

**CASCADE J. B. SORTE**  
*Curriculum vitae, updated June 2019*

Department of Ecology and Evolutionary Biology  
321 Steinhaus Hall  
University of California  
Irvine, CA 92697-2525

Website: <www.cascadesorte.org>  
E-mail: csorte@uci.edu  
Twitter: @CascadeJBS, #SitkaNSF  
Phone: 949-824-6971

### ACADEMIC PREPARATION & POSITIONS

2014-present Assistant Professor, Ecology and Evolutionary Biology, University of California, Irvine  
2010-2013 Postdoctoral Research Associate, School for the Environment, University of Massachusetts, Boston  
2005-2010 Ph.D., Ecology, University of California, Davis  
Thesis: *Climate change, species invasions, and the composition of marine communities*  
2001-2003 M.A., Ecology, Evolution, and Marine Biology, University of California, Santa Barbara  
Thesis: *The ecophysiological underpinnings of biogeographic patterns: temperature effects on the distributions of Nucella congeners*  
1995-1999 B.A., Biology, Whitman College (Minor: French)  
Thesis: *Larval dynamics of the sand crab, Emerita analoga, off the central Oregon coast during a strong El Niño period*

### HONORS & AWARDS

2019 Invited Participant, NSF funded “Invasion Biology Rules of Life” workshop  
2019 Faculty Mentor of the Month, Undergraduate Research Opportunities Program, UCI  
2018 Selected Participant, Andina workshop “Species range extensions & local adaptation”, Argentina  
2017 Early Career Fellow, Ecological Society of America  
2014 Scientist in Residency Fellow, Sitka Sound Science Center, AK  
2011 Selected Participant, NSF/NASA DISCCRS (DISsertation initiative for the advancement of Climate Change ReSearch) Symposium  
2011 Selected Participant, NSF ADVANCE workshop, Rice University  
2009 American Association of University Women American Dissertation Fellow (\$20,000)  
2009 College of Biological Sciences Dean’s Circle Mentorship Award (\$5,000), UC-Davis  
2008 Coastal Environmental Quality Initiatives Fellow, Ocean Protection Council (\$30,000)  
2006 Bodega Marine Lab Fellow, UC-Davis (\$8,500)  
2002 Honorable Mention, Best Student Paper Competition, Western Society of Naturalists  
2001-2002 Arizona State University Graduate Academic Scholar (\$22,500; moved with advisor to UCSB)  
1999 Elected to Sigma Xi, The Scientific Research Society  
1995-1999 Claire Sherwood Memorial Fellow, Whitman College (\$15,000) for leadership potential  
1995-1999 Academic Fellow, Whitman College (\$28,000)  
1995-1999 Robert C. Byrd Congressional Scholar (\$6,000)

### GRANTS

#### *Awarded*

Vilà M (PI/Coordinator, EBD-CSIC, Spain), Gallien L (Co-PI, CNRS, France), Jeschke J (Co-PI, Leibniz Inst/Freie U, Germany), Comín F (Co-PI, IPE-CSIC, Spain), **Sorte C (Co-PI, Lead USA PI)**, Bacher S (Co-PI, U Fribourg, Switzerland), Bradley B (Co-PI, UMass-Amherst) (2019-2021) Understanding and managing the impacts of Invasive alien species on Biodiversity and Ecosystem Services (InvasiBES). Belmont Forum - Biodiversa (\$90,000 to UCI; 968,679 euros total).

**Sorte C (PI)**, Bracken M (Co-PI), Miller L (Co-PI, SDSU), Kroeker K (Co-PI, UCSC) (2018-2021) Collaborative Research: Effects of multiple aspects of climate change on marine biodiversity and ecosystem functioning. National Science Foundation Biological Oceanography OCE-1756173 (\$475,916 to UCI; \$667,777 total).

**Sorte C (PI/Fellow)**, Aguilar-Roca N (Co-PI), Pratt J (Co-PI) (2018-2019) Using the SWIM (Science Writing Integrated Mentoring) Program to increase effectiveness of a Course-based Undergraduate Research Experience (CURE). Development Fellowship, CUREnet (\$1,000). *Supports assessment of SWIM program.*

- Sorte C** (2017-2018) Science Writing Integrated Mentoring (SWIM) Program: Increasing Confidence and Effectiveness of UDW (Upper Division Writing) in the Sciences. Campus Writing Center Writing Pedagogy Grant, UC-Irvine (\$2,000). *Supports graduate students as writing mentors in a course-integrated program.*
- Sorte C (PI)**, Bracken M (Co-PI) (2016-2017) Effects of multiple aspects of climate change on marine biodiversity and ecosystem functioning. Single and Multi-investigator Research Projects Seed Funding Award, UC-Irvine (\$39,400).
- Sorte C (PI/Director)** (2015-2016) International Colloquium: Will Impacts of Global Change be Greater than the Sum of its Parts? Albert & Elaine Borchard Foundation (\$35,000).
- Davis K (Engineering PI), **Sorte C (Ecology PI)** (2015-2016) Coping with climate change: integrating computational fluid dynamics and ecophysiology to assess poleward range shifts in an equatorward current system. Interdisciplinary Innovation Initiative, UC-Irvine (\$30,975).
- Bracken M (PI), **Sorte C (Co-PI)** (2014-2017) Marine Biology Seawater Laboratory. Small Capital Improvement Program, UC-Irvine (\$200,000). *Funds to renovate room for seawater lab; matched by \$60K in Sorte start-up funds to purchase recirculating seawater system.*
- Sorte C (PI)**, Etter RJ (Co-PI), Hannigan R (Co-PI) (2013-2016) Are blue mussels declining in the Gulf of Maine?: population trajectories, connectivity, and spatiotemporal variation in reproduction. MIT Massachusetts Sea Grant, National Oceanic and Atmospheric Association (\$145,999).
- Sorte CJB (PI)**, Dukes JS (Co-PI), Lawler JJ (Co-PI) (2010-2012) Working group: Climate change and invasive species: are non-natives poised for greater success in future climatic conditions? National Center for Ecological Analysis and Synthesis (\$65,625 for 4 working group meetings).

### **Recommended for funding**

Raimondi P (PI, UCSC), Bracken M (Co-PI, UCI), Smith J (Co-PI, Cal Poly Pomona), Burnaford J (Co-PI, CSU Fullerton), Delemarre E (Co-PI, LiMPETS), **Sorte C (Co-PI, UCI)**, Caselle J (Co-PI, UCSB), Gaddam R (Co-PI, UCSC) (2019-2021) Assessment of rocky intertidal habitats for the California marine protected area monitoring program. California Ocean Protection Council (\$52,921 to UCI).

