

Amy A. Briggs - PhD Student

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Education

M.S.	California State University, Northridge	Biology	2016
B.S.	Stanford University	Biological Sciences	2008

Research Experience

2018 – Present, **Research Assistant**, University of Georgia (UGA), Athens, GA
 (Supervisor: C.W. Osenberg)

- *Duties*: Develop open-access online tutorials on meta-analysis for research professionals in ecology and natural sciences

2015 – Present, **PhD student**, University of Georgia, Athens, GA (Advisor: C.W. Osenberg)

- *Dissertation*: Interactions between toxic microalgae, seaweeds, and grazers on coral reefs: consequences for ecosystem states and ciguatera finfish poisoning

2012 – 2016 **Master's Student**, California State University, Northridge (CSUN), CA
 (Advisor: R.C. Carpenter)

- *Thesis*: The effects of temperature, light, and ocean acidification on the physiology and ecology of tropical crustose coralline algae

2010–2011, **Research Assistant**, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA (Supervisors: J.K. Baum & S.M. Walsh)

- *Research*: Changes in coral reef benthic communities with fishing pressure and oceanographic productivity at Kiritimati Atoll

2009–2010, **Research Technician**, Stanford University, CA (Supervisors: F. Micheli & R. Dirzo)

- Effects of artisanal fisheries on coral reefs in the Northern Line Islands
- Effects of the introduced coconut palm on island food web dynamics, Northern Line Islands
- *Individual research*: Morphological and trophic responses of geckos to seabird nutrient inputs and changes in habitat structure associated with the coconut palm

2008, **Research Intern**, Smithsonian Tropical Research Institute, Panama (Supervisor: L. D'Croz)

- Effects of nutrient enrichment on Caribbean and Pacific phytoplankton communities' productivity and size structure

2007–2008, **Research Assistant**, Stanford University, CA (Supervisor: R. Dirzo, H.S. Young)

- Coral reef community responses to the removal of large predatory fish (Palmyra and Tabuaeran Atolls)

- Effects of marine nutrient subsidies from seabirds on terrestrial communities, and the role of the introduced coconut palm in driving nutrient depletion at Palmyra Atoll
- *Individual research*: Effects of marine nutrient subsidies on the trophic ecology of geckos

2007, **Undergraduate Researcher**, Stanford@SEA program, Hopkins Marine Station, Monterey, CA, research cruise from Hawaii to Northern Line Islands (Supervisor: B.A. Block)

- *Individual research*: Toxic dinoflagellate densities along a gradient of human impact in the Northern Line Islands, and abundances of macroalgal hosts associated with their presence

2005, 2006, **Research Assistant**, ConocoPhillips, Bartlesville Technology Center, OK, Reservoir Mechanisms NMR/MRI lab (Supervisor: J.J. Howard)

- *Individual research*: Developing low-field nuclear magnetic resonance (NMR) as a tool for analyzing droplet size distributions in oil/water emulsions

Fellowships & Awards

2018	Odum School of Ecology Small Grant for graduate student research (UGA)	\$5,000
2017	Odum School of Ecology Small Grant for graduate student research (UGA)	\$1,500
2015-2017	Graduate Assistantship Fellowship (UGA)	tuition + stipend
2015	Travel funding for research training (CSUN)	\$500
2013	Graduate Fellowship for Outstanding Research Promise (CSUN)	\$5,000
2013	Graduate Equity Fellowship (CSUN)	\$1,000
2013	Graduate Thesis Support Grant (CSUN)	\$1,000
2010	NSF Graduate Research Fellowship Program Honorable Mention	

Publications

AA Briggs, RC Carpenter (2019) Contrasting responses of photosynthesis and photochemical efficiency to ocean acidification under different light environments in a calcifying alga. *Scientific Reports*, 9(1): 3986. doi:10.1038/s41598-019-40620-8.

Goldberg, GE, TK Raab, P De Salle, **AA Briggs**, RB Dunbar, F Millero, R Woosley, HS Young, F Micheli, DJ McCauley (2019) Chemistry of the consumption and the excretion of the bumphead parrotfish (*Bolbometopon muricatum*), a coral reef mega-consumer. *Coral Reefs*. doi:10.1007/s00338-019-01781-0.

