Carol A. Blanchette

Marine Science Institute• University of California, Santa Barbara, CA 93106 SNARL, 1016 Mount Morrison Rd, Mammoth Lakes, CA 93546 Phone: 805-893-5698 (office), 805-403-9561 (mobile) E-Mail: carol.blanchette@ucsb.edu • Web: <u>http://homes.msi.ucsb.edu/~blanchette</u>

Research Interests

Population and community ecology, aquatic ecology, algal and plant ecology, effects of scale, trophic interactions, biomechanics, effects of multiple disturbances on populations, communities and ecosystems, restoration ecology, biogeography, ecological networks

Education

PhD Zoology, 1994

Oregon State University, Corvallis, OR Drs. Bruce Menge and Jane Lubchenco, advisors

BS Biology, 1988

University of Notre Dame, Notre Dame, IN Magna Cum Laude

Academic Positions

DIRECTOR, VALENTINE EASTERN SIERRA RESERVES: University of California, Santa Barbara 2016-present RESEARCH BIOLOGIST: University of California, Santa Barbara 2017-present ASSOCIATE RESEARCH BIOLOGIST: University of California, Santa Barbara 2006-2017 ASSISTANT RESEARCH BIOLOGIST: University of California, Santa Barbara 1999-2006 POST-DOCTORAL FELLOW: University of California, Santa Barbara 1995-1999 INSTRUCTOR: University of California, Santa Barbara 1997 - present POST-DOCTORAL FELLOW: Stanford University, Hopkins Marine Station 1994-1995 INSTRUCTOR: Oregon State University 1995-1996

Research Grants and Fellowships

Sigma Xi Grants-In-Aid-of-Research 1991

Oregon State University Zoology Research Grants 1990, 1991, 1992, 1993

- National Science Foundation 2001 "Capturing Data in the Field: An Application Framework for Easily Creating Custom Data and Metadata Entry Forms on Handheld and Desktop Computers" (S. Gaines, M. Jones, M. Schildhauer and C.Jones – Co-PIs)
- UC Center for Invasive Species Research and Statewide Inventory 2002 "Impacts and Control of an Invasive Seaweed in California Marine Protected Areas" (J. Goddard Co-PI)
- NASA 2004 Ocean Science Data Discovery Center: Facilitating Interactive Learning, Developing Data Literacy Skills in Students and Enhancing the Value of Remotely Sensed Data to Understanding Life on Earth" (A. Whitmer, B. Caron, V. Herrity – Co-PIs)
- NOAA, The Nature Conservancy 2003 Community-Based Eelgrass Restoration at Santa Cruz Island, CA (J. Altstatt Co-PI)

- NOAA, The Nature Conservancy 2004 Community-Based Eelgrass Restoration and Monitoring at Santa Cruz Island, CA (J. Altstatt – Co-PI)
- CA SeaGrant 2005 Collecting Sea Palms: Planning Sustainable Use In A Variable Environment (K. Nielsen Co-Pl)
- CA SeaGrant 2007 Baseline Data Collection for Rocky Intertidal Marine Protected Areas in the Central Coast of California (P. Raimondi Co-PI)
- National Science Foundation 2008 "US-Chile Planning Visit: Ecological Forecasting of Intertidal Ecosystems in Chile" (B. Helmuth, S. Place, and D Wethey Co-PIs)
- Packard Foundation 2009-2014 "Understanding the California Current Large Marine Ecosystem under Climate Change: Delivering Sound Science for Policy" (S. Gaines, L. Washburn, R. Warner and J. Caselle Co-PIs)
- National Science Foundation 2010 "OCEAN ACIDIFICATION: Category 1: COLLABORATIVE RESEARCH: Acclimation and Adaptation to Ocean Acidification of Key Ecosystem Components in the California Current System" (G. Hofmann and L. Washburn – Co-PIs)
- CA SeaGrant 2011 "Baseline Characterization and Monitoring of Rocky Intertidal Ecosystems for MPAs in the South Coast Region" (P. Raimondi (UCSC) Co-PI)
- CA SeaGrant 2011 "Integrative Assessment of baseline ecological and socioeconomic conditions and initial changes within the South Coast MPA region" (J. Caselle Co-PI)
- National Science Foundation 2012 "Ocean Acidification: Collaborative Research: OMEGAS II Linking Ecological and Organismal Responses to the Ocean Acidification Seascape in the California Current System" (G. Hofmann and L. Washburn – Co-PIs)
- US Army 2012 "Characterization of rocky intertidal, kelp forest and deep rocky and sandy ecosystems at San Clemente Island" (P. Raimondi, D. Pondella, J. Lindholm Co-PIs)
- Packard Foundation 2013-2015 "Understanding the California Current Large Marine Ecosystem under Climate Change: Delivering Sound Science for Policy" (S. Gaines, L. Washburn, R. Warner and J. Caselle Co-PIs)
- Bureau of Ocean Energy Management 2014-2015 Maintenance, Calibration and Deployment of a Seafet 97pH Meter
- Packard Foundation 2015-2017 PISCO Science for an Informed Society (L. Washburn and J Caselle Co-PIs) Bureau of Ocean Energy Management 2015-2017 MARINe Rocky Intertidal Survey Program
- Packard Foundation 2017-2019 PISCO Science for an Informed Society (L. Washburn and J Caselle Co-PIs)
- National Science Foundation 2015-2019 Long Term Ecological Research (LTER) National Communications Office (F. Davis, J. Caselle, Hespanha, SR, Schildhauer, MP Co-PIs)
- National Science Foundation 2017-2019 Developing a sustainable plan to advance research and education at the Valentine Eastern Sierra Reserves (M. Wittmann, Co-PI)
- California Department of Forestry and Fire Protection 2019-2021 Valentine Reserve Fuel Reduction
- National Science Foundation 2020-2025 FUERTE (Field-based Undergraduate Engagement through Research, Teaching and Education): a program to increase diversity and inclusion in conservation and environmental science (G. Hofmann, D. McCauley, M. Phommasa and H. Young, Co-PIs)
- U.S. Army Engineer Research and Development Center 2023-2025 Climate and natural hazards, snow-covered and mountain environment sensing research (J. Dozier and N. Bair, Co-Pls)
- California Ocean Protection Council 2019-2023 Assessment of Rocky Intertidal habitats for the California Marine Protected Area Monitoring Program (J. Casselle and P. Raimondi, Co-PIs)
- Mammoth Lakes Recreation 2022-2025 Valentine Eastern Sierra Reserves Outdoor Science Education Program
- California Wildlife Conservation Board 2021-2025 Sierra Nevada Aquatic Research Laboratory Facilities Enhancement Project (M. Wittmann, Co-PI)
- National Science Foundation 2023-2024 Building science-community collaborations to strengthen community resilience in the Eastern Sierra Nevada (M. Lee, Co-PI) pending
- UC Climate Resilience 2023- 2025 A climate-vulnerability risk assessment of California's mountain lakes for actionable management (S. Sadro, Co-PI) pending
- National Science Foundation 2024-2025 FIRE-PLAN: Planning Collaborative Wildland Fire Science and Management in the Payahuunadü /Owens Valley & Eastern Sierra Regions of California (J. Richland and G. Johnson, Co-Pls) - pending