### **PUBLICATIONS** (^undergraduate, \*graduate, and #postdoctoral advisees)

Google scholar profile: <https://scholar.google.com/citations?user=FkbVuScAAAAJ&hl=en>

40. \*Wallingford PD, **Sorte CJB** (in press) Predicting predator-prey responses to climate change using community regulation models. *Ecosphere*.
39. Bradley BA, Laginhas B, Whitlock R, Bates A, Bernatchez G, Diez JM, Allen JM, Early R, Lenoir J, Vilà, **Sorte CJB** (2019) Disentangling the abundance-impact relationship for invasive species. *Proceedings of the National Academy of Sciences USA*. DOI: 10.1073/pnas.1818081116.
38. \*Mahanes SA, **Sorte CJB** (2019) Impacts of climate change on marine species invasions in northern hemisphere high-latitude ecosystems. *Frontiers of Biogeography*. 11.1. DOI: 10.21425/F5FBG40527.
37. **Sorte CJB**, Bernatchez G, \*Pandori LLM, #Silbiger NJ, Smith AM, \*Wallingford PD (2019) Thermal tolerance limits as indicators of current and future intertidal zonation patterns in a diverse mussel guild. *Marine Biology*. 166:6.
36. \*Pandori LLM, **Sorte CJB** (2019) The weakest link: sensitivity to climate extremes across life stages of marine invertebrates. *Oikos*. 128:621-629. DOI: 10.1111/oik.05886.
35. \*Wallingford PD, \*Pandori LLM, Bedgood SA, Bracken MES, Elsberry LA, #Henry AK, \*Mahanes SA, **Sorte CJB** (2019) A guide to the relationships between marine spatial patterns and ecological processes. *Frontiers of Biogeography*. DOI: 10.21425/F5FBG39410. [Invited book review]
34. Bracken MES, #Silbiger NJ, Bernatchez G, **Sorte CJB** (2018) Primary producers may ameliorate impacts of daytime CO<sub>2</sub> addition in a coastal marine ecosystem. *Peer J*. 6:e4739.
33. #Silbiger NJ, **Sorte CJB** (2018) Biophysical feedbacks mediate carbonate chemistry in coastal ecosystems across spatiotemporal gradients. *Scientific Reports*. 8:796.

32. **Sorte CJB**, \*Pandori LLM, Cai S, Davis K (2018) Predicting persistence in benthic marine species with complex life cycles: linking dispersal dynamics to redistribution potential and thermal tolerance limits. *Marine Biology*. 165:20.
31. Bonebrake TC, Brown CJ, Bell JD, Blanchard J, Chauvenet A, Champion C, Chen I-C, Clark TD, Colwell RK, Danielsen F, Dell AI, Donelson JM, Evengard B, Ferrier S, Frusher S, Garcia RA, Griffis RB, Hobday AJ, Jarzyna MA, Lee E, Lenoir J, Linnetved H, Martin VY, McCormack PC, McDonald J, E McDonald-Madden, Mitchell N, Mustonen T, Pandolfi JM, Pettoirelli N, Possingham H, Pulsifer P, Reynolds M, Scheffers BR, **Sorte CJB**, Strugnell JM, Tuanmu M-N, Twiname S, Verges A, Villanueva C, Wapstra E, Wernberg T, Pecl GT. (2018) Climate-driven species redistribution requires integrated research to protect biodiversity and maintain human benefits. *Biological Reviews*. 93:284-305.
30. Pecl GT, Araujo MB, Bell JD, Blanchard J, Bonebrake TC, Chen I-C, Clark TD, Colwell RK, Danielsen F, Evengard B, Falconi L, Ferrier S, Frusher S, Garcia RA, Griffis R, Hobday AJ, Janion-Scheepers C, Jarzyna MA, Jennings S, Lenoir J, Linnetved HI, Martin VY, McCormack PC, McDonald J, Mitchell NJ, Mustonen T, Pandolfi JM, Pettoirelli N, Popova E, Robinson SA, Scheffers BR, Shaw JD, **Sorte CJB**, Strugnell JM, Sunday JM, Tuanmu M-N, Verges A, Villanueva C, Wernberg T, Wapstra E, Williams SE (2017) Biodiversity redistribution under climate change: impacts on ecosystems and human well-being. *Science*. 355(6332): eaai9214.
29. Van Gennip SJ, Popova EE, Yool A, Pecl GT, Hobday AJ, **Sorte CJB** (2017) Going with the flow: the role of ocean circulation in global marine ecosystems under a changing climate. *Global Change Biology*. 23(7):2602-2617.
28. **Sorte CJB**, ^Davidson VE, ^Franklin MC, Benes KM, Doellman MM, Etter RJ, Hannigan RE, Lubchenco J, Menge BA (2017) Long-term declines in an intertidal foundation species parallel shifts in community composition. *Global Change Biology*. 23:341-352.
27. Early R, Bradley BA, Dukes JS, Lawler JJ, Olden JD, Blumenthal DM, Gonzalez P, Grosholz ED, Ibáñez I, Miller LP, **Sorte CJB**, Tatem AJ (2016) Global threats from invasive species in the 21st century and national response capacities. *Nature Communications*. 7:12485.
26. **Sorte CJB** (2016) Evolution and invasive species. In: Encyclopedia of Evolutionary Biology (Ed: Kliman R) Elsevier Ltd, Oxford, UK. 2:282-287.
25. **Sorte CJB**, Bracken MES (2015) Warming and elevated CO<sub>2</sub> interact to drive rapid shifts in marine community production. *PLoS ONE*. 10:e0145191.
24. Bradley BA, Early RI, **Sorte CJB** (2015) Space to invade? Comparative range infilling and potential range of invasive and native plants. *Global Ecology & Biogeography*. 24:348-359.
23. **Sorte CJB** (2014) Synergies between climate change and species invasions: evidence from marine systems. In: Invasive Species and Global Climate Change (Eds: Ziska LH, Dukes JS) CABI Publishing, Oxfordshire, UK.
22. Ibáñez I, Diez JM, Miller LP, Olden JD, **Sorte CJB**, Blumenthal DM, Bradley BA, D'Antonio CM, Dukes JS, Early RI, Grosholz ED, Lawler JJ (2014) Integrated assessment of biological invasions. *Ecological Applications*. 24:25-37.
21. Bates AE, McKelvie CM, **Sorte CJB**, Morley SA, Jones N, Mondon J, Bird TJ, Quinn G (2013) Geographical range, heat tolerance, and invasion success in aquatic species. *Proceedings of the Royal Society B*. 280: 20131958.
20. **Sorte CJB**, Etter RJ, ^Spackman R, Boyle EE, Hannigan RE (2013) Elemental fingerprinting of mussel shells to predict population sources and redistribution potential in the Gulf of Maine. *PLoS ONE*. 8:e80868.
19. **Sorte CJB**, White JW (2013) Competitive and demographic leverage points of community shifts under climate warming. *Proceedings of the Royal Society B*. 280:20130572.
18. **Sorte CJB**, Ibáñez I, Blumenthal DM, Molinari NA, Miller LP, Grosholz ED, Diez JM, D'Antonio CM, Olden JD, Jones SJ, Dukes JS (2013) Poised to prosper? A cross-system comparison of climate change effects on native and non-native species performance. *Ecology Letters*. 16:261-270.
17. **Sorte CJB** (2013) Predicting persistence in a changing climate: flow direction and limitations to redistribution. *Oikos*. 122:161-170.
16. \*Cockrell MA, **Sorte CJB** (2013) Predicting climate-induced changes in population dynamics of invasive species in a marine epibenthic community. *Journal of Experimental Marine Biology and Ecology*. 440:42-48.

