

SCOTT L. HAMILTON

CURRICULUM VITAE

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EDUCATION

- 2007 PhD, University of California, Santa Barbara, CA
Course of study: Marine Ecology. Advisor: Dr. Robert Warner
Committee members: Dr. Steven Gaines and Dr. Gretchen Hofmann
PhD Dissertation: *Selective mortality in juvenile coral reef fish: the role of larval performance and dispersal histories*
- 2000 B.A., Princeton University, Princeton, NJ
Major: Ecology and Evolutionary Biology, *Summa cum laude*, Highest honors

PROFESSIONAL HISTORY

- 2019-*present* Professor, Ichthyology, Moss Landing Marine Laboratories and San Jose State University
- 2016-2019 Associate Professor, Ichthyology, Moss Landing Marine Laboratories and San Jose State University
- 2011-2016 Assistant Professor, Ichthyology, Moss Landing Marine Laboratories and San Jose State University
- 2010-2011 Associate Project Scientist, Marine Science Institute, University of California Santa Barbara
- 2008-2010 Assistant Project Scientist, Marine Science Institute, University of California Santa Barbara
- 2006-2010 Lecturer, Dept. of Ecology, Evolution, and Marine Biology, University of California Santa Barbara
- 2007-2008 Post-doctoral Researcher, University of California Santa Barbara
Advisors: Dr. Jennifer Caselle and Dr. Robert Warner
- 2006-2007 Graduate Student Researcher, Partnership for Interdisciplinary Studies of Coastal Oceans
Supervisor: Dr. Jennifer Caselle
- 2005-2006 Research Consultant and Project Manager, Aquarium of the Pacific (AoP) Volunteer Scientific Diving Program, Long Beach, CA
Supervisor: Edward Cassano, Vice President of programs and exhibits
- 2005 Curator of UCSB Fish Museum Collection (over 1500 jars of preserved specimens)
Supervisor: Jennifer Thorsch, Director, Cheadle Center for Biodiversity and Ecological Restoration

PUBLICATIONS († = graduate student; * = undergraduate student; 45 total)

In press †Yates DC, Lonhart SI, **Hamilton SL**. Effects of marine protected areas on predator-prey interactions in central California kelp forests. *Marine Ecology Progress Series*.
<https://doi.org/10.3354/meps13526>

- 2020 Beas R, Micheli R, Woodson C, Carr M, Malone D, Torre J, Boch C, Caselle J, Edwards M, Freiwald J, **Hamilton SL**, Hernandez-Velasco A, Konar B, Kroeker K, Lorda J, Montaña-Moctezuma G, Torres-Moye G. Geographic variation in functional responses of kelp forest communities to recent climatic changes and consequences for ecosystem functioning. *Global Change Biology* <https://doi.org/10.1111/gcb.15273>
- 2020 Longo G, †Lam L, †Basnett B, Samhouri J, **Hamilton S**, Andrews K, Williams G, McClure M, Nichols K. Strong population differentiation in lingcod (*Ophiodon elongatus*) is driven by a small portion of the genome. *Evolutionary Applications*. <https://doi.org/10.1111/eva.13037>
- 2020 †Mattiasen EG, Kashef NS, Stafford DM, Logan CA, Sogard SM, Bjorkstedt EP, **Hamilton SL**. Effects of hypoxia on the behavior and physiology of juvenile rockfishes. *Global Change Biology* 26:3498–3511. <https://doi.org/10.1111/gcb.15076>
- 2020 †Easter EE, Adreani MS, **Hamilton SL**, Steele MA, †Pang S, White JW. Influence of protogynous sex change on recovery of fish populations within marine protected areas. *Ecological Applications*. e02070. <https://doi.org/10.1002/eap.2070>
- 2019 **Hamilton SL**, Kashef NS, Stafford DM, †Mattiasen EG, *Kapphahn LA, Bjorkstedt EP, Sogard SM. Ocean acidification and hypoxia have opposite effects on rockfish otolith growth. *Journal of Experimental Marine Biology and Ecology* 521:151245. <https://doi.org/10.1016/j.jembe.2019.151245>
- 2019 †Cline AJ, **Hamilton SL**, Logan CA. Effects of multiple climate change stressors on gene expression in blue rockfish (*Sebastes mystinus*). *Comparative Biochemistry and Physiology, Part A: Molecular and Integrative Physiology* 239:110580
- 2019 Zgliczynski BJ, Williams GJ; **Hamilton SL**, †Cordner EG, †Fox, MD, Eynaud Y, Michener RH, Kaufman LS; Sandin SA. Foraging consistency of coral reef fishes across environmental gradients in the central Pacific. *Oecologia* 191: 433-445
- 2019 †Miller SD, Zgliczynski BJ, †Fox MD, Kaufman LS, Michener RH, Sandin SA, **Hamilton SL**. Niche width expansion of coral reef fishes along a primary productivity gradient in the remote central Pacific. *Marine Ecology Progress Series* 625: 127-143
- 2018 †Wood G, **Hamilton SL**, Vadopalas B, Stevick B, Leyva-Valencia I. Geographic variation in the life history and morphology of the Pacific geoduck, *Panopea generosa*. *Journal of Shellfish Research*. 37: 919-931
- 2018 †Gabara SS, **Hamilton SL**, Edwards MS, Steller DL. Rhodolith structural loss decreases abundance, diversity, and stability of benthic communities at Santa Catalina Island, CA. *Marine Ecology Progress Series* 595: 71–88
- 2018 **Hamilton SL**. From a sea of phenotypic traits, fast reaction and boldness emerge as the most influential to survival in marine fish. Invited Spotlight Article for *Functional Ecology* 32: 856-857. <https://doi.org/10.1111/1365-2435.13070>
- 2018 Caselle JE, **Hamilton SL**, Davis K, Thompson C, Turchik A, Jenkinson R, Simpson D, Sala E. First quantification of subtidal community structure at Tristan da Cunha Islands in the remote South Atlantic: from kelp forests to the deep sea. *PLoS ONE* 13(3): e0195167. <https://doi.org/10.1371/journal.pone.0195167>
- 2017 †Donham E, Foster MS, Rice MR, Cailliet GM, Yoklavich MM, **Hamilton SL**. Natural history observations of Hawaiian garden eels, *Gorgasia hawaiiensis* (Congridae: Heterocongrinae), from the Island of Hawai'i. *Pacific Science* 71:135-147.

