

# Angela Richards Donà

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Updated August 2023

See my contact page for addresses

## EDUCATION

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- 2019 **Ph.D., Marine Biology**, University of Hawai'i at Mānoa, Honolulu, HI  
Dissertation: Investigation into the functional role of chromoproteins in the physiology and ecology of the Hawaiian stony coral *Montipora flabellata* in Kāne'ōhe Bay, O'ahu. Advisor: Cynthia Hunter
- 2012 **M.Sc., Marine and Atmospheric Science**, School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY  
Thesis: Investigation into pathological responses of two phenotypes of the scleractinian coral, *Montastraea faveolata*, to putative marine *Vibrio* pathogens. Advisor: Gordon Taylor
- 2009 **B.F.A., Fashion Design**, Parsons The New School for Design, New York, NY

## PROFESSIONAL APPOINTMENTS

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- 2021–present **Postdoctoral Researcher**, Marine Macrophyte Lab, University of Hawai'i at Mānoa, Honolulu HI. PI: Celia Smith.
- 2016–2019 **Research Assistant**, Coral Reef Ecology Lab, Hawai'i Institute of Marine Biology/Kāne'ōhe, HI. PI: Ku'ulei Rodgers.
- 2014–2016 **Research Assistant**, Water Resources Research Center, University of Hawai'i at Mānoa/Honolulu, HI. PI: Cynthia Hunter.

## PUBLICATIONS

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### Refereed Journal Articles and Conference Proceedings

10. Richards Donà A, Smith CM, Bremer LL (2023) Divergent responses of native and invasive macroalgae to submarine groundwater discharge. *Scientific Reports*. DOI: <https://doi.org/10.1038/s41598-023-40854-7>.
9. Okuhata BK, Delevaux JMS, Richards Donà A, Smith CM, Gibson VL, Dulai H, El-Kadi AI, Stamoulis K, Burnett KM, Wada CA, Bremer LL (2023) Effects of multiple drivers of environmental change on native and invasive macroalgae in nearshore groundwater dependent ecosystems. *Water Resources Research*. DOI: <https://doi.org/10.1029/2023WR034593>.

8. Gibson VL, **Richards Donà A**, Smith CM (2023) Measuring tissue water potential in marine macroalgae via an updated Chardakov method. *AoB Plants*. 15:1–9. DOI: <https://doi.org/10.1093/aobpla/plad055>.
7. **Richards Donà A**, Evertsen J, Johnsen G (2022) The role of parapodia and lack of photoacclimation in kleptoplasts of the sacoglossan sea slug *Plakobranthus ocellatus*. *Coral Reefs*. DOI: <https://doi.org/10.1007/s00338-022-02224>.
6. Rodgers KS, **Richards Donà A**, Stender Y, Tsang AO, Han JH, Weible R, Prouty N, Storlazzi C, Graham AT (2021) Rebounds, regresses, and recovery: A 15-year study of the coral reef community at Pila‘a, Kaua‘i after decades of natural and anthropogenic stress events. *Marine Pollution Bulletin*. DOI: <https://doi.org/10.1016/j.marpolbul.2021.112306>.
5. Apprill A, Holm H, Santoro A, Becker CC, Neave M, Hughen K, **Richards Donà A**, Aeby G, Work T, Weber L, McNally S (2021) Microbial ecology of coral-dominated reefs in the Federated States of Micronesia. *Aquatic Microbial Ecology*. 86:115-136. DOI: <https://doi.org/10.3354/ame01961>.
4. Bahr KD, Severino SJL, Tsang AO, Han JJ, **Richards Donà A**, Stender YO, Weible RM, Graham A, McGowan AE, Rodgers KS (2020) The Hawaiian Ko‘a Card: coral health and bleaching assessment color reference card for Hawaiian corals. *SN Applied Sciences*. 2:1706 <https://doi.org/10.1007/s42452-020-03487-3>.
3. Rodgers KS, Bahr KD, Jokiel PL, **Richards Donà A** (2017) Patterns of bleaching and mortality following widespread warming events in 2014 and 2015 at the Hanauma Bay Nature Preserve, Hawai‘i. *PeerJ*. DOI:10.7717/peerj.3355.
2. Rodgers KS, Lorange K, **Richards Donà A**, Stender Y, Lager C, Jokiel PL (2017) Effectiveness of coral relocation as a mitigation strategy in Kāne‘ohe Bay, Hawai‘i. *PeerJ*. DOI:10.7717/peerj.3346.
1. **Richards Donà A**, Cervino JM, Goreau TJ, Bartels E, Hughen K, Smith GW, Donà A (2008) Coral Yellow Band Disease; current status in the Caribbean and links to new Indo-Pacific outbreaks. *Proceedings of the International Coral Reef Symposium*. 1:239-243.

