

STEPHANIE MARIE CARLSON  
*Curriculum Vitae*

Associate Professor of Freshwater Fish Ecology  
Dept. of Environmental Science, Policy & Management  
University of California  
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**Professional experience**

1. *Associate Professor of Freshwater Fish Ecology*, July 2014-present, University of California, Berkeley, Environmental Science, Policy & Management.
2. *Assistant Professor of Freshwater Fish Ecology*, July 2007\*-2014, University of California, Berkeley, Environmental Science, Policy & Management (\*note that this period includes a one year leave of absence from July 2007-June 2008 to complete my post-doctoral fellowship at UC-Santa Cruz).
3. *National Science Foundation Postdoctoral Research Fellowship in Biological Informatics*, Jan. 2007-June 2008. University of California, Santa Cruz, Applied Mathematics and Statistics. Advisors: Drs. Marc Mangel and Athanasios Kottas.
4. *Marie Curie Early Stage Training Fellow*, University of Norway, Oslo, May-September 2006.
5. *Graduate Research Assistant*, Alaska Salmon Program, University of Washington, 2002-06.
6. *Graduate Research Assistant*, UMass Amherst and USGS Conte Anadromous Fish Research Center, 2000-02.

**Education**

2006 Doctor of Philosophy, School of Aquatic & Fishery Sciences, **University of Washington, Seattle.**  
2002 Master of Science, Organismic & Evolutionary Biology, **University of Massachusetts, Amherst.**  
1999 Bachelor of Science, Evolution & Ecology, Women's Studies (minor), **University of California, Davis.**

**Awards, scholarships, and fellowships**

1. Rose Hills Innovator Award, UC-Berkeley, 2014-16 (\$135,000)
2. Young Faculty Award, College of Natural Resources, UC-Berkeley, 2013
3. Rising Star Distinguished Ecologist, Colorado State University Graduate Degree Program in Ecology, 2011
4. Young Investigator's Prize, American Society of Naturalists, 2010
5. National Science Foundation Postdoctoral Research Fellowship in Biological Informatics, 2007-08
6. Marie Curie Early Stage Training Research Grant, 2006 (University of Oslo, Norway)
7. "People's Choice Award," 2006 Graduate Student Symposium, School of Aquatic and Fishery Sciences (voted best presentation by audience members)
8. J. Frances Allen Scholarship Recipient, 2005 (\$2,500 awarded annually from the American Fisheries Society to an outstanding female doctoral student)
9. Faculty Merit Award, 2005 (PhD level; UW School of Aquatic and Fishery Sciences)
10. Keeler Fellowship Recipient (UW School of Aquatic and Fishery Sciences): Winter 2003, Fall 2003, Winter 2004, Winter 2005, Fall 2005, Winter 2006, Fall 2006
11. Stroum Fellowship Recipient (UW School of Aquatic and Fishery Sciences), Fall 2002
12. American Fisheries Society Atlantic International Chapter Student Travel Award, 2001
13. University of Massachusetts Student Travel Award, 2001

**Funding (E – external; C – competitive)**

1. **Carlson, S.M.** Rose Hills Innovator Award, UC-Berkeley: "Balancing salmon populations, aquatic biodiversity, and water resource needs during drought," 2014-17. \$135,000. (C)
2. **Carlson, S.M.** and Olsen, E.M. Peder Sather Center for Advanced Study Grant Award, UC-Berkeley: "Role of nature versus humans in shaping fish populations," 2015. \$20,000 (C).
3. **Carlson, S.M.**, Springborn, M., Baskett, M.L., Satterthwaite, W.H., Lindley, S.T., and Waples, R.S. CALFED Ecosystem Restoration Grant: "Managing natural resources for adaptive capacity: the Central Valley Chinook salmon portfolio," 2014-17. \$489,343. (E,C)
4. Dietrich, W.E., Bishop, J.K., **Carlson, S.M.**, Power, M.E., and Thompson, S.E. National Science Foundation: "The Eel River Critical Zone Observatory: exploring how the critical zone will mediate watershed currencies and ecosystem response in a changing environment," 2013-18. \$4,999,999 (EAR-1331940). (E,C)
5. Pallud, C., **Carlson, S.M.** and Stacey, M.T. California Sea Grant College Program: "Geochemistry, physics, and ecology of an intermittent estuary on the California coast: a multi-disciplinary investigation into an annual organism die-off," 2014-16. \$248,890. (E,C)

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6. **Carlson, S.M.** Agricultural and Natural Resources-California Institute of Water Resources (ANR-CIWR): "Balancing salmon populations, aquatic biodiversity, and water resource needs during drought in coastal California," 2014. \$25,000. (E, C)
7. **Carlson, S.M.** UC Berkeley Committee on Research: Regent's Junior Faculty Fellowship Award, 2013. \$5,000. (C)
8. **Carlson, S.M.**, Satterthwaite, W.H., Wells, B., and Field, J.C. California Sea Grant College Program: "Mismatch in the timing of hatchery Chinook salmon releases and favorable ocean conditions," 2012-14. \$171,192. (E,C)
9. **Carlson, S.M.** National Science Foundation, Doctoral Dissertation Research: "Natural resource governance with indigenous communities; Shifting sovereignties through co-management?" 2012-14. \$15,000 (Doctoral fellowship to S. Diver on which I was the PI). (E,C)
10. **Carlson, S.M.** Pacific States Marine Fisheries Commission: "Steelhead dynamics in the Pescadero Estuary," 2012-13. \$24,958. (E)
11. **Carlson, S.M.** USDA CSREES – Agricultural Experiment Station: "The evolution and loss of biocomplexity among California's Pacific salmon populations," 2009-13. \$100,000. (E)
12. **Carlson, S.M.** UC Berkeley Hellman Family Faculty Fund: "Dynamics of a threatened organism in a seasonally fragmented stream habitat," 2011-12. \$49,454. (C)
13. **Carlson, S.M.** National Science Foundation: "Causes and consequences of biocomplexity," 2009-10. \$50,000 (DEB-0915173). (E,C)
14. **Carlson, S.M.** UC Berkeley Committee on Research: Junior Faculty Research Grant, 2008-09. \$5,000. (C)
15. **Carlson, S.M.** and Moore, J.W. California Sea Grant College Program: "Eco-evolutionary dynamics of the invasive New Zealand mudsnail," 2008-09. \$8,233. (E,C)
16. **Carlson, S.M.** National Science Foundation, Postdoctoral Research Fellowship in Biological Informatics: "Illuminating the true form and variability of natural selection in nature: analysis of a unique long-term threespine stickleback time series," 2007-08. \$120,000 (DBI-0630626). (E,C)

**Working group memberships**

Central Valley Salmon Joint Venture - participant: Working to shape and create "A science-based, multi-stakeholder forum of conservation NGOs, fishing groups, local, state and federal agencies and private sector partners working together to build robust fisheries and self-sustaining wild populations of Central Valley salmonids", February 2015-present.

California Fish Tank – participant: "What are the fish telling us? Crafting a vision for salmon recovery in the Central Valley", 2014-present.

National Center for Evolutionary Analysis and Synthesis (NESCent) – co-PI with Andrew MacColl, Adam Siepielski, and Timothy Coulson: "Environmental and demographic determinants of natural selection." 2012-2014.