- 2017 †Teck SJ, †Lorda J, Shears NT, †Bell TW, Cornejo-Donoso J, Caselle JE, **Hamilton SL**, Gaines SD. Disentangling the effects of fishing and environmental forcing on demographic variation in an exploited species. *Biological Conservation* 209:488-498
- 2017 †Selden RL, Gaines SD, **Hamilton SL**, Warner RR. Protection of large predators in a marine reserve alters size-dependent prey mortality. *Proceedings of the Royal Society B: Biological Sciences* 284: 20161936
- 2017 Braje TJ, Rick, TC, Szpak P, Newsome SE, McCain JM, †Smith EAE, Glassow M, **Hamilton SL**. Historical ecology and the conservation of large, hermaphroditic fishes in Pacific Coast kelp forest ecosystems. *Science Advances* 3: e1601759
- 2017 **Hamilton SL**, Logan C, †Fennie W, Sogard S, Barry J, *Makukhov A, *Tobosa L, *Boyer K, Lovera C, Bernardi G. Species-specific responses of juvenile rockfish to ocean acidification: from behavior to genomics. *PLoS ONE* 12(1): e0169670. <https://doi.org/10.1371/journal.pone.0169670>
- 2016 Graham MH, †Fox MD, **Hamilton SL**. Macrophyte productivity and the provisioning of energy and habitat to nearshore systems. Book Chapter in: *Marine Macrophytes as Foundation Species*. Editor: Olafsson, E. CRC Press, Boca Raton, FL. Pgs 131-160
- 2015 †Kram SL, Price NN, †Donham EM, †Johnson MD, Kelly ELA, **Hamilton SL**, Smith JE. Variable responses of temperate calcified and fleshy macroalgae to elevated pCO_2 and warming. *ICES Journal of Marine Science*; doi: 10.1093/icesjms/fsv168
- 2015 Caselle JE, Rassweiler AR, **Hamilton SL**, Warner RR. Recovery trajectories of kelp forest animals are rapid yet spatially variable across a network of temperate marine protected areas. *Scientific Reports* 15:14102 DOI:10.103/srep14102
- 2015 **Hamilton SL**, Caselle JE. Exploitation and recovery of a sea urchin predator has implications for the resilience of southern California kelp forests. *Proceedings of the Royal Academy of Science B: Biological Sciences* 282: 20141817
- 2014 **Hamilton SL**, Smith JE, Price NN, Sandin SA. Quantifying patterns of fish herbivory on Palmyra Atoll (USA), an uninhabited predator-dominated central Pacific coral reef. *Marine Ecology Progress Series* 501: 141-155
- 2014 **Hamilton SL**, Newsome SD, Caselle JE. Dietary niche expansion of a kelp forest predator recovering from intense commercial exploitation. *Ecology* 95: 164-172
- 2013 †Max LM, **Hamilton SL**, Gaines SD, Warner RR. Benthic processes and overlying fish assemblages drive the composition of benthic detritus on a central Pacific coral reef. *Marine Ecology Progress Series*. 482: 181-195
- 2012 †Loke KA, Floyd, AJ, Lowe CG, **Hamilton SL**, Caselle JE, Young KA. Reassessment of the fecundity of California sheephead. *Marine and Coastal Fisheries* 4: 599-604
- 2012 Manríquez PH, Galaz SP, Opitz T, **Hamilton SL**, Paradis G, Warner RR, Castilla JC, Labra FA, Lagos NA. Geographic variation in trace-elemental signatures in the statoliths of near-hatch larvae and recruits of Loco (*Concholepas concholepas*). *Marine Ecology Progress Series* 448: 105-118
- 2012 Walsh SM, **Hamilton SL**, Ruttenberg BI, *Donovan MK, Sandin SA. Fishing top predators indirectly affects condition and reproduction in a reef fish community. *Journal of Fish Biology*. 80: 519-537. DOI: 10.1111/j.1095-8649.2011.03209.x

- 2011 Price NN, **Hamilton SL**, *Tootell JS, Smith JE. Species-specific consequences of ocean acidification for the calcareous tropical green algae *Halimeda*. *Marine Ecology Progress Series* 440: 67-78
- 2011 **Hamilton SL**, †Wilson J, †Ben-horin T, Caselle JE. Utilizing spatial demographic and life history variation to optimize sustainable yield of a temperate sex-changing fish. *PLoS ONE* 6(9): e24580. doi:10.1371/journal.pone.0024580
- 2011 Ruttenberg BI, **Hamilton SL**, Walsh SM, *Donovan M, Friedlander AM, DeMartini EE, Sandin SA. Predator induced demographic shifts in coral reef fish communities. *PLoS ONE* 6(6): e21062. doi:10.1371/journal.pone.0021062
- 2011 **Hamilton SL**, Caselle JE, Lantz CA, *Eggloff TL, *Kondo E, Newsome SD, †Loke-Smith KA, Pondella DP, Young K, Lowe C. Extensive geographic and ontogenetic variation characterizes the trophic ecology of a temperate reef fish on southern California rocky reefs. *Marine Ecology Progress Series* 429: 227-244
- 2011 Caselle JE, **Hamilton SL**, Schroeder DM, Love MS, Standish JD, Rosales-Casian JA, Sosa-Nishizaki O. Geographic variation in density, demography, and life history traits of a harvested temperate sex-changing reef fish. *Canadian Journal of Fisheries and Aquatic Science* 68: 288-303
- 2010 **Hamilton SL**, Caselle JE, Malone D, Carr MH. Incorporating biogeography into evaluations of the Channel Islands marine reserve network. *Proceedings of the National Academy of Sciences USA* 107: 18272-18277 [doi/10.1073/pnas.0908091107]
- 2010 White JW, Samhuri JF, Stier AC, Wormald CL, **Hamilton SL**, Sandin SA. Synthesizing mechanisms of density dependence in reef fishes: behavior, habitat configuration, and observation scale. *Ecology* 91: 1949-1961
- 2009 **Hamilton SL**, Warner RR. Otolith profiles of barium verify the timing of settlement in a coral reef fish. *Marine Ecology Progress Series* 385: 237-244
- 2009 Warner RR, **Hamilton SL**, Sheehy MS, Zeidberg LD, Brady BC, Caselle JE. Geographic variation in natal and early larval trace-elemental signatures in the statoliths of market squid, *Doryteuthis* (formerly *Loligo*) *opalescens*. *Marine Ecology Progress Series* 379: 109-121
- 2008 **Hamilton SL**, Regetz J, Warner RR. Post-settlement survival linked to larval-life in a marine fish. *Proceedings of the National Academy of Sciences USA* 105: 1561-1566
- 2008 **Hamilton SL**. Larval history influences post-metamorphic condition in a coral reef fish. *Oecologia* 158: 449-461
- 2008 Ruttenberg BI, **Hamilton SL**, Warner RR. Spatial and temporal variation in the natal otolith chemistry of a Hawaiian reef fish: prospects for measuring population connectivity. *Canadian Journal of Fisheries and Aquatic Science* 65: 1181-1192
- 2007 **Hamilton SL**, Caselle JE, Standish JD, Schroeder DM, Love MS, Rosales-Casian JA, Sosa-Nishizaki O. Size-selective harvesting alters life histories of a temperate sex-changing fish. *Ecological Applications* 17: 2268-2280
- 2006 **Hamilton SL**, White JW, Swearer SE, Caselle JE, Warner RR. Consistent long-term spatial gradients in replenishment for an island population of a coral reef fish. *Marine Ecology Progress Series* 306: 247-256
- 2005 Ruttenberg BI, **Hamilton SL**, Hickford MJH, Paradis GL, Sheehy MS, Standish JD, Ben-Tzvi O,

Warner RR. Elevated levels of trace elements in cores of otoliths and their potential for use as natural tags. *Marine Ecology Progress Series* 297: 273-281

2005 Sandin SA, Regetz J, **Hamilton SL**. Testing larval fish dispersal hypotheses using maximum likelihood analysis of otolith microchemistry data. *Marine and Freshwater Research* 56: 725-734

2003 Caselle JE, **Hamilton SL**, Warner RR. The interaction of retention, recruitment, and density-dependent mortality in the spatial placement of marine reserves. *Gulf and Caribbean Research* 14: 107-117

SUBMITTED MANUSCRIPTS

†Donham EM, **Hamilton SL**, Price NN, †Kram S, Kelly E, †Johnson MD, *Neu AT, Smith JE. *In review*. Experimental assessment of the impacts of ocean acidification and urchin grazing on benthic kelp forest assemblages. Target: *Journal of Experimental Marine Biology and Ecology*