Academic Honors, Awards and Fellowships

Bausch and Lomb Honorary Science Award Alpha Epsilon Delta Honor Society Bernard J. Hanks UNDERC Fellowship Friday Harbor Fellowship Western Society of Naturalists - Outstanding Paper Award Phycological Society of America Croasdale Fellowship Seaspace Scholarship Holt Marine Education Fund Fellowship American Society of Zoologists - Outstanding Paper Award

Teaching Experience

GUEST LECTURER: UNIVERSITY OF CALIFORNIA, SANTA BARBARA (1999-PRESENT)

- EARTH 4 Introduction to Oceanography
- EEMB 155 CC Global Change Biology
- EEMB 182 Communicating Ocean Science
- ENV S 111/GEOG 149 The California Channel Islands
- ESM 217 Restoration Ecology
- EEMB 188RE Conservation and Restoration Seminar
- EEMB 182 Communicating Ocean Science
- EEMB 152/ESM 260 Applied Marine Ecology
- EEMB 94 Issues in Marine Conservation

INSTRUCTOR: UNIVERSITY OF CALIFORNIA, SANTA BARBARA

- EEMB 120 Introduction to Ecology (1997, 1998)
- EEMB 152 Applied Marine Ecology (1998, 1999)

INSTRUCTOR: OREGON STATE UNIVERSITY

• Marine Biology and Phycology (1992 - 1996)

GRADUATE TEACHING ASSISTANT: OREGON STATE UNIVERSITY

- General Zoology (1988-1989)
- Natural History of Invertebrates (1989)
- Marine Biology (1990, 1991)
- Marine Ecology (1991, 1992, 1993)
- Anatomy and Physiology (1992)

TEACHING ASSISTANT: UNIVERSITY OF NOTRE DAME

- General Biology (1987-1988)
- Aquatic Biology (1988)

Mentoring

POSTDOCTORAL SCHOLARS SUPERVISED

Luz Verónica Rodríguez Villanueva, 2007-2008

GRADUATE DEGREE COMMITTEES

MA COMMITTEES

Christine (Addison) Bukel, UCSB Marine Science, 2010 Reuben MacFarlan, UCSB Marine Science, 2012 Heather Fulton Bennett, Moss Landing Marine Lab, 2016

PhD Committees

Carola Flores, PhD Candidate, UCSB Department of Anthropology, 2014 Lydia Kapsenberg Ecology, UCSB Evolution and Marine Biology, 2015 Caitlin Fong, Ecology, UCSB Evolution and Marine Biology, 2016

UNDERGRADUATE STUDENTS SUPERVISED:

[Note: In the course of my research career at UCSB I have been directly and indirectly involved in mentoring many undergraduate students. The list below represents only those who have completed independent or thesis-based research projects and/or substantial involvement in our research program.]

Alex Cohen, Brittany Hancock, Chris Teague, Clark Marino, Gabi Alongi, Holly Long, Jessica Chappel, Laura West, Maureen Wise, Olivia Turnross, Paula Higgerson, Scott Toyama, Skye Moret, Kate Behrman

Publications

- Blanchette, C. A. 1994. The effects of biomechanical and ecological factors on population and community structure of wave-exposed, intertidal macroalgae. Doctoral dissertation, Oregon State University, Corvallis, OR 282 pp.
- Gaylord, B., C. A. Blanchette and M. Denny. 1994. Mechanical consequences of size in wave-swept algae. *Ecological Monographs* 64:287-313.
- Menge, B. A., E. L. Berlow, C. A. Blanchette, S. A. Navarrete, and S. B. Yamada. 1994. The keystone species concept: variation in interaction strength in a rocky intertidal habitat. *Ecological Monographs* 64:249-286.
- Blanchette, C. A. 1996. Seasonal patterns of disturbance influence recruitment of the sea palm, *Postelsia palmaeformis*. *Journal of Experimental Marine Biology and Ecology 197:1-14*.
- Blanchette, C. A. 1997. Size and survival of intertidal plants in response to wave action: A case study with *Fucus* gardneri . *Ecology* 78(5):1563-1578.
- Blanchette, C. A., S. E. Worcester, D. Reed and S.J. Holbrook. 1999. Algal Morphology, Flow, and Spatially Variable Recruitment of Surfgrass, *Phyllospadix torreyi*. *Marine Ecology Progress Series* 184:119-128.
- Blanchette, C. A., C. Thornber, and S. Gaines. 2000. Effects of Wave exposure on Intertidal Fucoid Algae. *Proceedings of the California Islands Symposium 5:347-355*.
- Holbrook, Sally J., Daniel C. Reed, Kimberly Hansen and Carol A. Blanchette. 2000. **Spatial and Temporal Patterns** of Predation on Seeds of Surfgrass, *Phyllospadix torreyi*. *Marine Biology* 136:739-747.
- Denny, M. W. and C. A. Blanchette. 2000. Hydrodynamics, shell shape, behavior and survivorship in the owl limpet, *Lottia gigantea*. *Journal of Experimental Biology 203:2623-2639*.
- Blanchette, C. A., S. Gaines, and B. Miner. 2002. Geographic Variability in Form, Size & Survival of Egregia menziesii (Turner) Areschoug around Point Conception, California. Marine Ecology Progress Series 239:69-82.
- Borer, Elizabeth T., Kurt Anderson, Carol A. Blanchette, Bernardo Broitman, Scott D. Cooper, Benjamin Halpern, Eric W. Seabloom, Jonathan B. Shurin. 2002. **Topological approaches to food web analyses: a few modifications may improve our insights** *Oikos 99:397-401.*
- Shurin, Jonathan B., Elizabeth T. Borer, Eric W. Seabloom, Kurt Anderson, Carol A. Blanchette, Bernardo Broitman, Scott D. Cooper, and Benjamin Halpern. 2002. A cross-ecosystem comparison of the strength of trophic cascades. *Ecology Letters 5:785-791.*
- Helmuth, Brian, Chris Harley, Patti Halpin, Michael O'Donnell, Gretchen E. Hofmann, and Carol Blanchette. 2002.
 Climate change and latitudinal patterns of intertidal thermal stress: Is life always hotter, south of the border? *Science 298:1015-1017.*

