

EMILY JONES

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EDUCATION

- 2010-2016 Ph.D. in Ecology, San Diego State University and University of California, Davis
Joint-Doctoral Program in Ecology
Thesis: *Factors affecting the strength and sensitivity of an herbivore-induced seaweed defense*
- 2004-2007 M.S. in Biological Sciences, University of Rhode Island
Thesis: *Impacts of habitat-modifying invasive macroalgae on epiphytic algal communities*
- 2000-2004 B.S. in Evolution and Ecology, University of California, Davis

RESEARCH INTERESTS

Marine community ecology, algal-herbivore interactions, drivers of community structure, causes and consequences of biodiversity change, geographic variation, facilitation, positive interactions

PUBLICATIONS

Peer-Reviewed Articles

Long, J.D., L.D. Porturas, **E. Jones**, C.K. Kwan, and G.C. Trussell. 2013. Seaweed traits linked to wave-exposure determine predator avoidance behaviors. *Marine Ecology Progress Series* 483:143-151.

Williams, S.L., M.E.S Bracken, and **E. Jones**. 2013. Additive effects of physical stress and herbivores on intertidal seaweed diversity. *Ecology* 94:1089-1101.

Bracken, M.E.S., **E. Jones**, and S.L. Williams. 2011. Herbivores, tidal elevation, and species richness simultaneously mediate nitrate uptake by seaweed assemblages. *Ecology* 92(5):1083-1093.

Rohr, N., C.S. Thornber, and **E. Jones**. 2011. Epiphyte and herbivore interactions impact recruitment in a marine subtidal system. *Aquatic Ecology* 45:213-219.

Jones, E. and C.S. Thornber. 2010. Effects of habitat-modifying invasive macroalgae on epiphytic algal communities. *Marine Ecology Progress Series* 400:87-100.

Thornber, C.S., **E. Jones**, and J.J. Stachowicz. 2008. Differences in herbivore feeding preferences across a

vertical rocky intertidal gradient. *Marine Ecology Progress Series* 363:51-62.

Book Chapters

Thornber, C.S., **E. Jones**, and M.S. Thomsen. 2016. Epibiont-marine macrophyte assemblages. Pages 43-75 in Emil Olafsson, editor. *Marine Macrophytes as Foundation Species*. CRC Press, Boca Raton, FL.

Theses and dissertations

Jones, E. 2016. Factors affecting the strength and sensitivity of an herbivore-induced seaweed defense. Ph.D. Dissertation, San Diego State University, San Diego, CA and University of California – Davis, Davis, CA. 110 p.

Jones, E. 2007. Impacts of habitat-modifying invasive macroalgae on epiphytic algal communities. M.S. Thesis, University of Rhode Island, Kingston, RI. 54 p.

In prep, review, or revision

Jones, E. and J.D. Long. Inducible seaweed defenses depend upon herbivore community composition. In revision.

Jones, E. and J.D. Long. The relative strength of an induced seaweed defense varies with herbivore species. In review.

Jones, E. and J.D. Long. Biogeographic variation in the sensitivity of an herbivore-induced seaweed defense. In prep.

Jones, E. and J.D. Long. The seaweed *Silvetia compressa* displays both localized and systemic induced defenses, depending on herbivore species. In prep.

Jones, E. and J.D. Long. Herbivore-induced changes in palatability do not alter nutrient uptake rates of the intertidal seaweed *Silvetia compressa*. In prep.

Jones, E. and J.D. Long. Habitat choice by a marine isopod is related to the presence of a preferred epiphyte. In prep.

