Lauren Yamane

CONTACT INFORMATION

Department of Environmental Science and Policy
One Shields Avenue
University of California, Davis
Davis, CA 95616

Phone: (619) 985-6643
E-mail: layamane@ucdavis.edu

EDUCATION

University of California, Davis
Ph.D., Ecology, 2016

University of South Carolina
M.S., Marine Science, 2008

University of California, San Diego
B.S., Biology: Ecology, Behavior, and Evolution, 2003

FISHERIES AND MARINE ECOLOGY EXPERIENCE

Coastal and Marine Sciences Institute, University of California Davis
Postdoctoral Scholar/Research Ecologist **2017 - present**
Conduct and lead research on the effects of marine protected areas, fishing, and habitat on harvested and at-risk species using quantitative tools as part of a multi-disciplinary team. Collaborate with California Department of Fish and Wildlife to facilitate the inclusion of research results into the state of California's long-term monitoring plan. Lead the coordination of fisheries science to integrate the Marine Life Management Act and the Marine Life Protection Act for the Coastal and Marine Science Institute. Supervise and mentor four undergraduate research assistants and one graduate student researcher.

Delta Stewardship, Delta Science Program
California Sea Grant State Fellow **2016 - 2017**
Synthesized and communicated fisheries science to inform resource management decisions in the California Bay-Delta region. Provided members of the Delta Stewardship Council and public with a monthly report of water resource levels and fish survey estimates at the Council meeting. Facilitated science to understand ecological responses to water flow and water operations, within the context of environmental regulations. Summarized the effects of hatchery practices on natural-origin salmon populations for the Council.

University of California, Davis
National Marine Fisheries Service/Sea Grant Population Dynamics Fellow **2014 - 2016**
Analyzed the effects of population diversity, correlated dynamics, and the portfolio effect on Sacramento River salmon in collaboration with scientists from the National Marine Fisheries Service.

Sea Grant Trainee **2011 - 2013, 2014**
Examined and modeled anthropogenic and environmental mechanisms of population variability for Pacific salmon using R and Matlab.

University of South Carolina
Research Specialist **2008 - 2010**
Coordinated collection of invertebrate body temperature data from rocky intertidal research sites worldwide. Managed collected data and assisted with related statistical analyses. Developed web sites representing climate change research conducted at USC.

Graduate Student Researcher **2007, 2008**
Conducted research as part of a research group funded by NOAA's Ecofore Program and NASA's Ecological Forecasting Applied Sciences Program to predict climate change impacts on organism

physiology and biodiversity in the rocky intertidal zone.

Pacific States Marine Fisheries Commission, San Diego, California
CRFS Fisheries Technician **2004, 2005 - 2006**
Interviewed recreational anglers to determine fishing activity and biological catch. Trained new fisheries technicians. Educated public about fish identification, species of concern, and regulations.

Teaching Experience

University of California, Davis
Associate Instructor, Population Dynamics and Estimation **2015**
Teaching Assistant, Population Dynamics and Estimation Laboratory **2011, 2014**

University of South Carolina
Graduate Instructional Assistant, The Living Ocean Laboratory **2007**
Graduate Instructional Assistant, The Biology of Marine Organisms Laboratory **2006**

Papers in Progress

Yamane, L., L.W. Botsford, and A. Hastings. Effects of hatchery supplementation on variability in Pacific salmon populations, in prep.

Yamane, L., L.W. Botsford, and A. Hastings. Characteristics of the spawning age distribution and time scales of population variability, in prep.

Cordoleani, F., L.W. Botsford, **L. Yamane**, and A. Hastings. Declining salmon survival reduces ecosystem services by increasing overall variability, in review.

Publications

Yamane, L., L.W. Botsford, and D.P. Kilduff. 2017. Tracking restoration of population diversity via the portfolio effect. Journal of Applied Ecology, in press.

Helmuth, B., F. Choi, A. Matzelle, J. Torossian, S. Morello, M.A.S. Mislan, **L. Yamane**, D. Strickland, et al. 2016. Long-term, high frequency in situ measurements of intertidal mussel bed temperatures using biomimetic sensors, Scientific Data 3: Article number 160087.

Meek, M., C. Wells, K. Tomalty, J. Ashander, E. Cole, D. Gille, B. Putman, J. Rose, M. Savoca, **L. Yamane**, J. Hull, D. Rogers, E. Rosenblum, J. F. Shogren, R. Swaisgood, and B. May. 2016. We should not be afraid to talk about fear of failure on conservation. Biological Conservation 194:218-219.

Meek, M., C. Wells, K. Tomalty, J. Ashander, E. Cole, D. Gille, B. Putman, J. Rose, M. Savoca, **L. Yamane**, J. Hull, D. Rogers, E. Rosenblum, J. F. Shogren, R. Swaisgood, and B. May. 2015. Fear of failure in conservation: the problem and potential solutions to aid conservation of extremely small populations. Biological Conservation 184:209-217.

Burgess, S.C., K.J. Nickols, C.D. Griesemer, L.A.K. Barnett, A.G. Dedrick, E.V. Satterthwaite, **L. Yamane**, S.G. Morgan, J.W. White, and L.W. Botsford. 2014. Beyond connectivity: how empirical methods can quantify population persistence to improve marine protected area design. Ecological Applications 24:257-70.

Helmuth, B., **L. Yamane**, S. Lalwani, A. Matzelle, A. Tockstein, and N. Gao. 2011. Hidden signals of climate change in intertidal ecosystems: what (not) to expect when you are expecting. Journal of Experimental Marine Biology and Ecology 400:191-199.