MANUSCRIPTS IN PREPARATION

†Donham EM, **Hamilton SL**, Aiello I, Price NN, Smith JE. Single-species consequences of warming and acidification on the temperate articulated coralline alga, *Calliarthron cheilosporoides* (Florideophyceae, Rhodophyta). Target: *Journal of Phycology*

†Miller SD, Zgliczynski BJ, †Fox MD, Kaufman LS, Michener RH, Sandin SA, **Hamilton SL**. Resource utilization of coral reef fish communities spanning a productivity gradient in the remote central Pacific. Target: *Functional Ecology*

Caselle JE, **Hamilton SL**, Kushner D, Malone D, Readdie M, Carr MH. *In prep*. Fish biomass gradients indicate spillover and habitat effects in four Channel Islands marine reserves. Target: *Ecological Applications*

Hamilton SL, White JW, Warner RR. *In revision*. Spatial variation in density dependence mediates the outcome of selective mortality in a coral reef fish. *Ecology*

TECHNICAL REPORTS

2017 Caselle JE, **Hamilton SL**, Davis K, Bester M, Wege M, Thompson C, Turchik A, Jenkinson R, Simpson D, Mayorga J, Rose P, Fay M, Myers D, Glass J, Glass T, Green R, Repetto J, Swain G, Herian K, Lavarello I, Hall J, Schofield A, Dews S, McAloney D, Sala E. Ecosystem assessment of the Tristan da Cunha Islands. National Geographic Pristine Seas, Royal Society of the Protection of Birds, and Tristan da Cunha Government. Expedition Report. July 2017. 96 pp.

2016 Taylor T, Fitzer C, Cannon S, Mart G, Starr R, **Hamilton S**. San Francisco – Oakland Bay Bridge East span marine foundation removal project: Caged Fish Immediate Mortality and Injury and Trawling Report. Report to the State of California Department of Transportation. January 2016. 62 pp.

DATASET SUBMISSIONS

Hamilton, SL. (2020) Data from experiments testing the effects of hypoxia on behavior and physiology of two species of rockfish from 2015-2016. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2020-04-14. doi:10.26008/1912/bco-dmo.809321.1

GRANTS / CONTRACTS / FELLOWSHIPS

2021-2023 California Sea Grant New Faculty Award - Strengthening sustainability in an acidified ocean: does the co-culture of seaweeds and shellfish improve shell integrity in farmed red

- abalone? – Hamilton is co-PI w/ Lead PI Maya deVries [SJSU] and Co-PI Mike Graham [MLML]
- 2020-2022 Ocean Protection Council (C0752003) – California Collaborative Fisheries Research Program: Monitoring and Evaluation of California Marine Protected Areas (\$1,000,000 to MLML/SJSU – Lead PI w/ Co-PI Rick Starr [MLML] and Co-PIs Dean Wendt & Ben Ruttenberg [CalPoly SLO], Brice Semmens [SIO], Lyall Bellquist [TNC], Jen Caselle [UCSB], Steven Morgan [UCD], Tim Mulligan & Joe Tyburczy [HSU])
- 2020-2022 California Sea Grant / Ocean Protection Council – Assessment of practical methods for re-establishment of northern California bull kelp populations at an ecologically relevant scale (\$332,177 to MLML/SJSU – co-PI w/ lead PI Mike Graham, MLML)
- 2020-2022 California Sea Grant (R/AQ-147) – Development of techniques for the cultivation of monkeyface pricklebacks as a sustainable alternative to unagi (\$99,795 to MLML/SJSU – Lead PI w/co-PIs Luke Gardner and Mike Graham, MLML)
- 2020-2022 California Sea Grant (R/AQ-158F) – Eat your greens: Evaluating microalgae supplemented feeds for sablefish nutrition and growth (\$79,900 to MLML/SJSU – Lead PI with co-PI Luke Gardner); Graduate Research Fellowship for Katie Neylan
- 2020-2021 California Department of Fish and Wildlife (P1970018) - California Collaborative Fisheries Research Program North and South Coast Monitoring (\$310,000 to MLML/SJSU – Lead PI with co-PI Rick Starr [MLML] and Co-PIs Jen Caselle [UCSB], Steven Morgan [UCD], Tim Mulligan [HSU])
- 2019-2021 Ocean Protection Council/California Sea Grant (R/MPA-45) – California Collaborative Fisheries Research Program: Monitoring and Evaluation of California Marine Protected Areas (\$1,000,000 to MLML/SJSU – Lead PI w/ Co-PI Rick Starr [MLML] and Co-PIs Dean Wendt & Ben Ruttenberg [CalPoly SLO], Brice Semmens [SIO], Lyall Bellquist [TNC], Jen Caselle [UCSB], Steven Morgan [UCD], Tim Mulligan & Joe Tyburczy [HSU])
- 2019-2021 Ocean Protection Council/California Sea Grant (R/MPA-44) – Evaluating performance of California’s MPA network through the lens of sandy beach and surf zone ecosystems (\$132,000 to MLML/SJSU [\$1,000,000 total] – Co-PI w/ lead PI Jenny Dugan, UC Santa Barbara; and additional collaborating institutions)
- 2019-2020 Pacific State Marine Fisheries Commission: Marine Aquaculture Pilot Projects - Development of a rock scallop hatchery for California’s aquaculture industry (\$120,000 to MLML/SJSU – Co-PI w/ lead PI Luke Gardner and Co-PI Mike Graham, MLML; industry collaborator – Monterey Abalone Company)
- 2018-2021 Ocean Protection Council Prop 84 (R/OPCSFAQ-11) – Sea Feeds: Identification and culture of Californian marine macroalgae capable of reducing greenhouse gas production from ruminant livestock (\$249,804 to MLML/SJSU – Co-PI w/ Lead PI Luke Gardner and Co-PI Mike Graham, MLML and Stacey Gunter, USDA).
- 2017-2020 Sea Grant Aquaculture Program (R/AQ-138) – Solving impediments to the co-culture of seaweeds and shellfish (\$132,083 to MLML/SJSU – Lead PI; Co-PI Mike Graham, MLML; Industry collaborators – Hog Island Oyster Company, Monterey Abalone Company)
- 2017 SJSU – Research, Scholarship, and Creative Activities grant (\$5,000)
- 2016-2019 NOAA Saltonstall-Kennedy (#NA16-NMF4270261) – Using spatial variation in demography and life history to improve stock assessments of West Coast groundfish

