

JAMIE M. KNEITEL

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PROFILE

Dr. Jamie Kneitel's research focuses on understanding the consequences of environmental variation on species diversity and ecosystem function in seasonal freshwater wetlands, including vernal pools and rock pools. This research also encompasses food webs, metacommunities, species invasions, and disturbance ecology. His administrative experience includes Department Chair, Assistant Chair and Graduate Coordinator. Courses taught include General Ecology, Population and Community Ecology, Quantitative Methods in Biology, and Introduction to Scientific Analysis.

EDUCATION

Ph.D. Florida State University (2002) Biology

*Species diversity and trade-offs in pitcher plant (*Sarracenia purpurea*) inquiline communities*

Advisor: Thomas E. Miller

M.Sc. California State University, Northridge (1997) Biology

*The effects of fire and pocket gopher (*Thomomys bottae*) disturbances in a California valley grassland*

Advisor: Paula M. Schiffman

B.A. University of California, Santa Cruz (1992) Biology

PROFESSIONAL EXPERIENCE

California State University- Sacramento, Department of Biological Sciences (2004 - present)

Chair (2019 - present)

Professor (2015 - present)

Assistant Chair (Spring 2017; 2018 - 2019)

Graduate Coordinator (2012 - 2017)

Associate Professor (2010 - 2015)

Assistant Professor (2004 - 2010)

Fulbright Scholar (2017 - 2018) Department of Evolutionary & Environmental Biology, University of Haifa (Israel) & Laboratoire de Botanique, Mycologie et Environnement, Université

Mohammed V- Rabat (Morocco)

Tyson Postdoctoral Fellow (2002 - 2004) Department of Biology, Washington University St. Louis

AWARDS AND HONORS

CSUS University Award for Research, Scholarship, and Creative Activity for Senior Faculty (2017)

Best Sabbatical Leave Proposal, CSUS Professional Leave Committee (2010, 2017)

CSUS College of Natural Sciences and Mathematics Outstanding Scholarship Award (2013-14)

CSUS Provost Research Fellow (2013-14)

CSUS Research and Creative Activity Capstone Award 2010

Magaret Menzel Endowed Award (for outstanding graduate student), Florida State University, 2002

Department of Biological Science Faculty Publication Award (for best student publication), Florida State University, 2001-2

GRANTS AND CONTRACTS

- State of California Wildlife Conservation Board: *Bushy Lake Conceptual Restoration Plan, Sacramento County* (2020-23)
- Bureau of Reclamation/US Fish & Wildlife Service Central Valley Project Conservation Program: *Longhorn Fairy Shrimp (Branchinecta longiantenna) Habitat Research in Contra Costa and Alameda Counties, California* (2016-21)
- Fulbright Regional Travel Grant (2018) University Mohammed V (Rabat, Morocco)
- Fulbright Scholar Award (2017-2018) University of Haifa (Israel): *A Synthesis of Seasonal Wetland Ecology in Mediterranean Climate Regions*
- CSU-COAST Grant Development Program (2017-18): *Chemical tracers of human activities and ecological associations in California vernal pools*
- National Science Foundation RUI (2014-16): *Spatial and Temporal Subsidies in Seasonal Environments*
- CSUS-UEI Faculty Grant (2013)
- Faculty Promotion Development Funds (2012-2013)
- CSUS Research and Creative Activity Award Program (2011-2012): *Climate change effects on California vernal pools*
- California State University Program for Education and Research in Biotechnology (CSUPERB; 2010-2011) Co-PI with Enid Gonzalez: *Metagenomic and metabolic study of bacteria in California vernal pools*
- United States Department of Defense Environmental Security Technology Certification Program (ESTCP) (2009-2014): *Implementation of technology to measure hydrological functioning of vernal pool wetlands and their watersheds for use with base-wide evaluation of project impacts, regulatory permitting, and future mitigation through habitat restoration* (Contractor and contributed methodology)
- CSUS Probationary Faculty Development Grant (Spring 2010): *The Effects of Eutrophication in the California Vernal Pool Ecosystem*
- CSUS Department of Biological Sciences Goethe Fund (2009-10) PI with Enid Gonzalez: *Functional and Genetic Diversity Analysis of Bacterial Populations in California Vernal Pools*
- CSUS College of Natural Sciences and Mathematics, Summer Undergraduate Research Experience (SURE) Program (Summer 2009): *3 funded projects*
- CSUS STEM (Science, Technology, Engineering, and Mathematics) Faculty Fellowship (2008-9): *The Spatial Ecology and Ecosystem Functioning of Vernal Pools: Integrating Research into Undergraduate Education.*
- CSUS Research and Creative Activity Award Program (2008-9): *Keystone Predation in Sub-Alpine Meadow Communities? Indirect Effects of a Specialist Herbivore on Plant Biodiversity*
- CSUS College of Natural Sciences and Mathematics Project Grant (Summer 2008): *Testing Island Biogeography in Sub-Alpine Meadows: Do Invading Trees Facilitate the Invasion of Forest Species in Meadows?*
- United States Department of Agriculture- Forest Service (2006-7): *Restoration of sub-alpine meadows in Eldorado National Forest, CA*
- CSUS Department of Biological Sciences Goethe Fund (2005-6): *Spatial and temporal patterns of invertebrate biodiversity in *Darlingtonia californica* inquiline communities*
- Office for Graduate Studies, Research and International Programs Graduate Fellowship, California State University, Northridge, 1996
- Office for Graduate Studies, Research and International Programs Research Grant, California State University, Northridge, 1995
- California State University, Northridge, University Fee Waiver, 1995

PUBLICATIONS (*Graduate student, **Undergraduate Student)