**Teaching at UC Berkeley**

1. Instructor, *Fish Ecology* (ESPM C115C/IB C176L): Fall 2009-13 & Spring 2015 (25-43 students)
2. Co-Instructor (with Mary Power), *Freshwater Ecology* (ESPM C216/IB C216): Spring 2010-present (7-13 students)
3. Lead- or Co-Instructor, *Biology and Geomorphology of Islands*: Fall 2013-present (15-22 students)
4. Instructor, *Aquatic Ecology Seminar* (ESPM 290): Spring 2009 (31 students)
5. Faculty Sponsor for various DeCal courses: "Strawberry Creek Restoration DeCal" (Spring 2011); "Propagation for Restoration: The Strawberry Creek Native Plant Nursery and Garden DeCal" (Fall 2015)
6. Faculty Coordinator for Wildlife and Conservation Biology Seminar Series: Fall 2010, Spring 2011, Fall 2013, Spring 2015
7. Guest lectures in various UCB courses: *Introduction to Environmental Studies* (Fall 2009, 2010, 2011, 2012), *Introduction to Environmental Sciences* (Spring 2010-14, Fall 2010-14), *Freshman Seminar* (Fall 2009-14), *Aquatic Insect Biology* (Fall 2009), *Restoration Ecology* (Spring 2012), *River Restoration* (Fall 2010, 2014), *Conservation Biology* (Fall 2012, 2013)

**Peer-reviewed publications** (ORCID iD: 0000-0003-3055-6483; <sup>G</sup>graduate student, <sup>P</sup>postdoc)

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44. Carah, J., Howard, J., Thompson, S., Short Gianotti, A., Bauer, S., Carlson, S.M., Gabriel, M.W., Hulette, L., Johnson, B., Knight, C., Kupferberg, S., Martin, S., Naylor, R., and Power, M.E. 2015. High time for conservation: Adding the environment to the debate on marijuana liberalization. *BioScience* 65: 822-829.
43. Hwan<sup>G</sup>, J.L. and Carlson, S.M. 2015. Contraction of an intermittent stream during seasonal drought: intra- and interannual patterns and biological consequences. *River Research and Applications* 31: online early available April 28, 2015.
42. Huber<sup>G</sup>, E.R. and Carlson, S.M. 2015. Temporal trends in hatchery releases of fall-run Chinook salmon in California's Central Valley. *San Francisco Estuary and Watershed Sciences: Volume 13, Issue 2: article 3.*
41. Bogan<sup>P</sup>, M.T., Hwan<sup>G</sup>, J.L., and Carlson, S.M. 2015. High aquatic biodiversity in an intermittent coastal headwater stream at Golden Gate National Recreation Area, California. *Northwest Science* 89: 188-197.
40. Power, M.E., Bouma-Gregson, K., Higgins, P., and Carlson, S.M. 2015. The thirsty Eel: summer and winter flow thresholds that tilt the Eel River of northwestern California from salmon-supporting to cyanobacterially-degraded states. *Copeia* 2015: 200-211.
39. Fey, S.B., Siepielski, A.M., Nusslé<sup>P</sup>, S., Cervantes-Yoshida<sup>G</sup>, K., Hwan<sup>G</sup>, J.L., Huber<sup>G</sup>, E.R., Fey, M.J., Catenazzi, A., and Carlson, S.M. 2015. Recent shifts in the occurrence, cause, and magnitudes of animal mass mortality events. *Proceedings of the National Academy of Sciences* 112: 1083-1088.
38. Satterthwaite, W.H., Carlson, S.M., Allen-Moran, S.D., Vincenzi, S., Bograd, S.J., and Wells, B.K. 2014. Match-mismatch dynamics and the relationship between ocean-entry timing and relative recovery rates of Central Valley fall run Chinook salmon. *Marine Ecology Progress Series* 511: 237-248.
37. Carlson, S.M., Cunningham, C., and Westley, P.A.H. 2014. Evolutionary rescue in a changing world. *Trends in Ecology and Evolution* 29: 521-530.
36. Buoro<sup>P</sup>, M. and Carlson, S.M. 2014. Life history syndromes: integrating dispersal through space and time. *Ecology Letters* 17: 756-767.
35. Siepielski, A.M., Gotanda, K., Morrissey, M., Diamond, S.E., DiBattista, J.D., and Carlson, S.M. 2013. The spatial patterns of directional phenotypic selection. *Ecology Letters* 16: 1382-1392.
34. Resh, V.H., Bêche, L., Lawrence, J., Mazor, R., McElravy, E.P., Purcell, A.P., and Carlson, S.M. 2013. Long-term population and community patterns of benthic macroinvertebrates and fishes in northern California Mediterranean-climate streams. *Hydrobiologia* 719: 93-118.
33. Moore, J.W., Carlson, S.M., Twardochleb, L., Hwan<sup>G</sup>, J.L., Fox, J.M., Hayes, S.A. 2012. Trophic tangles through time? Opposing direct and indirect effects of an invasive omnivore on stream ecosystem processes. *PLoS ONE* 7: e50687.
32. Kingsolver, J.G., Diamond, S.E., Siepielski, A.M., and Carlson, S.M. 2012. Synthetic analyses of phenotypic selection in natural populations: lessons, limitations and future directions. *Evolutionary Ecology* 26: 1101-1118.
31. Moore, J.W., Herbst, D.B., Heady, W., and Carlson, S.M. 2012. Stream community and ecosystem responses to the boom and bust of an invading snail. *Biological Invasions* 14: 2435-2446.
30. Carlson, S.M., and Satterthwaite, W.H. 2011. Weak portfolio effect in a collapsed salmon population complex. *Canadian Journal of Fisheries and Aquatic Sciences* 68: 1579-1589.
29. Leidy, R.A., Cervantes-Yoshida<sup>G</sup>, K., and Carlson, S.M. 2011. Persistence of native fishes in small streams of the urbanized San Francisco Estuary, California: acknowledging the role of urban streams in native fish conservation. *Aquatic Conservation: Marine and Freshwater Ecosystems* 21: 472-483.
28. Anderson, J.A., Ward, E.J., and Carlson, S.M. 2011. A model for estimating the minimum number of offspring to sample in studies of reproductive success. *Journal of Heredity* 102: 567-576.
27. Carlson, S.M., Quinn, T.P., and Hendry, A.P. 2011. Eco-evolutionary dynamics in Pacific salmon. *Heredity* 106: 438-447.
26. Siepielski, A.M., DiBattista, J.D., Evans, J.A., and Carlson, S.M. 2011. Differences in the temporal dynamics of phenotypic selection among fitness components in the wild. *Proceedings of the Royal Society B* 277: 1572-1580.
25. Darimont, C.T., Bryan, H.M., Carlson, S.M., Hocking, M.D., MacDuffee, M. Paquet, P.C., Price, M.H.H., Reimchen, T.E., Reynolds, J.D., and Wilmers, C.C. 2010. Salmon for terrestrial protected areas. *Conservation Letters* 3: 379-389.
24. Carlson, S.M., Kottas, A., and Mangel, M. 2010. Bayesian analysis of size-dependent over-winter mortality from size-frequency distributions. *Ecology* 91: 1016-1024.
23. Siepielski, A.M., DiBattista, J.D., and Carlson, S.M. 2009. It's about time: the temporal dynamics of phenotypic selection in the wild. *Ecology Letters* 12: 1261-1276.

