

Sheri L. Simmons

Assistant Scientist
Josephine Bay Paul Center
Marine Biological Laboratory
Woods Hole, MA 02543

EDUCATION

MIT/Woods Hole Oceanographic Institution Joint Program	2006
Ph.D. in Biological Oceanography Thesis: Geobiology of Marine Magnetotactic Bacteria Advisor: Katrina J. Edwards	
Princeton University	1999
A. B. in Ecology and Evolutionary Biology, <i>summa cum laude</i> Certificate in Creative Writing. Theses: "Colonization and Settlement of Vestimentiferan Tubeworms at Deep-Sea Hydrothermal Vents: Facilitation in an Extreme Environment?" and "Kaleidoscope," an original poetry collection	

EMPLOYMENT

Assistant Professor of Ecology and Evolutionary Biology (MBL), Brown University	July 2010-
Assistant Scientist, Josephine Bay Paul Center, Marine Biological Laboratory	Dec 2009-
Postdoctoral Researcher, University of California, Berkeley Supervisor: Jill Banfield	2006-2009

AWARDS AND FELLOWSHIPS

American Geochemical Society travel grant to attend 2006 Goldschmidt Conference, Melbourne, Australia	2006
Holger Jannasch Memorial Scholarship, Microbial Diversity course, Marine Biological Laboratory	2004
American Society for Microbiology Student Travel Grant	2003
National Defense Science and Engineering Graduate Fellowship	2000-2003
National Science Foundation Graduate Research Fellowship (declined)	2000
One of six university-wide awards for the best senior theses in the sciences, Princeton University Sigma Xi chapter	1999
Phi Beta Kappa, Sigma Xi	1999
Summer Student Fellowship, Woods Hole Oceanographic Institution	1998

RESEARCH GRANTS

Ocean Venture Fund grant, Woods Hole Oceanographic Institution, for the project "Linking biomineralization and environmental redox chemistry in magnetotactic bacteria: Towards a predictive understanding of magnetofossils."	2005
Ocean Life Institute grant, Woods Hole Oceanographic Institution, for thesis research	2004
Reinhart Coastal Research Center grant, Woods Hole Oceanographic Institution, for thesis research	2002-2003

PROFESSIONAL TRAINING

Microbial Diversity summer course, Marine Biological Laboratory	Summer 2004
"Making and Using DNA Microarrays" short course, Cold Spring Harbor Laboratories	2002
Workshop on Molecular Evolution, Marine Biological Laboratory	2001

FIELD AND SEAGOING EXPERIENCE

Microbiological sampling in defunct acid mine, Iron Mountain, CA	2006-2009
Extensive sampling in coastal salt ponds and marshes for microbiology and geochemistry	2001-2006
Participant, cruise AT 3-33 to the East Pacific Rise, and Alvin dive 3381	1999
Tropical forest and marine environments (Smithsonian Tropical Research Institute, Panama)	1998

TEACHING EXPERIENCE

Co-instructor (with Jeremy Rich) of BIOL 2440, a Brown University EEB graduate seminar titled "Assembly rules of microbial communities."	Spring 2011
Teaching assistant for Microbial Diversity course, Marine Biological Laboratory	Summer 2006
Teaching assistant for graduate course in Biological Oceanography, MIT-WHOI Joint Program	2003
Supervised one high school student (Lindsay Hirt, summer 2002) and one WHOI undergraduate guest student (Ronnie Yoo, summer 2003) in the lab and field	2002-2003

CONFERENCE ABSTRACTS

Cardon, Z.G.C., Vallino, J., DeForce, E., Morris, T., Simmons, S.L. "Bacterial diversity across a soil organic carbon gradient determined by 454 tag sequencing." Ecological Society of America, Pittsburgh, PA.	2010
Simmons, S.L., G. DiBartolo, V. Deneff, D.S.A. Goltsman, M.P. Thelen, J.F. Banfield, "Population genomic analysis reveals recent evolutionary processes in a natural population of <i>Leptospirillum</i> group II," Oral presentation, ISME-12, Cairns, Australia	2008

- Simmons, S.L. and K.J. Edwards, "Identification and enumeration of novel uncultivated marine magnetotactic bacteria," *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract B24A-05. 2005
- Simmons, S.L. and K.J. Edwards, Novel Marine Magnetotactic Bacteria. Abstract and poster presented at ISME-10, Cancún, Mexico 2004