Primary Articles

- Ozeri, L.* , R. Horwitz, **J. Kneitel**, E. Rahav & L. Blaustein. 2020. Effects of a fire-retardant on the mosquito *Culiseta longiareolata* larvae development and oviposition habitat selection. *Ecological Entomology* 45: 476–484.
- Rosenfeld, S.* , L. Blaustein, **J. Kneitel**, C. Duchet, R. Horwitz, O. Rybak, A. Polevikov & E. Rahav. 2019. The abundance and larval performance of *Aedes phoeniciae* in supralittoral rock-pools. *Hydrobiologia* 846: 181-192.
- Shin, H.* & **J. M. Kneitel**. 2019. Warming interacts with inundation timing to influence the species composition of California vernal pool communities. *Hydrobiologia* 843: 93-105.
- Van den Broeck, M., Rhazi, L., Waterkeyn, A., El Madihi, M., Grillas, P., **Kneitel, J. M.** & Brendonck, L. 2019. Livestock disturbances in Mediterranean temporary ponds: A mesocosm experiment with sheep manure and simulated trampling. *Freshwater Biology* 64: 856-869.
- Kneitel, J. M.** 2018. Occupancy and environmental responses of habitat specialists and generalists depend on dispersal traits. *Ecosphere* 9: e02143.
- Kneitel, J. M.**, Samiylenko, N.** , Rosas-Saenz, L.** , Nerida, A.** 2017. California vernal pool endemic responses to hydroperiod, plant thatch, and nutrients. *Hydrobiologia* 810: 129-140. (*Special Issue- New Challenges in Anostracan Research: A Tribute to Graziella Mura*)
- Kneitel, J. M.** 2016. Climate-driven habitat size determines the latitudinal gradient of diversity in California vernal pools. *Ecology* 97: 961-968.
- Graffis, A.* and **J. M. Kneitel**. 2015. A parasitic plant increases native and exotic plant richness in vernal pools. *AoB Plants* 7: plv100; doi:10.1093/aobpla/plv100.
- Anderson, I. J.* and **J. M. Kneitel**. 2015. *Pseudacris regilla* tadpole density differentially affects periphyton and macrophytes in a California vernal pool community. *Aquatic Botany* 125: 23-30.
- Kneitel, J. M.** 2014. Inundation timing, more than duration, affects the community structure of California vernal pool mesocosms. *Hydrobiologia* 732: 71-83.
- Croel, R.* and **J. M. Kneitel**. 2013. Final response to the letter. *Aquatic Botany* 104: 238-239.
- Croel, R.* and **J. M. Kneitel**. 2013. Response to “Providing relevant context for fecal loading treatment rates applied to vernal pool mesocosms”. *Aquatic Botany* 104: 234-235.
- Kneitel, J. M.** 2012. Are trade-offs among species' ecological interactions scale dependent? A test using pitcher-plant inquiline species. *PLoS* 7(7): e41809. doi:10.1371/journal.pone.0041809
- Yee, D. A., D. Allgood, **J. M. Kneitel** and K.A. Kuehn. 2012. Constitutive differences between natural and artificial container mosquito habitats: vector communities, resources, microorganisms, and habitat parameters. *Journal of Medical Entomology* 49: 482-491.
- Croel, R.** and **J. M. Kneitel**. 2011. Cattle waste reduces plant diversity in vernal pool mesocosms. *Aquatic Botany* 95: 140-145.
- Estrella, S.* and **J. M. Kneitel**. 2011. Invasion age and invader removal alter species composition at the Suisun Tidal Marsh, California, USA. *Diversity* 3: 235-251.
- Croel, R.** and **J. M. Kneitel**. 2011. Ecosystem-level effects of bioturbation by the tadpole shrimp *Lepidurus packardii* in temporary pond mesocosms. *Hydrobiologia* 665: 169-181.
- Kneitel, J. M.** and C. L. Lessin*. 2010. Ecosystem-phase interactions: aquatic eutrophication decreases terrestrial plant diversity in the California vernal pool ecosystem. *Oecologia* 163: 461-469.
- Yee, D. A., **J. M. Kneitel**, and S. A. Juliano. 2010. Environmental correlates of abundances of mosquito species and stages in discarded vehicle tires. *Journal of Medical Entomology* 47: 53-62.
- Reuman, D. C., C. Mulder, C. Banašek-Richter, M.-F. C. Blandenier, A. M. Breure, H. D. Hollander, **J. M. Kneitel**, D. Raffaelli, G. Woodward, and J. E. Cohen. 2009. Allometry of body size and