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22. Kinnison, M.T., Palkovacs, E.P., Darimont, C.T., Carlson, S.M., Paquet, P.C., and Wilmers, C.C. 2009. *Letter*: Some cautionary notes on fisheries evolutionary impact assessments. *Proceedings of the National Academy of Sciences* 106: E115.
21. Olsen, E.M., Carlson, S.M., Gjøvsæter, J., and Stenseth, N.C. 2009. Nine decades of decreasing phenotypic variability in Atlantic cod. *Ecology Letters* 12: 622-631.
20. Carlson, S.M., Rich, H.B., and Quinn, T.P. 2009. Does variation in selection imposed by bears drive divergence among populations in the size and shape of sockeye salmon? *Evolution* 63: 1244-1261.
19. Quinn, T.P., Carlson, S.M., Gende, S.M., and Rich, H.B. 2009. Transportation of Pacific salmon carcasses from streams to riparian forests by bears. *Canadian Journal of Zoology* 87: 195-203.
18. Darimont, C.T., Carlson, S.M., Kinnison, M.T., Paquet, P.C., Reimchen, T.E., and Wilmers, C.C. 2009. *Letter*: Reply to Koons: Harvest-related trait changes in an increasingly variable world. *Proceedings of the National Academy of Sciences* 106: E33.
17. Darimont, C.T., Carlson, S.M., Kinnison, M.T., Paquet, P.C., Reimchen, T.E., and Wilmers, C.C. 2009. Human predators outpace other agents of trait change in the wild. *Proceedings of the National Academy of Sciences* 106: 952-954.
16. Carlson, S.M., and Stenseth, N.C. 2008. *Commentary*: Fishery selection across the millennia. *Proceedings of the Royal Society B* 275: 2657-2658.
15. Carlson, S.M., Olsen, E.M., and Vøllestad, L.A. 2008. Seasonal mortality and the effect of body size: a review and an empirical test using individual data on brown trout. *Functional Ecology* 22: 663-673.
14. Carlson, S.M., and Seamons, T.R. 2008. A review of quantitative genetic components of fitness in salmonids: implications for adaptation to future change. *Evolutionary Applications* 1: 222-238.
13. McClure, M.M., Carlson, S.M., Beechie, T.J., Pess, G.R., Jorgenson, J.C., Sogard, S.M., Sultan, S.E., Holzer, D.M., Travis, J., Sanderson, B.L., Power, M.E., and Carmichael, R.W. 2008. Evolutionary consequences of habitat loss for Pacific anadromous salmonids. *Evolutionary Applications* 1: 300-318.
12. Westley, P.A.H., Carlson, S.M., and Quinn, T.P. 2008. Among-population variation in adipose fin size parallels the expression of other secondary sexual characteristics in sockeye salmon (*Oncorhynchus nerka*). *Environmental Biology of Fishes* 81: 439-446.
11. Carlson, S.M., Hilborn, R., Hendry, A.P., and Quinn, T.P. 2007. Predation by bears drives senescence in natural populations of salmon. *PLoS ONE* 2: e1286.
10. Carlson, S.M., and Quinn, T.P. 2007. Ten years of varying lake level and selection on size-at-maturity in sockeye salmon. *Ecology* 88: 2620-2629.
9. Edeline, E., Carlson, S.M., Stige, L.C., Winfield, I.J., Fletcher, J.M., James, J.B., Haugen, T.O., Vøllestad, L.A., and Stenseth, N.C. 2007. Trait changes in a harvested population are driven by a dynamic tug-of-war between natural and harvest selection. *Proceedings of the National Academy of Sciences* 104: 15799-15804.
8. Carlson, S.M., Edeline, E., Vøllestad, L.A., Haugen, T.O., Winfield, I.J., Fletcher, J.M., James, J.B., and Stenseth, N.C. 2007. Four decades of opposing natural and human-induced artificial selection acting on Windermere pike (*Esox lucius*). *Ecology Letters* 10: 512-521.
7. Carlson, S.M., Hendry, A.P., and Letcher, B.H. 2007. Growth rate differences between resident native brook trout and non-native brown trout. *Journal of Fish Biology* 71: 1430-1447.
6. Johnson, S.P., Carlson, S.M., and Quinn, T.P. 2006. Tooth size and skin thickness in mature sockeye salmon: evidence for habitat constraints and variable investment between the sexes. *Ecology of Freshwater Fish* 15: 331-338.
5. Rich, H.B., Carlson, S.M., Chasco, B.E., Briggs, K.C., and Quinn, T.P. 2006. Movements of male sockeye salmon, *Oncorhynchus nerka*, on spawning grounds: effects of in-stream residency, density and body size. *Animal Behaviour* 71: 971-981.
4. Carlson, S.M., Rich, H.B., and Quinn, T.P. 2004. Reproductive life-span and sources of mortality for alternative male life-history strategies in sockeye salmon, *Oncorhynchus nerka*. *Canadian Journal of Zoology* 82: 1878-1885.
3. Carlson, S.M., Hendry, A.P., and Letcher, B.H. 2004. Natural selection acting on body size, growth rate and compensatory growth: an empirical test in a wild trout population. *Evolutionary Ecology Research* 6: 955-973.
2. Stewart, I.A., Carlson, S.M., Boatright, C.P., Buck, G.B., and Quinn, T.P. 2004. Site fidelity of spawning sockeye salmon (*Oncorhynchus nerka* W.) in the presence and absence of olfactory cues. *Ecology of Freshwater Fish* 13: 104-110.
1. Carlson, S.M., and Letcher, B.H. 2003. Variation in brook and brown trout survival within and among seasons, species, and age classes. *Journal of Fish Biology* 63: 780-794.

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**Manuscripts under consideration (G graduate student, U undergraduate, P postdoc)**

1. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and Carlson, S.M. In Review. Direct and indirect effects of watershed properties on fish communities: an example from San Francisco Bay streams, USA. *Hydrobiologia*.
3. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and Carlson, S.M. In Review. Contemporary land change alters fish communities in a San Francisco Bay watershed, California. *PLoS ONE*.
4. Nusslé<sup>P</sup>, S., Matthews, K.R., and Carlson, S.M. In Revision. Mediating water temperature increase due to livestock and global change in high elevation meadow streams of the Golden Trout Wilderness. *PLoS ONE*.
5. Leidy, R.A., Bogan<sup>P</sup>, M.T., Neuhaus, L., Rosetti, L. and Carlson, S.M. In Review. Summer die-off of western pond turtle (*Actinemys marmorata*) along an intermittent coast range stream in central California. *Southwestern Naturalist*.
6. Fraioli, K.M.S. and Carlson, S.M. Feeding microhabitat use and selectivity of juvenile *Mugil cephalus* in a Hawaiian stream.
7. Satterthwaite, W.H. and Carlson, S.M. In Re-review. Weakening portfolio effect strength in a hatchery-supplemented Chinook salmon population complex. *Canadian Journal of Fisheries and Aquatic Sciences*.

**Invited seminars**

1. Michigan State University, Kellogg Biological Station: September 4, 2015.
2. Northwest Fisheries Science Center Monster Seminar JAM: Seattle, Washington: June 4, 2015.
3. University of California, Davis, Dept. of Wildlife, Fisheries, and Conservation Biology: March 10, 2015.
4. San Francisco State University, Department of Earth & Climate Sciences, *Distinguished Speaker Series - Dawdy Lecture in Hydrological Sciences*: December 2, 2014.
5. University of California, Los Angeles, Ecology & Evolutionary Biology: November 5, 2014.
6. University of California, Berkeley, Environmental, Science, Policy & Management: October 30, 2014.
7. University of California, Davis, Ecology Seminar: April 25, 2013.
8. Simon Fraser University, Burnaby, Canada, Dept. of Biological Sciences: March 21, 2013.
9. University of California, Davis, Bodega Marine Laboratory, Bodega Bay: December 12, 2012.
10. NOAA-Fisheries, Santa Cruz, California: December 11, 2012.
11. University of California, Berkeley, Geography Colloquium: December 5, 2012.
12. Friends of Orinda Creeks, Orinda, California: September 19, 2012.
13. Scripps Institute of Oceanography, San Diego, Ecology Luncheon: January 18, 2012.
14. Memorial University, St. John's, Newfoundland, Department of Biology: April 29, 2011.
15. Memorial University, St. John's, Newfoundland, *Keynote Speaker* at Dept. of Biology Graduate Student Symposium: April 28, 2011.
16. Colorado State University, Fort Collins, Graduate Degree Program in Ecology, *Rising Star Distinguished Ecologist*: April 14, 2011.
17. Colorado State University, Fort Collins, Graduate Degree Program in Ecology, *Rising Star Distinguished Ecologist*: April 13, 2011.
18. University of California, Berkeley, Museum of Vertebrate Zoology: September 1, 2010.
19. *Young Investigators Award Symposium*, Joint meeting of the American Society of Naturalists & Society for the Study of Evolution, Portland, Oregon: June 29, 2010.
20. University of California, Berkeley, Behavior Lunch Seminar: April 22, 2010.
21. University of California, Berkeley, Ecosystem Sciences Seminar: April 14, 2010.
22. University of California, Berkeley, EcoLunch Seminar: March 1, 2010.
23. University of Oslo, Darwin Day 2010 Symposium, *Keynote Speaker*, Oslo, Norway: February 12, 2010.
24. Point Reyes National Seashore, Point Reyes Station, California: February 3, 2010.
25. US Army Corps of Engineers, Engineer Research and Development Center, Vicksburg, MS: January 11, 2010.
26. CA State Univ., Sacramento, Dept. Biology: Ecological and Environmental Issues Seminar, December 9, 2009.
27. University of California, Santa Cruz, Department of Ecology and Evolutionary Biology: May 27, 2009
28. University of California, Berkeley, Ecosystem Sciences Seminar: May 13, 2009.
29. University of California, Berkeley, Environmental Engineering Seminar: April 27, 2009.
30. University of California, Berkeley, Wildlife and Conservation Biology Seminar: March 6, 2009.
31. University of California, Berkeley, HydroLunch Seminar Series: February 3, 2009.
32. University of California, Berkeley, Dept. of Environmental Science, Policy & Management: February 5, 2007.
33. University of Washington, Seattle, Center for Water and Watershed Studies Seminar: January 18, 2005.