- (\$299,782 to MLML/SJSU – lead PI; Associated Investigators: Jameal Samhour, Jason Cope, NMFS NWFSC; Susan Sogard, NMFS SWFSC)
- 2016-2019 NOAA Saltonstall-Kennedy (#NA16-NMF4270255) – Forecasting the effects of ocean acidification and hypoxia on reproduction of West Coast groundfishes (\$298,206 to MLML/SJSU – lead PI; Associated Investigators: Susan Sogard, NMFS SWFSC; Cheryl Logan, CSUMN; Giacomo Bernardi, UCSC)
- 2016-2019 California Sea Grant (R/HCME-20B) – Effects of climate change induced ocean acidification and hypoxia on reproduction of rockfishes (\$104,441 to MLML/SJSU [\$299,622 total] – Co-PI w/ PI Giacomo Bernardi, UCSC; and Co-PIs Susan Sogard, NMFS SWFSC and Cheryl Logan, CSUMB)
- 2016-2019 NOAA NMFS Habitat Assessment Improvement Plan (HAIP) (#NA15-NMF4550353) - Using habitat-specific, spatial demographic information to improve stock assessments of groundfishes (\$114,971 to MLML/SJSU [\$353,710 total] – co-PI w/ Lead PI Jameal Samhour and co-PIs Jason Cope, Krista Nichols, and Kelly Andrews, NMFS NWFSC)
- 2016-2017 NOAA Sea Grant Aquaculture Workshops - Enhancing coastal community revitalization by building capacity for collaboration between the aquaculture and commercial fishing sectors in California (\$19,996 to MLML/SJSU – Associated Investigator with lead PI Rick Starr, MLML, and Associated Investigator, Anna Pitchon, SJSU)
- 2016 SJSU – Research, Scholarship, and Creative Activities grant (\$5,000)
- 2015-2019 National Science Foundation BIO-OCE (#1436545) – Collaborative Research: RUI: Impacts of size-selective mortality on sex-changing fishes (\$207,252 to MLML/SJSU [\$727,798 total] – Co-PI w/ PI Mark Steele, CSU Northridge and Co-PIs Will White, UNC Wilmington and Mia Adreani, CSU Northridge)
- 2015-2016 Environmental Science Associates – 2015 East Bay Bridge Demolition Fish Surveys (\$81,539 to MLML/SJSU – PI w/ Co-PI Rick Starr, MLML)
- 2015-2017 NOAA NMFS Habitat Assessment Improvement Plan (HAIP) (#NA15-NMF4550353) - Using habitat-specific, spatial demographic information to improve stock assessments of groundfishes (\$45,613 to MLML/SJSU [\$102,295 total] – co-PI w/ Lead PI Jameal Samhour and co-PI Jason Cope, NMFS NWFSC)
- 2015-2016 COAST Strategic Investment Program 2015-2016 – CSU Center for Aquaculture proposal (\$44,822 to MLML/SJSU – co-PI w/ Lead PI Michael Graham and co-PIs Matt Edwards, San Diego State and Michael Lee, CSU East Bay)
- 2015 SJSU – Research, Scholarship, and Creative Activities grant (\$5,000)
- 2014-2018 National Science Foundation Emerging Frontiers: OA (#1416919) – Collaborative Research: Ocean Acidification: RUI: Multiple Stressor Effects of Ocean Acidification and Hypoxia on Behavior, Physiology, and Gene Expression of Temperate Reef Fishes (\$330,341 to MLML/SJSU [\$900,940 total] – Lead PI w/ Co-PIs Susan Sogard, NMFS SWFSC, Cheryl Logan, CSUMB, and Brian Tissot and Eric Bjorkstedt, Humboldt State)
- 2013 COAST Grant Development Award – A mechanistic understanding of the demographic consequences of harvest selection for temperate sex-changing fishes (\$14,959 to MLML/SJSU – co-PI with Dr. Mark Steele, CSU Northridge)
- 2013 SJSU – Research, Scholarship, and Creative Activities grant (\$7,333)

- 2013 California Sea Grant (R/CC-07) – Effects of ocean acidification on olfactory senses, swimming physiology, and gene expression in juvenile rockfish (\$40,000 to MLML/SJSU– co-PI with Susan Sogard, NMFS SWFSC and Giacomo Bernardi, UCSC)
- 2011-2013 California Sea Grant (R/CC-05) - Response of calcified and fleshy macroalgae to warming and ocean acidification: from single species to community interactions (\$127,513 to MLML/SJSU [\$300,000 total] – co-PI with Jennifer Smith, SIO and Mike Graham, MLML)
- 2011 SJSU – Research, Scholarship, and Creative Activities grant (\$7,333)
- 2011 California Sea Grant Program Development Award (R/ENV-214PD) – California sheephead research and fisheries management workshop (\$1,729)
- 2010-2011 California Sea Grant Program Development Award (R/ENV-214EPD) - Effects of marine reserves on behaviorally-mediated changes in spawning success of California sheephead (\$19,949 – co-PI with Robert Warner)
- 2007-2010 California Sea Grant (R/OPC-FISH05) - Assessing changes in life history traits and reproductive function of California sheephead across its range: historical comparisons and the effects of fishing (\$140,255 – postdoc with J. Caselle, UCSB, C. Lowe, K. Young, CSU Long Beach)
- 2008-2009 Isaacs Undergraduate Research Fellowship from California Sea Grant. Awarded to research assistant Tiana Egloff for studies of geographic variation in the trophic ecology of California sheephead (\$4,000 – 2 fellowships awarded)
- 2006 Graduate Division Dissertation Fellowship (\$5,000)
- 2006 UCSB Affiliates Fellowship (\$3,000)
- 2006 Western Groundfish Conference student travel award (\$300)
- 2005-2006 California Department of Fish and Game Research Grant - Current status of California sheephead populations (\$3,500)
- 2004-2005 National Park Service, Pacific Islands Coral Reef Program Graduate Research Grant - Larval retention, larval exchange, and population connectivity in the Hawaiian Islands (\$25,000)
- 2003 Sigma Xi Research Grant (\$500)
- 2000-2003 National Science Foundation Graduate Research Fellowship (\$105,000)

AWARDS

- 2014 Early Career Investigator Award – San Jose State University Research Foundation
- 2009 Voted Top Course in the Ecology, Evolution, and Marine Biology (EEMB) Department by undergraduate majors for: EEMB 106, Biology of Fishes
- 2007 Fiona Goodchild Award for Excellence as a Graduate Student Mentor of Undergraduate Research

TEACHING EXPERIENCE

- 2013-2020 Subtidal Ecology, MS 272, MLML. Co-instructor with Dr. Diana Steller (2013, 2017), Dr. Matt Edwards (2015), Dr. Amanda Kahn and Dr. Diana Steller (2020); taught every 2 years

- 2012-2020 Marine Ecology, MS 103, MLML. Co-instructor with Dr. Michael Graham
- 2012-2019 Marine Ichthyology, MS 113, and Advanced Marine Ichthyology, MS 213, MLML
- 2012, 2015 Advanced Topics in Marine Ecology: Global Kelp Systems, MS 233, MLML and
2019 Universidad Los Lagos, Chile. Co-instructor with Michael Graham, Alejandro Buschman
- 2014-2018 Marine Environmental Studies of the Gulf of California, MS 273. Co-instructor with Dr. Diana Steller; taught every 2 years
- 2014, 2016 Sampling and Experimental Design, MS 204, MLML. Co-instructor w/ Dr. Gitte McDonald (2016)
- 2012, 2015 Advanced Topics in Marine Ecology: Fisheries and Resource Management, MS 233, MLML. Co-instructor with Dr. Rick Starr
- 2012 Quantitative Marine Science II: Data Analysis Techniques, MS 263, MLML. Co-instructor with Erika McPhee-Shaw
- 2011 Quantitative Marine Science I, MS 104, MLML. Co-instructor with Erika McPhee-Shaw
- 2009-2010 Lecturer. Biology of Fishes, EEMB 106, University of California Santa Barbara (UCSB)
- 2007-2008 Lecturer. Biology of Fishes, EEMB 106. UCSB. Co-instructor with Dr. Jennifer Caselle.
- 2006 Lecturer. Biology of Fishes, EEMB 106. UCSB. Co-instructor with Dr. Robert Warner.
- 2003-2005 Guest Lecturer. Biology of Fishes, EEMB 106. UCSB. Delivered lectures on coral reef fishes and the mechanics of swimming.
- 2002-2006 Teaching Assistant. Biology of Fishes, EEMB 106. UCSB
Instructor: Dr. Robert Warner
- 2004-2006 Teaching Assistant. Introductory Biology Lab, EEMB 3L: The diversity of life – plants, protists, and animals. UCSB. Instructor: Dr. Douglas Bush
- 2001, 2003, Teaching Assistant. Ethology and Behavioral Ecology, EEMB 138. UCSB
2006 Instructors: Dr. Steve Rothstein and Dr. Robert Warner
- 2005 Teaching Assistant. Introductory Biology Lab, MCDB 1B/EEMB 2L: Animal and Plant Physiology/Ecology and Evolution. UCSB.
Instructor: Dr. Gabrielle Johnson