- abundance in 166 food webs. *Advances in Ecological Research* 41: 1-40.
- Yee, D. A., S. H. Yee, **J. M. Kneitel**, and S. A. Juliano. 2007. Richness-productivity relationships between trophic levels in a detritus-based system: significance of abundance and trophic linkage. *Oecologia* 154: 377-385.
- Kneitel, J. M.** 2007. Intermediate-consumer identity and resources alter a food web with omnivory. *Journal of Animal Ecology* 76: 651-659.
- Miller, T. E., J. H. Burns, P. Munguia, E. L. Walters, **J. M. Kneitel**, P. M. Richards, N. Mouquet, and H. L. Buckley. 2007. Evaluating support for the resource-ratio hypothesis: a response to Wilson et al. *American Naturalist* 169: 707-708.
- Kneitel, J. M.** and D. Perrault*. 2006. Disturbance-induced compositional changes increase species invasion success. *Community Ecology* 7: 245-252.
- Ostman, O., **J. M. Kneitel**, and J. M. Chase. 2006. Disturbance alters the effects of habitat isolation on biodiversity in aquatic microcosms. *Oikos* 114: 360-366.
- Mouquet, N., T. E. Miller, T. Daufresne, and **J. M. Kneitel**. 2006. Consequences of varying regional heterogeneity in source-sink metacommunities. *Oikos* 113: 481-488.
- Miller, T. E., J. H. Burns, P. Munguia, E. L. Walters, **J. M. Kneitel**, P. M. Richards, N. Mouquet, and H. L. Buckley. 2005. A critical review of twenty years' use of the resource-ratio theory. *American Naturalist* 165: 439-448.
- Buckley, H. L., J. H. Burns, **J. M. Kneitel**, E. L. Walters, P. Munguía and T. E. Miller. 2005. Small-scale patterns in community structure of *Sarracenia purpurea* inquiline communities. *Community Ecology* 5: 181-188.
- Kneitel, J. M.** and J. M. Chase. 2004. Disturbance, predator, and resource interactions alter container community composition. *Ecology* 85: 2088-2093.
- Kneitel, J. M.** and J. M. Chase. 2004. Trade-offs in community ecology: linking spatial scales and species coexistence. *Ecology Letters* 7: 69-80.
- Ellison, A. M., N. J. Gotelli, J. S. Brewer, D. L. Cochran-Stafira, **J. M. Kneitel**, T. E. Miller, A. C. Worley, and R. Zamora. 2003. The evolutionary ecology of carnivorous plants. *Advances in Ecological Research* 33: 1-74.
- Mouquet, N., P. Munguia, **J. M. Kneitel**, and T. E. Miller. 2003. Community assembly time and the relationship between local and regional species richness. *Oikos* 103: 618-626.
- Kneitel, J. M.** and T. E. Miller. 2003. Dispersal rates affect species composition in metacommunities of *Sarracenia purpurea* inquilines. *American Naturalist* 162: 165-171.
- Miller, T. E., **J. M. Kneitel**, and J. H. Burns. 2002. Effect of community structure on invasion success and rate. *Ecology* 83: 898-905.
- Kneitel, J. M.** and T. E. Miller. 2002. Resource and top-predator regulation in the pitcher plant *Sarracenia purpurea* inquiline community. *Ecology* 83: 680-688.

Book Chapters

- Boix D., **J. M. Kneitel**, C. Duchet, B. J. Robson, L. Zúñiga, J. Day, S. Gascón, J. Sala, X. D. Quintana and L. Blaustein. 2016. Invertebrates of temporary ponds in Mediterranean climates. *Invertebrates in Freshwater Wetlands*. D. Batzer and D. Boix, editors. Springer Publishing.
- Miller, T. E. and **J. M. Kneitel**. 2005. Pitcher-plant inquiline community as a prototypical metacommunity. Pages 122-145 in: *Metacommunities* (M. Holyoak, R. Holt and M. Leibold, eds.), University of Chicago Press, Chicago, IL.
- Walters, E. L. and **J. M. Kneitel**. 2004. Use of water-filled red-cockaded woodpecker cavities by other organisms. Pages 492-498 in: *Red-cockaded woodpecker: road to recovery* (R. Costa and S. J. Daniels, eds.), Hancock House Publishers, Blaine, Washington.

Secondary Articles

Holyoak, M. and **J. M. Kneitel**. 2011. Metacommunities. *Sourcebook of Theoretical Ecology*, University of California Press.

Kneitel, J. M. 2010. Successional Changes in Communities. *Nature Education Knowledge* 1: 36.

Kneitel, J. M. 2008. Gause's Principle of Competitive Exclusion. *Encyclopedia of Ecology*, Elsevier Publishing. (*updated twice*)

General Public Articles (non peer reviewed)

Kneitel, J. M. 2016. Aquatic Life of the Bushy Lake Ecosystem. *Educational flyer for the Bushy Lake Restoration & Education Project*

Kneitel, J. M. 2014. Evolutionary Rebels: Parasitic Plants. *Hibiscus: California Native Plant Society Newsletter (Sacramento Valley Chapter)*

In Preparation/Submitted

Ozeri, L., **J. M. Kneitel**, E. Rahav, L. Blaustein & R. Horwitz. Effects of the fire-retardants on temporary pond community structure.

de Camargo, N. F., G.G. Reis, A.C.L. Camargo, G. B. Nardoto, **J. M. Kneitel** & E. M. Vieira. Seasonal isotopic niche of a rodent: high between-individual variation but no changes in individual niche width during the rich-resource period

Haas, A. R., S. M. Kross & **J. M. Kneitel**. Avian community composition, but not richness, differs between urban and exurban parks in Sacramento County, California.

Kido, R. R. & **J. M. Kneitel**. Eutrophication effects differ among functional groups in vernal pool invertebrate communities.

DEPARTMENTAL SEMINARS

University of Georgia, Department of Entomology, 2019

CSUS Environmental Studies-Geology Colloquium, 2019

CSUS, Department of Biological Sciences, 2014, 2016, 2018, 2019

Hebrew University of Jerusalem, Department of Ecology, Evolution, and Behavior, 2018

Tel Aviv University, Department of Zoology, 2017

Ben-Gurion University of the Negev, Mitrani Department of Desert Ecology, 2017

University of Haifa, Department of Evolutionary and Environmental Biology/Institute of Evolution, 2017

University of California- Davis, Ecology and Evolution Seminar Series, 2016

University of Colorado, Department of Ecology & Evolutionary Biology, 2013

CSUS Biological Sciences-Geology-USGS-USFWS-CALCC Colloquium Series, 2013

National Science Foundation, Division of Environmental Biology, 2012

University of California- Merced, School of Natural Sciences, 2011

Moss Landing Marine Laboratory, 2011

University of Southern Mississippi, Department of Biology, 2009

University of Central Florida, Department of Biology, 2006

University of Tennessee, Department of Ecology and Evolutionary Biology, 2005

California State University- Northridge, Department of Biology, 2005

San Francisco State University, Department of Biology, 2005

Illinois State University, Department of Biology, 2004

California State University- Sacramento, Department of Biology, 2003

Saint Louis University, Department of Biology, 2003

Washington University in St. Louis, Department of Biology, 2002
Florida State University, Department of Biological Science, 1999, 2002

