

Eric J Armstrong

PHD INTEGRATIVE BIOLOGY, UC BERKELEY

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EDUCATION

- 2018-pres **Postdoctoral Scholar**
Centre National de Séquençage, Genoscope, Évry, France
- 2018 **Postdoctoral Scholar**, University of California, Berkeley, CA
- 2012-2017 **Ph.D.**, University of California, Berkeley, CA, Integrative Biology
- 2010-2012 **Graduate Study**, Univ. of Washington, Seattle, Chemical Oceanography
- 2005-2010 **B.S., Michigan State Univ.**, East Lansing, w/high honors, Zoology
B.S., Michigan State Univ., East Lansing, w/high honors, Biochemistry

PUBLICATIONS

10. **Armstrong EJ**, Dubousquet V, Mills SC, Stillman JH. (2019) Elevated temperature, but not acidification, reduces fertilization success in the small giant clam, *Tridacna maxima*. *Marine Biology* (in press) Impact Factor 2.38
9. Wang T, Tanner RL, **Armstrong EJ**, Lindberg DR, Stillman JH. (2019) Plasticity of foot muscle and cardiac thermal limits in the limpet, *Lottia limatula*, from locations with differing habitat temperature. *Aquatic Biology* 28: 113-125
Impact Factor 2.39
8. **Armstrong EJ**, Tanner RL, Stillman JH. (2019) High heat tolerance is negatively correlated with heat tolerance plasticity in nudibranch molluscs. *Physiological and Biochemical Zoology* 92(4) Impact Factor 2.29
7. **Armstrong EJ**, Roa JN, Stillman JH, Tresguerres M. (2018) Symbiont photosynthesis in giant clams is promoted by V-type H⁺-ATPase from host cells. *Journal of Experimental Biology* 221 Impact Factor 3.32
6. Hill RW, **Armstrong EJ**, Inaba K, Morita M, Tresguerres M, Stillman JH, Roa JN, Kwan GT. (2018) Acid secretion by the boring organ of the burrowing giant clam, *Tridacna crocea*. *Biology Letters* 14. Impact Factor 3.36
5. Hill RW, **Armstrong EJ**, Florn AM, Li Chao, Walquist RW, Edward A. (2017) Abundant betaines in giant clams (Tridacnidae) and western Pacific reef corals,

- including study of coral betaine acclimatization. *Mar. Ecol. Prog. Series* 576: 27-41. Impact Factor: 2.62
4. **Armstrong EJ***, Allen TR*, Beltrand M, Dubousquet V, Stillman JH, and Mills SC. (2017). High pCO₂ and elevated temperature reduce survival and alter development in early life stages of the tropical sea hare *Stylocheilus striatus*. *Marine Biology* 164: 107 *coauthors; Impact Factor 2.38
 3. **Armstrong EJ** and JH Stillman. (2016). Construction and Characterization of Two Novel transcriptome assemblies in the congeneric porcelain crabs *Petrolisthes cinctipes* and *P. manimaculis*. *Integrative and Comparative Biology* 56(6): 1092-1102 Impact Factor 2.15
 2. Gunderson AR, **Armstrong EJ**, and Stillman JH. (2016). Multiple stressors in a changing world: the need for an improved perspective on physiological responses to the dynamic marine environment. *Annual Review of Marine Science* 8: 357-378 Impact Factor 16.38
 1. Stillman JH and **Armstrong E.** (2015). Genomics are transforming our understanding of responses to climate change. *BioScience* 65(3): 237-246 Impact Factor 4.74

AWARDS, HONORS, AND GRANTS

- **Honorable Mention**, Soc. for Integ. Biology Best Student Oral Presentation (2017)
- **Teaching Effectiveness Award** (\$500), Univ. of Cal., Berkeley (2016)
- **Outstanding Graduate Student Instructor Award**, Univ. of Cal., Berkeley (2016)
- **Honorable Mention, Excellence in Teaching Award**, Univ. of Wash., Seattle (2011)

Integrative Biol. Summer Research Award (\$1,750), UC Berkeley (2017) **Student Conference Travel Award** (\$200), Society for Experimental Biology (2017)

Graduate Division Conference Travel Grant (\$1,500), Univ. Cal., Berkeley (2017) **Research Travel Grant** (\$300), Company of Biologists (2015)

Grant-In-Aid-of-Research (\$500), Sigma Xi (2012, 2015)

Graduate Research Allocation Award (\$300), UC Berkeley (2013)

NDSEG Graduate Fellowship (~ \$143,000), Department of Defense (2012)

Vetlesen Graduate Fellowship (\$20,000), Vetlesen Foundation (2012)

Honorable Mention, NSF GRF Program in Biology (2012) Ernest F. Hollings Scholarship (\$22,500), NOAA (2008)

TEACHING

Guest Lecturer, San Francisco State University

Animal Physiology (BIOL 630: 2 lectures in 2014, 2 lectures in 2017)

Graduate Student Instructor, University of California, Berkeley

Introduction to Oceans (EPS/IB C82: Fall 2017)

