juvenile Lemon sharks (*Negaprion brevirostris*) during a coastal dredging episode in Bimini, Bahamas. *Ecological Indicators* 127: 107793 **IF: 6.3 (Q1)**

(3) **Hackerott, S**., A. Valdivia, C. E. Cox, N. J. Silbiger, J. F. Bruno. (2017) Invasive lionfish had no measurable effect on prey fish community structure on the Belizean Barrier Reef. *PeerJ* 5:e3270 **IF: 2.1 (Q1)**

(2) Valdivia A., J. F. Bruno, C. E. Cox, **S. Hackerott**, S. J. Green. (2014) Re-examining the relationship between invasive lionfish and native grouper in the Caribbean. *PeerJ* 2:e348 **IF: 2.1 (Q1)**

(1) **Hackerott, S**., A. Valdivia, S. Green, I. Côté, C. E. Cox, L. Adkins, C. A. Layman, W. F. Precht, J. F. Bruno. (2013) Native predators do not influence invasion success of Pacific lionfish on Caribbean reefs. *PLoS ONE* 8(7): e68259 **IF: 3.5 (Q1)**

PUBLICATIONS IN REVIEW OR LATE-STAGE PREPARATION

Drafts available upon request

(14) **Hackerott, S.,** H. A. Martell, J. A. Rodriguez-Casariego, J. M. Eirin-Lopez. (*In prep.*) The influence of pre-exposure to multiple stressors on the acute thermal tolerance of *Acropora cervicornis* corals.

(13) Mansoor, S. [+], **S. Hackerott**, J. A. Rodriguez-Casariego, D. G. Souto, J. M. Eirin-Lopez. (*In prep.*) Characterization of DNA methylation variation during a thermal stress episode in the stony coral *Acropora cervicornis*. *(+: Masters student mentee)*

(12) Huffmyer, A. S., E. L. Strand, **S. Hackerott**, K. H. Wong, D. M. Becker, D. Connetta, K. X. Terpis, F. Pfab, J. Wong, Z. Dellaert, F. J. Olario, R. Cunning, J. M. Eirin-Lopez, S. B. Roberts, R. M. Nisbet, H. M. Putnam. (*In review*) Seasonal plasticity of symbiotic strategies clarifies coral holobiont resistance and resilience. *Pre-print available*.

GRANTS AND EXTERNAL FUNDING

Total: $675,792 USD

2025	**NSF** Ocean Sciences Postdoctoral Fellowship (PI: Dr. Hackerott) Plastic Partnerships: Investigating life history strategies constraining phenotypic plasticity across coral holobiont partners (Award # 2508454)	$393,101
2021	**NOAA** Ruth Gates Coral Restoration Innovation Grant (coI: Dr. Hackerott, PI: Dr. Eirin-Lopez) Stress Hardening Interventions for Improved Coral Restoration: Benefits, Costs, and Biomarkers (Award # NA21NMF4820301)	$273,491

	2020	**Wave of Change** Rebuilding Coral Reefs Scholarship	$5,000
	2020	**Lerner Gray Memorial Fund** for Marine Research Grant	$1,700
	2020	**Friends of Gumbo Limbo** Graduate Student Research Grant	$2,500

INTERNAL FUNDING

Total: $31,086 USD

2022	FIU CREST-CAChE Graduate Student Travel Support	$1,620
2022	FIU CREST-CAChE Graduate Student Travel Support	$1,590
2021	FIU Women Explorers Award	$1,000
2021	FIU CREST-CAChE Graduate Student Travel Award	$2,000
2021	FIU CREST-CAChE Graduate Student Research Support	$3,328
2021	FIU University Graduate School Graduate Student Research Support	$1,200
2021	Judith Evans Parker Travel Scholarship	$850
2020	FIU Institute of Environment Graduate Research Award	$4,000
2020	FIU CREST-CAChE Graduate Student Research Support	$2,000
2020	FIU Center for Coastal Ocean Research Travel Award	$500
2019	FIU CREST-CAChE Graduate Student Research Support	$2,448
2019	FIU Center for Coastal Ocean Research Travel Award	$1,000
2019	Judith Evans Parker Travel Scholarship	$500
2019	FIU College of Arts, Sciences, and Education Graduate Travel Award	$300
2019	FIU Tropics Graduate Student Research Grant	$3,000
2019	FIU CREST-CAChE Graduate Professional Development Support	$1,250
2018	FIU Tropics Graduate Student Travel Grant	$1,500
2012	UNC Summer Undergraduate Research Fellowship	$3,000