INVITED SYMPOSIUM PRESENTATIONS

- Kneitel, J. M.**, D. Bell, P. Harman*, B. Helm, J. Schweitzer & S. O'Brien*. 2019. *Longhorn fairy shrimp ecology in rock pools: preliminary results and conservation implications*. East Bay Regional Park District Stewardship Symposium
- Kneitel, J. M.**, L. Ozeri*, R. Horwitz, E. Rahav, L. Blaustein. 2019. *The effects of fire retardants in Mediterranean aquatic ecosystems*. Annual California Aquatic Bioassessment Workgroup (CABW) meeting and Annual California Chapter Society for Freshwater Science Meeting, UC Davis
- Kneitel, J. M.** 2018. *Invertebrate responses to stressors in Mediterranean temporary ponds*. Symposium/Workshop on Phenotypic Plasticity, Local Adaptation, and Gene Expression, University of Haifa, Israel
- Ozeri, L., Rahav, E., Blaustein, L., & **J. M. Kneitel**. 2018. *Effects of fire retardant on Salamandra infraimmaculata and the aquatic community structure*. Symposium/Workshop on Phenotypic Plasticity, Local Adaptation, and Gene Expression, University of Haifa, Israel
- Kneitel, J. M.** 2016. *It's time for time: aquatic-terrestrial linkages in California vernal pools*. CA Society of Freshwater Science Meeting, University of California, Davis
- Kneitel, J. M.**, R.C. Croel & S.K. Collinge. 2010. *The effects of excessive nutrients in California vernal pools*. California Aquatic Bioassessment Workgroup Annual Meeting, University of California, Davis
- Kneitel, J. M.** 2010. *Species diversity and associations in California rock pools*. Natural Resources Symposium, Sacramento-Shasta Chapter of the Wildlife Society Natural Resources Symposium, Sacramento, CA
- Kneitel, J. M.** 2009. *Eutrophication in California vernal pools*. Natural Resources Symposium, Sacramento-Shasta Chapter of the Wildlife Society Natural Resources Symposium, Sacramento, CA
- Kneitel, J. M.** 2007. *Spatial ecology of vernal pools: new insights and implications*. Collaborative Learning at the Interface of Biology and Mathematics (CLIMB) Workshop, Population Ecology in Vernal Pool Systems: Implications for Management and Restoration, University of California, Davis
- Kneitel, J. M.** *Spatial ecology of vernal pools: new insights and implications*. Floodplains and Vernal Pools Session, Sacramento-Shasta Chapter of the Wildlife Society Natural Resources Symposium 2006, Sacramento, CA
- Kneitel, J. M.** 2004. *The effects and responses of mosquito larvae as the top predator in container food webs*. Using Principles of Ecology to Understand Populations and Communities of Container Mosquitoes Symposium, Entomological Society of America Meeting, Salt Lake City, UT
- Kneitel, J. M.** and T. E. Miller. 2000. *The effects of prey and top-predator addition on the inquiline community of the pitcher plant, Sarracenia purpurea*. Carnivorous Plants as Model Ecological Systems Symposium, Ecological Society of America Meeting, Snowbird, UT
- Miller, T. E. and **J. M. Kneitel**. 2000. *Evidence of evolution in bacterial populations from the pitcher plant Sarracenia purpurea: is competition an important evolutionary force?* Carnivorous Plants as Model Ecological Systems Symposium, Ecological Society of America Meeting, Snowbird, UT

CONFERENCE PRESENTATIONS

(*Graduate student, **Undergraduate Student)

- Kneitel, J. M.**, D. Bell, P. Harman*, B. Helm, J. Schweitzer & S. O'Brien*. 2019. *Endangered Branchinecta ecology in rock pool metacommunities*. Society of Freshwater Science Annual Meeting, Salt Lake City, UT
- Kneitel, J. M.**, L. Ozeri*, R. Horwitz, E. Rahav, & L. Blaustein. 2019. *The effects of fire retardants in*