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**Presentations at scientific meetings**

1. **Carlson, S.M.** and Satterthwaite, W.H. Trends in portfolio effect strength and hatchery supplementation practices in Central Valley fall run Chinook salmon. California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California: April 10, 2015. *Invited Talk*.
2. **Carlson, S.M.** Eco-evolutionary dynamics of Pacific salmon. Joint Aquatic Sciences Meeting, Portland, Oregon: May 23, 2014. *Invited Talk*.
3. **Carlson, S.M.** Collaboration and multidisciplinary science: reflections from a junior faculty member. California-Nevada Chapter of the American Fisheries Society, Sacramento, California, *Plenary Speaker*: April 28, 2014.
4. **Carlson, S.M.** and Satterthwaite, W.H. Managing for population diversity and stability: examples and potential hatchery applications. California-Nevada Chapter of the American Fisheries Society, Sacramento, California: April 27, 2014. *Invited Talk*.
5. **Carlson, S.M.**, Huber, E.R., Cervantes-Yoshida, K., and Satterthwaite, W.H. Human-induced trait change in a highly variable salmon population complex. California-Nevada Chapter of the American Fisheries Society, Davis, California: April 5, 2013.
6. **Carlson, S.M.**, Huber, E.R., Cervantes-Yoshida, K., and Satterthwaite, W.H. Human-induced trait change in a highly variable salmon population complex. Salmonid Restoration Conference, Fortuna, California: March 16, 2013. *Invited Talk*.
7. **Carlson, S.M.** and Kinnison, M.T. The unrepentant selectionist's guide to salmonid management: Part 2. A selection toolbox for salmonid management. American Fisheries Society, St. Paul, Minnesota, August 21, 2012. *Invited Talk*.
8. Kinnison, M.T. and **Carlson, S.M.** The unrepentant selectionist's guide to salmonid management: Part 1. The prevalence of selection in salmonid management. American Fisheries Society, St. Paul, Minnesota, August 21, 2012. *Invited Talk*.
9. **Carlson, S.M.**, Huber, E.R., Cervantes-Yoshida, K., and Satterthwaite, W.H. Human-induced trait change in a recently collapsed salmon population complex. Ecological Society of America, Portland, OR: August 10, 2012.
10. Satterthwaite, W.H. and **Carlson, S.M.** Temporal trends in portfolio effects and stability of a salmon population complex. Ecological Society of America, Portland, Oregon: August 9, 2012.
11. Siepielski, A.M., Gotanda, K., DiBattista, J.D., Diamond, S.E., and **Carlson, S.M.** The spatial dynamics of phenotypic selection in the wild. Ecological Society of America, Portland, Oregon: August 8, 2012.
12. **Carlson, S.M.** Portfolio effects and salmon habitat: the importance of estuaries and the nearshore environment. Beyond Suisun - What Are We Missing? Estuarine Ecology of Juvenile Salmonids. Seminar series sponsored by the Delta Science Program, Davis, California: May 22, 2012. *Invited Talk*.
13. **Carlson, S.M.** and Huber, E.R. Temporal trends in hatchery releases of fall Chinook from California's Central Valley. Salmonid Restoration Conference, Davis, California: April 7, 2012.
14. **Carlson, S.M.** and Huber, E.R. Temporal trends in hatchery releases California Central Valley fall-run Chinook salmon. American Fisheries Society, Seattle, Washington: September 7, 2011.
15. **Carlson, S.M.** Patterns and strength of selection in wild fish populations. American Fisheries Society, Seattle, Washington: September 7, 2011.
16. **Carlson, S.M.**, and Satterthwaite, W.H. 2010. Weak portfolio effects in a collapsed stock complex: California's Central Valley fall-run Chinook salmon. Ecological Society of America, Pittsburgh, PA: August 3, 2010.
17. Moore, J.W., Twardochleb, L.A., **Carlson, S.M.**, Fox, J., Hwan<sup>2</sup>, J.L., Hayes, S.A. Trophic cascades, detrital dynamics, and invasive crayfish. American Society of Limnologists and Oceanographers, Santa Fe, New Mexico: June 7, 2010.
18. **Carlson, S.M.**, and Satterthwaite, W.H. 2010. Weakened portfolio effects in California's recently collapsed Central Valley fall-run Chinook salmon. California-Nevada Chapter of the American Fisheries Society, Redding, California: March 13, 2010.
19. **Carlson, S.M.**, Siepielski, A.M., and DiBattista, J.D. 2009. It's about time: the temporal dynamics of selection in the wild. Ecological Society of America, Albuquerque, New Mexico: August 5, 2009.
20. Moore, J.W., **Carlson, S.M.**, Fox, J.M., Hwan<sup>2</sup>, J.L., Hayes, S.A. Impacts of dominant native and invasive species on Californian stream ecosystems. Ecological Society of America, Albuquerque, New Mexico: August 5, 2009.