HONORS AND AWARDS

2025-27	National Science Foundation Ocean Sciences (NSF-OCE) **Postdoctoral Fellow**
2024	FIU School of Environment, Arts and Society (SEAS) **Best Dissertation Award**
2022	Graduate Women in Science National Fellowship *Honorable Mention*
2021	Ford Foundation Predoctoral Fellowship *Honorable Mention*
2021	FIU **Women Explorers Award**
2018-24	NSF-CREST Center for Aquatic Chemistry and the Environment **Graduate Fellow**
2013	**Highest Honors** Biology (UNC) and **Carolina Research Scholar** Program
2009-13	UNC **Dean's List**

CONFERENCE PRESENTATIONS

Mansoor, S.[+], J. A. Rodriguez-Casariego, C. Fuller, S. Guzman, **S. Hackerott**, D. Garcia-Souto, F. Fernandez-Lima, J. M. Eirin-Lopez. 2025. Characterizing Epigenetic Responses to Thermal Stress Episode in Stony Coral *Acropora cervicornis*. *EpiMar Symposium on Epigenetics in Marine and Aquatic Research*. May 27th. Barcelona, Spain. Poster. *(+: Undergraduate mentee)*

2024

Hackerott, S., H. A. Martell, J. A. Rodriguez-Casariego, J. M. Eirin-Lopez. 2024. The influence of pre-exposure to multiple stressors on the acute thermal tolerance of *Acropora cervicornis* corals. *Reef Futures Conference*. Riviera Maya, Mexico. December 11th. Oral.

Hackerott, S., F. Virdis, J.M. Wong, P. J. Flood, C. Travers[+], J. M. Eirin-Lopez. 2024. The influence of environmental history on the performance of *Acropora cervicornis* corals. *Dutch Caribbean Research Week*. Virtual. November 25th. Oral. *(+: Undergraduate mentee)*

Hackerott, S., L. Gregory*[+], J. Howard[+], J. M. Eirin-Lopez. 2024. Picture of health: Testing an accessible method for quantifying coral thermal tolerance. *Dutch Caribbean Research Week*. Virtual. November 20th. Poster. *(*: Presenting author, +: Undergraduate mentee)*

Travers, C.[+], **S. Hackerott**, J. M. Eirin-Lopez. 2024. Assessing an ecological tradeoff between thermal tolerance and growth rate in *Acropora cervicornis*. *Benthic Ecology Meeting*. Charleston, South Carolina. April 12th. Poster. *(+: Undergraduate mentee)*

Hackerott, S., H. A. Martell, J. A. Rodriguez-Casariego, J. M. Eirin-Lopez. 2024. The influence of pre-exposure to multiple stressors on the acute thermal tolerance of *Acropora cervicornis* corals. *Association for the Sciences of Limnology and Oceanography (ASLO) Ocean Sciences Meeting*. New Orleans, Louisiana. February 19th. Oral.

2023

Hackerott, S., J. M. Wong, J. M. Eirin-Lopez. 2023. What doesn't kill you makes you stronger? Exploring the lasting influence of environmental history on *Acropora cervicornis* corals. *Benthic Ecology Meeting*. Miami, Florida. April 29th. Oral.

Gregory, L.[+], **S. Hackerott**, J. M. Eirin-Lopez. 2023. Picture of health: Testing an accessible method for quantifying coral bleaching. *Benthic Ecology Meeting*. Miami, Florida. April 29th. Poster. *(+: Undergraduate mentee)*

2022

Hackerott, S., P. Flood, F. Virdis, D. G. Souto, J. M. Eirin-Lopez. 2022. Environmental and epigenetic drivers of phenotypic plasticity in *Acropora cervicornis* corals. *EpiMar Conference*. Woods Hole, Massachusetts. October 12th. Oral.

Hackerott, S., P. Flood, F. Virdis, D. G. Souto, J. M. Eirin-Lopez. 2022. Environmental and epigenetic drivers of phenotypic plasticity in *Acropora cervicornis* corals. *Reef Futures Conference*. Key Largo, Florida. September 28th. Oral.

Paez, W.[+], **S. Hackerott**, J. M. Eirin-Lopez. 2022. Assessing relationships between symbiosis and metabolism of *Acropora cervicornis* corals across varying nutrient concentrations. *Reef Futures Conference*. Key Largo, Florida. September 28th. Poster. *(+: Undergraduate mentee)*

Hackerott, S., P. Flood, F. Virdis, D. G. Souto, J. M. Eirin-Lopez. 2022. Environmental and epigenetic drivers of phenotypic plasticity in *Acropora cervicornis* corals. *International Coral Reef Symposium*. Bremen, Germany. July 8th. Oral.