15. Diez JM, D'Antonio CM, Dukes JS, Grosholz ED, Olden JD, **Sorte CJB**, Blumenthal DM, Bradley BA, Early R, Ibáñez I, Jones SJ, Lawler J, Miller LP (2012) Will extreme climatic events facilitate biological invasions? *Frontiers in Ecology and the Environment* 10:249-257.
14. Bradley BA, Blumenthal DM, Early RI, Grosholz ED, Lawler JJ, Miller LP, **Sorte CJB**, D'Antonio CM, Diez JM, Dukes JS, Ibáñez I, Olden JD (2012) Global change, global trade, and the next wave of plant invasions. *Frontiers in Ecology and the Environment* 10:20-28.
13. Fischer EV, Mackey KRM, Cusack DF, DeSantis LRG, Harzell-Nichols L, Lutz JA, Melbourne-Thomas J, Meyer R, Riveros-Iregui DA, **Sorte CJB**, Taylor JR, White SA (2012) Pre-tenure interdisciplinary research: is it a career risk? *Eos, Transactions of the American Geophysical Union* 93:311-312.
12. Bracken MES, Menge BA, Foley MM, **Sorte CJB**, Lubchenco J, Schiel DR (2012) Mussel selectivity for high-quality food drives carbon inputs into open-coast intertidal ecosystems. *Marine Ecology Progress Series* 459:53-62.
11. **Sorte CJB**, Stachowicz JJ (2011) Patterns and processes of compositional change in a California epibenthic community. *Marine Ecology Progress Series* 435:63-74.
10. **Sorte CJB**, Jones SJ, Miller LP (2011) Geographic variation in temperature tolerance as an indicator of potential population responses to climate change. *Journal of Experimental Marine Biology and Ecology* 400:209-217.
9. \*Zerebecki RA, **Sorte CJB** (2011) Temperature tolerance and stress proteins as mechanisms of invasive species success. *PLoS ONE* 6:e14806.
8. **Sorte CJB**, Williams SL, \*Zerebecki RA (2010) Ocean warming increases threat of invasive species in a marine community. *Ecology* 91:2198-2204.
7. **Sorte CJB**, Williams SL, Carlton JT (2010) Marine range shifts and species introductions: comparative spread rates and community impacts. *Global Ecology and Biogeography* 19:303-316.
6. **Sorte CJB**, \*Fuller A, Bracken MES (2010) Impacts of a simulated heat wave on composition of a marine community. *Oikos* 119:1909-1918.
5. Harley CDG, Hughes AR, Hultgren K, Miner BG, **Sorte CJB**, Thornber CS, Rodriguez LF, Tomanek L, Williams SL (2006) The impacts of climate change in coastal marine systems. *Ecology Letters* 9:228-241.
4. **Sorte CJB**, Hofmann GE (2005) Thermotolerance and heat-shock protein expression in Northeastern Pacific *Nucella* species with different biogeographical ranges. *Marine Biology* 146:985-993.
3. **Sorte CJB**, Hofmann GE (2004) Changes in latitudes, changes in aptitudes: *Nucella canaliculata* (Mollusca: Gastropoda) is more stressed at its range edge. *Marine Ecology Progress Series* 274:263-268.
2. Halpin PM, **Sorte CJ**, Hofmann GE, Menge BA (2002) Patterns of variation in levels of Hsp70 in natural rocky shore populations from microscales to mesoscales. *Integrative and Comparative Biology* 42:815-824.
1. **Sorte CJ**, Peterson WT, Morgan CA, Emmett RL (2001) Larval dynamics of the sand crab, *Emerita analoga*, off the central Oregon coast during a strong El Niño period. *Journal of Plankton Research* 23:939-944.

#### MANUSCRIPTS IN REVIEW AND IN REVISION (available on request)

- \*Pandori LLM, **Sorte CJB** (submitted) Spatial and temporal scales of exposure and sensitivity driving mortality risk patterns across life stages of a critical foundation species. *Ecology*.
- \*Wallingford PD, Morelli TL, Allen JM, Beaury EM, Blumenthal DM, Bradley BA, Dukes JS, Early R, Fusco EJ, Goldberg DE, Ibanez I, Laginhas BB, Vilà M, **Sorte CJB** (in review) Assessing impacts of climate-driven range shifts through the lens of invasion biology. *Nature Climate Change*.
- Gallardo B, Bacher S, Bradley B, Comin FA, Gallien L, Jeschke JM, **Sorte CJB**, Vilà M (in review) InvasiBES: Understanding and managing the impacts of Invasive alien species on Biodiversity and Ecosystem Services. *Neobiota*.
- \*Chan M, Tsang TPN, Dingle C, Early R, **Sorte CJB**, Bonebrake TC (in review) Microhabitat coverage but not habitat heterogeneity influences avian diversity in Hong Kong urban parks. *Landscape and Urban Planning*.