- Menge, Bruce A., Carol Blanchette, Pete Raimondi, Tess Freidenburg, Steve Gaines, Jane Lubchenco, Dave Lohse, Greg Hudson, Melissa Foley, and Jacque Pamplin. 2004. **Species Interaction Strength: Testing model** predictions along an upwelling gradient. *Ecological Monographs* 74(4):663-684.
- Borer, Elizabeth T., Eric W. Seabloom, Jonathan B. Shurin, Kurt Anderson, Carol A. Blanchette, Bernardo Broitman, Scott D. Cooper, Benjamin Halpern. 2005. What determines the strength of a trophic cascade? *Ecology* 86:528-537.
- Blanchette, Carol A., Daniel V. Richards, John M. Engle, Bernardo R. Broitman, Steven D. Gaines. 2005. *Proceedings* of the California Islands Symposium. Vol.6:435-441. Regime Shifts, Community Change and Population Booms of Keystone Predators at the Channel Islands.
- Menge, B. A., G. W. Allison, C. A. Blanchette, T. M. Farrell, A. M. Olson, T. Turner, and P. van Tamelen. 2005. Stasis Or Kinesis? Hidden Dynamics Of A Rocky Intertidal Macrophyte Mosaic Revealed By A Spatially-Explicit Approach. Journal of Experimental Marine Biology and Ecology 314:3-39.
- Broitman, Bernardo R., Carol A. Blanchette, Steven D. Gaines. 2005 Recruitment of intertidal invertebrates and oceanographic variability at Santa Cruz Island, California *Limnology and Oceanography* 50(5)1473-1479.
- Blanchette, Carol A., Bernardo R. Broitman, Steven D. Gaines. 2006. Intertidal community structure and oceanographic patterns around Santa Cruz Island, CA, USA. *Marine Biology* 149:689-701.
- Nielsen, Karina J., C. A. Blanchette, B. A. Menge and J. Lubchenco. 2006. Physiological snapshots reflect ecological performance of the sea palm, *Postelsia palmaeformis* (Phaeophycaea) across intertidal elevational and exposure gradients. *Journal of Phycology* 42:548-559.
- Helmuth, Brian, Bernardo Broitman, Carol Blanchette, Sarah Gilman, Patricia Halpin, Chris Harley Michael O'Donnell, Gretchen E. Hofmann, Bruce Menge and Denise Strickland. 2006. **Mosaic patterns of thermal stress in the rocky intertidal zone: Implications for climate change** *Ecological Monographs* 76(4):461-479.
- Blanchette, Carol A., and Steven D. Gaines. 2007. Distribution, Abundance, Size and Recruitment of the mussel, *Mytilus californianus*, across a major oceanographic and biogeographic boundary at Point Conception, California, USA. Journal of Experimental Marine Biology and Ecology 340:268-279.
- Blanchette, Carol A., B. Helmuth and Steven D. Gaines. 2007. Spatial patterns of growth in the mussel, *Mytilus californianus*, across a major oceanographic and biogeographic boundary at Point Conception, California, USA. *Journal of Experimental Marine Biology and Ecology* 340:126-148.
- Jones, Christopher, Carol Blanchette, Matthew Brooke, John Harris, Matthew Jones, Mark Schildhauer. 2007. A Metadata-driven Framework for Generating Field Data Entry Interfaces in Ecology Ecological Informatics 2:270-278
- Wieters, Evie A., Steven D. Gaines, Sergio A. Navarrete, Carol A. Blanchette, and Bruce A. Menge. 2008. Scales of Dispersal and the Biogeography of Marine Predator-Prey Interactions American Naturalist 171:405–417
- Broitman, B.R., C.A. Blanchette, B.A. Menge, J. Lubchenco, C. Krenz, M. Foley, P.T. Raimondi, D. Lohse and S.D.
 Gaines. 2008. Spatial and temporal variability patterns of invertebrate recruitment along the West coast of the United States *Ecological Monographs* 78(3):403-421
- Blanchette, C.A., C.M. Miner, P.T. Raimondi, D. Lohse, K.E.K. Heady, and B.R. Broitman. 2008. **Biogeographic** patterns of rocky intertidal communities along the Pacific coast of North America *Journal of Biogeography* 35:1593-1607
- Broitman, B.R., N. Mieszkowska, B. Helmuth and C.A. Blanchette. 2008. Climate and recruitment of rocky shore intertidal invertebrates in the eastern north Atlantic *Ecology* 89(11):81-90
- Broitman, B.R., L. Szathmary, K.A.S. Mislan, C.A. Blanchette, and B. Helmuth. 2009. Predator-prey interactions under climate change: the importance of habitat vs.body temperature *Oikos* 118:219-224
- Reed, D.C., S.J. Holbrook, C.A. Blanchette and S. Worcester. 2009. Patterns and sources of variation in flowering, seed supply, and seedling recruitment in surfgrass *Phyllospadix torreyi* Marine Ecology Progress Series