2017

Hackerott, S., A. Valdivia, C. E. Cox, N. J. Silbiger, J. F. Bruno. 2017. Low lionfish, no problem? The effect of lionfish on reef fish communities in Belize. *ASLO Aquatic Sciences Meeting*. February 26th-March 3rd. Honolulu, HI. Oral.

2015

Hackerott, S., A. Valdivia, C. E. Cox, N. J. Silbiger, J. F. Bruno. 2015. Low lionfish, no problem? The effect of lionfish on reef fish communities in Belize. G*ulf and Caribbean Fisheries Institute Scientific Meeting*. November 9th-13th. Panama City, Panama. Oral. ***Invited** to Lionfish Research Symposium Session.*

Hackerott, S., A. Valdivia, C. E. Cox, J. F. Bruno. 2015. Low lionfish, no problem? The effect of lionfish on reef fish communities in Belize. *Association of Marine Laboratories of the Caribbean Scientific Meeting*. May 18th-22nd. Willemstad, Curacao. Oral.

2014

Hackerott, S., A. Valdivia, C. E. Cox, J. F. Bruno. 2014. The impacts of the lionfish invasion on reef fish communities in Belize. *International Marine Conservation Congress*. August 14th-18th. Glasgow, Scotland. Poster.

Hackerott, S., A. Valdivia, S. Green, I. Côté, C. E. Cox, L. Adkins, C. A. Layman, W. F. Precht, J. F. Bruno. 2014. Native vs invasive predators: Can anything stop lionfish? *ASLO Ocean Sciences Meeting*. February 23rd-28th. Honolulu, HI. Oral.

2013

Hackerott, S., A. Valdivia, S. Green, I. Côté, C. E. Cox, L. Adkins, C. A. Layman, W. F. Precht, J. F. Bruno. 2013. Native predators do not influence invasion success of lionfish on Caribbean reefs. *Benthic Ecology Meeting*. March 2013. Savannah, GA. Oral.

INVITED SEMINARS

2024 COP29 VIRTUAL OCEAN PAVILLION, VIRTUAL

Co-presenter and panelist within the UD Oceans of Innovation: Leveraging Technology for Ocean Biodiversity and Community Empowerment event.

2024 NOAA CORAL COLLABORATIONS SERIES, VIRTUAL

Co-presented results of collaborative coral stress hardening research funded by the NOAA Ruth Gates Restoration Innovation Grant to NOAA staff and contractors.

2023 CORAL STRESS HARDENING FOR RESTORATION, DOMINICAN REPUBLIC, IBEROSTAR

Keynote speaker invited to share my research on the potential to apply coral stress hardening to restoration during the Wave of Change Coastal Ecosystem Conservation and Restoration Week.

COURSES TAUGHT

2024 *Guest Lecturer:* Biodiversity of Marine Invertebrates (Duke University)

2019-20 *Teaching Assistant / Laboratory Instructor:* Biology I Laboratory (Florida International University [FIU])

2017 *Instructor of Record:* Marine Conservation and Management, Marine Field Research, Communications in Natural Sciences (College of the Marshall Islands [CMI])

2016 *Curriculum Developer: New Courses Created* – Marine Conservation and Management, Marine Field Research, Communications in Natural Sciences, Marine Science Internship, PADI Advanced SCUBA
Updated Course Outlines – Climate Change, Principles of Aquaculture, Integrated Coastal Management, PADI Open Water SCUBA, Marine Biology, Tropical Marine Ecosystems (CMI Certificate in Marine Science)

2016 *Instructor of Record:* Marine Biology, Environmental Science, Tropical Marine Ecosystems (CMI)

2015 *Co-Instructor:* Marine Biology and Ecology of the Southern Caribbean (Council on International Educational Exchange [CIEE])

2015 *Teaching Assistant:* Marine Ecology Field Research Methods, Independent Research in Marine Biology (CIEE)

2014 *Teaching Assistant:* Marine Ecology, Water in Our World (University of North Carolina at Chapel Hill [UNC])

2014 *Guest Lecturer:* Introduction to Marine Sciences, Ocean Exploration, Science Communication to Diverse Audiences, Marine Ecology (UNC)

2013 *Teaching Assistant and Guest Lecturer:* Marine Ecology (UNC)