**PRESS** (Links for older shows available at [https://cascadesorte.org/?page\\_id=146](https://cascadesorte.org/?page_id=146))

- 2018 Environmental Monitor. 26 February. “Marine vegetation could serve as a buffer against increasingly acidic oceans”. <<https://www.fondriest.com/news/marine-vegetation-serve-buffer-increasingly-acidic-oceans.htm>>.
- 2018 Orange County Register (cover article). 23 February. “A hunt for the invasive dark unicorn snail shows UCI students how climate change is altering Crystal Cove tide pools”. <<https://www.oregister.com/2018/02/23/a-hunt-for-the-invasive-dark-unicorn-snail-shows-uci-students-how-climate-change-is-altering-crystal-cove-tide-pools/>>.
- 2018 Hakai Magazine. “Seaweed and seagrass buffer the acidity of the nearby ocean”. 15 February. <<https://www.hakaimagazine.com/news/seaweed-and-seagrass-buffer-the-acidity-of-the-nearby-ocean>>.
- 2018 Discover Magazine. “Marine life can buffer ocean acidity, study finds”. 16 January. <<http://blogs.discovermagazine.com/science-sushi/2018/01/16/marine-life-can-buffer-ocean-acidity-study-finds/#.W4XZ5ZUU9D9>>
- 2016 Associated Press. Patrick Whittle “Drill, baby, drill? Election reignites offshore-oil debate”. 22 November. Article ran in news outlets including *ABC News*, *New York Times*, *Washington Post*, *Seattle Times*. <<http://www.californiademocrat.com/news/news/story/2016/nov/22/drill-baby-drill-election-reignites-offshore-oil-debate/650048>>.
- 2016 VOXM Nightline. Live Talk Radio with host Jonathan Richler. 30 August. Starts at 16:00. <<http://voxm.com/shows/night-line-with-jonathan-richler/>>
- 2016 Canadian Broadcasting Corporation Radio Interview. 29 August. “Blue mussels on the decline in the Gulf of Maine”. <<http://www.cbc.ca/beta/news/canada/new-brunswick/programs/shift/blue-mussels-on-the-decline-in-the-gulf-of-maine-1.3740389>>.
- 2016 Maine Public Radio. Interview with Patty Wight. “Blue mussels in decline in Gulf of Maine”. 29 August. <<http://news.mpbm.net/post/blue-mussels-decline-gulf-maine#stream/0>>
- 2016 Associated Press. Patrick Whittle “Mussels disappearing from New England waters, scientists say”. 28 August. Article ran in >25 news outlets including *ABC News*, *Boston Globe*, *Chicago Tribune*, *La Gran Epoca*, *Las Vegas Sun*, *Los Angeles Daily News*, *Manila Bulletin*, *New York Times*, *SF Gate*, *Wall Street Journal*. <<https://www.boston.com/news/local-news/2016/08/28/mussels-disappearing-from-new-england-waters-scientists-say>>.
- 2016 Christian Science Monitor. 02 August. “Why are spiny damselfish going into permanent ‘night mode’?” Commented as climate change expert. <<http://www.csmonitor.com/Science/2016/0802/Why-are-spiny-damselfish-going-into-permanent-night-mode>>.
- 2016 Hakai Magazine. “Testing climate change in a tide pool”. 07 January. <<https://www.hakaimagazine.com/article-short/testing-climate-change-tide-pool>>.
- 2015 Portland Press Herald, Portland, ME. “Where have Maine’s mussels gone?” <<http://www.pressherald.com/2015/08/30/where-have-maines-mussels-gone/>>. 30 August.
- 2015 Maine Public Radio. “While Maine mussel fishermen struggle, farmers ‘continue to grow’”. Aired 20 Feb. <<http://news.mpbm.net/post/while-maine-mussel-fishermen-struggle-farmers-continue-grow>>.
- 2015 The Forecaster, Falmouth, Maine. 22 January. “Mussel weakness: Massive decline in Casco Bay poses questions about once-thriving population”. <<http://www.theforecaster.net/mussel-weakness-massive-decline-in-casco-bay-poses-questions-about-once-thriving-population/>>.
- 2014 KCAW Alaska Public Radio, Sitka. Nature Show #58: “Matt Bracken and Cascade Sorte”. 20 July. <<http://www.kcaw.org/wp-content/uploads/Programming/Sunday%20130%20to%20230.mp3>>
- 2014 KCAW Alaska Public Radio, Sitka. Morning Edition, Live. 09 July. “Science and tide pools”. <<http://www.kcaw.org/2014/07/09/science-and-tide-pools/>>
- 2010 KFSK Alaska Public Radio, Petersburg. 28 June. “Researcher calls for attention to invasive marine species”.
- 2010 ABC Ch. 7 (KGO-TV) San Francisco, CA featuring an interview with my advisor about my dissertation work. 27 September. “Invasive species impact NorCal’s marine life”.

**INVITED PRESENTATIONS**

- 2019 International Conference on Aquatic Invasive Species, Montreal, Canada (Keynote Address) - *invited*  
 Species on the Move Conference, South Africa (Keynote Address) - *invited*  
 Scripps Institution of Oceanography, La Jolla, CA  
 Marine Science Institute, University of Texas, Port Aransas, TX (L. R. Schweppe Endowment Speaker)
- 2018 Northeast Regional Invasive Species & Climate Change Management, Amherst, MA (Symposium Talk)  
 Chancellor's Club, University of California, Irvine, CA  
 University of California, Irvine, CA  
 Multi-Agency Rocky Intertidal Network (MARINE) Conference, San Pedro, CA (Symposium Talk)  
 University of California, Riverside, CA
- 2017 UCI Osher Lifelong Learning Institute, Irvine, CA (Public Lecture)  
 Western Regional Panel on Aquatic Nuisance Species, San Diego, CA (Keynote Address)  
 Ecological Society of America Conference, Portland, OR (Organized Oral Session Talk)  
 California State Summer School for Mathematics and Science, Irvine, CA (Distinguished Faculty Lecture)  
 Estación Biológica de Doñana (Biological Station of Doñana), Seville, Spain  
 Southern California Academy of Sciences, Santa Monica, CA (Symposium Talk)  
 Concordia University, Irvine, CA
- 2016 World Wetlands Day Symposium, Irvine, CA (Symposium Talk)  
 Native Nations Protecting Coastal Land and Waters in California, Irvine, CA (Symposium Talk)  
 Darling Marine Center, University of Maine, Damariscotta, ME  
 University of California, Merced, CA  
 Neobiota International Conference on Biological Invasions, Vianden, Luxembourg (Keynote Address)  
 Ecological Society of America Conference, Fort Lauderdale, FL (Symposium Talk)  
 University of Exeter, Penryn, United Kingdom  
 UCI Osher Lifelong Learning Institute, Irvine, CA (Public Lecture)  
 Newport Bay Conservancy, Climate Change & El Niño Symposium, Newport Beach, CA (Public Lecture)
- 2015 Western Society of Naturalists Conference, Sacramento, CA (Symposium Talk)  
 Humboldt State University, Arcata, CA  
 Newport Bay Conservancy Symposium on Invasive Species, Costa Mesa, CA (Public Lecture)  
 MIT Massachusetts Sea Grant, Boston, MA  
 UCI "Building Partnerships for Ocean Health in Southern California" Conference, Irvine, CA  
 Back Bay Science Center, Newport Beach, CA (Public Lecture)  
 University of Canterbury, Christchurch, New Zealand  
 University of Otago, Dunedin, New Zealand  
 Victoria University, Wellington, New Zealand  
 California State University, Fullerton, CA  
 UCI Biological Sciences Faculty Retreat, Costa Mesa, CA
- 2014 University of Washington, Seattle, WA  
 Hopkins Marine Station, Stanford University, Pacific Grove, CA  
 California State University, Long Beach, CA  
 Sitka Sound Science Center, Sitka, AK (Public Lecture)
- 2013 University of California, Irvine, CA  
 Scripps Institution of Oceanography, La Jolla, CA  
 University of Connecticut, Groton, CT
- 2012 California Polytechnic State University, San Luis Obispo, CA  
 California State University, Northridge, CA
- 2011 University of California, Berkeley, CA  
 University of Rhode Island, RI  
 Northeastern University Marine Science Center, Nahant, MA (Public Lecture)  
 University of Massachusetts, Boston, MA  
 Green Mountain College, Poultney, VT  
 University of Massachusetts, Amherst, MA  
 National Center for Ecological Analysis and Synthesis, Santa Barbara, CA

