

## Maggie D. Johnson, Ph.D.

Smithsonian Marine Station  
701 Seaway Drive, Fort Pierce, FL 34949  
johnsonmd4@si.edu | (207) 542-6909 | maggiedjohnson.com

### EDUCATION

- 2016 Ph.D. Marine Biology, Scripps Institution of Oceanography, UC San Diego  
Dissertation: *Ecophysiology of coral reef primary producers: Response to natural and anthropogenic environmental change.*  
Advisor: Jennifer Smith
- 2011 M.S. Biology, California State University, Northridge  
Advisor: Robert Carpenter
- 2007 Professional M.S. Marine Biology, Three Seas Program  
Northeastern University, Boston, Massachusetts
- 2005 B.A. Biology, Colby College  
Waterville, Maine

### PROFESSIONAL APPOINTMENTS

- 2017-present Postdoctoral Fellow  
Marine Global Earth Observatories (MarineGEO), Smithsonian Marine Station  
Supervisors: Andrew Altieri, Nancy Knowlton and Valerie Paul
- 2016-2017 Postdoctoral Fellow  
Smithsonian Tropical Research Institute, Bocas del Toro, Panamá  
Supervisor: Andrew Altieri, Nancy Knowlton and Valerie Paul
- 2016 Postdoctoral Researcher, University of Hawaii (JIMAR) & NOAA  
(declined for Smithsonian MarineGEO Fellowship)

### PUBLICATIONS

#### Submitted

15. Fox MD, AL Carter, CB Edwards, Y Takeshita, **MD Johnson**, V Petrovick, CG Amir, S Sandin, JE Smith. Limited coral mortality following acute thermal stress and widespread bleaching on Palmyra Atoll, central Pacific. *Coral Reefs*.
14. Fox MD, GJ Williams, **MD Johnson**, VZ Radice, BJ Zgliczynski, ELA Kelly, F Rohwer, SA Sandin, JE Smith. (in revision) Gradients in primary production predict trophic strategies of mixotrophic corals across spatial scales. *Current Biology*.
13. Calhoun S, AF Haas, Y Takeshita, **MD Johnson**, MD Fox, ELA Kelly, B Mueller, M Vermeij, LWegley Kelly, CE Nelson, NN Price, T Roach, FL Rohwer, JE Smith (in revision) Night-time spikes in dissolved oxygen across coral reef environments: Biological or not? *PeerJ Preprints* 5, e2935v1.
12. Carter AL, CB Edwards, Y Eynaud, MD Fox, C Amir, **MD Johnson**, LS Lewis, SA Sandin, JE Smith (in review) Long-term monitoring reveals local-scale variability in the spatial and temporal dynamics of the corallimorph, *Rhodactis howesii*, at Palmyra Atoll. *Coral Reefs*.
11. Wegley Kelly, AF Haas, CE Nelson, D Naliboff, S Calhoun, CA Carlson, RA Edwards, MD

Fox, M Hatay, **MD Johnson**, YW Lim, S Macherla, ZA Quinlan, S Genivaldo, MJA Vermeij, SA Sandin, JE Smith, F Rohwer (in review) Largescale population and metabolic shifts in day-night microbial communities on coral reefs. *Nature Communications*.

