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EDUCATION:

- 2007 Massachusetts Institute of Technology (MIT)
Ph.D, MIT/WHOI Joint Program in Biological Oceanography.
Thesis: Influence of hydrodynamics on the larval supply to hydrothermal vents on the East Pacific Rise. Advisor: L. Mullineaux.
- 2001 University of California, Santa Barbara (UCSB)
B.S., Aquatic Biology, *summa cum laude*.
Honors Thesis: Role of lipid stores in the annual variability of Antarctic krill fecundity. Advisors: R. Ross & L. Quetin.

PROFESSIONAL EXPERIENCE:

- 2013-present Assistant Professor, Rutgers University
- 2013-present Contractor, Biodiversity Advisor, USAID, Forestry and Biodiversity Office
- 2007-present Guest Investigator, Woods Hole Oceanographic Institution (WHOI)
- 2012-2013 AAAS Science and Technology Policy Fellow
USAID, E3:Forestry and Biodiversity Office
- 2009-2012 Adjunct Faculty, American University, Biology Dept.
- 2007-2012 Postdoctoral Fellow, Developmental Mechanisms Section
National Institutes of Health (NIH), NIDCR. Advisor: L. Angerer
- 2007 Postdoctoral Investigator, WHOI, Dept of Biology. Advisor: L. Mullineaux
- 1999-2001 Undergraduate Researcher. UCSB, Dept of Geological Sciences.
Advisor: R. Haymon
- 1998-1999 Undergraduate Research Assistant. UCSB, Dept of Ecology, Evolution & Marine Biology. Advisor: B. Prezelin

PUBLICATIONS:

Mills, S.W., L.S. Mullineaux, S.E. Beaulieu, and **D.K. Adams**. 2013. Persistent effects of disturbance on larval patterns in the plankton after an eruption on the East Pacific Rise. *Marine Ecology Progress Series*. [doi:10.3354/meps10463](https://doi.org/10.3354/meps10463).

Adams, D.K., S.M. Arellano and B. Govenar. 2012. Larval dispersal: Vent life in the water column. *Oceanography*. 25:256–268. [doi:10.5670/oceanog.2012.24](https://doi.org/10.5670/oceanog.2012.24).

*Evaluated by Faculty of 1000 Biology.

B. Govenar, S.M. Arellano and **Adams, D.K.** 2012. Rebuilding a vent community: Lessons from the EPR Integrated Study Site. *Oceanography*. 25:28-29. [doi:10.5670/oceanog.2012.02](https://doi.org/10.5670/oceanog.2012.02).

Adams, D.K., M.A. Sewell, R.C. Angerer, and L.M. Angerer. 2011. Rapid adaptation to food availability by a dopamine-mediated morphogenetic response. *Nature Communications*. 2:592 [doi:10.1038/ncomms1603](https://doi.org/10.1038/ncomms1603). *Featured Image, week of 12/20.

Adams, D.K., D.J. McGillicuddy, L.M. Zamudio, A.M. Thurnherr, X. Liang, O. Rouxel, C.R. German, and L.M. Mullineaux. 2011. Surface-driven mesoscale eddies transport deep-sea products from hydrothermal vents. *Science*. 332:580-583.

[doi:10.1126/science.1201066](https://doi.org/10.1126/science.1201066) *Featured paper by RIDGE 2000 program, May 2011

Mullineaux, L.S., **D. K. Adams**, S.W. Mills, and S. E. Beaulieu. 2010. Larvae from afar colonize deep-sea hydrothermal vents after a catastrophic eruption.

Proceedings of the National Academy of Sciences. 107:7829-7834.

[doi/10.1073/pnas.0913187107](https://doi.org/10.1073/pnas.0913187107) *Evaluated by Faculty of 1000 Biology.

Adams, D.K. and G.R. Flierl. 2010. Modeled interactions of mesoscale eddies with the East Pacific Rise: Implications for larval dispersal. *Deep-Sea Research I*. 57: 1163-1176. [doi:10.1016/j.dsr.2010.06.009](https://doi.org/10.1016/j.dsr.2010.06.009)

Adams, D.K., S.W. Mills, T.M. Shank, and L.S. Mullineaux. 2010. Expanding dispersal studies at hydrothermal vents through species identification of cryptic larval forms. *Marine Biology*. 157:1049-1062. [doi:10.1007/s00227-009-1386-8](https://doi.org/10.1007/s00227-009-1386-8)

Beaulieu, S.E., L.S. Mullineaux, **D.K. Adams**, and S.W. Mills. 2009. Comparison of a sediment trap and plankton pump for time-series sampling of larvae near deep-sea hydrothermal vents. *Limnology and Oceanography: Methods*. 7:235-248. [Open Access Article](#)

Adams, D.K. and L.S. Mullineaux. 2008. Supply of gastropod larvae to hydrothermal vents reflects transport from local larval sources. *Limnology and Oceanography*. 53:1945-1955. [Open Access Article](#)

NON-PEER REVIEWED PUBLICATIONS:

U.S. Agency for International Development Biodiversity Research Agenda. 2013.
Integrating Climate Change Adaptation and Biodiversity: Lessons Learned. 2013.