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21. Darimont, C.T., **Carlson, S.M.**, Kinnison, M.T., Paquet, P., Reimchen, T.E. and Wilmers, C. Magnitude, rate, and pattern of phenotypic trait changes in exploited prey. Ecological Society of America, Albuquerque, New Mexico: August 4, 2009.
22. **Carlson, S.M.**, Siepielski, A.M., and DiBattista, J.D. 2009. It's about time: the temporal dynamics of selection in the wild. Society for the Study of Evolution, Moscow, Idaho: June 15, 2009.
23. **Carlson, S.M.**, Edeline, E., Vøllestad, L.A., Haugen, T.O., Winfield, I.J., Fletcher, J.M., James, J.B., and Stenseth, N.C. 2007. Four decades of opposing natural and human-induced artificial selection acting on Windermere pike. American Fisheries Society, San Francisco, California: September 4, 2007.
24. **Carlson, S.M.**, and Quinn, T.P. Ten years of varying lake level and selection on size-at-maturity in sockeye salmon. Ecological Society of America, San Jose, California: August 9, 2007 (poster).
25. **Carlson, S.M.**, Quinn, T.P., Hilborn, R., and Hendry, A.P. Predation by bears drives senescence variation in natural populations of salmon. Society for the Study of Evolution, Christchurch, New Zealand: June 17, 2007.
26. **Carlson, S.M.**, Edeline, E., Vøllestad, L.A., Haugen, T.O., Winfield, I.J., Fletcher, J.M., James, J.B., and Stenseth, N.C. Four decades of opposing natural and human-induced selection acting on Windermere pike (*Esox lucius*). Evolutionary Changes and Salmon Symposium, Seattle, WA: December 7, 2006 (poster).
27. **Carlson, S.M.**, and Quinn, T.P. Ten years of varying lake level and selection on size-at-maturity in sockeye salmon. Evolutionary Changes and Salmon Symposium, Seattle, WA: December 7, 2006 (poster).
28. Rich, H.B., Jr., **Carlson, S.M.**, and Quinn, T.P. Adventures of "charismatic mini-fauna": arrival, movement, and life-spans of sockeye salmon jacks on the breeding grounds. American Fisheries Society, Anchorage, Alaska: September 13, 2005 (poster).
29. Westley, P.A.H., **Carlson, S.M.**, and Quinn, T.P. Variable investment in secondary sexual characteristics by male sockeye salmon: an adaptation to high predation environments? American Fisheries Society, Anchorage, Alaska: September 13, 2005 (poster).
30. **Carlson, S.M.**, Quinn, T.P., Hilborn, R., and Hendry, A.P. Senescence rates of sockeye salmon determined by condition-dependent extrinsic mortality from bears. American Fisheries Society, Anchorage, Alaska: September 12, 2005.
31. **Carlson, S.M.**, Hilborn, R., Quinn, T.P. and Hendry\*, A.P. Do senescence rates of sockeye salmon reflect population-specific bear predation pressure? Society for the Study of Evolution, Fairbanks, Alaska: June 10, 2005 (\*poster presented by APH).
32. **Carlson, S.M.**, Quinn, T.P., Hendry, A.P., and Hilborn, R. Senescence rates of sockeye salmon as an adaptation to the intensity of bear predation. Center for Water and Watershed Studies Annual Review of Research, University of Washington, Seattle, Washington: February 17, 2005. *Invited Talk*.
33. **Carlson, S.M.**, Quinn, T.P., Hendry, A.P., and Hilborn, R. Senescence rates of sockeye salmon as an adaptation to the intensity of bear predation. Pacific Ecology and Evolution Conference, Ellensburg, Washington: February 5, 2005.
34. Quinn, T.P., **Carlson, S.M.**, Gende, S., Buck, G.B., Schindler, D.E., and Hilborn, R. Ecological and evolutionary aspects of bear predation on Pacific salmon. Ecological Society of America, Portland, Oregon: August 4, 2004 (poster).
35. **Carlson, S.M.**, and Letcher, B.H. Changes in relative size: the influence of movement and future fitness consequences. Atlantic International Chapter of the American Fisheries Society, Moultonborough, New Hampshire: September 24, 2001.
36. **Carlson, S.M.**, and Letcher, B.H. Growth, survival, and movement of brook trout and brown trout. American Society of Ichthyologists and Herpetologists, State College, Pennsylvania: July 6, 2001.
37. **Carlson, S.M.**, and Letcher, B.H. An individual level approach to studying brown trout population dynamics in the West Brook, MA, USA. Southern New England Chapter of the American Fisheries Society, Narragansett, Rhode Island: January 18, 2001.

**Presentations at meetings by graduate students<sup>G</sup>, undergraduates<sup>U</sup>, and postdocs<sup>P</sup> (oral unless otherwise noted)**

1. Nusslé<sup>P</sup>, S., Bogan<sup>P</sup>, M.T., Knapp, R. and Carlson, S.M. Is fishery selection repeatable? Lessons learned from fish removal experiments in Sierra Nevada Lakes. Annual meeting of the European Society for Evolutionary Biology, Lausanne, Switzerland: August 11, 2015 (poster).
2. Bogan<sup>P</sup>, M.T., Leidy, R.A., Hwan<sup>G</sup>, J.L., and **Carlson, S.M.** Cycles of "boom and bust" in coastal California intermittent streams. 2015 Annual Meeting of the Society for Freshwater Science, Milwaukee, Wisconsin. May 19, 2015.

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3. Uno, H., Kelson<sup>G</sup>, S.J., **Carlson, S.M.**, Dietrich, W.E., and Power, M.E. Fish mobility in river network, and their constraints by geomorphological and hydrological barriers at tributary confluences. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 8, 2015 (poster).
4. Kelson<sup>G</sup>, S.J., Miller, M.R., and **Carlson, S.M.** Influence of small cascades on longitudinal shifts in *O. mykiss* life histories and densities in tributaries to the South Fork Eel River, California. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 8, 2015 (poster).
5. Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** Inter- and intraannual patterns and ecological consequences of seasonal drought. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 8, 2015 (poster).
6. Sturrock<sup>P</sup>, A., Wikert, J.D., **Carlson, S.M.**, Heyne, T., Johnson, R.C. Quantifying juvenile phenotype expression and success of Chinook salmon in a regulated river: who survives and why? Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 10, 2015.
7. Huber, E.R., Largier, J.L., Jankovitz, J.D., Richards, C.M., **Carlson, S.M.**, and Sloan, R.M. California drought causes apparent loss of steelhead estuarine nursery habitat. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 10, 2015.
8. Fraioli<sup>G</sup>, K.M.S. and **Carlson, S.M.** Feeding microhabitat use and movements of juvenile *Mugil cephalus* in a Hawaiian stream. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 9, 2015.
9. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and **Carlson, S.M.** The Influence of drought on an intermittent stream food web in coastal California. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 9, 2015.
10. Woelfle-Erskine<sup>G</sup>, C.A., Larsen, L.G., **Carlson, S.M.** Quantifying abiotic habitat characteristics to determine thresholds for salmonid over-summer survival in intermittent streams. Annual meeting of the California-Nevada Chapter of the American Fisheries Society, Santa Cruz, California. April 9, 2015.
11. Woelfle-Erskine<sup>G</sup>, C.A., Hildebrand, J., Larsen, L.G., and **Carlson, S.M.** Quantifying abiotic habitat characteristics to determine thresholds for salmonid over-summer survival in intermittent streams. Annual meeting of the American Geophysical Union, San Francisco, California. December 17, 2014 (poster).
12. Ponce<sup>U</sup>, J., Bogan<sup>P</sup>, M.T., and **Carlson, S.M.** Consequences of drought on aquatic invertebrates in an intermittent stream. Society to Advance Chicanos and Native Americans in the Sciences (SACNAS), Los Angeles: October 17, 2014 (poster).
13. Woelfle-Erskine<sup>G</sup>, C.A., Hildebrand, J., Larsen, L.G., and **Carlson, S.M.** Quantifying abiotic habitat characteristics to determine thresholds for salmonid over-summer survival in an intermittent stream. Ecological Society of America, Sacramento, California: August 15, 2014 (poster).
14. Kelson<sup>G</sup>, S.J., **Carlson, S.M.**, Ardren, W., and Miller, M.R. The effects of waterfalls in streams on structuring salmonid fish populations and alternative life histories. Ecological Society of America, Sacramento, California: August 14, 2014.
15. Nusslé<sup>P</sup>, S., Bogan, M., Knapp, R., Lockhart, M., and **Carlson, S.M.** Fishery-induced selection: What can be learned from introduced salmonids in Sierra Nevada lakes? Ecological Society of America, Sacramento, California: August 13, 2014.
16. Kobayashi<sup>U</sup>, K.M., DiVittorio, C., and **Carlson, S.M.** The effects of barriers on the climbing ability of two amphidromous gobies. Ecological Society of America, Sacramento, California: August 11, 2014 (poster).
17. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and **Carlson, S.M.** Influence of land change on fish communities resampled after 15 years. Ecological Society of America, Sacramento, California: August 11, 2014.
18. Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** On death and drying: The effects of summer drought on fish mortality in an intermittent stream. Ecological Society of America, Sacramento, California: August 11, 2014.
19. Sturrock<sup>P</sup>, A., **Carlson, S.M.**, Wikert, J.D., Heyne, T., and Johnson, R.C. Life history portfolios within salmon populations: When do different outmigration phenotypes contribute? Ecological Society of America, Sacramento, California: August 11, 2014.
20. Huber<sup>G</sup>, E.R. and **Carlson, S.M.** Sink or swim: steelhead performance in a coastal marsh-bar built estuary wetland complex. California-Nevada Chapter of the American Fisheries Society. Davis, California: April 4, 2013.
21. Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** Ecology of juvenile steelhead in an intermittent California stream: insights from an individual-based study. California-Nevada Chapter of the American Fisheries Society. Davis, California: April 4, 2013.