- Mediterranean aquatic ecosystems*. CSU-Water Resources & Policy Initiative Annual Conference, Chico, CA
- Ozeri, L.* & E. Rahav, **J. M. Kneitel** & L. Blaustein. 2017. *Effects of a fire retardant on the Fire Salamander, Salamandra infraimmaculata and aquatic community structure in experimental mesocosms*. Israel Zoological Society Conference, Tel Aviv University, Israel
- Kneitel, J. M.** 2017. *Habitat specialist and generalist dispersal traits and environmental responses in California vernal pools*. Ecological Society of America's Annual Meeting, Portland, OR
- Shin, H. R.* & **J. M. Kneitel**. 2017. *Temperature and inundation timing effects on California vernal pool mesocosm communities*. Ecological Society of America's Annual Meeting, Portland, OR
- Rosas-Saenz, L.** & **J. M. Kneitel**. 2016. *Hydro-regime, Thatch, and Nutrient Effects on California Vernal Pool Crustaceans*. Society of Freshwater Science Annual Meeting, Sacramento, CA
- Kneitel, J. M.** 2016. *Hydroregime interacts with spatial and temporal subsidies in California vernal pools*. Society of Freshwater Science Annual Meeting, Sacramento, CA
- Kneitel, J. M.** 2015. *Hydroperiod interacts with spatial and temporal subsidies in California vernal pools*. Ecological Society of America's Annual Meeting, Baltimore, MD
- Kneitel, J. M.** 2014. *Latitudinal patterns of alpha, beta, and gamma diversity in California vernal pools*. Ecological Society of America's Annual Meeting, Sacramento, CA
- Kneitel, J. M.** 2014. *Aquatic-terrestrial interactions in time: temporal subsidy effects in California vernal pools*. Joint Aquatic Sciences Meeting, Portland, OR.
- Kneitel, J. M.** 2013. *The effects of hydroperiod duration and timing on California vernal pool communities*. Wildlife Society (Sacramento-Shasta Chapter) Symposium, Sacramento, CA.
- Kneitel, J. M.** 2013. *The effects of hydroperiod duration and timing on California vernal pool communities*. Ecological Society of America Meeting, Minneapolis, MN
- Kneitel, J. M.,** Croel, R.* & H. Stiles*. 2013. *Many paths to the dark side: context dependent turbidity effects in California vernal pools*. Natural Resources Symposium, Sacramento-Shasta Chapter of the Wildlife Society Natural Resources Symposium, Sacramento, CA
- McCarten, N. F, Christoherson, K., **Kneitel, J. M.** & R. Rosas. 2011. *Ecohydrology of vernal pools*. Natural Resources Symposium, Sacramento-Shasta Chapter of the Wildlife Society Natural Resources Symposium, Sacramento, CA
- Fehm-Sullivan, E.* & **J. M. Kneitel**. 2011. *Global patterns of freshwater fish communities in Mediterranean biomes*. American Fisheries Society Annual Meeting, Seattle, WA
- Kneitel, J. M.,** Croel, R.* & H. Stiles*. 2011. *Many paths to the dark side: context dependent turbidity effects in California vernal pools*. Ecological Society of America Meeting, Austin, TX
- McCarten, N. F, Christoherson, K., **Kneitel, J. M.** & R. Rosas. 2011. *Ecohydrology of vernal pools at three military bases in California*. Western Chapter of the Wildlife Society's Annual Meeting, Riverside, CA
- Paris, S.** & Gonzalez, E. T., & **J. M. Kneitel**. 2010. *Bacterial Diversity at Mather vernal pools*. Annual CSU Biotechnology Symposium, Orange County, CA
- Carper, D.** & Davis, M. W.** & Gonzalez, E. T. & **J. M. Kneitel**. 2010. *Bacterial diversity in California vernal pools*. Annual CSU Biotechnology Symposium, Orange County, CA
- Davis, M. W.** & Gonzalez, E. T., Carper, D.** & **J. M. Kneitel**. 2010. *Bacterial diversity in California vernal pools*. Annual Biomedical Research Conference for Minority Students (ABRCMS), Charlotte, NC
- Croel, R.** & **J. M. Kneitel**. 2010. *Aquatic eutrophication from cattle waste has contrasting effects on zooplankton and terrestrial plant communities of vernal pools*. California Botanical Society Conference, San Jose, CA
- Alford, J.** & **J. M. Kneitel**. 2010. *Plant competitive interactions along a moisture gradient in Sierra Nevada sub-alpine meadows*. California Botanical Society Conference, San Jose, CA

- Alford, J.** and **J. M. Kneitel**. 2010. *Plant competitive interactions along a moisture gradient in Sierra Nevada sub-alpine meadows*. Northern California Botanists Conference, Chico, CA
- Kneitel, J. M.** & C. Lessin*. 2009. *Ecosystem phase interactions: Aquatic nutrient addition alters terrestrial plant diversity*. Ecological Society of America Meeting, Albuquerque, NM
- Alford, J.** & **J. M. Kneitel**. 2009. *Corn Lily (Veratrum californicum) presence structures sub-alpine meadows in the Sierra Nevada*. Ecological Society of America Meeting, Albuquerque, NM
- Kachorek, E. E.*, J. M. V. Fragoso, K. M. Silvius, J. Read, S. Giery, J. Luzar, L. Flamarion de Oliveira, J. Gibbs, **Kneitel, J. M.** & Stevens, M. L. 2009. *Biological conservation through integrated conservation and development: Has Inokrama been successful?* Ecological Society of America Meeting, Albuquerque, NM
- Kneitel, J. M.** & C. Lessin*. 2009. *Nutrient addition alters plant composition in vernal pool mesocosms*. California Native Plant Society Conservation Conference, Sacramento, CA
- Alford, J.** & **J. M. Kneitel**. 2009. *Corn Lily (Veratrum californicum) presence structures sub-alpine meadows in the Sierra Nevada*. California Native Plant Society Conservation Conference, Sacramento, CA
- Kneitel, J. M.** 2007. *Community structure and spatial ecology of natural and restored California vernal pools*. Ecological Society of America Meeting, San Jose, CA.
- Mayberry, D.** & **J. M. Kneitel**. 2005. *Spatial patterns of invertebrate species diversity in California vernal pools*. Annual Biomedical Research Conference for Minority Students, November, Atlanta, GA
- Mouquet, N., T. E. Miller, T. Daufresne & **J. M. Kneitel**. 2005. *Consequences of varying regional heterogeneity in source-sink metacommunities*. Ecological Society of America Meeting, Montreal, Quebec, CA
- Yee, D., S. Harrell Yee, **J. M. Kneitel** & S. A. Juliano. 2005. *It's not easy being brown: linking productivity, nutrients, and species richness across spatial scales in ephemeral aquatic detritus-based microcosms*. Ecological Society of America Meeting, Montreal, Quebec, CA
- Mayberry, D.** & **J. M. Kneitel**. 2005. *Spatial patterns of invertebrate species diversity in California vernal pools and pitcher plants*, Darlingtonia californica. The Science Educational Equity Undergraduate Student Research Symposium, California State University, Sacramento
- Yates-White, C.**, **J. M. Kneitel** & J. M. Chase. 2004. *Affect of landscape on food web interactions and community composition in artificial treeholes*. Howard Hughes Research Symposium, Washington University, St. Louis, MO
- Ryberg, W. A., J. M. Chase & **J. M. Kneitel**. 2004. *Connectivity, scale-dependence, and the productivity-diversity relationship*. Ecological Society of America Meeting, Portland, OR
- Liang, C.** & **J. M. Kneitel**. 2003. *Plant community structure at Tyson Research Center*. Howard Hughes Research Symposium, Washington University, St. Louis, MO
- Kneitel, J. M.** 2003. *Intermediate-consumer identity and resources alter omnivore food web*. Ecological Society of America Meeting, Savannah, GA
- Walters, E. L. & **J. M. Kneitel**. 2003. *Use of water-filled red-cockaded woodpecker cavities by other organisms*. Red-cockaded Woodpecker Conference IV, Savannah, GA
- Kneitel, J. M.** 2002. *Trade-offs among coexisting species in Sarracenia purpurea inquiline communities*. Ecological Society of America Meeting, Tucson, AZ
- Miller, T. E. & **J. M. Kneitel**. 2002. *Effects of migration, predators, and resources on metacommunity patterns*. Ecological Society of America Meeting, Tucson, AZ
- Kneitel, J. M.** 2000. *The effects of prey and top-predator addition on the inquiline community of the pitcher plant, Sarracenia purpurea*. Florida Ecological and Evolutionary Symposium, Archibald Biological Station, FL
- Schiffman, P.M. & **J. M. Kneitel**. 1997. *Erratic rainfall, small mammals, and the annual lifestyle in southern California valley grasslands*. Ecological Society of America Meeting, Albuquerque, NM