MENTEES

25 Undergraduates

3 Graduate (M.S.)

Total of 26 from groups underrepresented in STEM

2025 Warner Lab Post-Bacc Volunteer: Sarah Loprinzo

2024 Warner Lab Graduate (MS) Students: Aleksandra Crossman, Isabella Orrantia

2024 Warner Lab Undergraduate Volunteer: Colin Tang (UD Semester in Residence)

2024 EELab Graduate (MS) Student: Sabrina Mansoor

2024 Benthic Ecology Meeting Poster: Carly Travers (FIU Undergraduate McNair Scholar)

2023 EELab Undergraduate Research Experience (REU): Sabrina Mansoor

2023 Benthic Ecology Meeting Poster: Lauren Gregory (FIU/EELab Undergraduate)

2022 Reef Futures Conference Poster: Wendy Paez (FIU/EELab Undergraduate)

2021 EELab Undergraduate Volunteers: Pascal Escobar, Alyxandra Cicerrella, Emily Donohue

2021 FIU Institute of Environment Coastal Ecosystems REU: Jack Howard

2020 EELab Undergraduate Volunteers: Wendy Paez, Katie Molina, Ernesto Campos

2019 EELab Undergraduate Volunteers: Zachary Howard, Grant Burdine, Alexander Marino

2017 CMI Marine Science Certificate: Rolandon Adde, Sabrina Bejang, Marlynn Benjamin, Kyle Bing, Thurston Loeak, Meriana Poznanski, Juddson Nelson, Salome Rubon, Dua Rudolph

2017 ASLO Ocean Sciences Meeting: Salome Rubon and Karmina Jude (CMI Undergraduate)

SERVICE

SCIENTIFIC COMMUNITY

2025 Co-organized International Coral Reef Symposium Session: “Epigenetics of reefs organisms from molecules to ecosystems”

2025 International Coral Reef Society (ICRS) Student and Early Career Chapter (SECC) Steering Committee, Vice President

2024-25 Co-designing a Future for Caribbean Reefs Working Group (recent Policy Brief)

2024 United Nations Climate Change Conference (COP29) ICRS SECC Delegate (Virtual)

2017 Co-organized Marshall Islands National Oceans Symposium, Led student poster session

2015-17 Association of Marine Laboratories of the Caribbean (AMLC) Communications Committee

2015 Student Poster Judge at AMLC Scientific Meeting

Member of International Coral Reef Society, Association for the Sciences of Limnology and Oceanography, Phycological Society of America, Graduate Women in Science, Society of Women in Marine Science

Reviewer for Environmental Science & Technology, Coral Reefs, Communications Biology, Science of the Total Environment, Aquatic Biology, NOAA NMFS Saltonstall Kennedy Grant

DEPARTMENT

2025 Conducted three workshops for University of Delaware (UD) graduate students on collaborative coding and project organization with GitHub and R Markdown Notebooks plus proposal development for NOAA and NSF style grants

2025 Panelist for “Balancing Life for Women in STEM” event organized by UD Society of Women in Marine Science

2022 Led two workshops for Florida International University (FIU) EELab undergraduates on data analysis with R and post-graduation paths in science

2021 Mentor for FIU Coastal Ecosystems Research Experience for Undergraduates (REU)

2020-22 FIU Biology Graduate Student Committee

2018-20 FIU Biological Sciences Department Biosymposium Planning Committee

2017 College of the Marshall Islands (CMI) Marine Science Certificate Program Coordinator

2017 Organized local internships for CMI Marine Science Certificate students

2017 Organized CMI Marine Science Symposium

2017 Served on hiring committee for CMI STeM Department

UNIVERSITY OR COLLEGE

2016-17 College of the Marshall Islands (CMI) Curriculum Committee

2026-17 Created a 30-credit certificate program in marine science. Updated 6 existing courses and created 5 new courses for the program. Achieved both CMI and ACCJC program approval.

2016 Served on hiring committees for CMI Liberal Arts and Developing Education Departments (external faculty member)

2015 Co-led a science communication workshop for UNC IDEA (Increasing Diversity and Enhancing Academia) undergraduate students

PRACTITIONER COMMUNITY

2025 Trained Reef Renewal Foundation Bonaire (RRFB) staff on implementing a quantitative color score method (Protocol and Scripts) for measuring coral bleaching

2025 Co-led training of Guam Coral Reef Initiative (GCRI) staff on novel, non-invasive coral fluorometry technology

2024 Three-part knowledge exchange series to discuss the results of my collaborative research conducted on Bonaire with RRFB staff