### Other Publications

Reports prepared for State of Hawai‘i Department of Land and Natural Resources, Division of Aquatic Resources

Rodgers KS, Stender Y, **Richards Donà A**, Tsang A, Han JH, Graham A, Stamoulis K, Delevaux J. 2019. 2018 Long-term monitoring and assessment of the Hā‘ena,

Kaua'i Community Based Subsistence Fishing Area. Prepared for Department of Land and Natural Resources, Division of Aquatic Resources.

Rodgers KS, Stender Y, **Richards Donà A**, Tsang A, Han JH, Graham A. 2019. 2018 Recovery assessment and long-term monitoring of reef coral communities at Pila'a Reef, Kaua'i. Prepared for Department of Land and Natural Resources, Division of Aquatic Resources.

Rodgers KS, Bahr K, Stender Y, Stender K, **Richards Donà A**, Tsang A, Han JH, Prouty N. 2018. 2017 Recovery assessment and long-term monitoring of reef coral communities at Pila'a reef, Kaua'i.

Rodgers KS, Stender Y, **Richards Donà A**, Tsang A, Han JH. 2018. 2017 Long-term monitoring and assessment of the Hā'ena, Kaua'i Community Based Subsistence Fishing Area.

Rodgers KS, Bahr KD, Stender YO, Stender K, **Richards Donà A**, Weible R, Tsang A, Han JJ, McGowan AE. 2017. 2016 Recovery assessment and long-term monitoring of reef coral communities at Pila'a Reef, Kaua'i.

Rodgers KS, Bahr KD, Stender YO, Stender K, **Richards Donà A**, Weible R, Tsang A, Han JJ, McGowan AE. 2017. 2016 Long-term monitoring and assessment of Hanalei Bay, Kaua'i.

Rodgers KS, Bahr KD, Stender YO, Stender K, **Richards Donà A**, Weible R, Tsang A, Han JJ, McGowan AE. 2017. 2016 Long-term monitoring and assessment of the Hā'ena, Kaua'i Community Based Subsistence Fishing Area.

### **In Preparation**

**Richards Donà A**, Smith CM, Okuhata BK, Bremer LL. Assessing native and invasive macroalgal responses to wastewater nutrient increases.

**Richards Donà A**, Hunter C, Peters EC. Trading mucus for photoprotection; Evidence of a risky biological trade-off in an endemic Hawaiian coral.

### **GRANTS & AWARDS**

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2018 **Colonel Willys E. Lord, DVM and Sandina L. Lord Endowed Scholarship**  
Hawai'i Institute of Marine Biology. Dissertation research grant [\$1000]

2018 **Graduate Student Organization**  
University of Hawai'i at Mānoa. Dissertation research grant [\$640]

2017 **Colonel Willys E. Lord, DVM and Sandina L. Lord Endowed Scholarship**  
Hawai'i Institute of Marine Biology. Dissertation research grant [\$1000]

2015 **Marine Biology Graduate Program**  
University of Hawai'i at Mānoa. Dissertation research grant [\$2000]

## PRESENTATIONS

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### Invited

- 2023 Coral Reefs, Limu, and Climate Change. Hawaii Pacific University. November 30.
- 2023 Climate Change, Macroalgae, and the Fate of Groundwater Dependent Ecosystems in Kona. Group presentation. Pacific Regional Invasive Species and Climate Change Network. July 26.
- 2022 Growth and photosynthesis strategies in two co-occurring macroalgae: natives vs. invasives in a changing climate (poster). National Academy of Sciences, Kavli Frontiers of Science Symposium, Yogyakarta, Indonesia. August 1–5.
- 2020 A Day in the Light: Understanding a coral's daily use of solar energy. Hanauma Talks – Hawai'i Sea Grant/Hanauma Bay Education Program, City & County of Honolulu. January 30.

### Conferences and Symposia

- 2022 Lack of kleptoplast photoacclimation and the role of parapodia in the sacoglossan sea slug *Plakobranthus ocellatus*. 15<sup>th</sup> International Coral Reef Symposium, Bremen, Germany. July 3–8.
- 2021 Trading mucus for photoprotection; Evidence of a risky biological trade-off in an endemic Hawaiian coral. 14<sup>th</sup> International Coral Reef Symposium, Virtual. July 19–23.
- 2014 Damaging interactions between the coral holobiont and putative bacterial pathogens. Undetectable Until It Is Too Late. 2014 Ocean Sciences Meeting. February 24–28.
- 2012 Is That Coral Really Healthy? What Histology Can Tell Us About Corals That Lack Outward Signs of Stress. 37<sup>th</sup> Eastern Fish Health Workshop. April 20–23.
- 2008 Coral Yellow Band Disease; current status in the Caribbean and links to new Indo-Pacific outbreaks. 11<sup>th</sup> International Coral Reef Symposium.