INVITED TALKS

- Microbial and Viral Evolution conference, KITP, UC Santa Barbara: "Diversity in microbial populations in the wild" Jan 2011
- MBL Ecosystems Center Seminar: "Microbial community dynamics in open and model systems" Dec 2010
- 2nd annual Argonne Soils Workshop, Argonne National Laboratory: "Bacterial diversity within soil aggregates determined by 454 tag, metagenome, and metatranscriptome sequencing" Oct 2010
- EEB seminar series, Brown University: "Microbial community metagenomics" March 2010
- Gordon Conference in Microbial Population Biology: "Community genomics reveals microevolutionary processes in microbial communities" July 2009
- Workshop in Statistical Metagenomics, Berlin, Germany: "Community genomics of acid mine drainage microbial communities" July 2008
- American Society for Microbiology, Boston, MA: "The generation and maintenance of genomic and proteomic variation in subsurface acid mine drainage communities" June 2008
- Joint Genome Institute, Walnut Creek, CA: "Geobiology of marine magnetotactic bacteria" Jan 2007
- Session Keynote, Goldschmidt Conference, Melbourne, Australia: "The contribution of magnetotactic bacteria to reduced iron flux in stratified marine environments" Aug 2006

PUBLICATIONS

Yelton, A.P., B.C. Thomas, P. Wilmes, **S.L. Simmons**, B.J. Baker, G.J. Dick, A. Zemla, M.P. Thelen, J.F. Banfield. Evolutionary and functional implications of correlated changes in gene sequence and gene order in cultivated and uncultivated Bacteria and Archaea. Submitted to Plos Computational Biology.

Simmons, S.L.*, G. DiBartolo*, V.J. Denef, D.S.A. Goltsman, M.P. Thelen, J.F. Banfield (2008), Population genomic analysis of strain variation in *Leptospirillum* group II bacteria involved in acid mine drainage formation. PLoS Biology 6(7): e177. (* co-first authors)

Wilmes, P., **S.L. Simmons**, V.J. Denef, J.F. Banfield (2009), The dynamic genetic repertoire of microbial communities. FEMS Microbiology Reviews 33(1): 109-132.

Dick, G.J., A.F. Andersson, B. Baker, **S.L. Simmons**, B.C. Thomas, A.P. Yelton, J.F. Banfield (2009), Community-wide analysis of microbial genome sequence signatures. Genome Biology 10:R85.

Simmons, S.L., D.A. Bazylinski, and K.J. Edwards (2007), Population dynamics of marine magnetotactic bacteria in a meromictic coastal pond measured with qPCR. Environmental Microbiology 9(9): 2162-2174.

Simmons, S.L. and K.J. Edwards (2007), Unexpected diversity in populations of the many-celled magnetotactic prokaryote. Environmental Microbiology 9(1): 206-215.

Simmons, S.L. and K.J. Edwards (2007), Geobiology of magnetotactic bacteria. In Magnetoreception and Magnetosomes in Bacteria (D. Schüler, ed). Berlin: Springer-Verlag, pp. 77-102.

Simmons, S. L., D. A. Bazylinski, and K. J. Edwards (2006), South-seeking magnetotactic bacteria in the Northern Hemisphere. Science 311:371-374.

Simmons, S.L., S.M. Sievert, R.B. Frankel, D.A. Bazylinski, K.J. Edwards (2004), "Spatio-temporal distribution of marine magnetotactic bacteria in a coastal salt pond." Applied and Environmental Microbiology 70(10): 6230-6239.

SERVICE

2011: Member of the graduate admissions committee, Brown EEB department

2011-present: Member of thesis committee for Patrick Flight, Brown EEB graduate student (laboratory of David Rand).

2010-present: Member, Editorial Review Board, *Frontiers in Microbiology*

2010-present: Member of thesis committee for Angus Angermeyer, MBL-Brown graduate student (laboratory of Julie Huber).

2010-2011 Organizer, Bay Paul Center seminar series

Served as an *ad hoc* reviewer for *PNAS*, *Geochimica Cosmochimica Acta*, *Aquatic Microbial Ecology*, *Genome Biology*, *Trends in Microbiology*, *Oecologia*, *PLoS One*, and *FEMS Microbiology Letters*.