

# SCOTT L. HAMILTON

## CURRICULUM VITAE

---

Moss Landing Marine Laboratories  
8272 Moss Landing Rd  
Moss Landing, CA 95039

Phone: 831-771-4497  
Fax: 831-632-4403  
e-mail: [shamilton@mlml.calstate.edu](mailto:shamilton@mlml.calstate.edu)  
<http://www.mlml.calstate.edu/faculty/scott-hamilton>

---

### 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
- 2000      B.A., Princeton University, Princeton, NJ  
Major: Ecology and Evolutionary Biology, *Summa cum laude*, Highest honors

### PROFESSIONAL HISTORY

- 2016-*present*    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

- 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  $p\text{CO}_2$  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

- Hamilton SL**, Logan C, Fennie W, Sogard S, Barry J, Makukhov A, Tobosa L, Lovera C, Bernardi G. *In Revision*. Species-specific responses of juvenile rockfish to ocean acidification. Target: *PLoS ONE*
- Selden RL, Gaines SD, **Hamilton SL**, Warner RR. *Submitted*. Recovery of predators in a marine reserve alters size-dependent prey mortality. Target: *Proceedings of the Royal Society B: Biological Sciences*

Donham E, Foster MS, Rice MR, Cailliet GM, Yoklavich MM, **Hamilton SL**. *In revision*. Population structure, growth, diet, and behavioral ecology of the Hawaiian garden eel, *Gorgasia hawaiiensis* (Congridae: Heterocongrinae). Target: *Pacific Science*

Braje TJ, Rick, TC, Szpak P, Newsome SE, McCain JM, Smith EAE, Glassow M, **Hamilton SL**. *Submitted*. Historical Ecology of the California Sheephead (*Semicossyphus pulcher*) Fishery: A Model for Conservation of Hermaphroditic Fish. Target: *Science Advances*

Teck SJ, Lorda J, Shears NT, Bell TW, Cornejo-Donoso J, Caselle JE, **Hamilton SL**, Gaines SD. *Submitted*. Disentangling the effects of fishing and environmental forcing on demographic variation in an exploited species. Target: *Biological Conservation*

## MANUSCRIPTS IN PREPARATION

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*

## GRANTS / FELLOWSHIPS

- 2016-2018 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 – lead PI; associated investigators: Jameal Samhour, Jason Cope, NMFS NWFSC; Susan Sogard, NMFS SWFSC)
- 2016-2018 NOAA Saltonstall-Kennedy (#NA16-NMF4270255) – Forecasting the effects of ocean acidification and hypoxia on reproduction of West Coast groundfishes (\$298,206 to MLML – lead PI; associated investigators: Susan Sogard, NMFS SWFSC; Cheryl Logan, CSUMN; Giacomo Bernardi, UCSC)
- 2016-2018 California Sea Grant (R/HCME-20B) – Effects of ocean acidification and hypoxia on reproduction in rockfish (\$104,441 to MLML [\$299,622 total] – Co-PI w/ PI Giacomo Bernardi, UCSC; and Co-PIs Susan Sogard, NMFS SWFSC and Cheryl Logan, CSUMB)
- 2016-2018 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 [\$353,710 total] – co-PI w/ Lead PI Jameal Samhour and co-PIs Jason Cope, Krista Nichols, and Kelly Andrews, NMFS NWFSC)
- 2016 SJSU – Research, Scholarship, and Creative Activities grant (\$5,000)
- 2015-2018 National Science Foundation BIO-OCE (#1436545) – Collaborative Research: RUI: Impacts of size-selective mortality on sex-changing fishes (\$207,252 to MLML [\$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 – 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 [\$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 – 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)
- 2014-2017 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 [\$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 – 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 – 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 [\$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**