2022 Trained RRFB staff on conducting acute coral thermal stress assessments

2020-21 Co-developed workshop to train Florida Fish and Wildlife Conservation (FWC) officers in identifying Endangered Species Act (ESA) protected Caribbean coral species

2018 Created a database and data analysis guide for the Marshall Islands Marine Resource Authority (MIMRA) REMAANLOK National Resource Management Plan reef survey data

2017-18 Trained MIMRA staff on coral reef survey data analysis using R

2016-17 Marshall Islands Coastal Management Advisory Council (CMAC) scientific advisor

BROADER COMMUNITY

2022 Keys Marine Laboratory Open House active research exhibit

2021 Bonaire STINAPA Junior Rangers presentation on coral environmental memory

2017 Marshall Islands National Oceans Symposium presentation on coral reef biology, ecology, and importance for coastal communities

2016 Co-developed presentation explaining the REMAANLOK National Resource Management Plan for local communities on three remote atolls in the Marshall Islands

2015 Co-led weekly marine ecology activities for Bonaire STINAPA Junior Rangers

2015 CIEE Bonaire community presentation on Caribbean lionfish invasion

2015 Career fair presentation at Mills Park Middle School, Raleigh, NC

2014 Marine ecology presentation to Science Explorers of Dillard Drive Middle School, Raleigh, NC

2014 Wrote an invited "Expert Comment" article for Alert Diver titled Hazardous Conditioning on dangers of feeding speared lionfish to predators

2013 Co-founded UNdertheC Blog for science communication by UNC Marine Sciences graduate students

RESEARCH EXPEDITIONS AND EXPERIMENTS

POST-DOCTORAL RESEARCH

2025 Florida Keys: *[Experimental]* Inoculated coral recruits with heat-adapted algal symbionts

2025 Fiji: *[Field]* Measured photobiology and morphology across coral functional groups

2025 Guam: *[Experimental]* Measured coral photobiology and survival across acute and chronic heat exposures

2024 Dominican Republic: *[Experimental]* Compared stress hardening responses across coral species

2024 Fiji: *[Field]* Measured coral photobiology and acute thermal tolerance and sampled for host and symbiont genetics

DOCTORAL RESEARCH

2022 Florida Keys: *[Experimental and Field]* Measured thermal tolerance and survival outcomes following stress hardening regimes and sampled for molecular responses

2021-21 Bonaire: *[Experimental and Field]* Compared physiology, acute thermal tolerance, and growth of native and transplanted corals over one year following a reciprocal transplant

2018-19 Bonaire: *[Field]* Monitored water quality and sampled for coral physiology and molecular responses over seasonal cycle

2018 Curacao: *[Field]* Monitored tagged coral colonies for spawning

2018 Puerto Rico: *[Field]* Outplanted rescued coral fragments across environments

PRE-DOCTORAL RESEARCH

2016 Marshall Islands: *[Field]* Conducted transect surveys for marine invertebrates

2015 Bonaire and Curacao: *[Field]* Compared reef benthic survey methods

2014 Akumal, Mexico: *[Field]* Conducted parrotfish grazing videos and collected tissue samples for population genetics

2013 Belize: *[Field]* Conducted transect surveys for native reef predators and invasive lionfish abundance, size, and diversity

2012 Belize and Abaco, Bahamas: *[Field]* Conducted surveys for native reef predators and invasive lionfish and captured lionfish for size, stomach weight, and otolith collection

REFERENCES

RESEARCH-SPECIFIC REFERENCES

Dr. Mark Warner [Postdoc Advisor, UD] mwarner@udel.edu

Dr. Jose Eirin-Lopez [Ph.D. Advisor, FIU] jeirinlo@fiu.edu

Dr. Hollie Putnam [Ph.D. Committee Member, URI] hputnam@uri.edu

Dr. John Bruno [B.S. and M.S. Advisor, UNC] jbruno@unc.edu

KEY COLLABORATOR REFERENCES

Dr. Bastian Bentlage [Postdoc Co-Mentor, UoG] bentlageb@triton.uog.edu

Francesca Virdis [Previously Reef Renewal Bonaire Chief Operating Officer] francesca@reefrenewalbonaire.org

Emma Kabua [Republic of the Marshall Islands Protected Areas Network Coordinator] ekabua.tibon@mimra.com

TEACHING-SPECIFIC REFERENCES

Dr. Elizabeth Switaj [CMI VP Academic and Student Affairs] eswitaj@cmi.edu

Dr. Patrick Lyons [CIEE Supervisor] lyonspj@lavc.edu