RESEARCH EXPERIENCE

2010-2016 **Dissertation Research**, San Diego State University and University of California, Davis
Investigated factors that affect the strength and sensitivity of an herbivore-induced seaweed defense using laboratory and field experiments. Examined the consequences of this induced defense for seaweed nutrient uptake rates.
Advised by: Jeremy Long

2010, 2012 **Research Assistant**, San Diego State University Research Foundation

Performed laboratory feeding assays in Nahant, MA and San Diego, CA to examine different types of interactions between marine intertidal herbivores and their algal foods. Assisted with long-term intertidal monitoring in Acadia National Park, ME.
PI: Jeremy Long

- 2007-2009 **Staff Research Associate I**, Bodega Marine Laboratory, University of California, Davis
Conducted laboratory and field experiments evaluating the feedbacks between algal diversity and marine ecosystem functioning. Maintained field manipulations of herbivores, nutrient levels, and shade to examine their effects on algal diversity. Measured algal nutrient uptake rates in laboratory chambers to better understand how non-random changes in algal diversity affect ecosystem functions.
PI's: Matthew Bracken and Susan Williams
- 2004-2007 **Masters Thesis Research**, University of Rhode Island
Investigated the role of habitat-forming invasive macroalgae for epiphytic algal communities by conducting monthly field surveys of epiphyte abundance, richness, and diversity on two native and two invasive host species. Examined potential mechanisms for differences in epiphyte composition through mimic experiments of secondary structure and feeding assays with the herbivorous snail *Lacuna vincta*.
Advised by: Carol Thornber
- 2004 **Research Assistant**, University of California, Davis
Assisted with nitrate and ammonium uptake trials for a project investigating the role of algal diversity on nutrient uptake. Helped with initial set-up and surveys for a study evaluating how algal biodiversity influences ecosystem functioning in upper-intertidal systems.
PI's: Jay Stachowicz and Matthew Bracken
- 2003-2004 **Undergraduate Research Project**, University of California, Davis
Examined chemical deterrents toward herbivory of high and low intertidal algae using chemical extractions and feeding preference assays.
Advised by: Jay Stachowicz and Carol Thornber
- 2003 **Stachowicz Lab Intern**, University of California, Davis
Identified and sorted invertebrate samples for a project examining how the genetic diversity of eelgrass affects species diversity.
Advised by: Jay Stachowicz and Randall Hughes
- 2003 **Marine and Coastal Field Ecology**, Bodega Marine Laboratory, Bodega Bay, CA
Conducted two different types of feeding preference assays to determine if an herbivore preference exists between low and high intertidal algae.
Advised by: Victor Chow and Carol Thornber

TEACHING EXPERIENCE

- 2013-2015 **Instructor**, Experimental Ecology, San Diego State University

Wrote curriculum and lectures, organized instructional field experiments, and developed new lab activities (Fall 2013, Spring 2015, Fall 2015).

- 2010-2013 **Teaching Assistant**, San Diego State University
Ecology and the Environment Discussion (Fall 2010, Spring 2011, Fall 2012, Spring 2013).
- 2004-2007 **Teaching Assistant**, University of Rhode Island
Lab courses taught: **Principles of Biology 1** (Fall 2004), **Principles of Biology 2** (Spring 2005/2006/2007), **Biology of Algae** (Fall 2005), **Ecology of Marine Plants** (Fall 2006).
- Spring 2004 **Undergraduate Lab Assistant**, Introductory Biology 1B, University of California, Davis
Assisted a graduate student with lab activities, provided explanations of biological concepts, and answered student questions.
- Winter 2003 **K-12 Science Teaching Intern**, University of California, Davis
Facilitated science activities for fourth grade students. Worked with a classroom teacher to cover standard curriculum and create science activities. Led experiments and class reading assignments and helped with written work.
- 2002 **Explorit Science Center**, Davis, CA
Provided science-themed birthday parties for children ages 3 to 12. Created an environment where children could learn through hands-on observations, presentations, and questions.

CONFERENCE PRESENTATIONS

- Mar. 2016 Jones, E. and J.D. Long. Localized and systemic palatability changes in the seaweed *Silvetia compressa* vary with herbivore species. Benthic Ecology Meeting, Portland, ME. (poster)
- Mar. 2015 Jones, E. and J.D. Long. The sensitivity of an inducible seaweed defense varies with biogeography. Benthic Ecology Meeting, Quebec City, Canada.
- Nov. 2014 Jones, E. and J.D. Long. Geographic variation in the sensitivity of an herbivore-induced seaweed defense. Western Society of Naturalists Meeting, Tacoma, WA. (poster - *Best Student Poster Award*)
- Nov. 2013 Jones, E. and J.D. Long. The relative strength of a seaweed induced defense varies with herbivore species. Western Society of Naturalists Meeting, Oxnard, CA.
- Mar. 2013 Jones, E. and J.D. Long. Herbivore specificity of induced defenses in the seaweed *Silvetia compressa*. Benthic Ecology Meeting, Savannah, GA.
- Nov. 2012 Jones, E. and J.D. Long. Herbivore-induced changes in palatability do not alter nutrient uptake rates of the intertidal seaweed *Silvetia compressa*. Western Society of Naturalists Meeting, Monterey, CA. (poster)