MENTORING

Master's of Science at MLML (year started at MLML)

- Fall 2011 Emily Donham – Climate change in temperate algal communities (completed Spring 2016)
Will Fennie – Ocean acidification effects on fish olfaction (completed Fall 2015)
Gabi Navas (MLML) – Life history variation in geoduck clams (completed Fall 2015)
Paul Clerkin – Chondrichthyans of the Madagascar Ridge – co-advised with Dr. Dave Ebert (completed Fall 2017)
Kelly Andrews – Mercury accumulation in elasmobranchs in Elkohrn Slough – co-advised with Dr. Dave Ebert (completed Fall 2014)
- Fall 2012 Heather Kramp – Fish community secondary production
Devona Yates – Predator-prey interactions in/out MPAs (completed Fall 2017)

Ryan Fields – Life history variation in rosy rockfish (completed Spring 2016)
 Jennifer Chiu – Trophic Ecology of yellowtail rockfish – co-advised with Dr. Rick Starr (completed Summer 2018)
 Anne Tagini – Fish-habitat associations along the central CA coast – co-advised with Dr. Rick Starr (completed Summer 2018)
 Kristen Walovich – Description of chimera species off South Africa – co-advised with Dr. Dave Ebert (completed Spring 2017)
 Catarina Pien – Elasmobranchs in Elkhorn Slough – co-advised with Dr. Dave Ebert (completed Summer 2018)
 Jessica Jang – Multiple paternity in big skates – co-advised with Dr. Dave Ebert (completed Spring 2019)

- Fall 2013 Scott Miller – Trophic ecology of fish from the Line Islands (completed Summer 2017)
 Evan Mattiasen – Hypoxia effects on physiology of juvenile rockfish (completed Summer 2018)
 Marisa Ponte – Morphological variation in fishes across the Line Islands
 Emily Schmeltzer – Coral-gastropod microbiome sharing (completed Fall 2016)
 Melissa Nehmens – Age and growth of deep sea catsharks – co-advised with Dr. Dave Ebert (completed Spring 2019)
 Victoria Vasquez – Trophic ecology of elasmobranchs in San Francisco Bay – co-advised with Dr. Dave Ebert
- Fall 2014 Stephen Pang – Male limitation to reproduction in sex-changing fishes (completed Spring 2019)
 Laurel Lam – Life history and demographic variation in lingcod (completed Spring 2019)
 Matt Jew – Trophic ecology of catsharks from the central California coast
 Justin Cordova – Systematic description of catsharks in the genus *Apristurus* – co-advised with Dr. Dave Ebert
 Amber Reichert – Reproduction and habitat associations of deep-sea catsharks in California – co-advised with Dr. Dave Ebert
- Fall 2015 June Shrestha – Nutrient cycling in kelp forest fish communities
 Bonnie Brown – Geographic and ontogenetic variation in the trophic ecology of lingcod – co-advised with Dr. Rick Starr
 James Williamson – using BRUVs to compare fish assemblages in southern California – co-advised with Dr. Rick Starr
- Fall 2016 Melissa Palmisciano – effects of multiple stressors on rockfish behavior and physiology
 Kristin Saksa – effects of climate change on reproduction in rockfish
 Rachel Brooks – canary rockfish life history and demographic variation
 Holly Doerr – OA/hypoxia and rockfish gene expression – co-advised w/ Dr. Cheryl Logan
- Fall 2017 Helaina Lindsey – Effects of hypoxia on juvenile flatfish in Elkhorn Slough
 Vivian Ton – Effects of OA and hypoxia on embryo development of Pacific herring
 Jacoby Baker – Gene expression in larval rockfish in response to OA and hypoxia – co-advised with Dr. Cheryl Logan
 Lauren Parker – Mesophotic reef fish assemblages in the Carmel canyon – co-advised with Dr. James Lindholm
 Jackie Mohay – Collaborative fisheries research projects and CA MPAs – co-advised with Dr. Rick Starr
 Katie Cieri – Effects of MPAs on fish assemblages in southern Spain – co-advised with Dr. Rick Starr
 Marty Schmidt – Morphometrics of deep sea sharks from the Indian Ocean – co-advised with Dr. Dave Ebert
- Fall 2018 Alora Yarbrough – Ocean acidification and hypoxia effects on cortisol responses and

carryover effects on fish reproduction
 Hannah Bruzzio – Effects of ocean acidification and hypoxia on stress and growth hormone response of juvenile rockfish
 Katherine Neylan – Alternative aquaculture feeds – co-advised with Dr. Luke Gardner
 Sophie Bernstein – Effects of foraging ecology on domoic acid susceptibility in pinnipeds – co-advised with Iliana Ruiz-Coolley

Fall 2019 Gammon Koval – Seasonal variation in fish assemblages in surf zone habitats
 Grace Teranishi – Effects of hypoxia on flatfish physiology in Elkhorn Slough
 Kinsey Matthews – Movement and home range behavior of rockfish in Carmel Bay – co-advised with Dr. Rick Starr
 Jake Todd – Life history and demography of California scorpionfish – co-advised with Dr. Rick Starr
 Kayla Roy – Developing alternative feeds for white abalone – co-advised with Dr. Luke Gardner
 Matthew Hoehn – Farming monkeyface pricklebacks – co-advised with Dr. Luke Gardner
 Rachel Aitchison – Redescription of the family Rhinobatidae (guitarfishes) – co-advised with Dr. Dave Ebert
 Juliana Cornett – Effects of hypoxia on flatfish physiology and gene expression – co-advised with Cheryl Logan

Fall 2019 Michaela Melanson – Canary rockfish trophic ecology
 Alexandra Stella – TBD
 Arie Dash – juvenile rockfish gene expression – co-advised with Dr. Cheryl Logan
 Justin Gill – Fish-habitat associations and stereovideo surveys – co-advised with Dr. James Lindholm
 Kameron Strickland – Fish-habitat associations and 3-D video surveys – co-advised with Dr. James Lindholm

Student Thesis Committee Member (graduation year listed)