### Peer-reviewed

10. **Johnson MD**, RC Carpenter (2018) Nitrogen enrichment offsets the direct negative effects of ocean acidification on a reef-building crustose coralline alga. *Biology Letters*. DOI 10.1098/rsbl.2018.0371.  
\*Article featured on the issue cover.
9. **Johnson MD**, LM Rodriguez, AH Altieri (2018) Hypoxia and mass mortality on a Caribbean coral reef. *Bulletin of Marine Science*. DOI 10.5343/bms.2017.1163.
8. **Johnson MD**, S Comeau, C Lantz, JE Smith (2017) Complex and interactive effects of ocean acidification and temperature on epilithic and endolithic coral reef turf algal assemblages. *Coral Reefs*. DOI 10.1007/s00338-017-1597-2.
7. Edmunds PJ, S Comeau, C Lantz, A Andersson, C Briggs, A Cohen, J-P. Gattuso, J Grady, K Gross, **MD Johnson**, E Muller, J Ries, S Tambutté, E Tambutté, A Venn, RC Carpenter (2016) Integrating the effects of ocean acidification across functional scales on tropical coral reefs. *BioScience*, biw023.
6. Kram SL, NN Price, EM Donham, **MD Johnson**, ELA Kelly, SL Hamilton, JE Smith (2015) Variable responses of temperate fleshy and calcified macroalgae to ocean acidification. *ICES Journal of Marine Science: Journal du Conseil*, fsv168.
5. Vargas-Angel B, C Richards, PS Vroom, NN Price, T Schils, CW Young, JE Smith, **MD Johnson**, RE Brainard (2015) Baseline assessment of net calcium carbonate accretion rates on U.S. pacific reefs. *PLOS ONE* 10(12): e0142196.
4. **Johnson MD**, NN Price, JE Smith (2014) Contrasting effects of ocean acidification on tropical fleshy and calcareous algae. *PeerJ* 2:e411. DOI 10.7717/peerj.411.  
\*Selected as one of the ten top articles representing the most noteworthy coral research in *PeerJ*
3. **Johnson MD**, VW Moriarty, RC Carpenter (2014) Acclimatization of the crustose coralline alga *Porolithon onkodes* to variable pCO<sub>2</sub>. *PloS One* 9(2): e87678.
2. Williams GJ, NN Price, B Ushijima, GS Aeby, S Callahan, SK Davy, JM Gove, **MD Johnson**, IS Knapp, A Shore-Maggio, JE Smith, P Videau, TM Work (2014) Ocean warming and acidification have complex interactive effects on the dynamics of a marine fungal disease. *Proceedings of the Royal Society B: Biological Sciences* 281(1778): 20133069.
1. **Johnson MD**, RC Carpenter (2012) Ocean acidification and warming decrease calcification in the crustose coralline alga *Hydrolithon onkodes* and increase susceptibility to grazing. *Journal of Experimental Marine Biology and Ecology* 434: 94-101.

### Advanced prep

**Johnson MD**, MD Fox, ELA Kelly, SA Sandin, F Rohwer, B Zgliczynski, JE Smith. Photophysiology of coral reef primary producers across a gradient of inorganic nutrient availability. To be submitted to *Limnology and Oceanography* in September 2018.

**Johnson MD**, LM Rodriguez, AH Altieri. Acclimation of crustose coralline algae to ocean acidification in a variable pH environment. To be submitted to *Global Change Biology* in October 2018.

## ACADEMIC HONORS, AWARDS & GRANTS

### Major [Awarded \$411,940]

<i>Recommended for funding</i>	NOAA Coastal Hypoxia Research Program: Impacts of hypoxia on corals of Florida [\$698,798] (Altieri, Johnson, Paul: \$292,159 to Johnson)
Pending	Smithsonian Women's Committee Research Grant: Finding shelter from the storm: Identifying coral reef refuges from ocean acidification. [\$11,033] (Lead PI)
2018-Awarded	European Commission Marie Skłodowska-Curie Individual Fellowship: The influence of natural pH variability on ecosystem response to ocean acidification [\$225,140 USD] (Lead PI)
2017-2019	Smithsonian Institution Marine Global Earth Observatories Postdoctoral Fellowship: The life and breath of calcifying ecosystems: Using the Tenenbaum Marine Observatory Network to monitor the effects of global change on biodiversity and ecosystem function. [\$118,150] (Lead PI)
2016-2017	Smithsonian Tropical Research Institute Postdoctoral Fellowship: The life and breath of calcifying ecosystems. [\$68,650] (Lead PI)