- 2010 Brown University, Providence, RI  
Petersburg Marine Mammal Center, Petersburg, AK (Public Lecture)
- 2009 Moss Landing Marine Laboratories, Moss Landing, CA  
Canada Aquatic Invasive Species Network Annual Meeting (Keynote Lecture; Williams SL & Sorte CJB)
- 2000 Oregon Shores Coastal Coalition and CoastWatch Conference, Newport, OR

**CONTRIBUTED PRESENTATIONS – past 5 years** (*\*student advisees; all oral presentations unless specified*)

- 2018 **Sorte CJB**. Following in Susan’s footsteps: environmental context and buffering capacity of tide pool primary producers. Western Society of Naturalists, Tacoma, WA.
- 2018 \*Mahanes SA, Bracken MES, **Sorte CJB**. Fickle fronds: the effects of a dominant alga on community diversity and composition. Poster, Western Society of Naturalists, Tacoma, WA.
- 2018 \*Rangel R, **Sorte CJB**. Local-scale environmental history influences the response of Alaskan tide pool species to increased temperature. Poster, Western Society of Naturalists, Tacoma, WA.
- 2018 \*Pandori LLM, **Sorte CJB**. Ricky business: vulnerability of California mussels to warming varies across life stages and microhabitats. Western Society of Naturalists, Tacoma, WA.
- 2018 \*Truong DA, Henry AK, **Sorte CJB**. Space Invaders! Biotic interaction strength differs by stage of development in the fouling community of Bodega Harbor, California. Poster, Western Society of Naturalists, Tacoma, WA.
- 2018 \*Wallingford PD, **Sorte CJB**. Predicting predator-prey responses to climate change using a community regulation model. Western Society of Naturalists, Tacoma, WA.
- 2018 **Sorte CJB**, Bernatchez G, \*Pandori LLM, Silbiger NJ, \*Wallingford PD. Warming tolerances and predicted distributional shifts differ by species in a diverse intertidal mussel guild. Society for Integrative and Comparative Biology, San Francisco, CA.
- 2018 \*Pandori LLM, **Sorte CJB**. The weakest link: vulnerability across life stages of marine invertebrates under climate warming. Society for Integrative and Comparative Biology, San Francisco, CA.
- 2018 \*Monuki KS, **Sorte CJB**, Bracken MES. Mussel condition across environmental stress gradients in New Zealand. Poster, Society for Integrative and Comparative Biology, San Francisco, CA.
- 2017 **Sorte CJB**, Pandori LLM, Cai S, Davis KA. Coping with climate change: linking dispersal dynamics to persistence of benthic marine species with complex life cycles. Western Society of Naturalists, Pasadena, CA.
- 2017 \*Mahanes SA, Pandori LLM, **Sorte CJB**. Bad neighbors: evaluating the impact of range shifting species on native ecosystems. Poster, Western Society of Naturalists, Pasadena, CA.
- 2017 \*Wallingford PD, \*Singh R, Bernatchez G, \*Cruz E, \*Monuki K, **Sorte CJB**. Predicting community effects of range expansions in southern California intertidal communities. Poster, Western Society of Naturalists, Pasadena, CA.
- 2017 \*Pandori LLM, **Sorte CJB**. The weakest link: vulnerability across life stages of marine invertebrates under climate warming. Western Society of Naturalists, Pasadena, CA.
- 2017 Bracken MES, Silbiger NJ, Bernatchez G, **Sorte CJB**. Primary producers ameliorate impacts of CO<sub>2</sub> addition in a coastal marine ecosystem. Western Society of Naturalists, Pasadena, CA.
- 2017 Silbiger N, **Sorte CJB**. “pH”ingerprinting west coast tide pools: Community composition and ecosystem metabolism mediate local pH conditions. Poster, Ecological Society of America, Portland, OR.
- 2017 \*Wallingford PD, **Sorte CJB**. Shifting foundations: changes in predator-prey relationships across a thermal gradient. Poster, Ecological Society of America, Portland, OR.
- 2017 **Sorte CJB**. Will climate change increase the impacts of invasive species? Headwaters-to-Oceans (H2O) Conference, Irvine, CA.
- 2017 \*Peich M, \*Pandori LLM, **Sorte CJB**. Microhabitat buffering may allow persistence of intertidal mussels under climate change. Headwaters-to-Oceans (H2O) Conference, Irvine, CA.
- 2017 \*Pandori LLM, \*Peich M, **Sorte CJB**. Do microhabitats act as thermal refuges for intertidal mussels under climate change? Southern California Academy of Sciences, Pasadena, CA.
- 2017 **Sorte CJB**, \*Pandori LLM, Cai S, Davis KA. Predicting persistence of marine invertebrates: flow patterns influence poleward dispersal and tolerance phenotypes. Poster, American Society of Limnology and Oceanography, Honolulu, HI.