2010 Alice Soccodatto – (U. Bologna, Italy, MS) – Early life history of copper rockfish
 2011 Kerri Loke (CSULB) – Reproduction in California sheephead
 2012 Brynn Hooton (MLML) – Fishes associated with *Undaria* in Monterey Harbor
 2013 Jennifer Bigman (MLML) – Trophic ecology of spiny dogfish
 Michelle Marraffini (MLML) – Biodiversity and invasion resistance in Monterey Harbor
 2014 Alexis Howard (MLML) – Competition between *Macrocystis* and *Nereocystis*
 Ryan Carle (MLML) – Diets of Rhinoceros Auklets
 Katie Schmidt (MLML) – Shifts in the timing of maturation of blue rockfish due to fishing
 Andrea Launer (MLML) – Habitat use by leopard sharks in Elkhorn Slough
 Cheryl Barnes (MLML) – California halibut reproductive biology
 Scott Gabara (MLML) – Predator-prey relationships in rhodolith beds
 2015 Sarah Jeffries (MLML) – Life history variation in giant kelp populations
 Sean Windell (CSUMB) – MPA effects on Catalina
 Becca Selden (UCSB, PhD) – Size-selective predation by California sheephead
 Clint Collins (MLML) – Sponge communities in Antarctica
 2016 Sarah Teck (UCSB, PhD) – Spatial and temporal variation in red sea urchin reproduction
 Pamela Neeb Wade – Competition between native oysters and invasive tube worms
 Heather Fulton-Bennett (MLML) – Consequences of morphological variation in *Egretta*
 Stephen Loiacono (MLML) – Effects of temperature on invasion success
 Jackie Lindsey (MLML) – Sea otter movements in Elkhorn Slough
 Alicia Bitondo (MLML) – Life history and morphometrics of deep sea squid
 Catherine Drake (MLML) – Decorating crab behavior
 2017 James Knuckey (MLML) – Phylogenetics of deep sea skates
 Dorota Szuta (MLML) – Benthic community structure in Antarctica
 Jennifer Kelilher (MLML) – Microbial communities associated with sessile invertebrates
 Christian Denny (MLML) – Efficacy of a stereovideo lander for fish surveys

- 2018 Suzanne Christensen (MLML) – Competition between *Undaria* and native kelps
 Cody Dawson (MLML) – *Stephanocystis* demography and response to disturbance
 Leah Mellinger (CSU Stanislaus) – Physiological responses to stress in surf smelt
 Jake Cline (CSUMB) – Gene expression of juvenile rockfish with climate change
- 2019 Erika Nava (CSUN) – Effects of MPAs on fish foraging behavior
 Rachel Zuercher (UCSC, PhD) – Recruitment and predation of juvenile rockfish
 Maria Vila Dupla (MLML) – *Ulva* and eelgrass ecotone in Elkhorn Slough
 Katie Harrington (MLML) – Effects of human food subsidies on caracara behavior
- In progress* Jennifer Johnson (MLML) – Stable isotope analysis of elephant seals and their pups
 Daniel Gossard (MLML) – *Pyropia* life history and demography epiphytic on *Nereocystis*
 Taylor Eddy (MLML/CSUMB) – Lobster trophic ecology in intertidal food webs
 Matthew Elliott (MLML) – Effects of integrated aquaculture on shellfish growth
 Callyn Shelley (CSULB) – Effects of environmental stress on grunion development
 Lauren Cooley (MLML) – Diving physiology of California sea lions

CSU Chancellors' Doctoral Incentive Program – Christian Denney, PhD program at UC Davis

Independent projects supervised (students from UCSB unless otherwise noted)

- 2010-2011 James Benson – Spatial and temporal variation in growth rates and early life history traits of olive rockfish in different upwelling regimes
- 2010 Sylvana Galaz (Universidad Austral de Chile) – Validation of age and growth of *Concholepas concholepas* using statoliths
- 2010 Lindsey Hesla – Geographic variation in early life history traits of coral reef fishes across the Northern Line Islands
- 2009-2010 Alice Soccodatto (Italian exchange student at UCSB) – Spatial and temporal variation in early life history traits of copper rockfish linked to environmental conditions.
- 2009 Martina Bruschi (Italian exchange student at UCSB) – Spatial and temporal variation in lipid content of gopher and copper rockfish recruits in the Channel Islands.
- 2008-2009 Coulson Lantz – Geographic variation in the trophic ecology of California sheephead using stable isotope analysis
- 2007-2009 Tiana Egloff – Geographic variation in California sheephead diets through gut content analysis
- Emi Kondo – Variation in age structure, growth, and lipid content of California sheephead throughout southern California
- 2006-2008 Mary Donovan – Demographic variability of coral reef fishes within Kiritimati Atoll
- 2005 Catherine Lee – Perfecting aging techniques using dorsal spines of California sheephead; UCSB Research Mentorship Program for advanced high school students
- 2002 Trevor Upham (Princeton University) – The effects of ontogeny on the rate and intensity of parasitism in the bluehead wrasse, *Thalassoma bifasciatum*

Student research assistants mentored during PhD and post-doctoral positions

- 2006-2010 Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) kelp forest monitoring:
 Jesse Tootell, Lindsey Hesla, Coulson Lantz, Sean Windell, Peter Carlson, Jamie Pratt, Mary Donovan, Courtney Scarborough, Alex Ray, Nate Spindel, Connor Tillman, Alia al-Humadhi, Christoph Pierre, Becca Selden, Sarah Teck, Katie Davis, Spencer McClintock,

James Benson

- 2004-2010 Otolith microchemistry:
Michelle Kissinger, Kara Ohlinger, Dashiel Dunkell, Sierra Stevens-McGever, Ola Besser,
Nitzan Sofer, Bethany Allen, Li Ling Hamady, Noah Roper, Amanda Brown, Josh Linck
- 2001-2010 Fish dissections, otolith age and growth research:
James Benson, Amanda Wasserman, Michael Hazen, Jeremy Frimond, Ryan Denton,
Christine Chun, Josh Linck, Erica Linard, Sean Bignami, Benjamin Harris, Emi Kondo,
Coulson Lantz, Sean Windell, Cary Batha, Jesse Tootell, Sam Hammond, Spencer
McClintock, Tania Silvas, Becky Juarez, Christine Pham, Cody Grigsby, Lyall Bellquist,
Julie Hopper, Erin Scoggins, Maria Pickering, Bob Ellis, Kristen Beesley, Matt Princetta

INVITED TALKS

- 2019 NOAA, National Marine Fisheries Service, Northwest Fisheries Science Center, Seattle, WA;
Departmental Seminar
- 2016 Humboldt State University, Departmental Seminar
- 2016 Society for Environmental Journalists Panel Speaker - California's Marine Reserves: After 10
Years Are There Unexpected Surprises?
- 2016 CSU Stanislaus; Departmental Seminar
- 2014 University of California, Santa Cruz; Departmental Seminar
- 2014 California State University Monterey Bay; Departmental Seminar
- 2014 Florida State University; Biology Colloquium Seminar
- 2014 Florida State University; Ecology and Evolution Weekly Seminar
- 2014 Monterey Bay Aquarium, 3rd shift docents monthly meeting
- 2012 NOAA, National Marine Fisheries Service, Southwest Fisheries Science Center, Santa Cruz, CA;
Departmental seminar
- 2012 Monterey Bay Aquarium Research Institute, CA; Departmental seminar
- 2012 San Jose State University, CA; Departmental seminar
- 2011 California State University Monterey Bay, CA; Departmental seminar
- 2010 Bodega Marine Laboratory of UC Davis, Bodega, CA; Departmental seminar
- 2009 Scripps Institution of Oceanography, La Jolla, CA; Invited seminar for the Interdisciplinary
Master's Program
- 2008 Fish and Game Commission Meeting, Sacramento, CA; Hearing on the Channel Islands marine
reserves

PAPERS PRESENTED AT MEETINGS

- 2020 NWFSC Science Symposium 2020 (*1 contributed presentation*)
- 2020 Ocean Sciences Meeting (*1 contributed poster*)