### Minor [Awarded \$75,170]

2017	University of North Carolina Wilmington, Workshop Travel Grant	[\$900]
	Smithsonian Tropical Research Institute Research Grant	[\$650]
	Smithsonian Tropical Research Institute Research Grant	[\$5,000]
2015	P.E.O. Scholar Award ( <i>declined for early Ph.D. completion</i> )	[\$15,000]
	ARCS Foundation, San Diego Chapter	[\$7,500]
2014	ARCS Foundation (Achievement Rewards for College Scientists)	[\$7,500]
	Edna Bailey Sussman Foundation	[\$6,370]
	Scripps Institution of Oceanography, Graduate Student Travel Award	[\$2,000]
2013	Scripps Institution of Oceanography, Graduate Student Travel Award	[\$1,000]
2012	International Women in Fishing Association Scholarship	[\$1,000]
2011	Outstanding Graduate Research Award in Biology, CSU Northridge	[\$1,000]
2010	Phi Kappa Phi Honor Society, CSU Northridge	
	Best Student Presentation, CSU Northridge Student Symposium	
	Sally Casanova California Pre-Doctoral Internship Award	[\$12,000]
	International Women in Fishing Association Scholarship	[\$1,000]
	Associated Retired Faculty Scholarship, CSU Northridge	[\$750]
	Northridge Achievement Award, CSU Northridge	[\$1,000]
2009	Sally Casanova California Pre-Doctoral Scholarship	[\$3,500]
	Northridge Achievement Award, CSU Northridge	[\$1,000]
	Grad Promise Scholarship, CSU Northridge	[\$5,000]
	Graduate Equity Fellowship, CSU Northridge	[\$1,000]

2008	Graduate Equity Fellowship, CSU Northridge	[\$1,000]
	Graduate Thesis Support Scholarship, CSU Northridge	[\$1,000]

### FIELD EXPERIENCE

#### Principal Investigator or Chief Scientist

2018	Carrie Bow Cay, Belize, Smithsonian Marine Station
2018	Indian River Lagoon, Florida, Smithsonian Marine Station
2018	Bocas del Toro, Panamá, Smithsonian Tropical Research Institute
2017	Carrie Bow Cay, Belize, Smithsonian Marine Station
2016-17	Bocas del Toro, Panamá, Smithsonian Tropical Research Institute (1 continuous year)
2015	Moorea, French Polynesia, Gump S Pacific Research Station w/ SIO & CSU Northridge
2013-15	Palmyra Atoll, Northern Line Islands (3 expeditions w/ SIO)
2010/14	Oahu, Hawaii Institute of Marine Biology (2 expeditions, CSU Northridge & SIO)

#### Research Assistantships

2018	Coiba, Panamá, Smithsonian Tropical Research Institute (Collaborators: Matthieu Leray, Jarrod Scott, Holly Sweat, Owen McMillan, Andrew Altieri)
2018	Bonaire, Bahamas, Florida Keys (Collaborators: Justin Campbell, Valerie Paul)
2018	Florida Keys (Collaborators: Jennifer Sneed, Valerie Paul)
2017	Coiba, Panamá, Smithsonian Tropical Research Institute (Collaborators: Matthieu Leray, Jarrod Scott, Holly Sweat, Owen McMillan, Andrew Altieri)
2017	Gulf of Maine, <i>R/V Alca I</i> , Smithsonian Institution (PI: Walter Adey)
2017	Florida Keys (Collaborators: Justin Campbell, Jennifer Sneed, Valerie Paul)
2011-13	Palmyra Atoll, Northern Line Islands (4 expeditions w/ SIO, Supervisor: Jennifer Smith)
2014	Curacao, Netherland Antilles, Carmabi w/ SIO (Supervisor: Jennifer Smith)
2013	Southern Line Islands, Kiribati, <i>M/Y Hanse Explorer</i> w/ SIO (Supervisor: Jennifer Smith)
2008-11	Moorea, French Polynesia, Moorea Coral Reef Long-term Ecological Research program (5 expeditions w/ CSU Northridge, Supervisor: Robert Carpenter)
2008	Gulf of Maine, Bigelow Laboratory for Ocean Sciences (Supervisor: Richard Wahle)
	Baja California, Mexico w/ University of Texas, Austin (Supervisor: Laura Gonzalez)
2007	American Samoa w/ University of Hawaii, Manoa (Supervisor: Cheryl Squair)
2006	Gulf of Maine, Darling Marine Center w/ Northeastern (Supervisor: Geoffrey Trussell)