Kneitel, J. M. & P.M. Schiffman. 1996. *The effects of fire and pocket gopher (Thomomys bottae) disturbance on a California annual grassland.* Ecological Society of America Meeting, Providence, RI

INVITED PUBLIC TALKS

Carnies and Vampires, or how I learned to stop worrying and love the alternative lifestyles of plants.

Sacramento Bromeliad and Carnivorous Plant Society Meeting, October 2019

California Native Plant Society (El Dorado County Chapter) Monthly Meeting, July 2019

California Native Plant Society (Sacramento Valley Chapter) Monthly Meeting, October 2014

The Ecology of California Vernal Pools

Mira Loma High School Arcade Creek Project Speaker Series, 2018

The Renaissance Society, Sacramento, 2014

Wildlife and Wetlands of the Middle East and North Africa

Wildlife Society Field and Science Evening Social Series 2018

Here Today-Gone Tomorrow: A Global Perspective of Seasonal Wetlands

CSUS STEM Scholars Lecture Series 2018

This Fleeting Life: The Seasonal Ecology of California Vernal Pools

Lecture for University Award for Research, Scholarship & Creative Activity Senior Faculty 2017

Latitudinal patterns of Alpha, Beta, and Gamma Diversity in California vernal pools

United States Fish and Wildlife Service, Sacramento Office, December 2014

A Drop in the Bucket: Vernal Pool Ecology and Conservation Implications

Sierra College Natural History Museum, 2013

The Ecology of California vernal pools: threats and conservation implications

NatureBridge, Golden Gate National Park, CA 2013

Vernal pool threats, or how I learned to stop worrying and love the buckets

The Wildlife Society Brown Bag Seminar Series, Sacramento, CA 2012

Eutrophication in California vernal pools

CSUS Celebration of Research and Creative Activity Symposium, 2010

Vernal pools at local and regional scales: new insights and conservation implications

California Environmental Protection Agency, Sacramento, CA, 2008

The spatial ecology of vernal pools. Ecological and Environmental Issues Seminar. California State

University, Sacramento, 2007, 2008

Ecosystem Management. Pacific Forest Institute, Sierra Nevada, CA, 2007

Ecosystems. Pacific Forest Institute, Sierra Nevada, CA, 2006

Species diversity in space and time, or how I learned to stop worrying and love the niche. College of Natural Sciences and Mathematics Winter Retreat, 2006

The ecology, evolution, and conservation of carnivorous plants. Ecological and Environmental Issues Seminar, California State University, Sacramento, 2005, 2006

The ecology, evolution, and conservation of carnivorous plants. Sacramento Bromeliad and Carnivorous Plant Society Meeting, 2005

The relevance of the metacommunity concept to conservation: is there a new kid in town? Ecological and Environmental Issues Seminar, California State University, Sacramento, 2004

Treeholes of Tyson: subtle, sly, and bloody, Friends of Tyson Monthly Meeting, Tyson Research Center, 2003

WORKSHOP/WORKING GROUP PARTICIPANT

Council of Colleges of Arts & Sciences Chairs Workshop 2019

California State University-USC Equity Institute Partnership 2019

California State University Chairs Workshop, 2019

Sustainable Interdisciplinary Research to Inspire Undergraduate Success (SIRIUS) 2014 - present
California State University Climate Change Research Community Conference 2018
California State University Water Resources and Policy Initiatives (WRPI) Conferences, 2009, 2010
Living in the KnowlEdge Society (LIKES) Workshop, Villanova University, 2009
Ecological Society of America's Faculty Development Workshop: *Using Continental-Scale Data to Teach Undergraduate Ecology*, Washington D.C., 2008
Science Environment for Ecological Knowledge (SEEK): *Early Career Faculty and Postdoctoral Training in Ecoinformatics*, University of New Mexico, 2005
National Science Foundation Biocomplexity-Incubation Activity (A. Ellison, N. Gotelli, T. Miller, PIs): *A Synthetic Approach to Phytotelmata Communities* Workshop, Wakulla Springs, FL, 2001

CURRENT COLLABORATIONS

Andres Aguilar (CSU- Los Angeles): *Vernal pool community ecology*
Doug Bell (East Bay Regional Park District): *Ecology of Branchinecta longiantenna*
Leon Blaustein (University of Haifa): *Temporary ponds of Mediterranean climates*
Jennifer Buck-Diaz (CNPS): *Latitudinal diversity gradient in vernal pool plants*
Lisa Horth (Old Dominion University): *Agro-ecology and metacommunities*
Justin Miller-Schulze (CSU Sacramento): *Tracer elements in California vernal pools*
Laila Rhazi & Mohammed El Madihi (University of Mohammed V- Rabat): *Temporary pond ecology*
Emerson Vieira (University of Brazilia): *Mammal community ecology*
Donald Yee (University of Southern Mississippi): *Geographical variation in treehole community composition*