GRANTS & FELLOWSHIPS:

2012-2013	AAAS Science & Technology Policy Fellowship
2005	Ocean Venture Fund Award, WHOI, \$7970
2005	Ocean Life Institute Grant, WHOI, \$5000
2001-2004	National Defense Science and Engineering Graduate Fellowship
2001	National Science Foundation (NSF) Graduate Research Fellowship (declined)
1999-2001	NSF Polar Research Experience for Undergraduates Fellow. UCSB, Marine Science Institute. Advisors: R. Ross & L. Quetin
2000	Barry M. Goldwater Fellowship
2000	UCSB Foundation Award for Undergraduate Research, \$3000
2000	NSF Research Experience for Undergraduates Summer Student Fellow. University of Hawaii, Manoa, Dept of Oceanography. Advisor: C.R. Smith
1999	Minority Summer Student Fellow. WHOI, Dept of Biology. Advisor: R. Olson

HONORS & AWARDS:

- 2009 Fellows Award for Research Excellence, NIH
- 2005 Student Poster Honorable Mention, Symposium on Hydrothermal Vent and Seep Biology, La Jolla, CA
- 2001 College Honors, College of Letters & Science, UCSB
- 2001 Distinction in the Major, Ecology Evolution, and Marine Biology, UCSB

TEACHING EXPERIENCE:

- 2011 Participant. Developmental Biology Teaching Workshop. Darling Marine Center, Maine.
- 2011 Guest Lecturer. BIOL 510, Biological Sciences Seminar. California State University, Los Angeles.
- 2010 Guest Lecturer. Undergraduate Oceanography and Topics in Developmental Biology. American University.
- 2009 Professorial Lecturer. (full course) Undergraduate Oceanography course for majors and non-majors, BIO240. American University.
- 2003 Teaching Assistant. Graduate Biological Oceanography. WHOI, Dept of Biology.
- 2000 Student Teacher. Community Teaching Fellowship in Math and Sciences. Santa Barbara High School & Middle School, 10th and 7th grade Biology. Courses in teaching pedagogy and 40 hours of in-class teaching.

MENTORING:

- 1 undergraduate summer intern, primary mentor.
- 1 undergraduate, senior research project, primary mentor.
- 5 undergraduates in the ASLO Minority Program, 2010 Ocean Sciences Meeting.
- 3 summer undergraduates, informal mentor.

LEADERSHIP & SERVICE ACTIVITIES:

- 2013 USAID Representative to the Global Partnership for the Oceans
- 2012 Session Co-Chair, Society of Integrative and Comparative Biology Annual Meeting, Charleston, SC
- 2012-2011 Poster Judge. Society for Integrative and Comparative Biology Meeting.
- 2011 Selection Committee Member. NIDCR summer internship program.
- 2011 Poster Judge. Developmental Biology of the Sea Urchin Meeting XX.
- 2008-2011 Member, Annual NIDCR Fellows' Retreat Planning Committee, NIH
- 2008-2011 Poster Judge. NIH Graduate Student Research Symposium.
- 2010 Invited participant. Centers for Ocean Sciences Education Excellence (COSEE) Community Meeting. Washington, DC.
- 2010 Chief Judge, Developmental Biology Section. FARE 2011 Awards.
- 2009 Poster Judge. Advancing the Science of Limnology and Oceanography Meeting. Nice, France

- 2008 Co-Chair, Water Column-Seafl oor Synthesis Group, RIDGE 2000 East Pacific Rise Data Integration and Synthesis Meeting, Hyannis, MA
- 2005-2007 Student Representative, Secretary, Women's Committee, WHOI
- 2003-2004 Student Representative, Department of Biology, WHOI
- 2000-2001 Board Member, Undergraduate Representative, Shoreline Preservation Fund (now the Coastal Fund), Associated Student Body, UCSB

Manuscript Reviewer: Limnology and Oceanography, Marine Ecology Progress Series, Deep-Sea Research I

Proposal Reviewer: NSF Ocean Sciences and Polar Programs

PROFESSIONAL MEMBERSHIPS:

- Society for Integrative and Comparative Biology, member since 2010
- Society for Developmental Biology, member since 2009
- American Association for the Advancement of Science, member since 2007
- American Geophysics Union, member since 2003
- Association for the Sciences of Limnology and Oceanography, member since 2000
- Golden Key Honors Society, inducted 2000

RESEARCH AT SEA: 9 cruises for 218 days. 3 Alvin dives.

