SAMANTHA E. FORDE, PhD

PROFESSIONAL APPOINTMENTS

University of California Santa Cruz. Department of Ecology and Evolutionary Biology. Assistant Professor, adjunct. 2009-present.

Gordon and Betty Moore Foundation. Marine Microbiology Initiative. Program Officer. 2011-2015.

University of California Santa Cruz. Cal Teach program. Outreach and Development. 2010-2011.

University of California Santa Cruz. Department of Ecology and Evolutionary Biology. Assistant Research Biologist. 2005-2008.

University of California Santa Cruz. Department of Ecology and Evolutionary Biology. Postdoctoral Researcher. 2004-2005.

Stanford University. Department of Biological Sciences. Postdoctoral Researcher. 2002-2004.

EDUCATION

University of California Santa Cruz. Department of Ecology and Evolutionary Biology. 2002. Ph.D.
Advisor: Dr. Peter Raimondi

University of California Santa Barbara. Aquatic Biology. 1994. B.A.

HONORS AND AWARDS

National Science Foundation. Ecology of Infectious Disease. Transmission and coevolutionary dynamics drive the evolution of generalist and specialist viruses. 2011-2014.

NSF. Division of Environmental Biology. Workshop support for Women Evolving Biological Sciences. 2010-2012.

National Science Foundation. ADVANCE Award Supplement. Women Evolving Biological Sciences. 2010-2012.

National Evolutionary Synthesis Center. Working group: Mathematical models, microbes and evolutionary diversification. 2008-2009.

NSF DEB. Coevolution of hosts and parasitoids within a geographic mosaic. 2005-2009. $290,000.

NSF. ADVANCE Award. Women Evolving Biological Sciences, (with U of Washington). 2006-2010. $300,000.

NSF. Research Experience for Undergraduates. Award Supplement. 2006-2007, 2007-2008, 2008-2009.

American Association of University Women. Postdoctoral Fellowship. 2004–2005. $35,000.

NSF. Graduate Research Traineeship. 1997-2002.

NSF. Research Abroad Program. 1998-2002.

Department of the Interior. Southern California Educational Initiative. 1998-2002. With Dr. Peter Raimondi. $110,000.

Sigma Xi Grants in Aid of Research. 1999.

Earl and Ethyl Meyers Oceanographic Trust. 1999.

Long Marine Laboratory. University of California Santa Cruz. 1999.

Department of Biology. University of California Santa Cruz. Independent Study Award. 1998.

PUBLICATIONS

Sieber M., Robb M., **Forde S. E.*** and Gudelj I.* 2014. Dispersal network structure and infection mechanism shape diversity in a coevolutionary bacteria-phage system. *ISME J*. 8:505-514. (*corresponding authors)

M.L. Knope, **S.E. Forde** and T. Fukami. 2011. Evolutionary history, immigration history, and the extent of diversification in community assembly. *Front. Microbio.* 2**:**273. doi: 10.3389/fmicb.2011.00273

R. D. Holt, M. Barfield, I. Filin, **S.E. Forde.** 2011. Predation and the evolutionary dynamics of species ranges. *American Naturalist.* 178:488-500.

R. Penczykowski, **S.E. Forde** and M. Duffy. 2011. Rapid evolution as a possible constraint on emerging infectious diseases. *Freshwater Biology.* 56:689-704.

I. Gudelj, J.S. Weitz, T. Ferenci, M.C. Horner-Devine, C. J. Marx, J. Meyer and **S.E. Forde.** 2010. An integrative approach for understanding diversity: from intracellular to community structure. *Ecology Letters* 13:1073–1084.

M.A. Duffy and **S.E. Forde.** 2009. Ecological feedbacks and the evolution of resistance. *Journal of Animal Ecology* 78: 1106-1112.

S.E. Forde and C.M. Jessup. Understanding evolution through the phages. 2009. In *Experimental Evolution*, T. Garland and M. Rose, eds. University of California Press.

