

**Liv M. Williamson, Ph.D.**  
**Coral Biologist, Science Communicator**  
Assistant Scientist

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#### EDUCATION

- 2022 **PhD**, Rosenstiel School, University of Miami  
Marine Biology and Ecology, Advisor: Dr. Andrew Baker and Dr. Margaret Miller
- 2017 **BA**, Barnard College of Columbia University  
Environmental Science, Advisor: Dr. Sonya Dyhrman

#### PUBLICATIONS

- 2023 **Williamson O**, Mustard A, Bright A, Williams D, Ladd M, Baker A (2023). Opportunistic consumption of coral spawn by the ruby brittle star (*Ophioderma rubicundum*). *Ecol Evol* 13:e10096. doi.org/10.1002/ece3.10096
- Williams D, Bright A, **Williamson O**, Moura A, Ladd M (2023). Synchronous spawning of nursery-raised elkhorn coral (*Acropora palmata*) outplanted to reefs in the Florida Keys (USA). *Fro Mar Sci* 10:1180996. doi: 10.3389/fmars.2023.1180996
- Young B, **Williamson O**, ... et al. Annotated genome and transcriptome of the endangered Caribbean mountainous star coral (*Orbicella faveolata*) using PacBio long-read sequencing. (in review).
- Serrano X, Rosales S, Miller M, Palacio-Castro A, **Williamson O**, Gomez A, Baker A. Sediment source and dose influence the larval performance of the threatened coral *Orbicella faveolata*. (in review).
- 2022 **Williamson O**, Dennison C, O'Neil K, Baker A (2022) Susceptibility of Caribbean brain coral recruits to stony coral tissue loss disease (SCTLD). *Fro Mar Sci* 9:821165. doi.org/10.3389/fmars.2022.821165
- Simoes N, Besonen M, Carmona Escalante A, Uribe Martínez A, Vidal Hernández L; González Díaz P... **Williamson O**... et al. (2022) Tarjeta de Reporte Arrecife Alacranes 2021. Zenodo. doi.org/10.5281/zenodo.6544530
- 2021 Cuning R, Parker K, Johnson-Sapp K, Karp R, Wen A, **Williamson O**... et al. (2021) Census of heat tolerance among Florida's threatened staghorn corals finds resilient individuals throughout existing nursery populations. *Proc Biol Sci* 288:1961. doi.org/10.1098/rspb.2021.1613
- Williamson O**, Allen C, Williams D, Johnson M, Miller M, Baker A (2021) Neighboring colonies influence algal symbiont community structure in threatened Caribbean coral recruits. *Coral Reefs* 40:867-879. doi.org/10.1007/s00338-021-02090-1

Zuchowicz N, Daly J, Lager C, **Williamson O**, Hagedorn M (2021) Freezing on the beach: a robust coral sperm cryopreservation design. *Cryobiology* 101:135-139. doi.org/10.1016/j.cryobiol.2021.04.005\

Phelps S, Polissar P, Hennon G, Dyhrman S, Hernández-Limón M, **Williamson O** (2021) Carbon isotope fractionation in Noelaerhabdaceae algae in culture and a critical evaluation of the alkenone paleobarometer. *Geochem Geophys Geosy* 22:e2021GC009657. doi.org/10.1029/2021GC009657

2019 Hennon G, **Williamson O**, Hernández-Limón M, Haley S, Dyhrman S (2018) Non-linear physiology and gene expression responses of armful alga *Heterosigma akashiwo* to rising CO<sub>2</sub>. *Protist* 170:1. doi.org/10.1016/j.protis.2018.10.002