384:97-106

- Blanchette, C.A., P.T. Raimondi, and B.R. Broitman. 2009. Spatial patterns of intertidal community structure across the California Channel Islands and links to ocean temperature Pages 161-173 in Damiani, C.C. and D.K. Garcelon (eds.) *Proceedings of the 7th California Islands Symposium* Institute for Wildlife Studies, Arcata, CA.
- Blanchette, C.A., D.R. Schiel, E.A. Wieters, B.R. Broitman, and B.P. Kinlan. 2009. Trophic structure and diversity in rocky intertidal upwelling ecosystems: A comparison of community patterns across California, Chile, South Africa and New Zealand *Progress in Oceanogprahy 83:107-116.*
- Thompson, Sarah Ann, Heather Knoll, Carol A. Blanchette and Karina J. Nielsen. 2010. **Population consequences of biomass loss due to commercial collection of the wild seaweed** *Postelsia palmaeformis Marine Ecology Progress Series* 413:17-31
- Mislan, K.A.S., Carol A. Blanchette, Bernardo R. Broitman, and Libe Washburn. 2011. Spatial variability of emergence, splash, surge, and submergence in wave-exposed rocky-shore ecosystems *Limnology and Oceanogprahy 56(3):857-866.*
- Watson, JR, CG Hays, PT Raimondi, S Mitarai, C Dong, JC McWilliams, CA Blanchette, JE Caselle, DA Siegel. 2011. **Currents connecting communities: nearshore community similarity and ocean circulation** *Ecology 92(6):1193-1200.*
- Buckel, Christine Addison, Carol Anne Blanchette, Robert R. Warner and Steven D. Gaines. 2012. Where a male is hard to find: consequences of male rarity in the surfgrass *Phyllospadix torreyi* Marine Ecology Progress Series 449: 121–132.
- Kefi, Sonia, Eric L. Berlow, Evie A. Wieters, Sergio A. Navarrete, Owen L. Petchey, Spencer A. Wood, Alice Boit, Lucas N. Joppa, Kevin D. Lafferty, Richard J. Williams, Neo D. Martinez, Bruce A. Menge, Carol A. Blanchette, Alison C. Iles and Ulrich Brose. 2012. More than a meal... integrating non-feeding interactions into food webs Ecology Letters 15:291-300.
- Hofmann, G.E., Carol A. Blanchette, Emily B. Rivest, and Lydia Kapsenberg. 2013. Taking the pulse of marine ecosystems: The importance of coupling long-term physical and biological observations in the context of global change biology. *Oceanography 26(3)140-148.*
- Hofmann, G.E., T. G. Evans, M.W. Kelly, J. L. Padilla-Gamiño, C. A. Blanchette, L. Washburn, F. Chan, M. A. McManus, B. A. Menge, B. Gaylord, T. M. Hill, E. Sanford, M. LaVigne, J.M. Rose, L. Kapsenberg, and J. M. Dutton. Exploring local adaptation and the ocean acidification seascape studies in the California Current Large Marine Ecosystem. 2013. *Biogeosciences 11(4):1053-1064*..
- Gaitán-Espitia, Juan Diego, Joshua R. Hancock, Jacqueline L. Padilla-Gamiño, Emily B. Rivest, Carol A. Blanchette, Daniel C. Reed & Gretchen E. Hofmann. 2014. Interactive effects of elevated temperature and pCO₂ on earlylife-history stages of the giant kelp *Macrocystis pyrifera*. JEMBE 457:51-58.
- Pfister, C.A., AJ Esbaugh, CA Frieder, H Baumann, EE Bockmon, MM White, BR Carter, HM Benway, CA Blanchette, E Carrington, JB McClintock, DC McCorkle, WR McGillis, TA Mooney, P Ziveri. 2014. Detecting the Unexpected: A Research Framework for Ocean Acidification. *Environmental science & technology* 48 (17), 9982-9994.
- Rivadeneira, Marcelo M., Alex H. Alballay, Jaime A. Villafaña, Pete Raimondi, Carol A. Blanchette, and Phillip Fenberg. 2015. Geographic patterns of diversification and the latitudinal gradient of richness of rocky intertidal gastropods: the 'into the tropical museum' hypothesis. Global Ecology and Biogeography 24, 1149– 1158.
- Ambrose, R.F., C. Blanchette, S.N. Murray, P. Raimondi, and J. Smith. 2015. State of the Bay Report. "Habitat Conditions: Rocky Intertidal." *Urban Coast* 5(1): 85-97.
- Blanchette, Carol A., Pete Raimondi, Rani Gaddam, Jennifer Burnaford, Jayson Smith, D.M. Hubbard, J.E. Dugan, Jessie Altstatt and Julie Bursek. 2015. South Coast Baseline Program Final Report: Rocky Intertidal Systems CA Sea Grant and CA Ocean Science Trust Technical Report.

- Murray, S., R.F. Ambrose, C. Bell, C.A. Blanchette, J.L. Burnaford, M.N. Dethier, J.M. Engle, M.S. Foster, C.M. Miner, K.J. Nielsen, J.S. Pearse, P. Raimondi, D.V. Richards, J.R. Smith, and S. Weisberg. 2016. Evaluating Ecological States of West Coast Rocky Intertidal Communities: A Best Professional Judgment Exercise. Ecological Indicators 60 (2016) 802–814
- Sagarin, Raphael D., John Adams, Carol A Blanchette, Richard C Brusca, Jon Chorover, Julia E Cole, Fiorenza Micheli, Adrian Munguia-Vega, Chelsea M Rochman, Kevin Bonine, Joost van Haren, and Peter A Troch.2016. **Between control and complexity: opportunities and challenges for marine mesocosms**. Frontiers in Ecology and the Environment 14(7): 389–396
- Caselle, Jennifer and Carol A. Blanchette. 2016. South Coast Baseline Program Final Report: Integration. CA Sea Grant and CA Ocean Science Trust Technical Report
- Helmuth, Brian, Francis Choi, Allison Matzelle, Jessica L. Torossian, Scott L. Morello, K.A.S. Mislan, Lauren Yamane, Denise Strickland, P. Lauren Szathmary, Sarah E. Gilman, Alyson Tockstein, Thomas J. Hilbish, Michael T. Burrows, Anne Marie Power, Elizabeth Gosling, Nova Mieszkowska, Christopher D.G. Harley, Michael Nishizaki, Emily Carrington, Bruce Menge, Laura Petes, Melissa M. Foley, Angela Johnson, Megan Poole, Mae M. Noble, Erin L. Richmond, Matt Robart, Jonathan Robin, Jerod Sapp, Jackie Sones, Bernardo R. Broitman, Mark W. Denny, Katharine J. Mach, Luke P. Miller, Michael O' Donnell, Philip Ross, Gretchen E. Hofmann, Mackenzie Zippay, Carol Blanchette, J.A. Macfarlan, Eugenio Carpizo-Ituarte, Benjamin Ruttenberg, Carlos E. Peña Mejía, Christopher D. McQuaid, Justin Lathlean, Cristián J. Monaco, Katy R. Nicastro, & Gerardo Zardi. 2016. Long-term, high frequency in situ measurements of intertidal mussel bed temperatures using biomimetic sensors. *Scientific Data*, DOI: 10.1038/sdata.2016.87
- Blanchette, Carol A. and Peter Raimondi. 2016. Characterization of Rocky Intertidal Ecosystems at San Clemente Island. US Army Technical Report
- Kroeker, Kristy J., Eric Sanford, Jeremy M. Rose, Carol A. Blanchette, Francis Chan, Francisco P. Chavez, Brian
 Gaylord, Brian Helmuth, Tessa M. Hill, Gretchen E. Hofmann, Margaret A. McManus, Bruce A. Menge, Karina J.
 Nielsen, Peter T. Raimondi, Ann D. Russell and Libe Washburn. 2016. Interacting environmental mosaics drive
 geographic variation in mussel performance and predation vulnerability *Ecology Letters* 19:771–779.
- Thakar, Heather B., Michael A. Glassow and Carol A. Blanchette. 2017. Reconsidering evidence of human impacts: Implications of within-site variation of growth rates in *Mytilus californianus* along tidal gradients *Quaternary* International 427:151-159.
- Rivest, Emily B., Margaret O'Brien, Lydia Kapsenberg, Chris C. Gotschalk, Carol A. Blanchette, Umihiko Hoshijima and Gretchen E. Hofmann. 2016. **Beyond the benchtop and the benthos: Dataset management planning and design for time series of ocean carbonate chemistry associated with Durafet®-based pH sensors.** *Ecological Informatics* 36:209-220.
- Thakar, Heather B., Michael A. Glassow and Carol A. Blanchette. 2017. The forest and the trees: Small-scale ecological variability and archaeological interpretations of temporal changes in California mussel shell size. *Quaternary International* 427:246-249.
- Chan, F., J. A. Barth, C. A. Blanchette, R. H. Byrne, F. Chavez, O. Cheriton, R. A. Feely, G. Friederich, B. Gaylord, T. Gouhier, S. Hacker, T. Hill, G. Hofmann, M. A. McManus, B. A. Menge, K. J. Nielsen, A. Russell, E. Sanford, J. Sevadjian & L. Washburn. 2017. Persistent spatial structuring of coastal ocean acidification in the California Current System SCIENTIFIC REPORTS | 7: 2526 | DOI:10.1038/s41598-017-02777.
- Miner, C. Melissa, Jennifer L. Burnaford, Richard F. Ambrose, Liam Antrim, Heath Bohlmann, Carol A. Blanchette, John M. Engle, Steven C. Fradkin, Rani Gaddam, Christopher D. G. Harley, Benjamin G. Miner, Steven N. Murray, Jayson R. Smith, Stephen G. Whitaker, Peter T. Raimondi. 2018. Large-scale impacts of sea star wasting disease (SSWD) on intertidal sea stars and implications for recovery PLOS ONE | https://doi.org/10.1371/journal.pone.0192870
- Freiwald, Jan, Ryan Meyer, Jennifer E Caselle, Carol A Blanchette, Kevin Hovel, Doug Neilson, Jenifer Dugan, Jessica Altstatt, Karina Nielsen, Julie Bursek. 2018. Citizen science monitoring of marine protected areas: Case