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22. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and **Carlson, S.M.** Influence of land use on stream fish communities across a 15-year period in a San Francisco Bay watershed. California-Nevada Chapter of the American Fisheries Society. Davis, California: April 4, 2013.
23. Gutierrez<sup>U</sup>, S., Mendez<sup>U</sup>, C., and **Carlson, S.M.** Movement patterns of California roach and Sacramento sucker in Strawberry Creek, California. Society to Advance Chicanos and Native Americans in the Sciences (SACNAS), Seattle, Washington: October 13, 2012 (poster).
24. Marrufo<sup>U</sup>, J., Cervantes-Yoshida<sup>G</sup>, K., and **Carlson, S.M.** Fish assemblage and habitat attributes of an intermittent stream. Society to Advance Chicanos and Native Americans in the Sciences (SACNAS), Seattle, Washington: October 13, 2012 (poster).
25. Vasquez<sup>U</sup>, K., Hwan<sup>G</sup>, J.L., and **Carlson, S.M.** Do biotic and/or abiotic factors affect oversummer growth of juvenile steelhead trout in an intermittent stream? Society to Advance Chicanos and Native Americans in the Sciences (SACNAS), Seattle, Washington: October 13, 2012 (poster).
26. Huber<sup>G</sup>, E.R. and **Carlson, S.M.** Fish assemblage shifts track ecosystem states in a Central California intermittent estuary. Ecological Society of America, Portland, Oregon: August 9, 2012.
27. Truong<sup>U</sup>, H.S., Hwan<sup>G</sup>, J.L., and **Carlson, S.M.** The effects of stream fragmentation on the movements of juvenile salmonids in a Mediterranean-climate stream. Ecological Society of America, Portland, Oregon: August 8, 2012 (poster).
28. Buoro<sup>P</sup>, M., Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** Investigating the selective survival of threatened steelhead juveniles (*Oncorhynchus mykiss*) during the summer low flow period using fitness surfaces and capture-recapture data. Ecological Society of America, Portland, Oregon: August 7, 2012.
29. Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** Disrupting the flow: Effects of stream fragmentation on ecosystem processes and stream fish dynamics. Ecological Society of America, Portland, Oregon: August 7, 2012.
30. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A. and **Carlson, S.M.** Does watershed land use influence freshwater fish assemblages in San Francisco Bay Area streams? Ecological Society of America, Portland, Oregon: August 6, 2012.
31. Mendez<sup>U</sup>, C., Cervantes-Yoshida<sup>G</sup>, K., and **Carlson, S.M.** Movement of stream fishes in a small Mediterranean-climate urban stream. Society for Freshwater Science, Louisville, Kentucky: May 23, 2012.
32. Truong<sup>U</sup>, H.S., Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** The effects of stream fragmentation on the movements of juvenile salmonids in a Mediterranean-climate stream. Society for Freshwater Science, Louisville, Kentucky: May 23, 2012 (poster).
33. Huber<sup>G</sup>, E.R. and **Carlson, S.M.** The beneficial and harmful effects of the Pescadero intermittent estuary-marsh ecosystem. Salmonid Restoration Conference, Davis, California: April 7, 2012.
34. Mendez<sup>U</sup>, C., Cervantes-Yoshida<sup>G</sup>, K., and **Carlson, S.M.** Movement of stream fishes in a small Mediterranean-climate urban stream. Society to Advance Chicanos and Native Americans in the Sciences (SACNAS), San Jose, California: October 28, 2011 (poster).
35. Gonzalez<sup>U</sup>, D., Cervantes-Yoshida<sup>G</sup>, K., and **Carlson, S.M.** The influence of drought on stream fishes: a case study from San Antonio Creek, California. Society to Advance Chicanos and Native Americans in the Sciences (SACNAS), San Jose, California: October 28, 2011 (poster).
36. Hwan<sup>U</sup>, J.L. and **Carlson, S.M.** The ecology of juvenile steelhead rearing in an intermittent stream: the influence of flow disruption on growth, survival, and movement. American Fisheries Society, Seattle, Washington: September 8, 2011.
37. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and **Carlson, S.M.** Effects of land use on fish assemblages of San Francisco Bay streams: a spatial analysis approach. American Fisheries Society, Seattle, Washington: September 7, 2011.
38. Diver<sup>G</sup>, S. Columbia River tribal fisheries: life history stages of a co-management institution. American Fisheries Society, Seattle, Washington: September 5, 2011.
39. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A. and **Carlson, S.M.** Evaluating temporal changes of native fish assemblages in a San Francisco Bay watershed: The influence of land use change and a novel introduction. Ecological Society of America, Pittsburgh, Pennsylvania: August 4, 2010.
40. Hwan<sup>G</sup>, J.L. and **Carlson, S.M.** The effects of temporal habitat fragmentation on predator ecology and ecosystem processes in an intermittent stream. Ecological Society of America, Pittsburgh, Pennsylvania: August 3, 2010.
41. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and **Carlson, S.M.** Remarkable persistence of native fishes in small streams of the urbanized San Francisco Estuary. 9th Biennial State of the San Francisco Estuary Conference, Oakland, California: September 29, 2009 (poster).

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42. Hwan<sup>G</sup>, J.L., Ettlinger, E., Ketcham, B., Reichmuth, M., and **Carlson, S.M.** Regional coherence of smolt body size for coho salmon at the southern end of their range: causes, consequences, and exceptions. Ecological Society of America, Albuquerque, New Mexico: August 6, 2009.
43. Huber<sup>G</sup>, E.R. and **Carlson, S.M.** Invasion of Chinook salmon into San Francisco Bay streams: a consequence of management practices? Ecological Society of America, Albuquerque, New Mexico: August 5, 2009.
44. Cervantes-Yoshida<sup>G</sup>, K., Leidy, R.A., and **Carlson, S.M.** Remarkable persistence of native fishes in small streams of the urbanized San Francisco Estuary. Ecological Society of America, Albuquerque, New Mexico: August 4, 2009.
45. Diver<sup>G</sup>, S. Towards sustainable fisheries: Assessing co-management effectiveness for the Columbia River Basin. Ecological Society of America, Albuquerque, New Mexico: August 4, 2009.

### **Academic Mentoring**

#### Postdoctoral researcher

Buoro, Mathieu, 1/2012-5/2014 (*now a postdoc with the Evolution & Biological Diversity Laboratory, Aquatic Ecology Group in Toulouse, France*)

Nusslé, Sébastien, 8/2013-present (*Swiss NSF Mobility Fellow*)

Bogan, Michael, 9/2013-present (*David H. Smith Postdoctoral Fellow*)

Sturrock, Anna, 7/2014-present (*Delta Science Postdoctoral Fellow*)

Woelfle-Erskine, Cleo, 6/2015-present (supported by *Rose Hills Innovator Award to SMC*)

#### Graduate (active)

Cervantes-Yoshida, Kristina: planned completion August 2015, *NSF-GRF recipient*, “The influence of land use and Mediterranean seasonality on California stream fishes.”

Hwan, Jason: planned completion August 2015, *NSF-GRF recipient*, “Fragmentation of an intermittent stream during seasonal drought: intra- and interannual patterns and ecological consequences.”

Kelson, Suzanne: 2013-present, *NSF-GRF recipient*, “Eco-evolutionary dynamics of a partially migratory salmonid fish.”

Klip, Jan Mario: 2014-present, co-advised with Justin Brashares, “Ecology of black bears in the Lake Tahoe drainage.”

#### Graduate (completed)

Diver, Sibyl: Ph.D. 2014, *NSF-GRF and NSF-DDIG recipient*, “Negotiating knowledges, shifting access: Natural resource governance with Indigenous communities and state agencies in the Pacific Northwest.” Currently a postdoctoral scholar at the Woods Institute, Stanford University.

Fraiola, Kauaoo: Ph.D. 2015, *EPA STAR recipient*, “The behavior and ecology of juvenile *Mugil cephalus* in Hawaiian streams.” Currently a postdoctoral scholar with Jim Gilliam at North Carolina State University.

Huber, Eric: 2010-14 (transferred to the O’Grady Lab), “Steelhead ecology in an intermittent estuary.”