- 2014, 2016 Marine Environmental Studies of the Gulf of California, MS 273. Co-instructor with Dr. Diana Steller
- 2014, 2016 Sampling and Experimental Design, MS 204, MLML. Co-instructor w/ Dr. Gitte McDonald (2016)
- 2013, 2015 Subtidal Ecology, MS 272, MLML. Co-instructor with Dr. Diana Steller (2013) and Dr. Matt Edwards (2015)
- 2012, 2015 Advanced Topics in Marine Ecology: Fisheries and Resource Management, MS 233, MLML. Co-instructor with Dr. Rick Starr
- 2012, 2015 Advanced Topics in Marine Ecology: Global Kelp Systems, MS 233, MLML and Universidad Los Lagos, Chile. Co-instructor with Michael Graham, Alejandro Buschman
- 2012-2015 Marine Ecology, MS 103, MLML. Co-instructor with Drs. Michael Graham and Jonathan Geller
- 2012-2014 Marine Ichthyology, MS 113, MLML
- 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, 2006 Teaching Assistant. Ethology and Behavioral Ecology, EEMB 138. UCSB  
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 – co-advised with Dr. Dave Ebert  
Kelly Andrews – 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  
Ryan Fields – Life history variation in rosy rockfish (completed Spring 2016)  
Jennifer Chiu – co-advised with Dr. Rick Starr  
Anne Tagini – co-advised with Dr. Rick Starr  
Kristen Walovich – co-advised with Dr. Dave Ebert  
Catarina Pien – co-advised with Dr. Dave Ebert  
Jessica Jang – co-advised with Dr. Dave Ebert
- Fall 2013 Scott Miller – Trophic ecology of fish from the Southern Line Islands  
Evan Mattiasen – Hypoxia effects on physiology of juvenile rockfish  
Marisa Ponte – Morphological variation in fishes across the Line Islands  
Emily Schmeltzer – Coral-gastropod microbiome sharing  
Melissa Nehmens – co-advised with Dr. Dave Ebert  
Victoria Vasquez – co-advised with Dr. Dave Ebert
- Fall 2014 Stephen Pang – Male limitation to reproduction in sex-changing fishes  
Laurel Lam – Life history and demographic variation in lingcod  
Justin Cordova – co-advised with Dr. Dave Ebert  
Amber Reichert – co-advised with Dr. Dave Ebert  
Matt Jew – co-advised with Dr. Dave Ebert
- Fall 2015 June Shrestha – Nutrient cycling in kelp forest fish communities  
Alexa Rosendale – Size-selective mortality effects on sex-changing fishes  
Breanna Machuca – co-advised with Dr. Dave Ebert  
Bonnie Brown – co-advised with Dr. Rick Starr  
James Williamson – 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 variation

### *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 *Egregia*
- In progress*  
Christian Denny (MLML) – Efficacy of a stereovideo lander for fish surveys  
Stephen Loiacono (MLML) – Effects of temperature on invasion success  
Alicia Bitondo (MLML) – Life history and morphometrics of deep sea squid  
James Knuckey (MLML) – Phylogenetics of deep sea skates  
Rachel Zuercher (UCSC) – Recruitment and predation of juvenile rockfish  
Suzanne Christensen (MLML) – Competition between *Undaria* and native kelps  
Dorota Szuta (MLML) – Benthic community structure in Antarctica  
Catherine Drake (MLML) – Decorating crab behavior  
Jennifer Kelilher (MLML) – Regulations of invertebrate recruitment in Bali  
Jackie Lindsey (MLML) – Sea otter movements in Elkhorn Slough  
Cody Dawson (MLML) – *Stephanocystis* demography and response to disturbance

*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*

- 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, Dashiell Dunkell, Sierra Stevens-McGeever, 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**

- 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, 3<sup>rd</sup> 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**

- 2015 Western Society of Naturalists Meeting, Sacramento CA (4 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 psoters)
- 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;  
11<sup>th</sup> 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);  
10<sup>th</sup> International Coral Reef Symposium, Okinawa, Japan

## **OTHER SIGNIFICANT RESEARCH EXPERIENCES**

- 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

### *University Committees:*

- 2015-present Moss Landing Marine Labs – Curriculum Committee, Chair  
2014-present Moss Landing Marine Labs – Boats Committee, member  
2011-present Moss Landing Marine Labs – Diving Control Board, co-Chair  
2011-present San Jose State University Institutional Animal Care and Use Committee, voting member  
2011-present Moss Landing Governing Board (alternate)

### *Search Committees:*

- 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)

### *Advisory Committees:*

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

### *Workshops:*

- 2016 “Channel Islands MPA workshop after 10 years of monitoring”; hosted by Marine Applied Research & Exploration (MARE)  
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:*

- Panel Review 2015 Washington Sea Grant Scientific and Technical Review Panel

- Grants (2009-) *Austrian Science Fund (WFW) (1); California Sea Grant (2); Collaborative Fisheries Research West (1); Washington Sea Grant (1); USC Sea Grant (1); Hawaii Sea Grant (1); 2010 AAUS PhD Scholarship (8); 2011 AAUS PhD Scholarship (8); 2015 AAUS PhD Scholarship (15); Packard Grants for MLML students (20); COAST Graduate Student Research Awards 2012-2015 (24); 2013 MLML Scholar Awards (21); 2014 MLML Academic and Service Scholarships (22); 2015 MLML Academic and Service Scholarships (21);*

Journals (2007-) *Aquatic Biology* (3), *Aquatic Living Resources* (1), *Bulletin of the California Academy of Sciences* (1), *CalCOFI Reports* (3), *Coral Reefs* (7), *Conservation Physiology* (1), *Ecology* (4), *Ecology Letters* (1), *Ecosphere* (1), *Environmental Biology of Fishes* (2), *Fisheries Research* (1), *Fishery Bulletin* (2), *Journal of Applied Ecology* (1), *Journal of Fish Biology* (1), *Journal of Marine Biology* (1), *Journal of Phycology* (1), *Marine and Freshwater Research* (1), *Marine Ecology* (2), *Marine Ecology Progress Series* (14), *North American Journal of Fisheries Management* (1), *Oecologia* (4), *Proceedings of the Royal Society B* (4), *PLoS ONE* (5), *Revista de Biología Tropical* (1)

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

**Outreach:**

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