- Mar. 2012 Jones, E. and J.D. Long. A multi-species herbivore assemblage reduces palatability of the intertidal seaweed *Silvetia compressa*. Benthic Ecology Meeting, Norfolk, VA.
- Nov. 2011 Jones, E. and J.D. Long. Decreased palatability in the brown seaweed *Silvetia compressa* in response to a multi-species herbivore assemblage. Western Society of Naturalists Meeting, Vancouver, WA.
- Nov. 2010 Jones, E. and J.D. Long. Habitat choice by a marine isopod is related to the presence of a preferred epiphyte. Western Society of Naturalists Meeting, San Diego, CA.
- Nov. 2007 Jones, E., M.E.S Bracken, A. Carranza, and S.L. Williams. Realistic differences in species composition, but not diversity, determine nitrogen use by intertidal seaweed assemblages. Western Society of Naturalists Meeting, Ventura, CA.
- Apr. 2007 Jones, E. and C.S. Thornber. Impacts of habitat-modifying invasive macroalgae on epiphytic algal communities. 46th Annual Northeast Algal Symposium, Narragansett, RI.
- Mar. 2007 Jones, E. and C.S. Thornber. Positive interactions in an epiphytic algal community. Benthic Ecology Meeting, Atlanta, GA.
- Nov. 2006 Jones, E. and C.S. Thornber. Impacts of habitat-modifying invasive macroalgae on epiphyte richness and diversity. Western Society of Naturalists Meeting, Redmond, WA.
- Mar. 2006 Jones, E. and C.S. Thornber. Impacts of habitat-modifying invasive macroalgae on epibiont richness and diversity. Benthic Ecology Meeting, Quebec City, Canada.
- Mar. 2005 Jones, E., C.S. Thornber, and J.J. Stachowicz. Complexity in algal-herbivore interactions in a rocky intertidal system. Northeast Ecology and Evolution Conference, University Park, PA.
- Apr. 2004 Jones, E., C.S. Thornber, and J.J. Stachowicz. Variability in algal defense across a rocky intertidal vertical gradient. UC Davis 15th Annual Undergraduate Research Conference, Davis, CA.
- Aug. 2003 Jones, E. Herbivore preference and the intertidal gradient: a comparison of algal defense. Bodega Marine Lab Summer Research Symposium, Bodega Bay, CA.

INVITED PRESENTATIONS

- Aug. 2014 Jones, E. Research and opportunities at the UC Natural Reserves. SDSU Ecology Graduate Student Retreat, Santa Margarita Ecological Reserve, CA.
- Feb. 2014 Jones, E. The influence of herbivore diversity, abundance, and biogeography on inducible seaweed defenses. SDSU Coastal and Marine Institute Laboratory Seminar Series, San Diego, CA.

- Aug. 2013 Jones, E. Ignite Research Talk. SDSU Coastal and Marine Institute Laboratory Seminar Series, San Diego, CA.
- Oct. 2012 Jones, E. So you want to be a marine biologist? Graduate Student Panel, San Diego State University, San Diego, CA.
- Aug. 2011 Jones, E. Introduction to seaweed-herbivore interactions. The Ocean Institute Careers in Marine Science Symposium, Dana Point, CA.
- Mar. 2006 Jones, E. Introduction to seaweeds. Warwick Schools Accelerated Learning Activities Program, Warwick, RI.

