Sarah Stevens

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Education

University of Wisconsin - Madison

PhD Candidate - Microbiology Doctoral Training Program - 2012-Present
SciMed GRS Fellow

MDTP Recruiting Committee - 2014-2015

MDTP Steering Committee - 2015-2016

University of Illinois Urbana - Champaign

Bachelor of Science - Molecular and Cellular Biology - 2007-2011

Minor in Informatics

James Scholar Honors

Research

University of Wisconsin - Madison, McMahon Lab

 $Graduate\ Research\ Assistant$ - 2012-Present

Determining the forces that shape population structure and how wild bacterial populations change through time in lakes as a model system using reference genomes (composite genomes from metagenomes and single-cell genomes) for uncultivated but common freshwater bacteria and metagenomic time series from several lakes.

University of Illinois Urbana - Champaign, Metcalf Lab

Visiting Researcher - 2011-2012

Assembled genomes from isolates belonging to the archaeal genus *Methanosarcina* and analyzed shared genomic content of members of this genus.

University of Illinois Urbana - Champaign, Whitaker Lab

Undergraduate Research Assistant - 2010-2011

Studied insertion sequences in *Sulfolobus* islandicus in an independent project, cultured archaea, organized sample/culture database, cleaned-up and prepped lab equipment.

Publications

Garcia, S. L.*, **Stevens, S. L. R.***, Crary, B., Martinez-Garcia, M., Stepanauskas, R., Woyke, T., Tringe, S. G., Andersson, S., Bertilsson, Malmstrom, R. R., McMahon, K. D. (*in review at ISME Journal*). Contrasting patterns of genome-level diversity across distinct co-occurring freshwater bacterial populations. *Equal contributors

Bendall, M. L.*, **Stevens, S. L. R.***, Chan, L.-K., Malfatti, S., Schwientek, P., Tremblay, J., Schackwitz, W., Martin, J., Pati, A., Bushnell, B., Froula, J., Kang, D., Tringe, S. G., Bertilsson, S., Moran, M. A., Shade, A., Newton, R. J., McMahon, K. D., Malmstrom, R. R. (2016). Genome-wide selective sweeps and gene-specific sweeps in natural bacterial populations. ISMEJ. doi:10.1038/ismej.2015.241 featured article *Equal contributors

Organizations

Computational Biology, Ecology, and Evolution (ComBEE) group

Co-Chair/Founder - 2014-Present

- ComBEE provides an opportunity for researchers to discuss new computational tools and learn bioinformatics skills together.
- ComBEE Python Study Group 2014-Present
- ComBEE R Study Group 2015-Present

Software Carpentry and Data Carpentry

Instructor - 2015-Present

Data Carpentry Genomics Hack-a-thon

Contributor - Mar. 23-25, 2015

DOE Joint Genome Institute

Intern/Affiliate - Jan. 2015-Mar. 2015

Instructor/Course Designer - Jan. 2015

Teaching Assistant/Instructor - Fall 2013

Teaching

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Software Carpentry Workshop - University of Wisconsin - Madison
Instructor - Jan. 14-15, 2016, Jun. 08-09, 2016, Jan. 12-13, 2017
Helper - Jan. 13-16, 2015, Jun. 3-4, 2015, Aug. 29-30, 2016, Jun. 28-29, 2017, Aug. 30-31, 2017
Data Carpentry Workshop - University of Wisconsin - Madison
Instructor - Jan. 10-11, 2017, Aug. 22-23, 2017
Helper - Jan. 11-12 2016, Jun. 01-02 2016, Jun. 19-20, 2017
Software Carpentry Workshop - Federal Reserve Bank, Chicago
Instructor - Aug. 2-3, 2017
ComBEE Anvio Workshop 2017 - University of Wisconsin - Madison
Instructor - May. 24, 2017
ComBEE Git/Github Workshop - University of Wisconsin - Madison
Instructor - Mar. 2-3, 2017
Software Carpentry Instructor Training - University of Wisconsin - Madison
Helper - Oct. 24-25, 2016
Software Carpentry Workshop - University of Wisconsin - Milwaukee
Instructor - Apr. 25-26, 2016
Software Carpentry Workshop - Northwestern University
Instructor - Nov. 10-11 2015
McMahon Lab Git Workshop
Instructor - July 2015
Bioinformatics Basics: Microbial Ecology and Evolution - Illinois Mathematics and Science Academy Intersession
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Microbiology 304: Biology of Microorganisms Laboratory - University of Wisconsin - Madison