CL Wood, JK Baum, SM Walsh, R Trebilco, S Sandin, B Zgliczynski, **AA Briggs**, F Micheli (2015) Productivity and fishing pressure drive variability in fish parasite assemblages of the Line Islands, central equatorial Pacific. *Ecology*, 96(5): 1383-1398.

AA Briggs†, HS Young†, DJ McCauley, SA Hathaway, R Dirzo, RN Fisher (2012) Effects of spatial subsidies and habitat structure on the foraging ecology and size of geckos. *PLoS ONE* 7(8): e41364. † *authors contributed equally*

HS Young, T Raab, DJ McCauley, **AA Briggs**, R Dirzo (2010) The coconut palm, *Cocos nucifera*, impacts forest composition and soil characteristics on Palmyra Atoll, Central Pacific. *Journal of Vegetation Science*. 21: 1058-1068.

In review

AA Briggs, CW Osenberg. Spatial aggregation of aquatic habitats affects oviposition patterns in *Aedes* mosquitoes.

In preparation

AA Briggs, RC Carpenter. Temperature mediates the sensitivity of a resistant population of crustose coralline algae to ocean acidification.

AA Briggs, CW Osenberg. The effects of macroalgal host species and patch biomass on ciguatoxic dinoflagellates in a Pacific coral reef.

Professional Presentations

Contributed talks

AA Briggs, CW Osenber (2018) Ciguatoxic dinoflagellates and the effects of macroalgal biomass and species composition in a Pacific coral reef. Symbiofest. Athens, GA.

AA Briggs, CW Osenberg (2017) Ciguatoxic dinoflagellate densities and the effects of algal biomass and species composition in a Pacific coral reef. Indo-Pacific Fish Conference. Tahiti, French Polynesia.

AA Briggs, RC Carpenter (2017) The influence of light on the photosynthetic response of a crustose coralline alga to ocean acidification, and consequences for other physiological processes. Symbiofest. Athens, GA.

AA Briggs, RC Carpenter (2016) The influence of light on the photosynthetic response of a crustose coralline alga to ocean acidification, and consequences for other physiological processes. International Coral Reef Symposium. Honolulu, HI.

AA Briggs, RC Carpenter (2014) The influence of light and photosynthesis on the calcification response of a tropical crustose coralline alga to ocean acidification. Western Society of Naturalists, Tacoma, WA.

AA Briggs†, H Nelson†, C Wirth† (2014) The status of women in STEM fields and reasons for disparities. Women in Science, California State University, Northridge.

† *authors contributed equally*

AA Briggs, RC Carpenter (2014) The influence of light and photosynthesis on the calcification response of a crustose coralline alga to ocean acidification. Benthic Ecology Meeting. Jacksonville, FL.

AA Briggs, RC Carpenter (2013) The influence of photosynthesis on the response of crustose coralline algae to ocean acidification. Sesoko Station, Tropical Biosphere Research Center, Okinawa Japan.

AA Briggs†, C Wirth† (2013) The current status of women in STEM, reasons for disparities, and strategies for achieving equal representation. Women in Science, California State University,

Northridge. † *authors contributed equally*

AA Briggs, HS Young, DJ McCauley, SA Hathaway, R Dirzo, RN Fisher (2012) Spatial subsidies and habitat structure: the effects of seabird guano on island geckos in the tropics. Western Society of Naturalists, Seaside, CA.

AA Briggs, HS Young, DJ McCauley, SA Hathaway, R Dirzo, RN Fisher (2012) Effects of spatial subsidies and habitat structure on the ecology of two locally dominant geckos. Ecological Society of America, Portland, OR.

Poster presentations

AA Briggs, RC Carpenter (2013) The influence of photosynthesis on the responses of crustose coralline algae to ocean acidification. Benthic Ecology Meeting, Savannah, GA.

Teaching

- Spring 2019 *Instructor*, Ecology 8030, Meta-analysis in ecology (PhD level course), UGA
- Created online learning modules; led in-class discussions, lectures, and coding activities; helped students design & conduct group meta-analysis projects
- Fall 2017 *Teaching Assistant*, Ecology 3500 Lab (for science majors), UGA
- Gave mini-lectures, led lab activities with ~ bi-weekly field trips, and provided students with feedback on research and writing projects (3 sections)
- Spring 2015 *Biology Tutor*, CSUN
- Fall 2014 *Graduate Assistant*, Phycology (upper-division undergrad & grad-level course), CSUN
- Supervised labs and field trips, assisted students with individual research projects, collected specimens and set up labs (1 section)
- Fall 2012 - *Teaching Associate*, Introductory Biology 100 Lab (for non-majors), CSUN
Spring 2014 - Created lectures and class materials (quizzes, homework, handouts, etc.), led lab activities based on established curricula (2 - 4 sections)
- Fall 2012 - *Graduate Assistant*, Introductory Biology 100 Lab (for non-majors), CSUN
Spring 2013 - Supervised and assisted students with computer lab assignments (1 section)