Helmuth, B., B. Broitman, **L. Yamane**, S. Gilman, K. Mach, K.A.S. Mislan, M.W. Denny. 2010. Organismal climatology: analyzing environmental variability at scales relevant to physiological stress. Journal of Experimental Biology 213:995-1003.

Helmuth, B., **L. Yamane**, K.J. Mach, S. Chhotray, P. Levin, S. Woodin. 2010. All climate change is local: understanding and predicting the effects of climate change from an organism's point of view. Stanford Journal of Law, Science, and Policy 2:18-35.

Yamane, L., and S.E. Gilman. 2009. Opposite responses by an intertidal predator to increasing aquatic and aerial temperatures. Marine Ecology Progress Series 393:27-36.

Grants and Awards

Graduate Student Association Travel Award, 2015
National Marine Fisheries Service - Sea Grant Graduate Fellowship in Population and Ecosystem Dynamics, 2014-2016
Block Grant, Graduate Group in Ecology, University of California, Davis, 2010 and 2014
Jastro Tuition Fellowship, Graduate Group in Ecology, University of California, Davis, 2010
Taber Fellowship, University of South Carolina, 2008
Marine Science Program Travel Grants, University of South Carolina, 2008
Melanie Elizabeth Lynn Memorial Scholarship, Duke University Marine Laboratory, 2008
Stephen and Ruth Wainwright Endowed Fellowship, Friday Harbor Laboratories, 2007

Conference and Symposium Presentations

Yamane, L., and L.W. Botsford. 2016. Effects of hatchery supplementation on variability in Chinook salmon populations. NMFS/Sea Grant Population Dynamics Fellowship Meeting, Santa Cruz, CA.

Yamane, L., L.W. Botsford, and D.P. Kilduff. 2015. Quantifying the stabilizing effects of population diversity with the portfolio effect. California Salmon and Climate Variability Symposium, Davis, CA.

Yamane, L., L.W. Botsford, and D.P. Kilduff. 2015. Identifying limits to variability reduction with the portfolio effect: Application to Central Valley Chinook salmon. American Fisheries Society Meeting, Portland, OR.

Yamane, L., L.W. Botsford, and A. Hastings. 2015. Differences in response to environmental variability across Pacific salmon species. Ecological Society of America Meeting, Baltimore, MD.

Kilduff, D.P., L.W. Botsford, A. Hastings, M.D. Holland, J.W. White, and **L. Yamane**. 2014. Population dynamic consequences of cohort resonance. American Fisheries Society Meeting, Quebec City, Quebec.

Yamane, L., L.W. Botsford, and D.P. Kilduff. 2014. Managing Central Valley Chinook salmon with the portfolio effect. Ecological Society of America Meeting, Sacramento, CA.

Botsford, L.W., J.W. White, F. Cordoleani, A. Hastings, **L. Yamane**, and D.P. Kilduff. 2014. Environmental forcing of stable age-structured populations with compensatory density dependent recruitment. Ecological Society of America Meeting, Sacramento, CA.

F. Cordoleani, L.W. Botsford, A. Hastings, and **L. Yamane**. 2014. Declining survival increases sensitivity of salmon populations to synchronizing environmental forcing through cohort resonance. Ecological Society of America Meeting, Sacramento, CA.

Yamane, L., L.W. Botsford, and D.P. Kilduff. 2014. Managing Sacramento River Fall-run Chinook salmon with the portfolio effect. Salmon Ocean Ecology Meeting, Santa Cruz, CA.

Yamane, L.A., S.E. Gilman, and B. Helmuth. 2009. Heated responses: feeding and growth rates of an intertidal snail as a function of body temperature. Western Society of Naturalists Meeting, Monterey, CA.

Yamane, L.A., S.E. Gilman, and B. Helmuth. 2008. Differential responses of an intertidal snail to aquatic and aerial body temperatures. Benthic Ecology Meeting, Providence, RI.

Yamane, L.A., S.E. Gilman, and B. Helmuth. 2008. Feeling the heat: the feeding behavior and growth of Nucella ostrina in response to temperature. Society for Integrative and Comparative Biology Annual Meeting, San Antonio, TX.

Other Professional Experience

Department of Botany, University of Wyoming
Laboratory Technician **2005**
Extracted cellulose from peat moss cores. Utilized a variety of methods to prepare samples for stable isotope analysis. Facilitated communication about research progress among PIs and lab members.

USGS-BRD Pacific Island Ecosystems Research Center, Hawaii National Park, Hawaii
Interdisciplinary Intern **2003**
Conducted presence and density surveys of forest insects and invertebrates. Monitored habitat suitability for native and introduced damselflies.

Division of Biology, University of California, San Diego
Banding Assistant **2003**
Monitored the breeding behavior and status of bird pairs on and adjacent to the UC San Diego campus. Coordinated and delegated daily assignments to student volunteers.

Service and Mentorship Activities

Presenter, Coastal and Marine Sciences Institute, University of California, Davis, 2015

Student representative and presenter, UC Davis and Exploratorium Present: Science to Sustain the Bay and Beyond, 2015

Co-organizer of outreach for the Ecology Program's Diversity Committee, 2014 - 2016

Helped with graduate school entrance essay workshops and mentored students of color as part of the Graduate Academic Achievement and Advocacy Program, University of California, Davis, 2013

Mentored high school groups for the SLEWS Program, Davis, California, 2011

Professional Societies

Ecological Society of America
American Fisheries Society