Woelfle-Erskine, Cleo: Ph.D. 2015, *NSF-DDIG recipient*, co-advised with Isha Ray, “Hydrology and ecology of intermittent streams and collaborative scientific processes.”

#### Visiting Graduate

Lowenstein, Jacob (Columbia University and the American Museum of Natural History): 2009-10

#### Undergraduate mentees at UC Berkeley (unless otherwise noted)

*Note that several undergraduates were supported through campus programs designed to introduce students from underrepresented groups to scientific research, including the Environmental Leadership Pathways Program (ELP), Biology Scholars Program (BSP), Biology Fellows Program (BFP), Initiative for Maximizing Student Diversity (IMSD), and the McNair Scholar’s Program, and these are highlighted below.*

An, Min, Economics, Fall 2010-Spring 2012

Ashmead, Nathaniel, Integrative Biology, Fall 2012-present

Carty, Taylor, Integrative Biology, Spring 2015

Doty, Anna, Conservation Resource Studies, Fall 2008 (*current position: technician with the California Department of Water Resources*)

Eng, Kin, Earth and Planetary Sciences, Spring 2011

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Essoudry, Esther, ELP Fellow, Laney Community College, Summer 2011 (*current position: transfer student at UC Berkeley*)

Farnum, Maren, Conservation Resource Studies, Summer 2009

Flaherty, Theresa, ELP Fellow, Laney Community College, Summer 2010 (*current position: transfer student at UC Davis*)

Gonzales, Miranda, Microbial Biology, BSP Fellow, Summer 2015

Gonzalez, Daisy, Integrative Biology, BSP Fellow (Summer 2011) and McNair Scholar (Spring 2013-2014)

Gutierrez, Sandy, Integrative Biology, BSP Fellow, IMSD Fellow, Summer 2012-present

Hernandez, Chris, Molecular Environmental Biology, Fall 2014-present

Hong, Minju, Integrative Biology, Fall 2011

Horton, Katelyn, Integrative Biology/Marine Science, Fall 2014-Summer 2015

Hurd, Veronica, Conservation Resource Studies, Fall 2011-present

Huang, Betty, CNR/Environmental Sciences, Fall 2014-present

Jackson, Eliot, St. Mary's College, Summer 2012-present

Kobayashi, Katie, Summer 2014

Kohlsmith, Emma, Conservation Resources Studies (Senior Thesis Advisor), Fall 2011-Spring 2012

Leidy, Garrett, UC Davis, Summer 2009 and 2010 (*current position: graduate student in ecology at UC Davis*)

Lewis, Caroline, Integrative Biology, BSP Fellow, Summer 2011

Li, Denise, Integrative Biology, Spring 2010, Fall 2010, Spring 2011 (*current position: fisheries observer, NOAA*)

Mali, Sohil, Undeclared, Summer 2015-present

Marrufo, Joanna, Environmental Science, BFP Fellow, Summer 2012-Spring 2013

Mathison, J. Maxwell "Max", Molecular Environmental Biology, Spring 2014

Mayeda, Mary, Forestry and Natural Resources, Spring 2010

Mendez, Carolina, Environmental Science (Senior Thesis Advisor), BSP Fellow, IMSD Fellow, Summer 2010-present

Mitchell, Geoffrey, Conservation Resource Studies, BSP Fellow, Summer 2009-Spring 2011 (*current position: graduate student at the Warnell School of Forestry & Natural Resources, University of Georgia*)

Mosqueda, Carmen, Environmental Science (Senior Thesis Advisor), Summer 2010, Fall 2010, Spring 2011

Nagata, Jonathan, Molecular Environmental Biology, Spring 2010 (*current position: graduate student in Public Health, University of Washington*)

O'Brady, Connor, Undeclared, Fall 2014

Perez, Jennifer, ELP Fellow, Contra Costa Community College, Summer 2010 (*current position: transfer student at UC Davis*)

Phan, Thu-Quynh, Molecular Environmental Biology, Fall 2012-present

Ponce, Julian, Public Health, BSP Fellow, Summer 2014-present

Post, Charles, Conservation Resource Studies, Fall 2009-Spring 2011 (*current position: graduate student in Integrative Biology at UC Berkeley*)

Rangel, Hector, ELP Fellow, Laney Community College, Summer 2011

Rankin, Zane, Environmental Sciences, Spring 2012-present

Samuel, Patrick, Conservation Resource Studies, Fall 2008 (*current position: graduate student in Marine Affairs, University of Rhode Island*)

Sanabria, Anthony, Molecular and Cellular Biology, BFP Fellow, Summer 2015

Schaaf, Cody, Summer 2014-present

Sosa, Valeria, Environmental Science, BSP Fellow, Summer 2013

Tokuno, Hannah, Conservation Resource Studies, Spring 2013

Truong, Hua, Integrative Biology (Honor's Thesis Advisor), BSP Fellow, IMSD Fellow, Summer 2010-present

Vasquez, Kimberly, Molecular Environmental Biology, Pre-IMSD Fellow, Summer 2012-present

Wang, Terrance, ESPM/Molecular Environmental Biology, Summer 2015-present

Watson, Kathryn, Environmental Science (Senior Thesis Advisor), Summer 2009, Fall 2009, Spring 2010

Young, Matthew, Society and the Environment, Spring 2009, Fall 2009, Spring 2010 (*current position: Peace Corps volunteer in Zambia working as a rural fish culture extension agent*)

Zhang, Jie, ELP Fellow, Contra Costa Community College, Summer 2012 (*current position: transfer student at UC Berkeley*)

Zimmerman, Brian, Molecular Environmental Biology, Spring 2015

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Graduate committees

*Dissertation/Thesis Committee Chair (current unless otherwise indicated)*

Cervantes-Yoshida, Kristina (Planned completion August 2015)  
Diver, Sibyl (Ph.D., December 2014)  
Fraiola, Kauaoo (Ph.D., May 2015)  
Huber, Eric (2010-14, transferred to the O'Grady Lab)  
Hwan, Jason (Planned completion August 2015)  
Kelson, Suzanne  
Klip, J.Mario (co-Chair with Justin Brashares)  
Woelfle-Erskine, Cleo (co-Chair with Isha Ray) (Ph.D., May 2015)

*Qualifying Examination Committee Member*

Ashander, Jaime, UC Davis, Population Biology (Spring 2013)  
Damerow (née Ball), Joan E, Environmental Science, Policy, and Management (Spring 2010)  
Budrick, John E, Environmental Science, Policy, and Management (Spring 2011)  
Butler, Nathaniel L, Civil and Environmental Engineering (Spring 2012)  
Fryxell, David F, UC Santa Cruz, Ecology and Evolutionary Biology (Spring 2015)  
Hines, David, Environmental Science, Policy, and Management (Spring 2013)  
Hunt, Lisa, Environmental Science, Policy, and Management (Fall 2012)  
Klonoski, Karina, Environmental Science, Policy, and Management (Spring 2015)  
Klip, Jan Mario, Environmental Science, Policy, and Management (Spring 2014)  
Lawrence, Justin, Environmental Science, Policy, and Management (Spring 2009)  
Marrack, Elizabeth, Environmental Science, Policy, and Management (Spring 2012)  
Matella, Mary, Environmental Science, Policy, and Management (Fall 2009)  
Park, Jungsu, Civil and Environmental Engineering (Spring 2014)  
Peterson, Michael, Environmental Science, Policy, and Management (Spring 2013)  
Richards, Chandra, Environmental Science, Policy, and Management (Spring 2014)  
Stauffer, Natalie, Environmental Science, Policy, and Management (Spring 2014)  
Torres, Wilfred V, Integrative Biology (Spring 2010)  
Uno, Hiromi, Integrative Biology (Spring 2013)  
Williams, Megan, Civil and Environmental Engineering (Fall 2012)  
Woelfle-Erskine, Cleo, Energy Resources Group (Fall 2013)