TEACHING

Courses Taught

Undergraduate: General Ecology, Quantitative Methods in Biology, Introduction to Scientific Analysis, Biodiversity Evolution and Ecology, Plants & Civilization, Freshman Seminar
Graduate: Introduction to Scientific Inquiry, Seminar in Ecology, Population and Community Ecology, Community Metrics

Courses Developed

Conservation Biology (Washington University, St. Louis), Introduction to Scientific Analysis (CSUS), Quantitative Methods in Biology (CSUS), Community Metrics (University of Haifa)

STUDENTS ADVISED

Current Graduate Students (Major Advisor- Master's Candidates, CSUS)

Peter Harman, Christine Mellon, Sean O'Brien, Hannah Savage, Nina Tortosa, Scott Whitman

Current Undergraduate students

Melanie Oxley, Vincent Chen (Hornet Science Scholars Program), A. J. Archuleta, Eileen Garcia-Fuentes

Former Graduate Students

Graduated 2019

Randall Kido: *Eutrophication effects on vernal pool invertebrate communities*

Kevin Marr: *Branchinecta lynchi population ecology in rock pools*

Graduated 2018

Kharla Chavez-Kendall: *Multiple predator effects in vernal pools*

Erin Ferguson (co-advised with Rob Titus): *Steelhead movement and mortality*

Angela Haas (co-advised with Sara Kross): *Bird diversity in urban and exurban habitats*

Graduated 2017

Rebekah Bergkoetter: *Daphnia* UV-B responses in temporary and permanent ponds

Robin Shin: Temperature and hydroregime effects in vernal pools

Graduated 2015

Jessica Alexander: Pollination ecology in vernal pools

Lindsey Peterson: Invasive species management in vernal pools

Graduated 2014

Russell Croel: Tadpole shrimp bioturbation

Graduated 2013

Andrea Graffis: *Cuscuta* ecology in vernal pools

Ian Anderson: Anuran effects in vernal pools

Michael Cardwell: Rattlesnake ecology

Dana Carper (co-advised with Enid Gonzalez): Bacterial diversity in vernal pools

Graduated 2011

Angela Calderaro: Connectivity and water quality effects on California vernal pools

Heather Stiles: The role of vegetation in eutrophication of California vernal pools

Katherine Marquez: Connectivity of urban coyote populations to surrounding rural populations

Graduated 2010

Elif Fehm-Sullivan: Fish community ecology in Mediterranean climate biomes

Chris Carr: Insect species diversity in sub-alpine meadow metacommunities

Emily Kachorek: An analysis of the integrated conservation and development paradigm: a case study from Guyana

Carrie Lessin: Nutrient effects in California vernal pools

Graduated 2009

Kevin Aceituno: Mercury bioaccumulation in San Francisco Bay

Sarah Estrella: Community response to invasive plant removal (*Lepidium latifolium* at Suisun Marsh)

Graduated 2008

Marcus Yee: Evaluating and mitigating avian collisions with distribution power lines at Cosumnes River Preserve.

Michelle D. Beachley (co-advised with Sharon Lawler, UC Davis): Pesticide effects on non-target terrestrial insect populations.

Clara Matallana (Fulbright Scholar): Use of systematic site selection to design a marine reserve network along Oregon's coast.

Katy Washburn: Habitat characteristics and community composition changes associated with the New Zealand Mudsail invasion of the lower Mokelumne River, California

Graduated 2007

Zach Simmons: Bird and mammal resource use sub-alpine meadow microhabitats

Ryan Henning: Nest success of urban waterfowl using artificial "ben house^m" structures

Supervisory Committee Member:

Master's Thesis Committee, California State University, Sacramento

Current: 4; Graduated: 32

Master's Thesis Committee, University of Haifa

Graduated: 2

Former Undergraduate Students

CSUS: Abby Britton, Alexa Harris, Kayleigh Lampe, Lanisha McLean, Jennifer Nguyen, Crystal Sturgeon, Abdelmajed Ali, Dalton Burroughs, Nestor Samiylenko, Alyssa Nerida, Luis Rosas, Trisha Velasquez, Lisa Calhoun (STAR Research Fellow 2015), Korena Hendryx (STAR Research Fellow 2014, 2015), Katelyn Oxford, Mariah Thomas, Christine McNally; Alison Furler; Candace Aguilar;

Amber Easterwood; Russell Croel (SURE Grant Recipient 2009 and 2010); Jim Alford (SURE Grant Recipient 2009); Jennifer Rossiter (SURE Grant Recipient 2008, 2009); Mike Memeo (Summer 2008); Kasie Barnes (2007- 8); David McNabb (Summer 2006); Demetrius Mayberry (CSUS Science Educational Equity Program's Summer Scholar Summer 2006); Aaron Langenbeck (Honors Research 2005-6); Demetrius Mayberry (CSUS-Los Rios Science Transfer Project Fellow Summer 2005); Amy Harris, (Spring 2005)

Washington University: Crystal Yates-White (Washington University Linnette Environmental Research Fellow, Summer 2004 (co-advised with Jon Chase); Daniel Perrault (Senior Honors Thesis, Washington University in St. Louis, 2003 - 4) *Winner of the Department of Biology's 2004 Spector Prize for Outstanding Undergraduate Research and Honors Thesis*; Chris Liang (Tyson Undergraduate Research Fellow, Washington University in St. Louis, Summer 2003); Mentor: 9 other undergraduate researchers 2002 – 2004

REVIEWS

Editorial Board Member: *Oecologia* (2013 – present); *Limnology* (2017 – present)