- 2017 \*Wallingford PD, **Sorte CJB**. Shifting keystones: changes in predator-prey relationships along a thermal gradient. American Society of Limnology and Oceanography, Honolulu, HI.
- 2017 **Sorte CJB**, \*Pandori LLM, Cai S, Davis KA. Predicting persistence of marine invertebrates: flow patterns influence poleward dispersal and tolerance phenotypes. International Biogeography Society, Tucson, AZ.
- 2016 **Sorte CJB**, \*Davidson VE, \*Franklin MC, Benes KM, Doellman MM, Etter RJ, Hannigan RE, Lubchenco J, Menge BA. Mussel declines and intertidal community shifts over the past 40 years in the Gulf of Maine. Western Society of Naturalists, Monterey, CA.
- 2016 Silbiger N, **Sorte CJB**. “pH”ingerprinting west coast tide pools: physical versus biological drivers of coastal biogeochemistry. Western Society of Naturalists, Monterey, CA.
- 2016 \*Pandori LLM, **Sorte CJB**. The weakest link: vulnerability across life stages of marine invertebrates under climate warming. Poster, Western Society of Naturalists, Monterey, CA.
- 2016 \*Monuki K, \*Pandori LLM, Smith JR, **Sorte CJB**. Going with the flow: changes in mussel recruitment and population size over time. Poster, Western Society of Naturalists, Monterey, CA.
- 2016 \*Wallingford PD, **Sorte CJB**. Climate change and shifting foundations: predator-prey relationships across local and latitudinal gradients. Poster, Western Society of Naturalists, Monterey, CA.
- 2016 \*Pandori LLM, \*Medina A, **Sorte CJB**. Age matters: how life-stage specific microhabitats may influence the responses of intertidal invertebrates to climate change. Invited Seminar, Orange County Marine Protected Area Council Tidepool Docent Training, Dana Point, CA.
- 2016 **Sorte CJB**, \*Pandori LLM, Cai S, Davis KA. Coping with climate change: can variable flow patterns facilitate poleward range shifts of marine species inhabiting equatorward current systems? Species on the Move, Hobart, Tasmania.
- 2016 **Sorte CJB**, \*Pandori LLM, Cai S, Davis KA. Coping with climate change: an integrated assessment of range shift potential and physiological tolerances of intertidal mussels. Society for Integrative and Comparative Biology, Portland, OR.
- 2016 \*Pandori LLM, **Sorte CJB**. Ontogenetic variation in microhabitats and environmental conditions of intertidal invertebrates. Society for Integrative and Comparative Biology, Portland, OR.
- 2015 \*Wallingford PD, **Sorte CJB**. Changes in predator and prey distributions across vertical gradients. Poster, Western Society of Naturalists, Sacramento, CA.
- 2015 \*Pandori LLM, **Sorte CJB**. Ontogenetic variation in microhabitats and environmental conditions of intertidal invertebrates. Western Society of Naturalists, Sacramento, CA.
- 2015 Bradley BA, Early R, **Sorte CJB**. Space to invade? Comparative range infilling and potential range of invasive and native plants. International Conference on the Ecology and Management of Alien Plant Invasions (EMAPi), Hilo, HI.
- 2014 **Sorte CJB**, Bracken MES. Interactions between multiple aspects of climate change: a field manipulation of CO<sub>2</sub> and temperature in tide pool communities. Western Society of Naturalists, Tacoma, WA.
- 2014 \*Pandori LL, **Sorte CJB**, Maurel SA, Davis KA. Mussel recruitment and thermotolerance across an upwelling cycle. Western Society of Naturalists, Tacoma, WA.
- 2014 \*Davidson VE, **Sorte CJB**, \*Franklin M, Doellman M, Benes K, Gannett A, \*Pandori L, Hepner M. Historical comparisons indicate declines in mussel abundances in the Gulf of Maine. Poster, Western Society of Naturalists, Tacoma, WA.
- 2014 \*Franklin MC, Doellman M, **Sorte C**. Blue mussel (*Mytilus edulis*) abundance in the Gulf of Maine: a historical approach to determining population trajectories. Poster, American Society of Limnology and Oceanography, Honolulu, HI.



**TEACHING*****Instructor****Courses (all undergraduate level)*

Spring 2019 Bio Sci E120: Marine Biology (191 students), co-taught with M. Bracken  
 Fall 2018 Bio Sci 186L: Population & Community Ecology Lab (30 students)  
 Spring 2018 UNI STU3: Science of Cli-Fi (15 students)  
 Spring 2018 Bio Sci E120: Marine Biology (189 students), co-taught with M. Bracken  
 Fall 2017 Bio Sci E190: Population & Community Ecology Lab (20 students)  
 Spring 2017 UNI STU 3: Science of Cli-Fi (11 students)  
 Spring 2017 Bio Sci E120: Marine Biology (163 students), co-taught with M. Bracken  
 Fall 2016 Bio Sci E186: Population & Community Ecology (6 students)  
 Spring 2016 Bio Sci E120: Marine Biology (100 students), co-taught with M. Bracken  
 Winter 2016 Eco Evo 221: Advanced Topics in Ecology (10 students)  
 Fall 2015 Bio Sci E186: Population & Community Ecology (6 students)  
 Spring 2015 Bio Sci E120: Marine Biology (93 students), co-taught with M. Bracken

*Undergraduate Research: Bio Sci 199: Marine Ecology*

Year	# Students in	Fall	Winter	Spring
2018-19		3	5	4
2017-18		3	3	4
2016-17		1	2	3
2015-16		2	2	3
2014-15		1	2	3

***Guest Instructor***

Winter 2019 ESS 148: Marine Ecosystems (Lecture & Discussion; ~30 students)  
 Summer 2018 Ridge to Reef (UCI Training Program) Summer Institute (1/2 day Field Course; 25 students)  
 Winter 2015, 2016, 2018 ESS 60B: Local Environmental Issues (Lecture & Discussion; ~35 students)

***Published Teaching Materials***

2018 Sorte C. J. B., Wallingford P. D. Population and Community Ecology Teaching Materials for a Course-Based Undergraduate Research Experience. CUREnet  
 <<https://serc.carleton.edu/curennet/collection/207507.html>>

**Teaching Experience – prior to UCI appointment*****Instructor***

2013 Marine Biology (undergraduate, 30 students), Northeastern University  
 2013 Climate Change (undergraduate, 35 students), Emerson College  
 2013 Invasive Species: Evolution, Ecology & Management (graduate, 4 students), UMass-Boston  
 2012 Marine Biology (undergraduate, 20 students), Northeastern University  
 2012 Climate Change (undergraduate, 30 students), Emerson College  
 2012 Invasive Species (undergraduate, 31 students), Emerson College  
 2011 Invasive Species: Evolution, Ecology & Management (graduate, 11 students), UMass-Boston  
 2011 Ecology (undergraduate, 40 students), Northeastern University  
 2010 Ecology (undergraduate, 90 students), Northeastern University  
 2005 Introduction to Principles of Biology Lab (undergraduate, 25 students), Santa Rosa Junior College

***Guest Lectures***

2012 Coastal and Marine Pollution, UMass-Boston  
 2011 Global Change Biology, UMass-Boston  
 Animal Behavior, Hampshire College  
 Changing Oceans, Duke University  
 2008, 09, 11 Invertebrate Zoology, Three Seas Program, Northeastern University Marine Science Center

**ADVISING*****Postdoctoral Scholars***

- 2017-present Amy Henry (Project Scientist; *Community assembly processes in subtidal epibenthic communities*)  
 2015-17 Nyssa Silbiger (currently Assistant Professor, California State University, Northridge)