S.E. Forde[*], I. Gudelj[*], R.E. Beardmore[*], S. S. Arkin, J. N. Thompson, and L. D. Hurst. 2008. Understanding the limits to generalizability of experimental evolutionary models. *Nature* 455:220-223. (*indicates co-first authors).

S.E. Forde, J.N. Thompson, B.M.J. Bohannan, and R.D. Holt. 2008. Diversity of host resistance across environments in a coevolving interaction. *Evolution* 62: 1830-1839.

C.M. Jessup and **S.E. Forde**. 2008. Ecology and evolution in microbial systems. *Research in Microbiology* 159: 382389.

J.D. Hoeksema and **S.E. Forde**. 2008. A meta-analysis of factors affecting local adaptation between interacting species. *American Naturalist*, 171:271-290.

S.E. Forde, J. N. Thompson, and B.J.M. Bohannan. 2007. Gene flow reverses an adaptive cline in a coevolving hostparasitoid interaction. *American Naturalist,* 169: 794-801.

D. Garant, **S.E. Forde**, and A. P. Hendry. 2007. The multifarious effects of dispersal and gene flow. *Functional Ecology*, 21: 434-443.

C.M. Jessup**, S.E. Forde,** and B.J.M. Bohannan. 2005. Microbial experimental systems in ecology. *Advances in Ecological Research*, 37: 273-307.

S.E. Forde, J. N. Thompson, and B.J.M. Bohannan. 2004. Adaptation varies through space and time in a coevolving host-parasitoid interaction. *Nature,* 431: 841-844.

C. M. Jessup, R. Kassen**, S.E. Forde**, B. Kerr, A. Buckling, P.B. Rainey and B.J.M. Bohannan. 2004. Big questions, small worlds: microbial model systems in ecology. *Trends in Ecology and Evolution,* 19(4) 189-197.

S.E. Forde and P.T. Raimondi. 2004. An experimental test of the effects of recruitment intensity on intertidal community composition. *Journal of Experimental Marine Biology and Ecology,* 301(1) 1-14.

S.E. Forde and D.F. Doak. 2004. Multitrophic interactions mediate recruitment variability in a rocky intertidal community. *Marine Ecology Progress Series,* 275: 33-45.

S.E. Forde. 2002. Modeling the effects of an oil spill on open populations of intertidal invertebrates. *Journal of Applied Ecology* 39 (4) 595-604.

S.E. Forde. 2000. Adaptation of barnacle life history traits to mortality due to oil spills. In *Dynamic state variable models in ecology*. C.W. Clark and M.Mangel, eds. Oxford University Press.

P.T. Raimondi, **S.E. Forde**, C.M. Lively and L. Delph. 2000. Processes structuring communities: evidence for traitmediated indirect effects through an induced polymorphism. *Oikos*, 91(2) 353-361.

CONFERENCE AND WORKSHOP ORGANIZATION

WEBS annual symposia for early career female biologists. October 2007-2011.
Ecological Society of America annual meeting. “Mathematical model and microbes as tools for understanding diversity”. August 2009
National Evolutionary Synthesis Center. Mathematical models, microbes and evolutionary diversification. 2008-2009.

INVITED TALKS AND WORKSHOPS

“Quantification and detection of microbes in natural environments”. Società Italiana di Ecologia. Rome, Italy. 2010 (declined).

Ecological Society of America annual meeting. “The Evolutionary Ecology of Metacommunities” symposium. 2008.

Viral paradigms: Populations, Ecosystems and Infectious disease. Georgia Institute of Technology. 2008.

Young Scientists Symposium. Dept of Ecology & Evolutionary Biology. University of Michigan. 2007.

EPSRC/BICS Workshop: Mathematical Models and Experimental Microbial Systems. U of Bath. 2007.

European Science Foundation, ConGen workshop: Experimental Metapopulations. Montepellier, France. 2006. NSF ADVANCE Workshop for Women in Science & Engineering. Rice University. 2006.

