

Jeremy D. Long

Assistant Professor, Biology Department, San Diego State University
5500 Campanile Drive, San Diego, CA 92182-4614
Phone: 619-594-3598, Email: jlong@sciences.sdsu.edu
Website: <http://www.3dmatt.com/drlong>

Research Interests

I investigate the interactions between marine plants and herbivores, how these interactions shape communities and ecosystems, and the evolution of defensive strategies. To address these topics, I conduct laboratory and field experiments that bridge the fields of ecology, evolution, and chemistry.

Education

2004 - Ph.D. Biology, with a Statistics minor, Georgia Tech, Advisor: Dr. Mark Hay
1998 - B.A. Marine Science, with a Biology emphasis, U. San Diego (Magna Cum Laude)

Grants and Awards

2010	Chemical ecology of harmful algal blooms SDSU University Grants Program (\$9973)
2010	Most creative film award Beneath the Waves Filmfest, Benthic Ecology Meeting
2009	Monitoring intertidal zones on islands in the Gulf of Maine U.S. Fish and Wildlife Service (\$17,625; \$16,370 transferred to SDSU)
2009	Causes of spatial variation in barnacle recruitment in ACAD L.L. Bean Acadia Research Fellowship (\$5000)
2008	Fucoid inducible defenses: the causes and consequences of intraspecific variation National Science Foundation (\$279,843; ~\$242,000 transferred to SDSU)
2007	Development of an Intertidal Monitoring Program Department of the Interior (\$160,000)
2007	International Collaboration for FONDECYT Chilean Government (\$4500, co-PI)
2007	Workshop Honorarium Multi-Agency Rocky Intertidal Network (\$500)
2006	National Park Research Fellow Renewal Ecological Society of America (\$14,000)
2006	Visiting Investigator Award Baruch Marine Field Laboratory (\$3000)
2005-2007	National Park Research Fellow Ecological Society of America (\$120,000)
2005	Maren Fellow MDIBL New Investigator Award (\$4500)
2004	Outstanding Student Poster Award American Society of Limnology and Oceanography
2004	Student Travel Stipend American Society of Limnology and Oceanography (\$250)
2001-2004	STAR Pre-Doctoral Fellow Environmental Protection Agency (\$105,000)
2001	Honorarium Western Society of Naturalists (\$150)
2001	Graduate Research Conference Fund Georgia Tech (\$900)
2000	Focused Research Program Grant Georgia Tech (\$3,900)
1999-2003	President's Fellow Georgia Tech (\$16,500)
1999	Graduate Research Fellowship Honorable Mention National Science Foundation

Publications

12) Long, J.D., J.L. Mitchell, and E. E. Sotka (in press). Local consumers induce resistance differentially between *Spartina alterniflora* populations in the field. Ecology.

11) Long, J.D., G.C. Trussell, and T. Elliman (2009). Linking invasions and biogeography: isolation differentially affects exotic and native plant diversity. Ecology (Report) 90(4): 863-868. Our photograph was selected for the cover shot.

10) Long, J.D., G.W. Smalley, T.A. Barsby, J.T. Anderson, and M.E. Hay (2007). Chemical cues induce consumer-specific defenses in a bloom-forming marine phytoplankton. Proceedings of the National Academy of Sciences 104: 10512-10517.

9) Long, J.D., R.S. Hamilton, and J.L. Mitchell (2007). Asymmetric competition via induced resistance: specialist herbivores indirectly suppress generalist preference and populations. Ecology 88(5): 1232-1240. Noted in the ESA Bulletin.

8) Long, J.D. and G.C. Trussell (2007). Geographic variation in seaweed induced responses to herbivory. Marine Ecology Progress Series 333:75-80.

7) Long, J.D., M.E. Frischer, and C.Y. Robertson (2007). A *Phaeocystis globosa* bloom associated with upwelling in the subtropical South Atlantic Bight. Journal of Plankton Research 29: 769-774. Our photograph was selected for the cover shot.

6) Nejstgaard, J.C., K.W. Tang, M. Steinke, J. Dutz, M. Koski, E. Antajan, and J.D. Long (2007). Zooplankton grazing on *Phaeocystis*: a quantitative review and future challenges. Biogeochemistry 83: 147-172.

5) Whipple, S.J., B.C. Patten, P.G. Verity, J.C. Nejstgaard, J.D. Long, J.T. Anderson, A. Jacobsen, A. Larsen, J. Martinez-Martinez, and S.R. Borrett (2007). Gaining integrated understanding of *Phaeocystis* spp. (Prymnesiophyceae) through model-driven laboratory and mesocosm studies. Biogeochemistry 83: 293-309.