***Graduate Students***

- 2014-2019 Lauren Pandori, Ph.D (currently postdoctoral scholar at Shoals Marine Lab, NH)  
 2018-present Heidi Waite, Ph.D. student  
 2018-present Racine Rangel, Ph.D. student  
 2017-present Samuel Mahanes, Ph.D. student  
 2015-present Piper Wallingford, Ph.D. candidate (awarded \$17,875 in research grants to date)

***Current Undergraduate Research Students***

(*UROP = Undergraduate Research Opportunities Program; SURP = Summer Undergraduate Research Program*)

- 2019-present Grant Gallaher, undergraduate intern from Whitman College  
 2019-present Jolene Viramontes, undergraduate researcher  
 2019-present J. Connor Basile, undergraduate researcher (awarded SURP funding)

***Student Committees***

- 2017-present Nalleli Carvajal, Ph.D. committee, Ecology & Evolutionary Biology (EEB), UC-Irvine  
 2017-present Kendra Walters, Ph.D. committee, EEB, UC-Irvine  
 2016-present Ashley Peterson, Ph.D. committee, EEB, UC-Irvine  
 2015-present Alyssa Frederick, Ph.D. committee, EEB, UC-Irvine  
 2015-present Laura Elsberry, Ph.D. committee, EEB, UC-Irvine  
 2019 Cynthia Rodriguez, Ph.D. qualifying exam committee, Ecology & Evolutionary Biology, UCI  
 2019 Ella Morran, M.Sc. external examiner, Stellenbosch University, South Africa  
 2017 Chan Wai Shan Melanie, M.Phil. co-supervisor, University of Hong Kong  
 2017 Shukai Cai, M.S. committee, Civil & Environmental Engineering, UC-Irvine  
 2017 Johann Lopez, Ph.D. qualifying exam committee, Earth System Science, UC-Irvine  
 2016 Kevin Rothstein-Kightly, M.S. committee, EEB, UC-Irvine  
 2015 Kylla Benes, Ph.D. qualifying exam committee, UC-Irvine  
 2014 Maggie Simon, Ph.D. qualifying exam committee, UC-Los Angeles

***Past Graduate Students*** (3; from the Three Seas Marine Biology Master's Program, Northeastern University)

- 2009 Marcy Cockrell (Ph.D. U. South Florida, currently Gulf Res. Prog. Science Policy Postdoc Fellow)  
 2009 Robyn Zerebecki (Ph.D. Northeastern University, currently postdoc at Dauphin Island Sea Lab)  
 2008 Adam Fuller (Ph.D. U. Alabama; currently Hatchery Director, Feather River College, Quincy, CA)

***Past Undergraduate Students***

*Undergraduate Research: Bio Sci 199 students*

- 2018-19 Haley Heesch, undergraduate researcher (awarded UROP funding)  
 2017-19 Danny Truong, undergraduate researcher (awarded SURP & UROP funding; presented at 2018 Undergraduate Research Symposium; UROP Video Challenge #1 Judge's Choice Award)  
 2019 Joseph Spaziano  
 2018-19 Deida Lopez (awarded UROP funding; will present at 2019 Undergraduate Research Symposium)  
 2017-18 Eduardo Cruz (awarded UROP funding; presented at 2018 Undergraduate Research Symposium)  
 2017-18 Ritika Singh (awarded SURP & UROP funding; presented at 2018 Undergraduate Research Symposium)  
 2016-17 Mackenzie Peich  
 2016 Samer Khan  
 2015-16 Savannah Todd  
 2015-16 Alyssa Medina (thesis published in undergraduate research journal; presented at 2016 Undergraduate Research Symposium)  
 2015 Kunheng Cai  
 2014-15 Betzabe Alvizo

*Research Interns*

Keira Monuki (2016-18), Gabriella McGann (2015), Victoria Davidson (2014; Whitman College undergraduate senior thesis), Michael Hutson (2011), Jordan Tower (2011), Sarah Trieweiler (2011), Rachel Wong (2010), Melanie Evans (2006)

*Summer Research Mentoring*

UC-Irvine Summer Undergraduate Research Program (SURP): Danny Truong (2018), Ritika Singh (2017)  
 UC-Irvine HBCU (Historically Black Colleges & Universities) Summer Research Program: Kamaria Bush (2017)  
 UMass-Boston Research Experiences for Undergraduates Program: Marcus Franklin (2013; Cornell University undergraduate senior thesis), Carissa McKinney (2011), Robert Spackman (2011)  
 UC-Davis Bodega Marine Lab Research Experiences for Undergraduates Program: Jasmina Cerda (2009), Omar Bonilla (2007); served as Graduate Supervisor of BML REU program in 2009

**MENTORING & PUBLIC OUTREACH**

2018 Marine Biology Career Presentation, Rancho San Joaquin Middle School, Irvine, CA  
 2017 Pen pal for elementary student, Adopt-a-scientist Program, Irvine, CA  
 2017 Volunteer, Children's Water Education Festival, Irvine, CA  
 2014 Co-coordinator, Sitka Sound Science Center day camp for 3<sup>rd</sup>-5<sup>th</sup> graders, Sitka, AK  
 2014 Developed climate change demonstration, Estuary Awareness Day, Back Bay Sci. Center, Newport Beach  
 2010 Mentor, high school student internship (2 months in the lab), Marblehead, MA  
 2010 Mentor, Ambrose Elementary School Mentor Program (group leader of 3 students), Winchester, MA  
 2008-10 Tide pool presentations, YMCA Pre-kindergarten Program, Marblehead, MA  
 2007-10 Public Open House demonstrations, Marine Science Center, Northeastern University  
 2007 Mentor, high school student's career project, Sebastopol, CA  
 2002 Undergraduate Mentoring in Environmental Biology Program, Arizona State University  
 2002 Presentations (2) on careers in marine biology, elementary and high schools, AZ  
 2001 Group Leader, South Shore Elementary School Girls' Science Club (3 students), Albany, OR  
 2001 Mentor, high school students (2) in Job Shadow Program, Corvallis, OR  
 2000-01 Co-leader, Zoology Club field trips to Friday Harbor Labs, Oregon State University

**SERVICE***UCI Department of Ecology & Evolutionary Biology*

2017-present Member, Development Committee  
 2017-18 Member, Strategic Plan Committee  
 2017-18 Member, Committee to Revise EcoEvo Undergraduate Major  
 2014-18 Member, Graduate Assistance in Areas of National Need (GAANN) Steering Committee  
 2016-17 Member, Search Committee, WATER Cluster Hire  
 2016 Panelist, Work-Life Balance, EEB Brown Bag Lunch Seminar  
 2015 Panelist, NSF REU (Research Experiences for Undergraduate) Program, UCI Ecology Club  
 2015 Reviewer, Graduate Comparative Physiology Course Paper