studies and recommendations for integration into monitoring programs. *Marine Ecology* DOI: 10.1111/maec.12470.

- Claisse, Jeremy T., Carol A Blanchette, Jenifer E Dugan, Jonathan P Williams, Jan Freiwald, Daniel J Pondella, Nicholas K Schooler, David M Hubbard, Kathryn Davis, Laurel A Zahn, Chelsea M Williams, Jennifer E Caselle.
 2018. Biogeographic patterns of communities across diverse marine ecosystems in southern California. Marine Ecology DOI: 10.1111/maec.12453.
- Williams, Jonathan P. Chelsea M. Williams, Carol A. Blanchette, Jeremy T. Claisse, Daniel J. Pondella II, and Jennifer
 E. Caselle. 2018. Where the Weird Things Are: A Collection of Species Range Extensions in the Southern
 California Bight. Bulletin of the Southern California Academy of Sciences 117(3):189-202.
- Menge, Bruce A., Kristen Milligan, Jennifer E. Caselle, John A. Barth, Carol A. Blanchette, Mark H. Carr, Francis Chan, Robert K. Cowen, Mark Denny, Steven D. Gaines, Gretchen E. Hofmann, Kristy J. Kroeker, Jane Lubchenco, Margaret A. McManus, Mark Novak, Stephen R. Palumbi, Peter T. Raimondi, George N. Somero, Robert R. Warner, Libe Washburn, and J. Wilson White. 2019. PISCO: Advances made through the formation of a large-scale, long-term consortium for integrated understanding of coastal ecosystem dynamics. Oceanography 32(3):16-25.
- Menge, Bruce A., Jennifer E. Caselle, Kristen Milligan, Sarah A. Gravem, Tarik C. Gouhier, J. Wilson White, John A. Barth, Carol A. Blanchette, Mark H. Carr, Francis Chan, Jane Lubchenco, Margaret A. McManus, Mark Novak, Peter T. Raimondi, and Libe Washburn. 2019. Integrating Coastal Oceanic and Benthic Ecological Approaches for understanding large-scale meta-ecosystem dynamics. Integrating Coastal Oceanic and Benthic Ecological Approaches for understanding large-scale meta-ecosystem dynamics. Oceanography 32(3):38-49.
- Menge, Bruce A., Jennifer E. Caselle, John A. Barth, Carol A. Blanchette, Mark H. Carr, Francis Chan, Sarah Gravem, Tarik C. Gouhier, Jane Lubchenco, Margaret A. McManus, Kristen Milligan, Mark Novak, Peter T. Raimondi, Libe Washburn, and J. Wilson White. 2019. Community Responses to Climate-Related Variability and Disease: the critical importance of long-term research. Oceanography 32(3):72-81.
- White, J. Wilson, Mark H. Carr, Jennifer E. Caselle, Libe Washburn, C. Brock Woodson, Stephen R. Palumbi, Peter M. Carlson, Robert R. Warner, Bruce A. Menge, John A. Barth, Carol A. Blanchette, Peter T. Raimondi, and Kristen Milligan. 2019. Connectivity, Dispersal, and Recruitment: connecting benthic communities and the coastal ocean. Oceanography 32(3):50-59.
- Raimondi, Peter T., C. Melissa Miner, Bruce A. Menge, Carol A. Blanchette, and David P. Lohse. 2019. Quantitative Biogeography: Large-Scale, Long-Term Change in the Rocky Intertidal Region of the California Current Large Marine Ecosystem. Oceanography 32(3):26-37.
- Menge, B.A., J.E. Caselle, K. Milligan, S.A. Gravem, T.C. Gouhier, J.W. White, J.A. Barth, C.A. Blanchette, M.H. Carr, F. Chan, J. Lubchenco, M.A. McManus, M. Novak, P.T. Raimondi, and L. Washburn. 2019. Integrating coastal oceanic and benthic ecological approaches for understanding large-scale metaecosystem dynamics. Oceanography 32(3):38–49, https://doi.org/10.5670/oceanog.2019.309.
- Menge, B.A., K. Milligan, J.E. Caselle, J.A. Barth, C.A. Blanchette, M.H. Carr, F. Chan, R.K. Cowen, M. Denny, S.D. Gaines, G.E. Hofmann, K.J. Kroeker, J. Lubchenco, M.A. McManus, M. Novak, S.R. Palumbi, P.T. Raimondi, G.N. Somero, R.R. Warner, L. Washburn, and J.W. White. 2019. PISCO: Advances made through the formation of a large-scale, long-term consortium for integrated understanding of coastal ecosystem dynamics. Oceanography 32(3):16–25, https://doi.org/ 10.5670/oceanog.2019.307.
- Menge, B.A., J.E. Caselle, J.A. Barth, C.A. Blanchette, M.H. Carr, F. Chan, S. Gravem, T.C. Gouhier, J. Lubchenco, M.A. McManus, K. Milligan, M. Novak, P.T. Raimondi, L. Washburn, and J.W. White. 2019. Community

responses to climate-related variability and disease: The critical importance of long-term research. Oceanography 32(3):72–81, https://doi.org/ 10.5670/oceanog.2019.313.