#### ORAL/POSTER PRESENTATIONS (\* Contributed talk, § Poster, # Workshop)

- 2023 \***Williamson O**, Dennison C, Hardy K, O'Neil K, Baker A (2023) Differential susceptibility of brain coral recruits to stony coral tissue loss disease (SCTLD). ReefFlorida Symposium, Miami, FL
- 2022 \***Williamson O**, Dennison C, Hardy K, Williams E, O'Neil K, Baker A (2022) Pandemic parenting: Breeding for disease resistance in *Diploria labyrinthiformis*. Reef Futures Symposium, Key Largo, FL
- \***Williamson O**, Allen C, Williams D, Johnson M, Miller M, Baker A (2022) Starting them young: Manipulating algal symbiont communities in Caribbean coral recruits. International Coral Reef Symposium, Bremen, Germany.
- \***Williamson, O** (2022) Testing strategies to enhance climate resilience in sexually-propagated Caribbean corals. Ph.D. dissertation defense, University of Miami.
- 2021-22 #**Williamson O**, Hardy K (2021, 2022) Introduction to Coral Spawning. Southeast Florida Coral Reef Restoration Hub Coral Reproduction Workshop, Miami, FL
- 2020 \*Baker A, Lirman D, **Williamson O**, Hesley, D (2020) Climate Café Series: Building Climate Resilience for Florida's Coral Reefs and Coastlines. Online webinar.
- 2019 \***Williamson O**, Conn T, Buzzoni D (2019) Introduction of thermotolerant symbionts into restored corals using tissue implants as vectors: A field study. Protect Our Reefs Grants Committee Meeting, Summerland Key, FL
- 2018 \***Williamson O** (2018) Temperature and local symbiont availability influence symbiont identity and abundance in Caribbean coral recruits. Reef Futures Symposium, Key Largo, FL
- 2017 §**Williamson O** (2017) Ocean acidification alters growth rate and H<sub>2</sub>O<sub>2</sub> production in harmful algal bloom species *Heterosigma akashiwo*. Columbia University Undergraduate Research Symposium, New York, NY
- 2016 \***Williamson, O**, Maldonado, A (2016) A foundational assessment of coral health and disease in Bocas del Toro, Panamá. Research presentation to community stakeholders and government officials, Bocas del Toro, Panamá

#### AWARDS, HONORS, & FELLOWSHIPS

- 2023 F. G. Walton Smith Prize for Outstanding Ph.D. Dissertation, University of Miami
- 2022 Florida statewide Three Minute Thesis Competition People's Choice Award  
University of Miami Three Minute Thesis Competition winner
- 2021 SpringerNature *Coral Reefs* 2021 Best Paper Award
- 2019 NSF Graduate Research Fellowship (honorable mention)
- 2017 Cooperative Institute for Marine and Atmospheric Studies Ph.D. Fellowship  
Grace Potter Rice Fellowship  
Henry Sharp Prize  
NSF Graduate Research Fellowship (honorable mention)

2016 Phi Beta Kappa  
2014-17 Athena Leadership Scholar (women's leadership program)  
Barnard College and Columbia University Dean's Lists, all undergraduate semesters

### PROFESSIONAL EXPERIENCE

2023+ **Assistant Scientist**, Coral Reef Futures Lab, University of Miami. Manage all assisted evolution activities for DARPA-funded "X-REEFS" project, coordinate across project collaborators to achieve collective project objectives, publish research findings, secure project funding, and lead public engagement efforts.  
**Member, Planning Committee**, ReeFlorida Symposium, Miami, FL

2022+ **Outreach Coordinator**, X-REEFS Project  
**Committee Member**, PhD committee, University of Miami

2019+ **Scholarly Reviewer**, *Frontiers in Marine Science*, *Cryobiology*, *Restoration Ecology*, *Coral Reefs*, *Journal of Visualized Experiments*

2018+ **Team Member**, Rescue a Reef Program, University of Miami. Lead citizen science expeditions, train members of the public to participate in coral restoration efforts.

2017+ **Outreach Coordinator**, Coral Reef Futures Lab, University of Miami

2022 **Senior Research Associate**, Coral Reef Futures Lab, University of Miami. Test novel strategies to increase resilience and genetic diversity in threatened Caribbean corals. Manage coral reproduction and larval rearing activities for DARPA-funded "X-REEFS" project, author publications and grant reports, and conduct outreach.

2021-22 **Participant**, Student Workshop on International Coastal and Marine Management in the Gulf of Mexico. Worked with early career scientists from the US, Mexico, and Cuba to create reef report card for Alacranes Reef in the Gulf of Mexico.

2019 **Visiting Researcher**, Smithsonian Conservation Biology Institute, Hawai'i Institute of Marine Biology, Kane'ohe, HI. Assisted in developing and optimizing methods for cryopreservation of coral sperm for genetic banking and conservation efforts.

2018-19 **Team Member**, Shark Research and Conservation Program, University of Miami. Facilitated citizen science expeditions to tag sharks off the coast of Miami.