Journal Articles: *Acta Oecologia*, *American Naturalist* (6), *Annals of Forest Science*, *Aquatic Ecology*, *Aquatic Sciences*, *Biological Journal of the Linnean Society*, *Canadian Journal of Zoology*, *Community Ecology* (3), *Diversity and Distributions*, *Ecography* (2), *Ecological Entomology*, *Ecology* (8), *Ecology Letters* (13), *Freshwater Biology*, *Freshwater Science*, *Functional Ecology*, *Hydrobiologia* (4), *Israel Journal of Ecology and Evolution* (2), *Journal of Animal Ecology* (7), *ISRN Ecology* (5), *Journal of Medical Entomology*, *Journal of Applied Ecology* (2), *Journal of Vector Ecology*, *Natural Areas Journal*, *Nature Education*, *Nature Scientific Reports*, *Oecologia* (14), *Oikos* (6), *PLoS ONE* (2), *Philosophical Transactions B*, *Proceedings of the Royal Society B* (2), *Quarterly Review of Biology*

Grant Proposals: National Science Foundation (14), United States Department of Agriculture, Netherlands Organization for Scientific Research (2), South Africa's National Research Foundation (3), Austrian Science Fund, U.S.-Israel Binational Science Foundation, California State University, Sacramento Research and Creative Activities Grant Program, National Geographic Society, The Research Foundation – Flanders (FWO)(5), Fulbright Scholars Program

Books and Book Chapters: (*Topics: Ecology, Conservation Biology, Biostatistics*): Roberts and Company Publishers, Benjamin Cummings, McGraw-Hill, Elsevier, Blackwell Publishing, University of Chicago Press, Holt, Reinhart and Winston, Macmillan Learning, W. H. Freeman & Company, John Wiley & Sons, Oxford University Press, Waveland Press

Panel Member: National Science Foundation (Division of Environmental Biology- Ecological Biology Cluster) 2006-2009, 2014; Fulbright Scholars Program 2018

SERVICE

CSUS Department of Biological Sciences:

Committees: Graduate, Budget/Equipment/Space, Website (Information Technology), Library, Motor Pool, Executive, Scholarship, Retention Tenure and Promotion (RTP), Faculty & Staff Searches
Committee Chair: Retention, Tenure, and Promotion (2018-2019), Graduate Coordinator (2012-2017), Animal Conservation Biologist Search Committee
Biology Minor Advisor

Department Organizer:

- Department of Biological Sciences Seminar Series (2006-2008)
- Ecology, Evolution, and Conservation (EEC) Journal Club (2006 - present)

- EEC Job/Internship/Graduate School Listserv (2006 – present)

CSUS University Committees:

Diversity Council (2019 – present)

Moderator, Faculty Scholarship Community (2018-2020): *The Collaborative Organization for Research Planning and Sustainability (The CORPS)* College of Natural Sciences & Mathematics Envoy CSUS-Placer County Crime Lab Working Group (2019)

University Graduate Council (2016 - present)

Department of Geology Retention, Tenure, and Promotion Committee (2018)

Department of Environmental Studies Retention, Tenure, and Promotion Committee (2017, 2018)

Graduate Education Task Force (2017)

Juror for the California State University, Sacramento Student Research Competition, 2005, 2007, 2016, 2017, 2019

Biology representative, Organizing committee, Ecology-Geology Colloquium Series

Chair, College of Natural Sciences and Mathematics Undergraduate/Graduate Research Symposium Committee

Chancellor's Office/Council for Undergraduate Research (CUR)/CSUS Committee to Institutionalize Undergraduate Research

CSUS Faculty Hearing Committee

California State University, Sacramento Representative to the California State University

Biodiversity, Field Sites, and Conservation Committee

Outside Tenure and Promotion Reviewer: Saint Louis University, University of Alabama, Old Dominion University

Board Member (previous): *Mather Stewardship Committee, Climate Cents, Hima Mesopotamia*

Conference:

Session Presider, Ecological Society of America's Annual Meeting 2015, Baltimore, MD

Session Organizer, Ecological Society of America's Annual Meeting 2014, Sacramento, CA

Session Presider, Ecological Society of America's Annual Meeting 2014, Sacramento, CA

Session Presider, Ecological Society of America's Annual Meeting 2013, Minneapolis, MN

CSUS Water Resource and Policy Initiative Conference Organizing Committee, 2013

Symposium Organizer with M. Stevens, T. Horner and D. Kelly. *Hima Mesopotamia: Restoring the ancient system of story, place and culture in the Tigris Euphrates Watershed*, EcoSummit 2012, Columbus, OH

Session Presider, Ecological Society of America's Annual Meeting 2009, Albuquerque, NM

K-12 Science Service:

Career Day (Professor career and ecological research), all 7th grade science classes, Winston Churchill Middle School 2017

Plant Adaptations, 7th grade science classes, Winston Churchill Middle School 2017

Science Olympiad Coach (Winston Churchill Middle School Team, 2014 - 2016): Ecology,

Invasive species, Bio-processes, and presentations on: experimental design, aquatic ecology, sampling techniques, and invertebrate identification

Del Paso Manor Elementary School (2013): 6th Grade Science Day, *Carnivorous plants, Insect behavior, Coral Reefs* activities

Del Paso Manor Elementary School (2010-13): *Insects, Amphibians, and Snakes, Carnivorous Plants,*

Animal Adaptations

Nature Bowl Coach, Del Paso Manor Elementary School (2010-13)

Shalom School Walkathon Charity Event (2008): *Ecology, food webs, and predator morphology*

Starr King Elementary School- The Lights-On Celebration (2007): *Predator plants and the prey they eat*

Deterding Elementary School (2007): *Carnivorous plants and Insects; Spiders; Reptiles* (Brides Program)

Phoebe Hearst Elementary School (2006): *Carnivorous plants and Insects*

Shalom School (2005 – 2009): *Carnivorous plants, Insects, Amphibians, Snakes, and Playful plants*

Coordinated Workshop at Expanding Your Horizons Conference. *The secret world of carnivorous plants.*

California State University, Sacramento 2007, 2008

MEMBERSHIP

Ecological Society of America (1995 – present)

American Society of Naturalists (1998 – present)

Society of Freshwater Science (2016 – present)

Union of Concerned Scientists (2004 - present)