*UCI School of Biological Sciences*

2017-present Member, Undergraduate Honors Committee (1 of 2 department representatives)  
 2018 Member, Search Committee, Exercise Neuroscience (search delayed)  
 2016-18 Co-organizer, UCI pre-tenure faculty Science Writing Retreat (2016 UC Anza Borrego Reserve; 2017 & 2018 Catalina Island USC Wrigley Institute; ~6 participants)  
 2016 Panelist, Graduate School for Bio Sci students, Student Outreach and Retention (SOAR) Center  
 2015 Reviewer, Excellence in Research Paper, UCI Biological Sciences

*UCI*

2014-present UCI Representative, Orange County Marine Protected Area Council  
 2018 Panelist, Oceans Session, UCI Climate Solutions Summit  
 2016-17 Member & UCI OCEANS Representative, Organizing Committee, H2O Headwaters to Oceans Conference (spring 2017 at UCI)

- 2016 Participant, CLEANR and UCI OCEANS Roundtable on Assessing California's Marine Protected Area Network: Managing Regulatory Fragmentation, Shifting Baselines, and Uncertainty
- 2014 Drafted memo re: UCI Marine Research at Kerckhoff Marine Lab on behalf of UCI OCEANS
- 2014 Presentation, CEO Executive Roundtable, Crystal Cove State Park, Newport Beach, CA

### **University of California**

- 2018 Reviewer, UC Innovative Learning Technology Initiative (*reviewed syllabus for online course*)
- 2017 Reviewer, UC Presidents Postdoctoral Fellowship Program
- 2016 Panelist, UC-Mexus Grant Review Committee for dissertation research projects, UC Riverside

### **Scholarly**

Journal Article Reviews (39 since 1/1/14): *Aquatic Conservation, Biological Conservation, Biological Invasions, Biology Letters, BioScience, Conservation Biology, Conservation Letters, Deep Sea Research, Diversity & Distributions, Ecology, Ecology Letters, Ecosphere, Estuaries and Coasts, Functional Ecology, Geoscience and Remote Sensing Letters, Global Change Biology, Global Ecology & Biogeography, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Biogeography, Journal of Ecology, Journal of Experimental Marine Biology & Ecology, Marine Biology, Marine Ecology Progress Series, Nature Climate Change, Oecologia, Oikos, PLoS ONE, Proceedings of the National Academy of Sciences USA, Proceedings of the Royal Society B, Progress in Oceanography, Reviews in Fish Biology, Scientific Reports*

Proposal Reviews: *National Science Foundation (USA; 3 Bio Oce, 1 DEB, 1 REU Site), BiodivERSA, Agence Nationale de la Recherche (France), FONDECYT Chilean National Science and Technology Commission, Royal Society Te Aparangi Marsden Fund (New Zealand), Natural Environment Research Council (British), Ser Cymru National Research Network (Wales)*

Other Reviews: *NSF/NASA DISCCRS (DISsertation initiative for the advancement of Climate Change ReSearch) Fellowships, Graduate Women in Science Fellowships, International Biogeography Society Travel Grants, UC-Davis Graduate Group in Ecology Admission Applications*

- 2019-present Deputy Editor-in-Chief, *Frontiers of Biogeography*
- 2019-present Panelist, American Association of University Women (AAUW) American Fellowship Program
- 2017-present Associate Editor, *Diversity & Distributions* (manuscripts to date: 6)
- 2017-2019 Associate Editor, *Frontiers of Biogeography* (manuscripts to date: 2)
- 2016-present Associate Editor, *NeoBiota* (manuscripts to date: 0)
- 2015-present Associate Editor, *Global Ecology and Biogeography* (manuscripts to date: 17)
- 2017 Organizer, Organized Oral Session, Ecological Society of America, Portland, OR
- 2017 Panelist, Academic Job Market Discussion, International Biogeography Society, Tucson, AZ
- 2014-2016 Member, Steering Committee, 1<sup>st</sup> "Species on the Move" Conference, Tasmania, Australia
- 2016 Assessor, Safina Center Report on the blue mussel fishery in ME, MA, RI & NY states
- 2013 Organizer, Student Paper Competition, International Biogeography Society
- 2009-2013 Member, Early Career Biogeographers Committee, International Biogeography Soc.
- 2011 Biology and Biotechnology Career Panelist, Endicott College, Beverly, MA
- 2010 Participant, Rapid Assessment Survey of Marine Invasive Species from Maine to Rhode Island
- 2000,04,05,17 Judge, Student Paper Competitions, Western Society of Naturalists Annual Meeting

### **PROFESSIONAL DEVELOPMENT**

- 2018 Getting Students to Read & Preparing to Write a "W" Course Workshops, UCI
- 2018 Active Learning Institute Certification, Division of Teaching Excellence & Innovation, UCI
- 2017 Introduction to Network Analysis Workshop, International Biogeography Society, Tucson, AZ
- 2016 Bioinformatics Workshop, Species on the Move Conference, Hobart, Tasmania
- 2010 Structural Equation Modeling (1 week course), Sven Loven Centre for Marine Sci. Tjarno, Sweden

### **PROFESSIONAL SOCIETY AFFILIATIONS (past 10 years)**

Ecological Society of America, International Biogeography Society, Sigma Xi Scientific Research Society, Society for Integrative and Comparative Biology, Western Society of Naturalists

**RESEARCH SUMMARY**

My research program is focused on climate change impacts and coping mechanisms. It is becoming increasingly clear that responses to recent climate change span the biological hierarchy (from sub-organismal to biogeographic levels) and that climate change will continue and likely accelerate in the future. I take an integrative approach to understanding the mechanisms and feedbacks that determine consequences for species and communities. This approach – which incorporates experiments, observations, modeling, and syntheses – derives from my broad training in ecophysiology, population and community ecology, and biogeography. My previous work has shown (i) physiological mechanisms underpinning local and latitudinal ranges across species, (ii) impacts of climate-driven shifts in marine species distributions are of the same magnitude as non-native species invasions, and (iii) invasive species are likely to be favored over native species under climate change, based on empirical work in marine systems and cross-ecosystem syntheses. My current projects are aimed at evaluating (iv) the impacts of multiple climate stressors (ocean warming and increased CO<sub>2</sub>/acidification) on biodiversity and ecosystem functioning, using a factorial field manipulation in coastal tide pools, (v) the interaction between climate change and the impacts of invasive species on native ecosystems (including as organizer of working groups ongoing since 2011 and a new international collaboration), and (vi) the potential for acclimation, adaptation, and re-distribution to promote population and species persistence under climate change (via several lab and graduate student projects). Collectively, my research program contributes to our understanding of the mechanisms and feedbacks that link environmental conditions, organismal performance, population demography, and community interactions. This integrative perspective is critical for predicting the consequences of climate change for Earth's ecosystems.