- White, J.W., M.H. Carr, J.E. Caselle, L. Washburn, C.B. Woodson, S.R. Palumbi, P.M. Carlson, R.R. Warner, B.A. Menge, J.A. Barth, C.A. Blanchette, P.T. Raimondi, and K. Milligan. 2019. Connectivity, dispersal, and recruitment: Connecting benthic communities and the coastal ocean. Oceanography 32(3):50–59, https://doi.org/10.5670/ oceanog.2019.310.
- Raimondi, P.T., C.M. Miner, B.A. Menge, C.A. Blanchette, and D.P. Lohse. 2019. Quantitative biogeography: Largescale, long-term change in the rocky intertidal region of the California Current Large Marine Ecosystem. Oceanography 32(3):26–37, <u>https://doi.org/10.5670/oceanog.2019.308</u>.
- Rose JM, Blanchette CA, Chan F, Gouhier TC, Raimondi PT, Sanford E, et al. 2020. Biogeography of ocean acidification: Differential field performance of transplanted mussels to upwelling-driven variation in carbonate chemistry. PLoS ONE 15(7): e0234075. https://doi.org/10.1371/journal.pone.0234075.

Book Chapters and Edited Volumes

- Blanchette Carol A., Jenn Caselle, Steve Gaines, Robert Warner, Pete Raimondi, Mark Carr, Mark Denny, George Somero, Bruce Menge And Jane Lubchenco. 2001. Marine Ecological Research of The PISCO Consortium. *Journal of the Marine Biological Association* 28:8-10.
- Blanchette, Carol A. **Seagrasses.** 2007. *In* Encyclopedia of Tidepools. Edited by Steven Gaines and Mark Denny. University of California Press.
- Blanchette, Carol A., M.J. O'Donnell and H.L. Stewart. 2008. **Waves as an ecological process** *In* Encyclopedia of Ecology. Edited by Luca Palmeri and Sven Erik Jorgensen. Elsevier Publishers.
- Blanchette, Carol A., M.W. Denny, J. Engle, B. Helmuth, L. Miller, K.J. Nielsen, and J. Smith. 2016. Intertidal Ecosystems of California in Ecosystems of California—A Source Book. Edited by Hal Mooney and Erika Zavaleta.. University of California Press.
- Blanchette, Carol and Jenifer Dugan. 2017. The Golden Forest Exploring a Coastal California Ecosystem. Globe Pequot Press / Muddy Boots. ISBN-10: 163076180X

Contributed Paper Presentations

1990	Oregon State University Biology Graduate Student Symposium, Newport OR "Factors influencing distribution and aggregation size in <i>Postelsia palmaeformis</i> "
1992	Western Society of Naturalists, Santa Barbara, CA "Hydrodynamic forces on intertidal algae: the roles of velocity, drag and the acceleration reaction" Pacific Ecology Conference, Friday Harbor, WA "Mechanical consequences of size in wave-swept algae"
1993	 Western Society of Naturalists, Newport, OR "Effects of limpet grazing on sea palm size, seasonal abundance and understory community structure" Pacific Ecology Conference, Oregon Institute of Marine Biology, Charleston, OR "Are limpets keystone grazers in the <i>Postelsia</i> understory community?" American Society of Zoologists, Los Angeles, CA "Going with the flow: effects of wave exposure on thallus size and growth in the intertidal alga <i>Fucus gardneri</i>."
1004	Desific Feelery Conference, Demfield Marine Station Vancouver Island, Dritich Columbia "Coing with the

1994 Pacific Ecology Conference, Bamfield Marine Station, Vancouver Island, British Columbia "Going with the flow: effects of wave exposure on thallus size and growth in the intertidal alga *Fucus gardneri*."

1996	Ecological Society of America, Providence, RI "Ripping knotted wrackweed Down East: Do breaking strengths of Ascophyllum vary across seasons and sites?"
	Western Society of Naturalists, Port Townsend, WA "Sea palm recruitment and the seasonal effects of mussel-clearing disturbance"
1997	International Temperate Reef Symposium, Santiago, Chile "Facilitation of surfgrass recruitment by host algal morphology and water flow
	Western Society of Naturalists, La Paz, BCS, Mexico – "Ripping knotted wrackweed down east: do breaking strengths of <i>Ascophyllum</i> vary across seasons and sites?" (Carol Blanchette, Suzanne Worcester, and Steve Gaines)
1999	California Islands Symposium, Santa Barbara, CA "Effects of Wave exposure on Intertidal Fucoid Algae" (Carol Blanchette, Carol Thornber, Steve Gaines)
2001	Ecological Society of America, Madison, WI "Cross-scale linkages between bottom-up factors and interaction strength in rocky intertidal communities" (Bruce A Menge, Carol Blanchette, Tess L Freidenburg, Steven D Gaines, Jane Lubchenco, David Lohse, Peter Raimondi)
2002	Eastern Pacific Ocean Conference, Mt.Hood, "Contrasting contributors to nearshore marine community

- structure around Pt. Conception, California" International Temperate Reef Symposium, Christchurch, New Zealand "Contrasting contributors to nearshore marine community structure around Pt. Conception, California"
- 2003 Western Society of Naturalists, Long Beach, CA "Extreme Spatial Variation in the Distribution, Abundance and Growth of the Intertidal Dominant, *Mytilus californianus*, around Point Conception California" Eastern Pacific Ocean Conference, Catalina Island, CA "Recruitment dynamics and oceanographically-based linkages to community structure around Santa Cruz Island, California" California Islands Symposium, Ventura, CA "Regime Shifts, Community Change and Population Booms of Keystone Predators at the Channel Islands"
- 2004 Western Society of Naturalists, Santa Rosa, CA "Recruitment dynamics and oceanographically-based linkages to community structure around Santa Cruz Island, California"
 Ecological Society of America, Portland, OR "Regime Shifts, Community Change and Population Booms of Keystone Predators at the Channel Islands"
- 2006 Western Society of Naturalists, Redmond, WA "Biogeographical variation in rocky intertidal community structure along the pacific coast of North America"
 International Temperate Reef Symposium, Santa Barbara, CA, USA "Latitudinal variation in rocky intertidal community structure along the west coast of North America"
- Eastern Boundary Upwelling Ecosystems Conference, Las Palmas, Gran Canaria, Spain "Trophic structure in rock intertidal communities across the California, Humboldt and Benguela upwelling ecosystems"
 Ocean Sciences (Orlando, FL) "The propagating response of inner shelf circulation to wind relaxations in a coastal upwelling system" (Libe Washburn, Chris Melton, Chris Gotschalk, Carol Blanchette, and Cynthia Cudaback)"
- 2011 Ocean Sciences (Portland, OR) "Ocean Sciences (Portland, Or) Variability In Ph, T, And O₂ In Nearshore Waters Of The Oregon-California Coast And Implications For Coastal Benthic Calcifiersm" (A.D. Russell, C. Blanchette, F. Chan, F. Chavez, G. Friedrich, T. M. Hill, M. A. McManus, B. A. Menge, P. Raimundi, E. Sanford)