GRANTS, HONORS, AND AWARDS

Research Grants and Scholarships

- Sept. 2015 SDSU Doctoral Research Grant (\$1700)
- Apr. 2015 Susan and Stephen Weber Endowed Scholarship (\$3000)
- Feb. 2015 SDSU Graduate Student Travel Grant (\$1000)
- Sept. 2014 SDSU Doctoral Research Grant (\$1400)
- Mar. 2014 Susan and Stephen Weber Endowed Scholarship (\$3000)
- Nov. 2013 SDSU Doctoral Research Grant (\$1400)
- Nov. 2013 SDSU Graduate Student Travel Grant (\$1000)
- June 2013 Harold & June Grant Memorial Scholarship (\$2000)
- May 2013 Susan and Stephen Weber Endowed Scholarship (\$3000)
- Jan. 2013 Phycological Society of America Grant-in-Aid of Research (\$1500)
- Jan. 2013 COAST Student Award for Marine Research (\$3000)
- Dec. 2012 SDSU Inamori Fellowship (\$5000)
- Nov. 2012 SDSU Doctoral Research Grant (\$1600)
- Oct. 2012 SDSU Graduate Student Travel Grant (\$996)
- May 2012 Lerner-Gray Fund for Marine Research (\$1000)
- Nov. 2011 SDSU Doctoral Research Grant (\$2300)
- Apr. 2011 COAST Student Award for Marine Research (\$1500)
- Nov. 2010 SDSU Doctoral Research Grant (\$828)
- Apr. 2007 Hannah Croasdale Fellowship (\$600, declined)
- Mar. 2007 URI Dept. of Biological Sciences Research Grant (\$175)
- May 2006 Sounds Conservancy Grant (\$500)
- Mar. 2006 URI Dept. of Biological Sciences Research Grant (\$175)
- Apr. 2005 URI Dept. of Biological Sciences Research Grant (\$175)
- Apr. 2005 Sounds Conservancy Grant (\$900)
- Jan. 2005 URI Graduate Research Grant (\$650)

Conference Travel Grants

- Jun. 2016 Jordan D. Covin Memorial Scholarship (\$1025)

Apr. 2016	IRA Student Travel Fund (\$390)
May 2015	IRA Student Travel Fund (\$225)
Mar. 2015	Western Society of Naturalists Conference Travel Award (\$175)
Jan. 2015	Jordan D. Covin Memorial Scholarship (\$900)
May 2014	Western Society of Naturalists Conference Travel Award (\$75)
May 2013	Western Society of Naturalists Conference Travel Award (\$125)
May 2013	IRA Student Travel Fund (\$300)
Jan. 2013	COAST Student Travel Award (\$550)
Apr. 2012	IRA Student Travel Fund (\$147)
Feb. 2012	Western Society of Naturalists Conference Travel Award (\$200)
Oct. 2011	COAST Student Travel Award (\$500)
Feb. 2011	IRA Student Travel Fund (\$100)
Jan. 2007	URI GSA Conference Travel Grant (\$250)
Dec. 2006	Western Society of Naturalists Conference Travel Award (\$50)
Nov. 2006	URI Dept. of Biological Sciences Conference Travel Grant (\$175)
Mar. 2006	URI Dept. of Biological Sciences Conference Travel Grant (\$175)
Mar. 2005	URI GSA Conference Travel Grant (\$150)

Honors and Awards

Nov. 2014	Western Society of Naturalist Conference Best Student Poster Award
Apr. 2007	URI Dept. of Biological Sciences Excellence in Teaching Award
Apr. 2007	Sigma Xi, URI Chapter initiation
Nov. 2005	Phi Kappa Phi, URI Chapter initiation
2000-2001	UC Davis Honors Challenge

MENTORSHIP

2005-present	<p>Undergraduate Student Mentor</p> <p>Instructed students on algal identification and laboratory and field research techniques in marine ecology. (Courtney Viall (URI), Emily Field (URI), Vanessa Scialabba (Cornell), Jenny Burkhardt (URI), Patrick Lyons (URI), Casey Donahue (URI), Emily Blair (URI), Theresa DiMarco (UC Davis), Terra Hazen (Sonoma State), Jaclyn Cadwallader (SDSU), Laura Porturas (SDSU), Shelly Morgan (SDSU), Gabe Greenberg-pines (SDSU))</p>
Sept. 2014-May 2015	<p>Undergraduate Honors Thesis Co-Advisor</p> <p>Advised an SDSU undergraduate student on her honors thesis research investigating how the presence of a palatable seaweed influenced the strength of an inducible seaweed defense (Breanna Goldsby).</p>
May-Aug. 2014	<p>Santa Rosa Junior College Undergraduate Mentor</p> <p>Introduced a SRJC student intern to laboratory experiments in marine ecology (Rosie Canfield).</p>
May-Aug. 2013	<p>CSU Monterey Bay UROC Student Mentor</p>