### TEACHING EXPERIENCE

#### Faculty

2017	Visiting Faculty, <i>Coral Reef Ecology</i> , Northeastern University, Three Seas Program
2016	Adjunct Faculty, <i>General Biology</i> (BIO107) San Diego Mesa Community College
2016	Adjunct Faculty, <i>General Biology</i> (BIO107) San Diego City Community College

2013 Instructor, *Marine Plants of the Red Sea*, KAUST Saudi Arabia

### **Lectures & Teaching Assistantships**

- 2017 Invited Lecturer, *Phycology*, Scripps Institution of Oceanography (SIO)  
Invited Lecturer, *Coral Reef Ecology*, Northeastern University, Three Seas Program
- 2016 Invited Lecturer, *Coral Reef Ecology*, Northeastern University, Three Seas Program  
Invited Lecturer, *Marine Invertebrates*, UC San Diego Academic Connections  
Invited Lecturer, *Ocean Acidification*, UC San Diego Academic Connections  
Teaching Assistant, *Natural History Under the Tides*, SIO
- 2015 Teaching Assistant, *Marine Biodiversity, Conservation & Global Change*, SIO
- 2014 Invited Lecturer, *Phycology*, SIO
- 2013 Instructor, *Marine Plants of the Red Sea*, King Abdullah University of Science and Technology, Saudi Arabia
- 2012 Invited Lecturer, *Phycology*, SIO
- 2011 Invited Lecturer, *Phycology*, SIO
- 2008-11 Laboratory Instructor (on Record), *Introduction to Biology*, CSU Northridge
- 2010 Teaching Assistant, *Phycology*, CSU Northridge  
Teaching Assistant, *Experimental Design & Analysis*, CSU Northridge
- 2009 Teaching Assistant, *Marine Biology*, CSU Northridge
- 2006 Laboratory Instructor, *Principles of Biology*, Northeastern University
- 2004 Teaching Assistant, *Cell Biology*, Colby College
- 2002 Teaching Assistant, *Woody Plants*, Colby College

## **MENTORSHIP**

### **Graduate students**

- 2015-16 Flora Drury, UCSD Master of Advanced Studies (MAS) student  
*Marine scientist, State of Maine Department of Marine Resources*
- 2015-16 Ashly Carabetta, UCSD MAS student  
*Education intern, Central Caribbean Marine Institute*
- 2013-14 Laurence Romero, UCSD MAS student
- 2012-13 Vanessa VanZerr, UCSD MAS student

### **Undergraduate & Postgraduate students**

- 2016-18 Lucia Rodriguez, STRI internship  
*Lab manager/ technician STRI Bocas del Toro (Andrew Altieri)*
- 2017 Cynthia Peña, STRI research assistant  
*STRI Bocas del Toro research staff*  
Nicholas Varley, UChicago & STRI summer internship  
Shevonne O'Connor, Mt. Holyoke summer internship

- 2014-15 Udara Abeysekera, undergraduate research volunteer & Geodactics grant mentee  
Ellen Jacobs, undergraduate research volunteer  
*M.S student, Aarhus University, Denmark*
- 2013-14 Jennifer Le, UCSD ESYS 199 undergraduate internship  
*Ph.D. candidate, Scripps Institution of Oceanography (Lisa Levin)*
- 2012-13 Diana Rodriguez, research volunteer  
*Maui Pacific Whale Foundation*
- Ernesto Quinto, UCSD ESYS199 undergraduate internship  
Alison Emanuel, UCSD ESYS199 undergraduate internship  
Andy Chau, UCSD ESYS199 undergraduate internship  
Jennifer Le, undergraduate research volunteer
- 2011-12 Jennifer Bone, UCSD ESYS199 undergraduate internship  
Carolyn Kim, UCSD ESYS199 undergraduate internship  
*Medical student, University of Auburn*
- 2009 Anya Brown, Brown University undergraduate volunteer  
*Ph.D. candidate, University of Georgia (Craig Osenberg)*