4) Nejstgaard, J.C., M.E. Frischer, P.G. Verity, J.T. Anderson, A. Jacobsen, M.J. Zirbel, A. Larsen, J. Martinez-Martinez, A.F. Sazhin, T. Walters, D.A. Bronk, S.J. Whipple, S.R. Borrett, B.C. Patten, and J.D. Long (2006). Plankton development and trophic transfer in sea water enclosures with nutrients and *Phaeocystis pouchetii* added. Marine Ecology Progress Series 321: 90-121.

3) Long, J.D. and M.E. Hay (2006). When intraspecific exceeds interspecific variance: effects of phytoplankton morphology and growth phase on copepod feeding and fitness. Limnology and Oceanography 51(2): 988-996.

2) Long, J.D. and M.E. Hay (2006). Fishes learn aversions to a nudibranch's chemical defense. Marine Ecology Progress Series 307: 199-208.

1) Weiss, M.R., E.M. Lind, M.T. Jones, J.D. Long, and J.L. Maupin (2003). Uniformity of leaf shelter construction by larvae of *Epargyreus clarus* (Hesperiidae), the silver spotted skipper. Journal of Insect Behavior 16(4): 465-480.

Teaching and Educational Experiences

2009	Developed new Chemical Ecology Course SDSU
2008	Intertidal Bioblitz Boston Harbor Islands National Park Area
2008	Guest Lecturer Interpwoods @ Acadia National Park
2007, 2008	Instructor Invertebrate Zoology Lecture and Lab, 3 Seas Program, Northeastern University.
2007, 2009	Science Fair Judge Boston Public Schools.
2007	Intertidal CSI Marine Science Center Open House.
2005	Intertidal CSI MDIBL Children's Science Night.
2005	Invited Talk The Clark School (K-8), Danvers, MA.
2004	Guest Lecturer Undergraduate Biology Seminar Course, U. San Diego.
2004	Invited Talk Hancock Day School (Elementary), Savannah, GA.
2003, 2005	Plankton Sink-Off Encouraged learning about planktonic organisms through a craft project for young children. Open House at SkIO (2003) and MSC (2005).
2003	Science Fair Project Consultant Provided guidance and laboratory resources to students examining allelopathy in salt marsh plants, Savannah, GA.
2002-2004	Science Fair Judge Savannah Ogeechee Regional Science and Engineering Fair.
2001-2002	Science Fair Judge Savannah Christian Preparatory Middle School.
2001	Mentor Erica Kinard (recently graduated research technician). Directed and advised her research on chemical defenses of oyster reef organisms.
2000	Mentor Deborah Henry (minority middle school teacher). Provided scientific guidance on a program to educate middle school students about brittle stars.
2000	Teaching Assistant Introduction to Organismal Biology, Georgia Tech.
1999	Teaching Assistant Biological Principles, Georgia Tech.

Professional Positions

2010-present	Associate Editor Journal of the Marine Biological Association of the U.K.
2009-present	Assistant Professor San Diego State University
2008-2009	Adjunct Professor San Diego State University
2004-present	Postdoctoral Fellow Northeastern University, Advisor: Dr. Geoff Trussell
2004	Advertising Coordinator and Committee Member 1 st Annual Southeastern Ecology and Evolution Conference, Georgia Tech
2003	Student Representative to Faculty Search Committee SkIO
2002-2004	Student Committee Member Education Sub-Committee, ASLO
2000-2001	Vice President School of Biology Graduate Student Association, Georgia Tech

Invited Seminars

2009	Scripps Institution of Oceanography Graduate Student Series (San Diego, CA)
2009	Goucher College Seminar Series (Baltimore, MD)
2007	San Diego State University Seminar Series (San Diego, CA)
2007	Cal State Fullerton Seminar Series (Fullerton, CA)
2007	Chapman University Seminar Series (Orange, CA)
2007	Multi-Agency Rocky Intertidal Network Taxonomic Workshop (San Francisco, CA)
2007	Tjärnö Marine Biological Laboratory Seminar Series (Tjärnö, Sweden)
2007	Universidad Católica del Norte Seminar Series (Coquimbo, Chile)
2007	University of South Carolina Seminar Series (Columbia, SC)

2006	Baruch Marine Field Laboratory Seminar Series (Georgetown, SC)
2006	Bigelow Laboratory for Ocean Sciences Seminar Series (Boothbay Harbor, ME)
2006	Cal State Long Beach Seminar Series (Long Beach, CA)
2006	University of Maine Seminar Series (Orono, ME)
2005	NPERF Committee Meeting (Chico, MT)
2005	Acadia National Park Ranger Resource Session (ME)
2005	Mount Desert Island Biological Laboratory Seminar Series (MDIBL, ME)
2004	ASLO Meeting Field Trip (Savannah, GA)
2003	Scientific Committee on Oceanic Research (SCOR) Working Group Meeting (WG120) Marine Phytoplankton and Global Climate Regulation: The <i>Phaeocystis</i> spp. Cluster as a Model (Savannah, GA)
2003	Skidaway Institute of Oceanography Seminar Series (Savannah, GA)
2002	University of Bergen Seminar Series (Bergen, Norway)