Trained a CSU Monterey Bay student intern on field and lab experiments in marine ecology. Advised the student on a project investigating tri-trophic interactions between predatory crabs, herbivorous snails, and seaweeds (Gavin Leavitt).

- May-Aug. 2006 **Masters Student in Education Mentor**
Provided a masters in education student (biology emphasis) with field research experience in marine ecology (Michelle Thomson).
- May-Dec. 2006 **Coastal Fellow Co-Mentor**
Helped an undergraduate URI Coastal Fellow with algal identification and research methods in marine ecology (Emily Field).
- May-Dec. 2005 **Coastal Fellow Mentor**
Taught an undergraduate URI Coastal Fellow laboratory and field research methods for marine algal communities (Courtney Viall).

OUTREACH

- 2015-present **Letters to a Pre-Scientist**
Pen pal with a 5th grade student.
- Mar. 2014 **Ocean Discovery Institute – Guest Scientist**
Guest speaker and tidepooling exploration with 3rd grade students.
- Feb. 2013 **High Tech Fair – MEBSA Volunteer**
Helped with intertidal CSI and invertebrate touch tank activities.
- Oct. 2012 **Tidepooling with SDSU Marine Biologists**
Provided knowledge on intertidal organisms to the invited public as part of a MEBSA outreach activity.
- 2010-2011 **Cabrillo National Monument Intertidal Monitoring Volunteer**
Helped with the long-term intertidal monitoring program.
- June 2005 **Bio Blitz 2005, RI Natural History Survey**
Helped with marine algal identification.
- 2004-2007 **Macroalgae of Rhode Island Photo Gallery** www.uri.edu/cels/bio/thornber/macroalgae.html

PROFESSIONAL ORGANIZATIONS

Western Society of Naturalists
Benthic Ecology Meeting Society
American Society of Naturalists

Phycological Society of America
Marine Biology and Ecology Student Association
Sigma Xi
Northeast Algal Society
Phi Kappa Phi

PROFESSIONAL SERVICE

- 2014-2016 **SDSU Joint Doctoral Program in Ecology Student Committee Secretary**
Helped form the SDSU Chapter of the Ecology Graduate Student Association in order to improve organization and communication between SDSU and UC Davis students and staff. In charge of website design, mailing list, meeting minutes, and social media.
- 2012-2015 **SDSU Marine Biology and Ecology Student Association Secretary**
In charge of membership organization, mailing lists, and meeting minutes. Involved with several MEBSA outreach activities.

Reviewer: *Botanica Marina, Journal of Ecology, Journal of the Marine Biological Association, Marine Ecology Progress Series, Marine Environmental Research*

Associate Editor: *Marine Biodiversity Records*

POPULAR PRESS

Newport This Week "Sea-ing red at Easton's Beach" by Sandra Gahlinger 7/1/05

REFERENCES

- Dr. Jeremy Long. Dept. of Biology, San Diego State University, San Diego, CA 92182
jlong@mail.sdsu.edu, 619-594-3598
- Dr. Jay Stachowicz. Section of Evolution & Ecology, University of California – Davis, CA 95616
jjstachowicz@ucdavis.edu, 530-752-1113
- Dr. Carol Thornber. Dept. of Biological Sciences, University of Rhode Island, Kingston, RI 02881
thornber@uri.edu, 401-874-4495
- Dr. Matthew Bracken. Dept. of Ecology & Evolutionary Biology, University of California – Irvine, CA 92697
m.bracken@uci.edu, 949-824-2181
- Dr. Susan Williams. Bodega Marine Laboratory, University of California - Davis, Bodega Bay, CA 94923
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