Department of Integrative Biology. UC Berkeley. 2006.

Department of Ecology and Evolutionary Biology. UC Irvine. 2006.

Biology Department. Duke University. 2006.

Ecology and Evolutionary Biology Department. Yale University. 2005.

Center for Ecology and Evolutionary Biology. University of Oregon. 2005.

Department of Biological Sciences. Humboldt State University. 2005.

Ecological Society of America annual meeting. “Evolution in metacommunities”. 2005.

NERC Center for Population Biology. Silwood Park. Imperial College London. 2004. University of Florida, Department of Zoology. 2003.

RESEARCH POSITIONS

Assistant Research Biologist. U.C. Santa Cruz. Ecology and Evolutionary Biology Department. 2005-2008. Coevolution of hosts and parasitoids within a geographic mosaic.

Postdoctoral Researcher, U.C. Santa Cruz. Ecology and Evolutionary Biology Department. 2004 - 2005. The effects of spatial structure on the evolutionary history of coevolving populations, with Dr. John Thompson.

Postdoctoral Researcher, Stanford University. Department of Biological Sciences. 2002 - 2004. The ecology and evolution of spatially structured communities, with Dr. Brendan Bohannan

Research Assistant, U.C. Santa Cruz. Ecology and Evolutionary Biology Department.1998-2000. Predicting the effects of oil spills on intertidal community structure, with Dr. Peter Raimondi.

Research Assistant, U.S. Geological Survey. 1996. Documenting historical evidence of tsunamis in the Pacific Northwest, with Dr. Bruce Jaffee.

Research Assistant, U.C. Berkeley Integrative Biology Department. 1994-1995. Studying the relationship between prey size structure and predation; the effects of produced water on subtidal communities, with Dr. Craig Osenberg.

Research Assistant, U.C. Santa Barbara. Biology Department. 1993. Evaluating the influence of fish predation on invertebrate communities in streams, with Dr. Scott Cooper.

TEACHING AND MENTORING POSITIONS

Professor, Ecology and Evolutionary Biology Department. University of California Santa Cruz. 2009-2011. Marine Ecology.
Panelist, Women in Science and Engineering Luncheon. University of California Santa Cruz. 2011.
Mentor, Center for Biomolecular Science and Engineering. University of California Santa Cruz 2009-2010.
Mentor, Association for Women in Science. Stanford University. 2003-2004.

Instructor. California State Summer School for Mathematics and Science. University of California Santa Cruz. 2002. Lead instructor for an ecology course for advanced high school students.

Guest lecturer. University of California Santa Cruz (1996, 2005) Marine Ecology, Ecology and Evolution; Stanford University (2002, 2003, 2004) Ecology; Mills College (2003) Oceanography.

Senior thesis advisor. University of California Santa Cruz. 2000-2001. Advised three undergraduates on senior thesis research, two of which received honors.

Mentor. California Alliance for Minority Participation in Science, Engineering and Mathematics, 2000. Advised minority student on summer research project.

Teaching Assistant. University of California Santa Cruz. Biology Department. 1996-2001. Animal and Plant Physiology, Cellular and Molecular Biology, Marine Ecology, Biology of AIDS, Evolution.

PROFESSIONAL ACTIVITIES AND SERVICES

Reviewer for: National Science Foundation, Sea Grant, NERC (UK), Nature, American Naturalist, PLoS One, Proceedings of the Royal Society of London, Journal of Evolutionary Biology, PNAS, Ecology, Ecology Letters, Oecologia, Journal of Animal Ecology, Marine Ecology Progress Series, Journal of Experimental Marine Biology and Ecology, Limnology and Oceanography, Global Change Biology

Memberships in professional organizations: American Geophysical Union, American Society for Microbiology, Ecological Society of America, Society for the Study of Evolution, American Society of Naturalists, Western Society of Naturalists, American Association of University Women, Association for Women in Science