2016-17 **Research Assistant**, Lamont-Doherty Earth Observatory. Conducted research on the effects of climate change on harmful algal blooms.

2016 **Student Researcher**, School for Field Studies, Bocas del Toro, Panamá. Conducted region-wide survey of stony coral health and disease, and presented research findings to local stakeholders in English and Spanish.

2015-16 **Laboratory Assistant**, Barnard College

### SCIENCE COMMUNICATION, EDUCATION, & OUTREACH (select)

2018+ Speaker/facilitator at annual Women in Science Day, University of Miami

2023 Interview with Jeff Berardelli for "Climate Classroom" podcast, WFLA  
Interview with Fredricka Whitfield, CNN News  
Producer, "How Do Corals Reproduce?" video, Waterlust  
Producer, "What are Corals? A Deep Dive Into Coral Biology" video, Waterlust  
Guest blog, "6 Ways Coral Reefs are Impacting Your Daily Life", Waterlust.com

2022 Featured researcher on 60 Minutes with Anderson Cooper, CBS News  
Interview with Kerry Sanders, NBC Nightly News with Lester Holt  
Featured researcher on "Coral Love Story" with Ali Van Fleet, The Weather Channel  
Speaker at World Oceans Day, Frost Science Museum  
Interview with Kevin Ozebek, 7 News Miami

2021 Interview on Newsy Tonight Focus with Lauren Magarino  
Producer, "Seas by Degrees" educational video series, University of Miami  
Interview on "Water Women" podcast  
Co-creator of Rescue a Reef virtual reality experience

2020-21 Guest speaker, League of Women Voters, Broward County  
2020 Guest lecturer, UNC Chapel Hill, Extinction seminar course  
2020 Field Producer, *A WILD Connection* series  
2019-20 Speaker, Climate Café series, University of Miami  
2019-20 Guest lecturer, University of Miami, Reef Coral Biology, Ecology, and Conservation  
2016 Guest blogs, PassioInventa (science communication website)  
2016 Organizer, "Her Hudson" girls' environmental education symposium  
2015-16 Assistant Philanthropy Chair, Sigma Delta Tau, Columbia University

### TEACHING EXPERIENCE

2021 University of Miami, Invertebrate Zoology (undergraduate level)  
2019 University of Miami, Reef Coral Biology, Ecology, and Conservation (graduate level)  
2017 Barnard College, Cellular and Molecular Biology lab (undergraduate level)  
2016 Barnard College, Organismal and Evolutionary Biology lab (undergraduate level)

### PROFESSIONAL DEVELOPMENT

2022 Future Leaders Climate Summit, The Aspen Institute, Miami, FL  
2021-22 Student Workshop on International Coastal and Marine Management  
in the Gulf of Mexico, Mérida, México  
2017 MEGA2017 Workshop on functional genomics and gene network analysis with  
TagSeq, Mote Marine Laboratory, Summerland Key, FL  
2014-17 Athena Women's Leadership Scholar program, Barnard College

### MENTORSHIP

2021+ Sanauz Alei, MSc at the University of Miami  
Katherine Hardy, PhD at the University of Miami  
Maren Stickley, Undergraduate at the University of Miami  
2018-20 Corinne Allen, Undergraduate at the University of Miami  
2017-18 Rebecca Gilpin, Undergraduate at the University of Miami

### RESEARCH AT SEA

2019-2020 Researcher, R/V Coral Reef II, Shedd Aquarium (Chicago, IL), Coral Reef Research  
Expedition to the Bahamas (2019) and Florida Keys (2020). Conducted research on  
Symbiodiniaceae diversity throughout the Bahamas (2019) and variability of  
*Acropora cervicornis* thermal tolerance across Florida's coral nurseries (2020).

### CERTIFICATIONS

2020+ PADI Freediver  
2018+ Motorboat Operator Certification Course (MOCC), University of Miami  
2017+ DAN Diving First Aid for Professional Divers (Health Care Provider)  
American Academy of Underwater Sciences (AAUS) Scientific Diver  
2016+ PADI Advanced Open Water Diver  
PADI Open Water Diver

### SKILLS

General: leadership, research, project management, scientific writing, community outreach  
Programs: R, Adobe (Illustrator, Premiere Pro, and Photoshop), ImageJ  
Language: proficient in Spanish (written and spoken)