*Dissertation/Thesis Committee Member (active unless otherwise indicated)*

Doehring, Carolyn, Landscape Architecture and Planning (emphasis in hydrology) (M.S., 2013)  
Grantham, Theodore E, Environmental Science, Policy, and Management (Ph.D., 2010)  
Hines, David, Environmental Science, Policy, and Management (M.S., 2013)  
Hunt, Lisa, Environmental Science, Policy, and Management  
Marrack, Elizabeth, Environmental Science, Policy, and Management (Ph.D., 2014)  
Park, Jungsu, Civil and Environmental Engineering (Ph.D., 2015)  
Peterson, Michael, Environmental Science, Policy, and Management  
Post, Charles, Integrative Biology (M.S., 2015)  
Richards, Chandra, Environmental Science, Policy, and Management  
Torres, Wilfred V, Integrative Biology (M.S., 2012)  
Uno, Hiromi, Integrative Biology  
Williams, Megan, Civil and Environmental Engineering (Ph.D., 2014)

**Service to Discipline**

1. **Editorial Board Member** of (a) *Ecology of Freshwater Fish* (2010-present) and (b) *PLoS ONE* (2012-present).
2. **Ad hoc manuscript reviewer** for the following peer-reviewed journals: *American Naturalist*, *Basic and Applied Ecology*, *Biological Conservation*, *California Agriculture*, *California Department of Fish and Game Journal*, *Canadian Journal of Fisheries and Aquatic Sciences*, *Conservation Letters*, *Ecography*, *Ecological Applications* (including as a *Guest Editor*), *Ecology*, *Ecology Letters*, *Ecology of Freshwater Fish*, *Environmental Biology of Fishes*, *Environmental Management*, *Evolution*, *Evolutionary Applications*, *Evolutionary Ecology*, *Fisheries Research*, *Frontiers in Ecology & the Environment*, *Functional Ecology*,

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Heredity, Hydrobiologia, Journal of Animal Ecology, Journal of Environmental Management, Journal of Evolutionary Biology, Journal of Fish Biology, Marine and Freshwater Research, North American Journal of Fisheries Management, Oecologia, PLoS ONE, PNAS, Proceedings of the Royal Society B, Scientific Reports, Transactions of the American Fisheries Society, Trends in Ecology and Evolution.

3. **Ad hoc proposal reviewer** for: National Science Foundation, Maine Agricultural and Forest Experiment Station, UC Berkeley France-Berkeley Fund, NOAA-Fisheries Internal Grants Program
4. **Grant panelist** for: National Science Foundation (Population and Community Ecology, Spring 2014)
5. **Faculty Advisor for the UC Berkeley Chapter of SEEDS** (*Strategies for Ecology Education, Diversity and Sustainability: Diverse People for a Diverse Science*). SEEDS is an education program of the Ecological Society of America designed to diversify and advance the ecology profession by creating opportunities for underrepresented students in ecology: 2009-present.

### Service to the University

1. **Committee memberships**
  - a. University level: Strawberry Creek Environmental Quality Committee (Fall 2008-present); Chair (Spring 2014-present)
  - b. Department level: ESPM Undergraduate Programs Committee (Fall 2011-present);
  - c. Department level: ESPM Social Committee (Fall 2008-Spring 2011, including as Chair during Fall 2010).
2. **Ad-hoc committee memberships**
  - a. University level: Committee on Undergraduate Scholarships and Honors (2009-11);
  - b. Department level: Ecosystem Sciences Graduate Admissions Committee (2008-11, 2012-14);
  - c. Department level: Global Change Organismal Biology Search Committee (2010-11);
  - d. Department level: Wildland Watershed Hydrology Search Committee (2011-12);
  - e. Department level: Wildlife Management and Policy Search Committee (2014-15);
  - f. Department level: Water Resources & Climate Change Adaptation CE Search Committee (2014-15);
  - g. Department level: Committee to re-envision the *Forestry and Natural Resources* major (2014-15).
3. **Undergraduate student advising:** Since starting at Berkeley, I have continuously been involved in advising Berkeley undergraduates majoring in Molecular Environmental Biology (10-20 students per year) and Conservation Resource Studies (2-5 students per year).
4. **Undergraduate student mentorship:** Advisory board member and faculty mentor for undergraduate students involved in UC Berkeley's *Biology Scholars Program* (2009-present); faculty mentor for local community college students involved in the *Environmental Leadership Pathways Program* at UC Berkeley (2009-12). These programs are designed to introduce students from underrepresented groups to research in biology and environmental science, respectively.
5. **Off-site and on-site reviewer for the UC Presidents Postdoctoral Fellowship** (<http://www.ucop.edu/acadadv/ppfp/>): 2009-present. This UC-wide postdoctoral fellowship program is designed to encourage outstanding women and minority Ph.D. recipients to pursue academic careers at the University of California.

### Public Service

- Speaker, UC-Berkeley, Learning in Retirement Series. Invited lecture on the topic of "Ecology of Natural Selection" as part the "Theory of Evolution" seminar series. Berkeley, California: April 30, 2015.
- Panelist, 2015 Berkeley Summit: Parks for Science, Science for Parks. The Science for Parks, Parks for Science Summit, held at UC Berkeley in March 2015, convened natural and social scientists, managers and practitioners to launch a Second Century of stewardship for the parks, 100 years after the historic meetings at UC Berkeley that helped launch the National Park Service (NPS). I was a panelist in the strategic conversation on "Stewardship of parks in a changing world." Berkeley, California: March 26, 2015.
- Speaker, UC-Berkeley, Learning in Retirement Series. Invited lecture on the topic of "California Water and Fish: Drivers of Change" as part the "Water in California: Current and Future Issues" seminar series. Berkeley, California: September 17, 2014.
- Speaker/Panelist, Cal-Neva AFS, Plenary Session. Together with four others, I delivered a lecture and participated in a panel discussion on collaboration in fisheries science. Sacramento, California: April 28, 2014.
- Speaker/Panelist, Cal-Neva AFS, Continuing Education Session. Together with eight others, I delivered a lecture and participated in a panel discussion exploring the science and management of hatchery and natural origin salmonids in the Central Valley. Sacramento, California: April 27, 2014.

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- Speaker, Women in Science graduate group in IB/ESPM at UCB. Together with the women in science graduate group, I discussed my trajectory in science, provided advice for female graduate students including on career development, and led a general discussion of issues facing women in science. UC-Berkeley, April 9, 2014.
- Member, Pescadero Science Panel, established to provide independent scientific expertise in support of management decisions and possible restoration actions for Pescadero marsh and lagoon. 2014.
- Member, Monitoring Subcommittee, Lagunitas Creek Technical Advisory Committee. A subcommittee of the Lagunitas Creek Technical Advisory Committee to discuss and coordinate monitoring activities in the Lagunitas Creek watershed. March 2013-present.
- Member, Delta Landscape Interpretation (LIT) team, met with staff of the San Francisco Estuary Institute (SFEI) several times over the course of three years to provide guidance on fish and biodiversity metrics included in their *Delta Landscapes* report. 2012-2014.
- Speaker, Friends of Orinda Creeks. Invited public lecture at the Orinda Library on the topic of “New efforts in fish ecology and conservation in California streams and estuaries.” Orinda, California: September 19, 2012.
- Speaker/Panelist, Delta Science Program. Together with five others, I delivered a public lecture and participated in a panel discussion on the estuarine ecology of juvenile salmonids with an emphasis on the San Francisco Estuary. Davis, California: May 22, 2012.
- Speaker, UC Berkeley, Biology Scholars Program. Overview of my trajectory in science, including the importance of early research experiences and tips for getting into graduate school, presented to undergraduate students involved in campus programs designed to diversify the sciences. Berkeley, California: July 26, 2010.
- Speaker, Salmon Protection and Action Watershed Network. Invited public lecture at Point Reyes National Seashore on the topic of “Biodiversity, portfolio effects, and the long-term sustainability of California's Pacific salmon.” Point Reyes, California: February 3, 2010.

**Professional Societies**

American Fisheries Society; American Institute of Fisheries Research Biologists (Member); Ecological Society of America; American Society of Ichthyologists and Herpetologists; Society for the Study of Evolution.