### Departmental Presentations

- 2022 Linking Climate, Forests, and Limu: Examining the influence of environmental change on groundwater dependent ecosystems in Keauhou. Group presentation. Water Resources Research Center Seminar. December 2.
- 2014 Damaging interactions between the coral holobiont and putative bacterial pathogens. Undetectable Until It Is Too Late. 39<sup>th</sup> Annual Albert L. Tester Symposium. University of Hawai'i at Mānoa. March 10–14.

2014 Pathological Responses of the Caribbean Coral *Montastraea faveolata* to Putative Marine *Vibrio* Pathogens. Hawai'i Inst. of Marine Biology. March 19.

### Invited Class Lectures

Light and Photobiology of Corals. Corals and Coral Reefs Course. University of Hawai'i at Mānoa. Spring semester, annually, 2016–2023.

Diseases on Coral Reefs. Corals and Coral Reefs Course. University of Hawai'i at Mānoa. Spring semester 2013, 2014, 2015.

Coral Reef Organisms. Pacific Center for Environmental Studies, Windward Community College/Hawai'i Inst. of Marine Biology. Summer 2013.

## TEACHING EXPERIENCE

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### University of Hawai'i at Mānoa

**Biology and Society Laboratory:** 1 credit, undergraduate biology course for non-majors. Fall 2013, 25 students.

**Introduction to Biology II Laboratory:** 1 credit, undergraduate biology majors. Spring 2013, 18 students.

## STUDENT MENTORING

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Erika Cabell (PhD)	Experimental design, photosynthesis, reflectance, and irradiance data collection, data management and R scripts for statistical analysis.
Han Ji Hoon (PhD)	
Solimar Carrasquillo (MS)	

Beatrice Pujol (BS, May 2023) Honors research project committee member.

## SERVICE TO PROFESSION/UNIVERSITY SERVICE

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2022	<b>Peer reviewer</b> , Marine Biology
2020	<b>Peer reviewer</b> , Federation of European Biochemical Societies (FEBS) Open Bio
2015–2016	<b>President</b> , Graduate Women in Science, Alpha Lambda Omega Chapter
2014–2016	<b>Graduate Student Representative</b> , University of Hawai'i at Mānoa Graduate Student Organization
2013–2015	<b>Treasurer</b> , Graduate Women in Science, Alpha Lambda Omega Chapter

## OTHER TRAINING

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### Specialty and Advanced Courses

2023 **Participant**, Enabling Technology for Marine Ecological and Marine Sciences Studies, Norwegian University of Science and Technology, Trondheim,

- Norway. October 20–30. Training in underwater hyperspectral imaging via instrument carrying underwater robots.
- 2014 **Participant**, Light and Photosynthesis on Coral Reefs. Universidad Nacional Autónoma de México, Puerto Morelos, Mexico. Jan 18–Feb 9.
- 2010 **Participant**, Coral Tissue Slide Reading Workshop. George Mason University. Taught at Mote Marine Laboratory, Summerland Key, FL. May 24–30.
- 2008 **Participant**, Diseases of Coral and Other Reef Organisms. George Mason University. Taught at Mote Marine Laboratory, Summerland Key, FL.
- 2007 **Certificate earned**, Conservation Biology. Center for Environmental Research and Conservation, Columbia University, New York, NY

## FIELD EXPERIENCE

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- 2019 **West Hawai'i** Island Reef Resilience, The Nature Conservancy. Conducted benthic surveys including Structure from Motion (SfM) on SCUBA
- 2016–2019 **Kaua'i**, Longer-term Monitoring and Assessment of the Hā'ena Community Based Subsistence Fishing Area. Benthic coral reef surveys on SCUBA and snorkel along north shore of island of Kaua'i.
- 2015–2019 **O'ahu and Kaua'i**, Coral Reef Assessment and Monitoring Project (CRAMP). Permanent site maintenance, photo surveys on SCUBA.
- 2012 **Micronesia (Yap, Pohnpei, Kapingamarangi, Nakuoro, Olimarao, Woleai, Kosrae)**, Reef Health from Coral Archives Cruise, Woods Hole Oceanographic Institution. Benthic coral surveys.

## PROFESSIONAL AFFILIATIONS

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- 2022–present **Fellow**, National Academy of Sciences, Kavli Frontiers of Science
- 2008–present **Member**, International Coral Reef Society
- 2014–present **Member**, Association for the Sciences of Limnology and Oceanography
- 2021–present **Member**, Phycological Society of America

## SKILLS

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- Languages English (native), Italian (fluent)
- Software R, RStudio, JMP by SAS, CoralNet, ImageJ, Adobe: Photoshop, Illustrator, Dreamweaver, InDesign
- Laboratory Histological slide preparation and reading, light microscopy, pulse-amplitude-modulated (PAM) fluorometry, Spectroscopy, Confocal laser scanning microscopy, microbiological processes
- SCUBA AAUS Scientific Diver, Nitrox certified, 700+ logged dives

Boating      Licensed State of Hawai'i, small vessel operator