#### INVITED WORKSHOPS & COURSES

- 2017 *CISME, Coral In Situ Metabolism*, Hawaii Institute of Marine Biology, HI
- 2015 *Multivariate Statistics for Ecology*, Cornell Field Station, Bridgeport, NY
- 2014 *Gordon Research Conference, Ocean Global Change Biology*, Waterville Valley, NH  
*NSF-LTER Ocean Acidification Workshop*, USC Wrigley Institute, Catalina Island  
Synthesis published in *Bioscience* (Edmunds et al. 2016)  
*Ocean Acidification for Managers*, Honolulu, HI
- 2011 *Hopkins Marine Station PISCO Course*, Monterey, CA  
Biomechanics, Ecological Physiology, and Genomics of Marine Species

#### PRESENTATIONS

##### Public

- 2017 Pelican Cay, Dangriga, Belize “Research at Carrie Bow Cay”
- 2016 Smithsonian Tropical Research Institute public seminar, Bocas del Toro, Panamá  
La Jolla Villagers monthly meeting, La Jolla Country Club
- 2015 San Diego Coral Club, Mission Hills Wine Cellar

##### Professional

- 2018 Smithsonian Marine Station monthly seminar, Fort Pierce, FL
- 2016 Smithsonian Tropical Research Institute Fellows Symposium, Panamá City, Panamá  
International Coral Reef Symposium, Honolulu, HI (Organized session “Global change impacts on coral reef seaweeds”)

- 2015 ASLO Ocean Sciences Meeting, Honolulu, HI
- 2013 Benthic Ecology Meeting, Savannah, GA
- 2012 Western Society of Naturalists, Monterey, CA  
International Coral Reef Symposium, Cairns, Australia
- 2011 MCR LTER All Investigators Meeting, Santa Barbara, CA (Invited)  
Benthic Ecology Meeting, Mobile, AL  
ASLO, Aquatic Sciences Meeting, San Juan, Puerto Rico
- 2010 Western Society of Naturalists Meeting, San Diego, CA  
Benthic Ecology Meeting, Wilmington, NC

### CONTRIBUTED POSTERS

#### **Public**

- 2016 Scripps Institution of Oceanography Donor Brunch, San Diego, CA
- 2015 ARCS Scientist of the Year Award Ceremony, San Diego, CA
- 2014 ARCS Scientist of the Year Award Ceremony, San Diego, CA

#### **Professional**

- 2018 Gordon Research Conference, Ocean Global Change Biology, Waterville Valley, NH
- 2014 Gordon Research Conference, Ocean Global Change Biology, Waterville Valley, NH
- 2010 ASLO Ocean Sciences, Portland, OR
- 2009 Western Society of Naturalists, Monterey, CA  
Moorea Coral Reef LTER All Investigators Meeting, Santa Barbara, CA  
NSF LTER All Scientists Meeting, Estes Park, CO  
Benthic Ecology Meeting, Corpus Christi, TX
- 2008 Moorea Coral Reef LTER All Investigators Meeting, Santa Barbara, CA (2008)

### OUTREACH

- 2018 Smithsonian Marine Station 10<sup>th</sup> Annual Open House  
Smithsonian Marine station lab tours
- 2016-17 Smithsonian Tropical Research Institute, Bocas del Toro lab tours
- 2011-16 Contributor to the Coral Reef Ecology Blog: <http://coralreefecology.ucsd.edu/>  
(*example links below*)
- 2011-16 Scripps Institution of Oceanography: Donor laboratory tours; Scripps Community Outreach Program for Education (SCOPE), tour guide; Birch Aquarium outreach lecture and laboratory, “Introduction to Marine Plants”; San Diego Oceans Foundation, sustainable seafood fundraiser (2013-15); Triton Day: Welcoming prospective students
- 2014 Contributor to the Smithsonian Institution’s Ocean Portal Blog:

## MEDIA & SOCIAL MEDIA

- 2018 *Smithsonian Tropical Research Institute*: “Ocean acidification and reefs: The glue that holds the coral reef together threatened by global change”  
<https://stri.si.edu/story/ocean-acidification-and-reefs>  
*Smithsonian Tropical Research Institute* YouTube Channel: “How coral reefs will survive in an era of a rapidly acidifying ocean”  
<https://tinyurl.com/MDJohnsonVideo>  
*Tropicos, Vol. 3(1)*, Magazine of the Smithsonian Tropical Research Institute  
“Global change threatens glue that holds reef together”  
“Marine expedition launched from new Coibita station”  
<https://stri.si.edu/tropicos>  
*Smithsonian National Museum of Natural History*:  
“Significant changes uncovered in the marine ecosystem of the Gulf of Maine”  
<https://tinyurl.com/gulfofmainechange>
- 2017 *Hakai Magazine*: “Coral reefs' fleshy future”  
<https://www.hakaimagazine.com/article-short/coral-reefs-fleshy-future>  
*Smithsonian's Ocean Portal*: Facebook Live "Research on a remote island"  
<https://tinyurl.com/liveresearch>  
*Hakai Magazine*: “Hakai Caribbean adventure”  
<https://www.hakai.org/blog/life-at-hakai/hakai-caribbean-adventure>  
*MarineGEO Institutional posts*:  
Bocas: <https://tinyurl.com/MarineGEOBocas>  
Beilze: <https://tinyurl.com/MarineGEOBelize>  
Coiba: <https://tinyurl.com/Coibapostdocs>; <https://tinyurl.com/Coibabiofilmsampling>  
*Smithsonian Tropical Research Institute posts*:  
Bocas: <https://tinyurl.com/MJohnsonSTRI>  
*Scripps Institution of Oceanography News*: “Coral turfed out”  
<https://scripps.ucsd.edu/news/photo-week-coral-turfed-out>
- 2015 *Coral Reef Ecology Blog*: “These three reefs are not like each other”  
<https://tinyurl.com/theseethreereefs>
- 2014 *Scripps Institution of Oceanography News*:  
“From the field: Coralline algae, the unsung architects of coral reefs”  
<https://scripps.ucsd.edu/news/14240>  
*Smithsonian's Ocean Portal*: “Coralline algae: The unsung architects of coral reefs”  
<http://ocean.si.edu/blog/coralline-algae-unsung-architects-coral-reefs>
- 2013 *Coral Reef Ecology Blog*: “An adventure to the Arabian Peninsula”  
<https://tinyurl.com/ArabianPeninsula>  
“Communicating ocean acidification in Bodega Bay”  
<https://tinyurl.com/communicateOA>
- 2012 *Coral Reef Ecology Blog*: “A tropical oasis for global change research”  
<https://tinyurl.com/globalchangeresearch>



## PROFESSIONAL SERVICE

2014 Marine Biology Seminar Series Organizer, Scripps Institution of Oceanography  
2008-09 Marine Biology Graduate Student Association Treasurer, CSU Northridge

## Manuscript Review

Coral Reefs; Deep-Sea Research: Part I; European Journal of Phycology; Frontiers in Marine Science; Global Change Biology; Journal of Experimental Marine Biology and Ecology; Marine Biology; Marine Ecology Progress Series; Marine Pollution Bulletin; Scientific Reports; Oecologia; PLOS ONE; Proceedings of the Royal Society-B

## PROFESSIONAL MEMBERSHIPS

American Society of Limnology & Oceanography; Association of Women in Science; International Coral Reef Society; Phycological Society of America

## CERTIFICATIONS

**Scuba:** AAUS Scientific Diver (100' depth certification; ~1,000 scientific dives); CPR, First Aid & DAN Oxygen Provider; Rescue Diver

**Boating:** Hawaii & California Boating License; Motorboat Operator Training Certification (MOTC); French Captain's license; Panamá Boat Operator license (Titulo de Operador de Lancha)

## PROFESSIONAL REFERENCES

Valerie Paul, Head Scientist  
Smithsonian Marine Station at Fort Pierce  
(772) 462-0982  
paul@si.edu

Andrew Altieri, Assistant Professor  
University of Florida  
(305) 250-8840  
andrew.altieri@essie.ufl.edu

Jennifer Smith, Associate Professor  
Scripps Institution of Oceanography, UC San Diego  
(858) 246-0803  
smithj@ucsd.edu

Robert Carpenter, Professor  
California State University, Northridge  
(818) 677-3256  
robert.carpenter@csun.edu

Nancy Knowlton, Chair of Marine Science  
Smithsonian Institution  
(202) 633-0668  
knowlton@si.edu