- 2012 Ecological Society of America (Portland, OR) The influence of upwelling-driven ocean acidification on growth of the California mussel, *Mytilus californianus* (Jeremy M. Rose, Carol A. Blanchette, Eric Sanford, Rachael C. Williams, Peter T. Raimondi, Bruce A. Menge)
 - CA Islands Symposium (Ventura, CA) Long-term climate variability and links between patterns of coastal marine invertebrate recruitment and adult abundance around Santa Cruz Island from 1995-2010 Ocean Sciences (Salt Lake City, UT) Variability in pH, T, and O₂ in nearshore waters of the Oregon-California coast and implications FOR coastal benthic calcifiers
- 2014 Ocean Sciences (Honolulu, HI) Widespread detection of coastal ocean acidification across the California Current system
 - Ecological Society of America (Sacramento, CA) Deconstructing the relative influence of upwelling-driven ocean acidification on field performance of the California mussel *Mytilus californianus* along the California Current Large Marine Ecosystem
 - Eastern Pacific Ocean Conference (Fallen Leaf Lake, CA) Regional ocean circulation as a major driver of mussel recruitment around Santa Cruz Island, CA
 - Eastern Pacific Ocean Conference (Fallen Leaf Lake, CA) Rapid Population Declines in Sea Stars Across Southern California Associated with Sea Star Wasting Disease and Warm Temperature Anomalies

Invited Paper Presentations, Symposia, Seminars

1994	 Western Society of Naturalists, (Monterey, CA) invited symposium speaker: "Biomechanics of intertidal plants: the effects of wave exposure on algal size, growth and morphology" "New Frontiers in Biomechanics" symposium Hatfield Marine Science Center, (Newport, OR), invited seminar "Life in the surf zone: the effects of biomechanical and ecological factors on wave-swept intertidal plants"
1995	Stanford University, Hopkins Marine Station (Pacific Grove, CA), invited seminar "Taking biomechanical models to the field: effects of wave forces on size and survival of intertidal plants"
1997	University of California, (Santa Cruz,CA), invited seminar "Taking biomechanics to the field: Pattern and process in wave swept plant communities"
1998	 California State University, (Northridge, CA), invited seminar "Opening the Black Box: Exposing the coupling between coastal and oceanic ecosystems" Western Society of Naturalists, (Monterey, CA) invited symposium speaker: "What can Biomechanics contribute to our understanding of community ecology" "Biomechanics and Ecology: Is the Marriage Working?" Mellon Workshop, Estación Costera de Investigaciones Marinas (ECIM)(Las Cruces, Chile): Linking benthic ecology and nearshore oceanography. "Benthic-pelagic links: phytoplankton, macrophytes, and sessile filter feeders."
2000	 PISCO-Mellon Symposium, (Corvallis, OR): Coast-wide Patterns of Invertebrate Settlement: Abrupt Transitions Between Oceanographic Regimes (Steven D. Gaines, Carol Blanchette, Jenn Caselle, Brian Grantham, Bruce Menge, Pete Raimondi) Cross-scale Linkages between Bottom-up Factors and Interaction Strength in Rocky Intertidal Communities (Bruce A. Menge, Carol Blanchette, Tess L. Freidenburg, Steven D. Gaines, Jane Lubchenco, David Lohse, and Peter Raimondi)

- Temporal Change in Rocky Intertidal Community Structure (Pete Raimondi, Carol Blanchette, Dave Lohse, and Melissa Wilson)
- Spatial and Seasonal Patterns Of Physical Processes Around Point Conception, CA: Implications For Larval Transport (Cynthia Cudaback, Brian Gaylord, Libe Washburn, and Carol Blanchette)

- Bottom-up Effects on Macrophyte Assemblages in Relation to Upwelling Intensity (Carol Blanchette, Steve Gaines, Tess Freidenburg, Karina Nielsen, Patti Halpin, Gary Allison, Bruce Menge and Bernardo Broitman)
- Methods for Monitoring the Body Temperatures of Intertidal Invertebrates: Why Thermal Stress is Organism-specific (Brian Helmuth, Chris Harley, Patti Halpin, Gretchen Hofmann, Gary Allison, Michael O'Donnell, Carol Blanchette, Clara Svedlund and Kristi Gardner)
- Linking PISCO's Science and Policy Work: A focus on West Coast marine reserve activities (Heather Leslie, Renee Davis-Born, Jane Lubchenco, Carol Blanchette, Jenn Caselle, Mark Carr, Steve Gaines, and Bob Warner)
- PISCO Policy and Outreach Accomplishments: 99-00 (Renee Davis-Born, Carol Blanchette, Jennifer Caselle, Heather Leslie, Mark Carr, Steven Gaines, Jane Lubchenco, Peter Raimondi, and Robert Warner)
- 2001 *Exxon Valdez* Oil Spill Trustee Council Annual Workshop Gulf of Alaska Ecosystem Monitoring and Research Program (Anchorage, AK), invited keynote speaker "Nearshore Monitoring by PISCO on the US West Coast"
- 2002 Western Society of Malacologists (Monterey, CA) "Large-scale marine ecological studies of the US west coast by the PISCO consortium"
 - California World Oceans (Santa Barbara, CA) "Long-term, large-scale patterns in rocky intertidal communities: Connecting pattern and process"
 - Western Society of Naturalists, (Monterey, CA) invited symposium speaker: "Large Scale Variation in Larval Recruitment" "Marine Ecological Patterns at the Large Scale" symposium
- 2003 Phycological Society of America (Gleneden Beach, OR) "Beyond Biogeography: Large scale patterns of distribution and abundance of intertidal marine algae along the US West Coast"
 - Southern Connections Conference (Cape Town, South Africa) "Extreme Spatial Variation in the Distribution, Abundance and Growth of the Intertidal Dominant, *Mytilus californianus*, around Point Conception California"
- 2004 White Mountain Research Station (Bishop, CA) "The PISCO project: A new approach to addressing largescale, long-term marine ecological questions"
- 2005 Western Washington University (Bellingham, WA) "Coastal Connections: Exploring Linkages between nearshore biological patterns and oceanographic variability"
 California Estuarine Research Society (Santa Barbara, CA) "Large-scale marine ecological studies of the US west coast by the PISCO consortium"
- 2006 University of South Carolina (Columbia, SC) "35 Degrees of Separation: Latitudinal Variation In Rocky Intertidal Community Structure Along The West Coast Of North America"
- 2007 Western Society of Naturalists, (Ventura, CA) invited symposium speaker: "Intertidal communities of the CA Channel slands: ecology and natural history" "A Natural History of the Channel Islands" symposium
- California Islands Symposium (Oxnard, CA) invited symposium speaker: "Spatial patterns of intertidal community structure across the California Channel Islands and links to ocean temperature"
 California State University, Fullerton (Fullerton, CA) "Biogeography, ecology and natural history of the Channel Islands Intertidal communities"
- 2010 Western Society of Naturalists, (Monterey, CA) invited graduate symposium speaker: "Web 2.0 and the future of Science"
 Hollister Ranch Association (Gaviota, CA) "Present and Future PISCO Research along the CA current ecosystem"

