

# Emma Reed

Ph.D. Student

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## EDUCATION

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### Ph.D., Geosciences

University of Arizona (advisor: Dr. Diane Thompson) 2018 – present

Boston University (advisor: Dr. Diane Thompson) 2016 – 2018

### M.S., Geosciences

University of Arizona (advisor: Dr. Julia Cole) 2014 – 2016

Thesis: *Linking Climate Variability and Coral Health through Great Barrier Reef Coral Records*

### B.A., Science of Earth Systems • English

Cornell University 2010 – 2014

Geology concentration, Science in Literature concentration, Marine Biology minor

*Magna cum laude* • Dean's List • Honors Thesis: *Invasive Rat Predation Recorded in Fossil Endemic Snails at Makauwahi Cave, Kaua'i*

## FELLOWSHIPS

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NSF Graduate Research Fellowship 2016 – 2021

Boston University Dean's Fellowship 2016

NASA/University of Arizona Space Grant Fellowship 2015 – 2016

NSF East Asia & Pacific Summer Institute Fellowship 2015

## AWARDS

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Carson Scholarship in Science Communication 2019

Australia-Americas PhD Research Internship Program 2018

Geological Society of America Student Research Grant 2017

Galileo Circle Scholarship 2016

R. Wilson Thompson Scholarship 2015

AGI Harriet Evelyn Wallace Scholarship 2015 – 2016

Paul S. Martin Scholarship Fall 2014

Einhorn Discovery Grant, *2x recipient* Spring, Fall 2013

Arts & Sciences Undergraduate Research Fund, *2x recipient* Spring, Fall 2013

Michael W. Mitchell Prize 2013

**Martijn Zwart Prijs** 2013  
**New York State Scholarship for Academic Excellence** 2010 – 2014

## RESEARCH EXPERIENCE

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**Tropical Climate & Coral Reefs Lab** Boston University; University of Arizona  
Graduate Assistant 2016 – present

**Australian Institute of Marine Science** Townsville, QLD, Australia  
Visiting Researcher 2015, 2018

**Paleoclimate Variability Lab** University of Arizona  
Graduate Assistant 2014 – 2016

**Makauwahi Cave Reserve** Kaua'i, HI  
Honors Thesis Research Summer 2013, 2014

**Paleontological Research Institution** Ithaca, NY  
Assistant to the Director of Collections 2012 – 2014

**Alaskan Glacier Research** Cornell University  
Undergraduate Research Assistant Fall 2013

## PUBLICATIONS & PRESENTATIONS

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(paper) **Reed E.V.**, Thompson D.M., Lough J.M., Cole J.E., Cantin N.E. *Improving Coral Paleoclimate Reconstructions using Paired Geochemistry and Density Records: A Case Study from the Galápagos Islands*. In preparation for submission to *Paleoceanography*.

(paper) **Reed E.V.**, Cole J.E., Lough J.M., Cantin N.E. 2018. *Linking climate variability and growth in coral skeletal records from the Great Barrier Reef*. *Coral Reefs*. DOI: <https://doi.org/10.1007/s00338-018-01755-8>

(poster) **Reed E.V.**, Thompson D.M., Cole J.E., Lough J.M., Vetter L., Snyder M., Jimenez G., Tudhope S., Larry Edwards R., Cantin N.E. 2018. *Improving coral climate reconstructions using density records: a case study from the Galápagos Islands*. AGU Annual Meeting, December 2018.

(talk) **Reed E.V.**, Thompson D.M., Cole J.E., Lough J.M., Vetter L., Snyder M., Jimenez G., Tudhope S., Larry Edwards R., Cantin N.E. 2018. *The good, the bad, and the ugly: assessing impact of skeletal density and transect quality on geochemistry in sub-fossil corals from the Galápagos Islands*. Goldschmidt, August 2018.

(poster) **Reed E.V.**, Cole J.E., Lough J.M. *Linking climate variability and coral health through Great Barrier Reef Coral Records*. Poster presented at the International Coral Reef Symposium, June 2016.

(talk) **Reed E.V.**, Cole J.E., Lough J.M. *Linking climate variability and coral health through Great Barrier Reef Coral Records*. Geodaze Symposium, University of Arizona, 2016.

(poster) **Reed E.V.**, Dietl G.P., Burney D.A., Pigott Burney L. *Invasive rat predation recorded in fossil endemic snails at Makauwahi Cave, Kaua'i*. GSA Annual Conference, 2014.

(poster) **Reed E.V.**, Dietl G.P., Burney D.A., Pigott Burney L. *Invasive rat predation recorded in fossil endemic snails at Makauwahi Cave, Kaua'i*. Island Biology, 2014.

## TEACHING EXPERIENCE

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<b>Introduction to Climate &amp; Earth System Science</b> (ES 107)	Boston University
Teaching Fellow	Spring 2017
Grader	Fall 2017

<b>Ocean Science</b> (GEOS 412A,B)	University of Arizona
Teaching Assistant	Spring 2015

<b>Life on Earth</b> (GEOS 170C)	University of Arizona
Teaching Assistant	Fall 2014

<b>Introduction to Dutch</b> (DUTCH 1210)	Cornell University/Yale University
Teaching Assistant, Pilot Distance Learning Program	Fall 2012

## OUTREACH EXPERIENCE

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<b>Earth &amp; Environment Science Communication Workshop</b>	Boston University
Lead Organizer	Spring 2018

<b>NSF Expert Witness Training Academy</b>	Mitchell Hamline School of Law, MN
Participant	Summer 2016

<b>Biosphere 2 Ocean Sciences</b>	Biosphere 2, AZ
Curriculum Developer, Teacher, and Writer	2015 – 2016

**College of Science Outreach Program**

Volunteer

University of Arizona

2014 – 2016

**Makauwahi Cave Reserve**

Volunteer

Kaua'i, HI

Summer 2013, 2014

**ReefTeach**

Volunteer

Kona, HI

Spring 2013

**Expanding Your Horizons**

Project Coordinator

Cornell University

2011, 2012

**FIELD EXPERIENCE**

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Fossil coral coring and water sampling, Marshall Islands	2018
CTD instrumentation and water sampling, Stellwagen Bank NMS (MA)	2016
Coral ecology survey and marine instrumentation, Marshall Islands	2016
ReefCheck ecology survey, Catalina Island (CA) and Boston (MA)	2016
Paleontological excavations, Makauwahi Cave, Kaua'i (HI)	2013, 2014
Biogeochemistry sampling and monitoring, Kamuela (HI)	2013
Field program in Earth and Environmental Systems, Hawai'i	2013

**ADDITIONAL SKILLS**

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- AAUS Scientific Diver, PADI/NAUI Rescue Diver, NAUI Nitrox certification
- First Aid, CPR & O<sub>2</sub> certified
- Conversational written and oral fluency in Dutch
- Python, MATLAB, R, Java, Photoshop, Illustrator