- 2006 TCS06NH: *R/V New Horizon*, East Pacific Rise 9 50' N.
- 2005 AT11-26: *R/V Atlantis*, East Pacific Rise 9 50' N.
- 2004 AT11-20: *R/V Atlantis*, East Pacific Rise 9 50' N
- 2004 AT11-09: *R/V Atlantis*, East Pacific Rise 9 50' N
- 2003 *R/V Atlantis*, Mid Atlantic Ridge, TAG
- 2002 *R/V Akademik Mstislav Keldysh*, Mid Atlantic Ridge
- 2002 *R/V Atlantis*, East Pacific Rise 9 50' N
- 2000 *R/V Lawrence M. Gould*, Antarctic Peninsula, Annual LTER cruise
- 1999 *R/V Point Sur*, Santa Barbara Channel Islands

SELECT OUTREACH & COMMUNITY SERVICE:

- 2010, 2009 Volunteer. National Ocean Science Bowl, Chesapeake Bay Bowl.
- 2009 Science Judge. National Ocean Science Bowl Finals.
- 2006 Volunteer Science Teacher & Course Participant.
Mullen-Hall School, K-5, Falmouth, MA
WHOI, Communicating Ocean Science Course. A COSEE program.
Trained in teaching pedagogy and inquiry-based teaching through (re)designing and teaching six ocean science lessons to 4th graders.
- 2005 Guest Teacher. WHOI & Morse Pond Middle School, Falmouth, MA
Developed and led a lab on changes of state though making ice cream.
- 2005 Guest Lecturer. Culver City High School, Culver City, CA
Six lectures to 200+ students.
- 2004, 2005 Science Judge. National Ocean Science Bowl, Blue Lobster Bowl.
- 2004 Interview by April Holladay. *WonderQuest*. 2004, July 2. [webpage](#)

INVITED SEMINARS:

- 2012 Institute of Marine and Coastal Science, Rutgers University, NJ.
Scripps Institution of Oceanography. University of California, San Diego.
National Oceanography Centre Southampton, University of Southampton, UK.
Department of Oceanography, University of Hawai'i.
Department of Biology, California State University, Northridge.
Department of Biology, Temple University, PA.
Oceanographic Center, Nova Southeastern University, FL.
Department of Marine, Earth and Atmospheric Sciences, North Carolina State University.
- 2011 Department of Biology. The College of New Jersey.
Department of Biology, Swarthmore College, PA.
School of Pharmacy, University of Maryland, Baltimore.
Department of Biology, University of Southern California.
Center for Interdisciplinary Quantitative Analysis (CINQA), California State University, Los Angeles.
Scripps Institution of Oceanography, University of California, San Diego.
- 2009 College of Earth, Ocean, and Environment. University of Delaware, Lewes Campus.

CONTRIBUTED ORAL PRESENTATIONS (*undergraduate):

- Adams, D.K.**, N.N. Nowakowski*, and L.A. Angerer. Evolution of food-induced developmental plasticity in echinoid plutei. The Developmental Biology of the Sea Urchin XXI. Woods Hole, MA. October 2012. Invited Plenary.
- Adams, D.K.**, N.N. Nowakowski*, and L.A. Angerer. Evolution of food-induced developmental plasticity in echinoid plutei. 10th International Larval Biology Symposium. San Francisco, CA. July 2012.
- Adams, D.K.**, M.A. Sewell, N.N. Nowakowski*, and L.A. Angerer. Mechanism underlying developmental plasticity in echinoid larval form. Society for Integrative and Comparative Biology Annual Meeting. Charleston, SC. January 2012.
- Adams, D.K.**, M.A. Sewell and L.M. Angerer. Environmental modulation of arm development: mechanisms and consequences. Developmental Biology of the Sea Urchin Meeting XX. Woods Hole, MA. April 2011.
- Adams, D.K.**, M.A. Sewell and L.M. Angerer. Dopamine signaling mediates adaptive phenotypic plasticity in response to food availability. Ocean Sciences Meeting. Portland, OR. February 2010.
- Adams, D.K.** and L.M. Angerer. Dopamine mediates ectodermal-mesenchymal signaling underlying a developmental response to food availability. Plenary Talk. The Developmental Biology of the Sea Urchin XIX. Woods Hole, MA. October 2009.
- Adams, D.K.** and L.M. Angerer. Dopamine mediates ectodermal-mesenchymal signaling underlying a developmental response to food availability. Mid-Atlantic Regional Society for Developmental Biology Meeting. College Park, MD. May 2009.