Mammalian Physiology Laboratory (IB 132L: Spring 2017)

Biology and Geomorphology of Tropical Islands (IB 158LF: Fall 2015, Fall 2016)

Invertebrate Zoology (IB 103LF: Spring 2016)

Graduate Student Instructor, University of Washington, Seattle

Biological Oceanography (Ocean 535: Fall 2012)

ADVISING

Undergraduate Researcher Advisor

Terrence Wang (UC Berkeley), Carl Hendrickson (UC Berkeley)

High School Intern Advisor

Ricky Oliveras (Tamalpais High)

RESEARCH AFFILIATIONS

Centre National de Séquençage, Genoscope, Évry, France (2018-pres)

Estuary and Ocean Science Center, San Francisco State Univ., CA (2012-2017)

Woods Hole Oceanographic Institution, Woods Hole, MA (2009)

PROFESSIONAL SOCIETY MEMBERSHIPS

World Aquaculture Society (2019-pres)

Society for Experimental Biology (2017-pres)

Society for Integrative and Comparative Biology (2013-pres)

Sigma Xi (2012-pres)

ADDITIONAL TRAINING

Instructor Training Colloquium, University of California, Berkeley (2012)

SERVICE

Editor, Red Cedar Undergraduate Research Journal (ReCUR) (2009)

INVITED SEMINARS AND CONFERENCES

Scripps Institution of Oceanography Ecology Seminar Series (2019)

Title: Solar-powered acid drills: an exploration of the cellular exaptations that help giant clams conquer stone.

World Aquaculture Society Annual Meeting (2019)

Title: Acid secretion in giant clams facilitates burrowing into coral reefs.

Society for Experimental Biology Annual Meeting (2018)

Title: Acid Secretion in Giant Clams Facilitates Burrowing Into Coral Reefs.

Society for Integrative and Comparative Biology Annual Meeting (2017)

Title: Acid Secretion in Giant Clams Facilitates Burrowing Into Coral Reefs.

Rosenberg Institute for Marine Biology Seminar Series (2017)

Title: Responding to Challenges in the Anthropocene: How Regulating Protons and Protected Areas Matters for Preserving Endangered Giant Clams.

UC Berkeley Dept. of Integrative Biology Seminar Series (2017)

Title: Responding to Challenges in the Anthropocene: How Regulating Protons and Protected Areas Matters for Preserving Endangered Giant Clams.

Society for Integrative and Comparative Biology Annual Meeting (2017)

Title: Symbiont photosynthesis is strongly supported by host H⁺-ion transport in the giant clam *Tridacna maxima*.

Society for Integrative and Comparative Biology Annual Meeting (2016)

Title: Tapping the power of crustacean transcriptomes to address grand challenges in comparative biology.

CRIOBE Seminar Series (2015)

Society for Integrative and Comparative Biology Annual Meeting (2015)

Title: Exposure to lowered pH and acute thermal stress increases mortality in embryonic porcelain crabs.

Berkeley Initiative in Global Change Biology (BiGCB) Seminar Series (2014)

Annual Meeting of the American Physiological Society (2014)

Title: Exposure to lowered pH and acute thermal stress increases mortality in embryonic porcelain crabs.

Society for Integrative and Comparative Biology Annual Meeting (2014)

Title: The Effects of Increased Temperature and Decreased pH on the Shell Mineralogy of the Scaled Giant Clam (*Tridacna squamosa*).

United Kingdom Ocean Acidification Conference (2013)

Title: The Effects of Increased Temperature and Decreased pH on the Shell Mineralogy of the Scaled Giant Clam (*Tridacna squamosa*).

The Oceanography Society Ocean Sciences Conference (2012)

Title: The Influence of Phytoplankton Community Structure on Net Community Production and Air-Sea CO₂ Flux in the Subtropical and Subarctic North Pacific.

NOAA Ernest F Hollings Student Summit (2009)

Title: CyanoHAB Cell Detection: the use of Fiber-Optic Genosensors in Predicting Toxicity.

Sigma Xi Student Research Conference (2006)

Title: Adapting *Avida* as an Evolution Education Tool: Development of Model Lesson Plans.

PUBLIC OUTREACH AND MEDIA

Magazine Articles

Armstrong EJ. (2019). Anything but boring: how giant clams conquer stone. *Reef Hobbyist Magazine* Q2: p. 6-12

Public Lectures

California Academy of Sciences Teen Science Night (2017)

Title: Ocean Acidification is and how it affects our seafood.

Selected Media Coverage of Research

[“How a squishy clam conquers a rock.”](#) Science News. 194(2): p. 4, 21 Jul 2018

[“This burrowing clam is not boring.”](#) New York Times. 14 Jun 2018

[“Caustic relationship.”](#) Scripps Institution of Oceanography News. 14 Jun 2018

[“Quand les bénitiers inspirent les panneaux solaires.”](#) Tahiti Infos. 19 Nov 2015

LANGUAGES

English (native), French (good command, CEFR B1)

Programming (UNIX, R, CSS/HTML)