Professional Presentations

2010	Dropping science on the variation of inducible resistance between <i>Spartina</i> populations in the field. Benthic Ecology Meeting (Wilmington, NC).
2009	Local consumers induce resistance in southern, but not northern, <i>Spartina</i> populations. Western Society of Naturalists Annual Meeting (Monterey, CA).
2008	Bearing arms: tradeoffs in seaweed defense strategies. Benthic Ecology Meeting (Providence, RI).
2007	Transatlantic variation in seaweed inducible and constitutive defenses. Western Society of Naturalists Annual Meeting (Ventura, CA).
2007	Asymmetric competition via induced resistance. Benthic Ecology Meeting (Atlanta, GA).
2006	Consumer-specific inducible defenses: when size matters and bigger isn't necessarily better. Western Society of Naturalists Annual Meeting (Redmond, WA).
2006	Inducible responses in seaweeds and the relevance of laboratory experiments. Ecological Society of America Annual Meeting (Memphis, TN).
2006	Trait-mediated indirect effects of seaweed herbivory. Benthic Ecology Meeting (Quebec City, Quebec).
2005	Seaweeds tell no lies: testing for a chemically-mediated cascade. Benthic Ecology Meeting (Williamsburg, VA).
2004	Effects of grazer cues on algal colony formation: eavesdropping elms of the ocean. Ecological Society of America Annual Meeting (Portland, OR).
2004	Variable fecal pellet production of three calanoid copepods: the importance of algal morphology, culture age, and grazer species. ASLO Summer Meeting (Savannah, GA-poster).
2004	Chemical cues from grazing copepods suppress colony formation in <i>Phaeocystis</i> : when bigger isn't better. ASLO Ocean Sciences Meeting (Honolulu, HI).
2004	Grazing, eavesdropping, and the motion of the ocean. 1 st Annual Southeastern Ecology and Evolution Conference (Atlanta, GA).
2003	Learned aversion and retention: how marine fishes avoid new aversive foods. Ecological Society of America Annual Meeting (Savannah, GA).
2002	Moving beyond first impressions: isolation and identification of a chemical associated with learned food aversions. Western Society of Naturalists Annual Meeting (Monterey Bay, CA).
1998	Good housekeeping: frass ejection and removal behavior in <i>Epargyreus clarus</i> , the silver spotted skipper. Weiss, M., M. Jones, and J. Long. Entomological Society of America Annual Meeting (Las Vegas, NV).

Phytoplankton Culture Isolation

Coscinodiscus wailesii (CCMP2513) and *Phaeocystis globosa* (CCMP2754) deposited in CCMP's algal collection

Reviewer

Aquatic Biology, Ecology, Ecology Letters, Invertebrate Biology, Journal of Ecology, Journal of Phycology, Limnology and Oceanography, Marine Biology, Marine Ecology, Marine Ecology Progress Series, National Parks, National Science Foundation, Oecologia, Oikos, Physiological and Biochemical Zoology

Professional Organizations

ASLO (American Society of Limnology and Oceanography), ESA (Ecological Society of America), WSN (Western Society of Naturalists)

Press

"Asymmetric competition in marine snails." ESA Bulletin 88(1): 33.

"Grant allows postdoc researcher to study aquatic plant life at Maine National Park."
Northeastern University Magazine, May 2005, p. 50.

Zoellick, Bill. "Researcher offers opportunity to participate in work on plant-animal interactions."
Acadia Partners for Science and Learning.
www.acadiapartners.org/index.php?name=News&file=article&sid=18 (accessed 8-16-06).

McKenna, Jim. "Project SASHA: Surveying Acadia's Seaweed and Herbivore Abundances."
Acadia National Park Schoodic Education and Research Center.
www.nps.gov/acad/serc/education/resourceacadia.htm (accessed on 8-16-06).

References

Dr. Mark E. Hay (graduate advisor)
Professor and Linda and Harry Teasely Chair in Environmental Biology
School of Biology
Georgia Institute of Technology
311 Ferst Drive
Atlanta, GA 30332
404-894-8429
mark.hay@biology.gatech.edu

Dr. Geoff C. Trussell (postdoctoral advisor)
Assistant Professor of Biology
Marine Science Center
Northeastern University
430 Nahant Road
Nahant, MA 01908
781-581-7370 x300
g.trussell@neu.edu

Dr. Erik Sotka (colleague)
Assistant Professor
Grice Marine Laboratory
College of Charleston
205 Fort Johnson Road
Charleston, SC 29412
843-953-9191
sotkae@cofc.edu