Science Outreach

- 2019 *Booth designer* for Lake Herrick EcoArts Festival; worked with SEEDS & EcoReach to create a booth educating visitors about lake food webs, services lakes provide to people, and threats to lake ecosystems
- 2018 *Workshop coordinator* for STEMzone science outreach event; and science communication workshops, UGA
- 2017 *Assistant logistics coordinator* at STEMzone science outreach event, UGA
- 2017 *Volunteer* at Girls Scout Super Science Day, Stone Mountain, GA
- 2016 *Volunteer* at Girls Scout Science Day, State Botanical Garden, Athens, GA
- 2014 *Field science mentor* in NSF Research Experience for Teachers (RET) program,

- Gump Field Station, Moorea, French Polynesia
- 2013 *Guest speaker* for environmental science class at The Art Institute of California-Los Angeles, Los Angeles, CA
- 2013 *Guest speaker* in 7th and 8th grade marine biology class and after school program, at Lawrence Middle School, in Chatsworth, CA
- 2011 *Volunteer teacher* for Kids Do Ecology (National Center for Ecological Analysis & Synthesis), in 5th grade classroom at Franklin Elementary, in Santa Barbara, CA
- 2009 *Volunteer science educator* at Tabuaeran Atoll Secondary School
- 2009 *Liaison* with local government officials and *presenter* to 7 village councils on Tabuaeran Atoll to communicate goals and findings of research team's study of local fishing practices and their environmental impacts
- 2005-2006 *Volunteer teacher* for Science and Environmental Education (Stanford University), in 3rd grade classroom in East Palo Alto, CA

Professional Service

University/department service

- 2018-2019 *Graduate Student Organization Chair*, Odum School of Ecology, UGA
 - Managed graduate student business & activities, led meetings, acted as a representative for graduate students at faculty meetings
- 2017-Present *Advisor* to SEEDS: diversity and professional development club for undergraduates interested in ecology-related careers
 - Helped club achieve national chapter recognition and organized professional development and science outreach events
- 2016-Present *Member*, Diversity Committee, Odum School of Ecology, UGA
 - Established SEEDS undergraduate diversity and professional development club at UGA, helped organize trainings & recruitment events
- 2014-2015 *Planning committee member*, Women in Science, CSUN
 - Helped plan meetings and outreach activities, created and led a website design workshop
- 2013-2014 *President*, Women in Science (WiS), CSUN
 - Led meetings; organized discussions, workshop content, and outreach activities; established WiS as a university-recognized club
- 2012-2013 *President*, Marine Biology Graduate Student Association, CSUN
 - Led meetings, organized weekly paper discussions & presentation feedback sessions, maintained club status to receive university funding
- 2012-2013 *Co-founder, web-designer*, Women in Science, CSUN
<http://csunwis.weebly.com>
- 2004-2005 *Elected representative* in Stanford University student government

Mentoring

- 2017-2018 *Mentor* for undergraduate student conducting independent research project (UGA)

CURO program)

- 2016-2017 *Co-leader* of lab meetings for undergraduate research assistants (~7) working in the Osenberg lab at UGA - organize discussions, skill development workshops, etc. to foster students' knowledge and skills for science-related careers
- 2016-2017 *Mentor* for an early-stage graduate student through UGA Women in Science program
- 2014-2015 *Mentor* at monthly undergraduate science career development workshops, Biology Department, CSUN
- 2013 *Mentor* at drop-in mentoring event for undergraduates, hosted by Women in Science and Engineering, CSUN

Peer review

- 2015-Present *Manuscript reviewer* for academic journals:
Ecology
Journal of the Marine Biological Association of the United Kingdom

Membership in Professional Societies

- International Coral Reef Society
- International Society for the Study of Harmful Algae

Skills & Certifications

- CPR, AED, First Aid, & O₂ delivery certifications
- AAUS scientific diving certification
- PADI Advanced Open-water Diving certification