- 2019 Society for Integrative and Comparative Biology (*1 contributed poster*)
- 2019 Western Society of Naturalists Meeting, Ensenada, Mexico (*1 contributed talk, 1 contributed poster*)
- 2018 Western Society of Naturalists Meeting, Tacoma, WA (*4 contributed presentations, 6 contributed posters*)
- 2018 Western Groundfish conference, Monterey CA (*1 contributed presentation, 7 contributed posters*)
- 2017 Western Society of Naturalists Meeting, Pasadena, CA (*6 contributed presentations, 12 contributed posters*)
- 2017 American Fisheries Society Meeting, Tampa, FL (*1 contributed presentation, served as symposium co-organizers for session on life history variation in fishes*)
- 2016 Western Society of Naturalists Meeting, Monterey CA (*4 contributed presentations, 8 contributed posters*)
- 2016 Society for Environmental Journalists (*Panel on marine reserves in California after 10 years*)
- 2015 Western Society of Naturalists Meeting, Sacramento CA (*5 contributed presentations, 6 posters*)
- 2015 American Fisheries Society Meeting, Portland OR (*1 contributed presentations*)
- 2015 Monterey Bay National Marine Sanctuary Currents Symposium (*1 contributed poster*)
- 2014 Western Society of Naturalists, Tacoma, WA (*4 contributed presentations, 4 posters*)
- 2014 Monterey Bay National Marine Sanctuary Currents Symposium (*2 contributed posters*)
- 2013 Western Society of Naturalists, Oxnard, CA (*3 contributed presentations, 1 poster*)
- 2012 Western Society of Naturalists, Seaside, CA (*4 contributed presentations*)
- 2011 Western Society of Naturalists, Vancouver, Washington (*3 contributed presentations*)
International Marine Conservation Congress, Washington, D.C.
- 2009 International Marine Conservation Congress, Washington, D.C.
- 2008 Western Society of Naturalists, Vancouver, Canada;
11th International Coral Reef Symposium, Ft. Lauderdale, FL (*3 contributed presentations*);
American Society of Ichthyologists and Herpetologists, Montreal, Canada;
California Islands Symposia, special session on the first 5 years of monitoring the Channel Islands marine reserves, Ventura, CA (*2 contributed presentations*)
- 2007 PISCO symposium, Corvallis, OR;
Western Society of Naturalists, Ventura, CA (*2 contributed presentations*);
American Fisheries Society meeting, San Francisco, CA (*2 contributed presentations*)
- 2006 Western Groundfish Conference, Newport, OR
- 2005 Western Society of Naturalists, Monterey, CA (*2 contributed presentations*)
- 2004 Western Society of Naturalists, Santa Rosa, CA (*2 contributed presentations*);

OTHER SIGNIFICANT RESEARCH EXPERIENCES

- 2019 100 Island Challenge – 2 week expedition to French Polynesia, islands of Raiatea and Huahine
Collaborators: Stuart Sandin (Scripps Institution of Oceanography, lead PI)
- 2017 100 Island Challenge – 3 week expedition to the remote southern islands of Palau, including Fanna, Sonsorol, Pulo Ana, Tobi, and Helen Reef
Collaborators: Stuart Sandin (Scripps Institution of Oceanography, lead PI)
- 2017 National Geographic Pristine Seas – 6 week expedition to Tristan da Cunha Islands in the remote South Atlantic. Assisted with first quantitative surveys of kelp forests at Tristan, Inaccessible, Nightingale, and Gough Islands.
Collaborators: Jennifer Caselle (UCSB, Chief Scientist), Paul Rose (Expedition Leader), Jonathan Hall (Royal Society for the Protection of Birds)
- 2015 Waitt Foundation Blue Halo Initiative – 2 week expedition to Curacao, Netherlands Antilles. Assisted with coral reef assessments to provide baseline information on the state of Curacao's reefs for resource management and conservation efforts
Collaborators: Stuart Sandin (Scripps Institution of Oceanography), Mark Vermeij and Kristin Marhaver (CARMABI), Forest Rohwer (San Diego State University)
- 2013 Southern Line Islands Expedition – 5 week expedition assessing how oceanographic conditions affect productivity throughout the food web on uninhabited coral reefs
Collaborators: Stuart Sandin, Jen Smith (Scripps Institution of Oceanography); Forest Rohwer (San Diego State University)
- 2010 Northern Line Islands Expedition – 5 week expedition assessing how the presence and absence of humans on remote tropical coral atolls affects the productivity of fish populations at different trophic levels
Collaborators: Stuart Sandin (Scripps Institution of Oceanography)
- 2006-2010 PISCO – Subtidal community monitoring in the Santa Barbara Channel, including the Channel Islands Marine Reserve Network (4-5 months per year)
Collaborators: Dr. Jennifer Caselle (UCSB)
- 2007-2010 Assessing changes in life history traits and reproductive function of California sheephead across its range: historical comparisons and the effects of fishing
Collaborators: Dr. Jennifer Caselle (UCSB), Dr. Chris Lowe, Dr. Kelly Young, Kerri Loke (CSULB)
- 2010 Natal tags, effective larval dispersal and population connectivity in *Concholepas concholepas* through the study of trace elemental composition of their statolith
Collaborators: Dr. Patricio Manriquez (Universidad Austral de Chile); Dr. Nelson Lagos (Universidad Santo Tomas), Dr. Juan Carlos Castilla (Universidad Catolica de Chile); Dr. Robert Warner (UCSB)
- 2009 Examining the potential for restoration of coral communities in Palmyra's lagoon
Collaborators: Dr. Jennifer Smith, Dr. Nichole Price (SIO)
- Effects of ocean acidification on the photophysiology and growth of corals and calcifying algae on Palmyra Atoll
Collaborators: Dr. Nichole Price, Dr. Jennifer Smith (SIO)
- Phase-shifts, grazing, and coral recovery on a degraded Caribbean coral reef, Curacao

Collaborators: Dr. Stuart Sandin, Dr. Jennifer Smith (SIO), Dr. Mark Vermeij (CARMABI, U. Amsterdam), Dr. Jameal Samhuri (NOAA Northwest Fisheries), Dr. Forrest Rohwer (SDSU)

- 2008 The role of herbivores in structuring benthic reef communities across habitat types on Palmyra Atoll
Collaborators: Dr. Jennifer Smith, Dr. Stuart Sandin, Dr. Nichole Price (SIO)
- Consequences of Palmyra lagoon restoration: quantifying effects of lagoon sediments on benthic health
Collaborators: Dr. Stuart Sandin, Dr. Jennifer Smith, Steve Smriga, Melissa Garren (SIO)
- 2006-2008 Anthropogenic impacts on trophic structure, growth rates, productivity, and parasitism in coral reef ecosystems, Palmyra Atoll and Kirimati Island
Collaborators: Dr. Stuart Sandin, Dr. Enric Sala (SIO), Dr. Amand Kuris, Dr. Kevin Lafferty, Dr. Robert Warner (UCSB)
- 2000-2007 Graduate Student Researcher, PhD thesis. Selective mortality in juvenile coral reef fishes: the role of larval performance and dispersal histories
Advisor: Dr. Robert Warner, UCSB
- 2005-2006 Graduate Student Researcher. An analysis of abundance and sex change data for CA sheephead (*Semicossyphus pulcher*) with a historical comparison. Funded by California Department of Fish and Game
Advisor: Dr. Jennifer E. Caselle, UCSB
- Graduate Student Researcher. Age and growth of CA sheephead (*Semicossyphus pulcher*) with a historical comparison. Funded by California Department of Fish and Game
Advisor: Dr. Jennifer E. Caselle, UCSB
- 2003-2005 Graduate Student Researcher. Larval retention, larval exchange, and population connectivity in the Hawaiian Islands. Funded by the National Park Service Pacific Islands Coral Reef Monitoring Program
Administrator: Dr. Larry Basch, NPS and U. of Hawaii
- 2000 Research Assistant. The effects of density-dependent mortality caused by resident and transient predators on newly settled blue chromis (*Chromis cyanea*), Curaçao and Bonaire
Advisor: Dr. Stuart A. Sandin, Princeton University
- 1999-2000 Senior Thesis Research at Princeton University. Abundance, microhabitat preference, behavior, and predation on the dog whelk *Nassarius mendicus*: the effects of its symbiotic relationship with a hydroid, Monterey Bay, California
Advisors: Dr. Tom Hahn, Dr. Stephen Pacala, Princeton University; Dr. Jim Watanabe, Stanford University