Adams, D.K., G. Flierl, L. Zamudio, and L.S. Mullineaux. Effects of a mesoscale eddy on the connectivity between hydrothermal vents. 7th Larval Biology Symposium. Coos Bay, OR. August 2006.

Poehls, D.K. and L.S. Mullineaux. Effects of a mesoscale eddy on larval dispersal at hydrothermal vents. Ocean Sciences Meeting. Honolulu, HI. February 2006.

POSTER PRESENTATIONS (selected, *undergraduate):

Mills, S. W., L.S. Mullineaux, S.E. Beaulieu, **D.K. Adams**. Severe and persistent effects of disturbance on larval supply at vents: Patterns in the plankton after the 2006 eruption on the East Pacific Rise. Ocean Sciences. Salt Lake City, UT February 2012.

Adams, D.K., N.N. Nowakowski*, and L.A. Angerer. Evolution of food-induced developmental plasticity in echinoids. Society for Integrative and Comparative Biology Annual Meeting. Charleston, SC. January 2012.

Nowakowski, N.M.* and **D.K. Adams**. Evolutionary origins of dopamine signaling in an echinoid developmental response to food. NIH Poster Day. August 2011.

Mullineaux, L.S., **D.K. Adams**, S.W. Mills, and S.E. Beaulieu. Larvae from afar colonize deep-sea hydrothermal vents after a catastrophic eruption. Ocean Sciences Meeting. Portland, OR. February 2010.

Adams, D.K. and L.M. Angerer. Molecular mechanism underlying the plastic response of sea urchin larval feeding structure to food availability. Advancing the Science of Limnology and Oceanography Meeting. Nice, France. January 2009.

Poehls, D.K., L.S. Mullineaux, and T.M. Shank. Investigating vent gastropod dispersal mechanisms using time-series observations of currents and of larval abundance in sediment traps. Third Symposium for Hydrothermal Vent and Seep Biology. La Jolla, CA. September 2005.

Poehls, D.K., Quetin, L.B, and R.M. Ross. Interannual comparison of lipid reserves in the Antarctic krill, *Euphausia superba*. American Society of Limnology and Oceanography meeting, Albuquerque, NM. February 2001.

Poehls, D.K., Smith, C.R. and A.R. Baco. Epifauna community structure of the San Clemente Cold Seep: a diverse assemblage with moderate whale fall affinities. Second International Symposium on Deep Sea Hydrothermal Vent Biology, Brest, France. October 2001.

MEDIA COVERAGE (selected):

Co-opting behavioural responses for development. Nature Asia Pacific Research Highlight. [webpage](#)

Bai, N. Massive ocean eddies stir up life around deep-sea vents. 23 May 2011. Scientific American [webpage](#)

Top-to-bottom action. Editor's summary. **Science**. v332 (6029):512. [pdf](#)

Steir, C. Eddy superhighways churn up the deep sea. 29 Apr 2011. NewScientist [blog](#)

Perkins, S. Deep waters may not run still. 28 Apr 2011. Science Now, AAAS [webpage](#)

Cross, T. Deep-sea vents: Ocean-floor migration. [Online](#), 28 Apr 2011. In print, 30 Apr 2011. The Economist. Syndicated by the Consortium for Ocean Leadership.

Powell, D. Currents reach deep for seafloor larvae. 28 Apr 2011. Science News Online. [webpage](#)

Scudellari, M. Deep sea taxis. 28 Apr 2011. The Scientist. [webpage](#)

Greenberg, Joel. Eddies found to be deep, powerful modes of ocean transport. 28 Apr 2011. [WHOI News Release](#); [NSF News Release](#); syndicated by ScienceDaily, PhysOrg.com, e! Science News and others.

Milius, Susan. 15 Jan 2011. Young'uns adrift on the sea. Science News. v179 (2):18. Cover [Feature](#).

Herath, Anuradha. 02 Aug 2010. Life after a catastrophe. Astrobiology. [webpage](#)

Nature News Feature. Qiu, Jane. 19 May 2010. Oceanography: Death and rebirth in the deep. **Nature** 465:284-286. [doi:10.1038/465284a](https://doi.org/10.1038/465284a)

NSF Press Release 10-058. Long-Distance Larvae Speed to New Undersea Vent Homes. 12 Apr 2010. [webpage](#); syndicated by PHYSORG.com, ScienceDaily, etc.

Perkins, Sid. Hydrothermal vents sometimes colonized from afar. Science News Online. 2010, Feb 26. [webpage](#); syndicated by US News & World Report.

Kelsey, Elin. A strange new species: Astonishing discoveries of life on Earth. Maple Tree Press. 2005. pp 45.