- 2011 NOAA Ocean Acidification Workshop (Santa Barbara and Ventura, CA) "Ocean Acidification: The other CO₂ Problem"
 - Ocean for Life Symposium (Santa Barbara, CA) "Ocean Acidification and it's effects on the California Current"
- 2012 Orange County Marine Protected Areas Council (Newport Beach, CA) "Characterizing Baseline Conditions in Rocky Intertidal Ecosystems of Southern California"
 - Channel Islands National Marine Sanctuary Advisory Council (Santa Barbara, CA) "Baseline monitoring of MPAs in the South Coast Region"
- 2013 National Park, Shore to Sea Speaker Series (Ventura, CA), "Marine Protected Areas of the CA coast" Moss Landing Marine Labs (Moss Landing, CA) Our changing coastal ocean: How are nearshore ecosystems are changing, and what does the future hold?
- 2014 Ocean Institute (Dana Point, CA) "Coastal climate change and ocean acidification"
 MARINE Annual Meeting (Newport, CA) Characterizing Baseline Conditions in Rocky Intertidal Ecosystems of Southern California
- 2015 MARINE Annual Meeting (Moss Landing, CA) Rapid population declines in sea stars across southern California

Santa Monica Bay Restoration Commission (Santa Monica, CA) Rocky intertidal ecosystems of southern California: Shoreline health and sea star declines

- Santa Monica Mountains Technical Advisory Committee, Characterizing Baseline Conditions in Rocky Intertidal Ecosystems of Southern California
- Western Society of Naturalists, (Sacramento, CA) Thinking outside the box, working across disciplines to understand the consequences of rapidly changing ocean conditions
- Oregon Marine Protected Areas Symposium, (Newport, OR) Characterizing Baseline Conditions in Rocky Intertidal Ecosystems of Southern California
- Seastar Wasting Summit (Seattle, WA) Spatial and Temporal Spread of SSWD and Rapid Population Declines across Southern California
 National Center for Ecological Analysis and Synthesis (Santa Barbara, CA) Environmental Literacy for the Next Generation: Integrating science, pedagogy and communication
- 2017 SNARL Seminar Series (Mammoth Lakes, CA) Oceans to Mountains, what I've done and how I got here

Professional Memberships

Ecological Society of America (ESA) Phycological Society of America (PSA) Association for Women in Science (AWIS) Western Society of Naturalists (WSN) American Institute of Biological Sciences (AIBS) Association for the Sciences of Limnology and Oceanography (ASLO) American Association for the Advancement of Science (AAAS) California Science Teachers Association (CSTA) Organization of Biological Field Stations (OBFS)

Reviewing and Refereeing Activity

MANUSCRIPT REVIEWER FOR:

Ecology Botanica Marina Aquatic Botany Marine Biology Aquatic Ecology Revista Chilena American Naturalist Journal of Phycology Ecological Monographs Limnology and Oceanography Marine Ecology Progress Series Estuarine Coastal and Shelf Science Journal of Experimental Marine Biology and Ecology Journal of the Marine Biological Association

PROPOSAL REVIEWER FOR:

North Pacific Research Board NASA Exxon Oil Spill Trustee Council National Science Foundation Ocean Protection Council UC MEXUS

Special Appointments

Secretariat and Webmaster of the Western Society of Naturalists (2000-2003) Science Panel of MARINE (Multi-Agency Rocky Intertidal NEtwork) Scientific review committee for National Park Service Santa Barbara Coastal (SBC) LTER Co-Director of Education Biodiversity Strand Leader of NSF-sponsored Math Science Partnership Project UCSB Marine Science Institute, Co-Director of Education and Outreach Mammoth Lakes Climate Change Adaptation Team Eastern Sierra Interpretive Association Board Member Rafe Sagarin Fund for Innovative Ecology Committee Member Shoreline Technical working group member for the Refugio Beach Oil Spill

University, Professional and Community Service

President of the OSU Zoology Graduate Student Association 1992-1993 Science-By-Mail, Scientific correspondent, 1992-1995 Jason project scientist 1999 Research Mentor, Research Mentorship Program 1998, 1999, 2000, 2001 [I served as a mentor for 2 high school students each summer in the Research Mentorship program. This is a hands-on program for highly motivated high school students interested in participating in the conduct of academic research in the social, life or physical sciences.]

Judge for Best Student Paper Competition, Western Society of Naturalists, 1999-2015 UCSB Women's Center, member and invited speaker, 1999, 2000, 2002

Project Oceanography, scientific consultant and featured scientist 2000-2002 Co-chair, Organizing Committee 7th International Temperate Reef Symposium, Santa Barbara, CA, 2006 Channel Islands Marine Science Committee Member, 2000-present Santa Barbara Channelkeeper, Volunteer, 2003-present Santa Barbara Museum of Natural History – Ty Warner Sea Center, featured scientist 2003-2009 Marine Science Career Day, featured scientist, 2006, 2008 Santa Barbara Mountain Trail Volunteers, member and volunteer, 2003-present La Colina Junior High School Science Day – presenting scientist, 2005-2015 Santa Barbara County Partners in Education – participating scientist 2000- 2015 Mammoth Lakes Fire Safe Council 2017-present UC Natural Reserve System University-wide Committee, Manager's representative 2018-present

Field Course Experience

Practical Aquatic Biology, University of Notre Dame, 1987 Marine Phycology, University of Washington, Friday Harbor Laboratories, 1989 Advanced Invertebrate Zoology, University of Washington, Friday Harbor Laboratories, 1990 Biomechanics of Intertidal Organisms, Stanford University, Hopkins Marine Station, 1991 Seagrass Biology, University of Washington, Friday Harbor Laboratories, 1997

Related Training, Knowledge and Skills

TAXONOMIC SKILLS:

Trained in systematics of marine and aquatic algae, plants, invertebrates and fishes Familiarity with most species of Pacific nearshore marine algae, invertebrates, fishes and mammals

COMPUTER:

Working knowledge of Mac, Windows and unix-based operating systems Knowledge of HTML, CVS and skilled in web page design, and implementation Extensive experience with data analysis and statistics in JMP, SAS, R and MATLAB Extensive experience with databases, data management and metadata using EML and OPeNDAP

SCUBA:

Certified open-water SCUBA diver (PADI, 1988) University of the Virgin Islands research-certified SCUBA diver (1992) Stanford University research-certified SCUBA diver (1995) University of California research-certified SCUBA diver (1996-present)

SAFETY, WATER, AND BOATING SKILLS:

Trained in advanced lifesaving, First-Aid, wilderness first responder and CPR Trained in climbing techniques, avalanche safety and swift-water rescue Experience with small boat operation (small outboard and diesel)