PROFESSIONAL SERVICE

- 2011-2014 Secretariat for Western Society of Naturalists annual conference (member and organizer of the annual conference for 500-600 marine scientists)

University Committees:

- 2011-present San Jose State University Institutional Animal Care and Use Committee, voting member

MLML Committees:

- 2017-present Moss Landing Marine Labs – Retention, Tenure Promotion Committee, Member
2014-present Moss Landing Marine Labs – Boats Committee, Member

2011- <i>present</i>	Moss Landing Marine Labs – Diving Control Board, Chair
2016-2020	Moss Landing Marine Labs – Curriculum Committee, Member
2011-2020	Moss Landing Marine Laboratories Governing Board, Alternate member
2015-2016	Moss Landing Marine Labs – Curriculum Committee, Chair

Search Committees:

2019	Biological Oceanographer search at MLML (Chair)
2016	Marine Invertebrate Zoology search at MLML (Chair)
2015	Faculty Librarian search at MLML (member)
2015	Executive Assistant for Administration and Operations search at MLML (Chair)
2014	Physical Oceanographer search at MLML (member)

Performance Review Committees:

2019- <i>present</i>	Post-tenure Review Committee (member)
2019	Performance Review of the MLML Departmental Chair (Chair)
2016	Research Faculty and Affiliated Researcher Performance Review (member) – performance review of 15 research groups and faculty at MLML

Advisory Committees:

2008-2011	PARC (Palmyra Atoll Research Consortium) Operations Committee
2008-2011	PARC Advisory Group

Workshops:

2018	“Pathways to Sustainable Aquaculture in California” August 10-11, 2018; hosted by Moss Landing Marine Laboratories, CA Sea Grant, Save our Shores, Life Economy, Sustainable Design Master Class
2017	Deep water MPA monitoring workshop, June 26-27, 2017; hosted by Moss Landing Marine Laboratories and the California Ocean Protection Council
2016	Statewide monitoring of California MPAs using collaborative fishing methodology, Nov 10, 2016; hosted by Moss Landing Marine Laboratories and the California Ocean Protection Council
2016	“Channel Islands MPA workshop after 10 years of monitoring”; hosted by Marine Applied Research & Exploration (MARE)
2016	“Development of a CSU Center for Aquaculture” January 13-14, 2016; Hosted by Moss Landing Marine Laboratories, COAST, and CA Sea Grant
2011	“Update on the status of scientific research on California sheephead and its use for fisheries management”; hosted by MLML and UCSB with the California Dept. of Fish and Game
2009	“The status of scientific research on California sheephead and its use for fisheries management”; hosted by UCSB with the California Dept. of Fish and Game
2007-2008	“The first five-year review of the Channel Islands marine reserve network”; National Center for Ecological Analysis and Synthesis (NCEAS) Marine Reserves Working group

Peer Review:

Editorship	Marine Biology, Associate Editor – 2019- <i>present</i>
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Panel Review	2015 Washington Sea Grant Scientific and Technical Review Panel
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Grants (2009-)	2010 AAUS PhD Scholarship (8); 2011 AAUS PhD Scholarship (8); 2015 AAUS PhD Scholarship (15); 2017 AAUS PhD Scholarship (5); Alaska Sea Grant (1); Austrian Science Fund (WFW) (1); California Sea Grant (2); COAST State Science Information Needs Program (1); COAST Grant Development Program (2); COAST Graduate Student Research Awards 2012-2019 (40); COAST Rapid Response Funding (1); Collaborative Fisheries Research West (1); Delta Stewardship Council (1); Hawaii Sea Grant (1); Lizard Island Research Station Doctoral Fellowship (1);
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Packard Grants for MLML students (20); 2013 MLML Scholar Awards (21); 2014 MLML Academic and Service Scholarships (22); 2015 MLML Academic and Service Scholarships (21); National Environmental Research Council, UK (1); National Science Foundation – Biological Oceanography (6); Netherlands Organization for Scientific Research (1); New York Sea Grant (1); USC Sea Grant (1); Washington Sea Grant (1)

Journals (2007-) Aquatic Biology (3), Aquatic Living Resources (1), Biological Conservation (1); Bulletin of the California Academy of Sciences (1), Bulletin of Marine Science (1); CalCOFI Reports (3), Coral Reefs (7), Conservation Physiology (3), Ecology (7), Ecology Letters (1), Ecosphere (1), Environmental Biology of Fishes (2), Fisheries Research (1), Fishery Bulletin (2), Functional Ecology (1), Journal of Animal Ecology (2), Journal of Applied Ecology (1), Journal of Ecology (1), Journal of Experimental Biology (1), Journal of Fish Biology (1), Journal of Marine Biology (1), Journal of Marine Systems (1), Journal of Phycology (1), Limnology and Oceanography (1), Marine and Freshwater Research (1), Marine Biology (3), Marine Ecology (2), Marine Ecology Progress Series (18), North American Journal of Fisheries Management (1), Oecologia (4), PeerJ (1), Proceedings of the Royal Society B (6), PLoS ONE (6), Revista de Biología Tropical (1), Western North American Naturalist (1)

Thesis (2014-) *PhD Thesis Review for James Cook University (Brett Taylor)*

Outreach:
2018

Fresno Zoo Docents Training – Presentation on National Geographic Pristine Seas Expedition to Tristan da Cunha

2017

K-12 student outreach at Tristan da Cunha Islands – Helped to organize and run a day of marine science activities (intertidal sampling, demonstration of scuba gear, dissections of invasive fish to examine stomach contents) for K-12 students at Tristan da Cunha Islands in the remote South Atlantic

2016

Invited Speaker for Society of Environmental Journalists – Panel speaker on the effectiveness of marine protected areas in California after 10 years

2014

Monterey Bay Aquarium Docents Training – Presentation on the effects of ocean acidification in kelp forests

2014

Pacific Grove High School - Reared and provided juvenile rockfish to the marine biology class

2013, 2014

Coastal Marine Biolabs Integrative Biosciences Program – assisted directors Ralph Imondi and Linda Santschi to collect specimens with an otter trawl for their DNA barcoding program of marine species for K-12 students.

2011-present

Annual Moss Landing Marine Labs Open House – 2-day event hosting 2,000+ members of the public at MLML

Society Membership:

Western Society of Naturalists
International Coral Reef Society
Ecological Society of America