Oral Presentations

Stevens, S. L. R. Starting Your Own Study Group. Rebecca J. Holz series in Research Data Management. October 2016. Madison, WI. Link to Webpage/Slides

Stevens, S. L. R., Bendall, M. L., Chan, L.-K., Malfatti, S., Schwientek, P., Tremblay, J., . . . McMahon, K. D. Malmstrom, R. R. Tracking Microbial Populations Through Time Using Single-cell Genomes and Metagenomics. UW Center for Limnology Seminar. December 2015. Madison, WI. Link to Slides

Stevens, S. L. R., Bendall, M. L., Chan, L.-K., Malfatti, S., Schwientek, P., Tremblay, J., ... McMahon, K. D. Malmstrom, R. R. Genome-wide and Gene-specific Selective Sweeps in Freshwater Bacterial Populations Revealed Using Metagenomics. JF Crow Institute for the Study of Evolution Seminar Series. October 2015. Madison, WI. Link to Slides

Stevens, S. L. R., Bendall, M. L., Chan, L.-K., Malfatti, S., Schwientek, P., Tremblay, J., ... McMahon, K. D. Malmstrom, R. R. Genome-wide and Gene-specific Selective Sweeps in Freshwater Bacterial Populations Revealed Using Metagenomics. 14 Symposium Society for Aquatic Microbial Ecology. August 2015. Uppsala, Sweden Link to Slides

Stevens, S. L. R., Bendall, M. L., Chan, L.-K., Malfatti, S., Schwientek, P., Tremblay, J., ... McMahon, K. D. Malmstrom, R. R. Genome-wide Selective Sweeps in Natural Bacterial Populations Revealed by Time-series Metagenomics. 15th International Symposium on Microbial Ecology. August 2014. Seoul, South Korea. Link to Slides

Poster Presentations

Stevens, S. L. R., Garcia, S. L., ... McMahon, K. D. Contrasting Patterns fo Genome-level Diversity across Distinct Co-occurring Populations. 16th International Symposium on Microbial Ecology. August 2016. Montreal, Canada. Link to Poster

Stevens, S. L. R., Garcia, S. L., ... McMahon, K. D. Tracking Distinct Freshwater Populations Through Time by Mapping Metagenomes to Single-cell Genomes. DOE Joint Genome Institute User Meeting 2016. Walnut Creek, CA. Link to Poster

Stevens, S. L. R., Bendall, M. L., ... McMahon, K. D. Malmstrom, R. R. Dynamics of Sequence-Discrete Bacterial Populations Inferred Using Metagenomes. 15th International Symposium on Microbial Ecology. August 2014. Seoul, South Korea. Link to Poster

Stevens, S. L. R., Bendall, M. L., ... McMahon, K. D. Malmstrom, R. R. Dynamics of Sequence-Discrete Bacterial Populations Inferred Using Metagenomes. SciMed GRS Poster Session 2014. September 2014. Madison, WI.

Stevens, S. L. R., Bendall, M. L., ... McMahon, K. D. Malmstrom, R. R. Dynamics of Sequence-Discrete Bacterial Populations Inferred Using Metagenomes. DOE Joint Genome Institute User Meeting 2014. Walnut Creek, CA. Link to Poster

Awards

UW-Madison Dept. of Bacteriology Travel Award - Spring 2017

UW-Madison Dept. of Bacteriology Betley-Allen Fellowship - 2016-2017

UW-Madison Graduate School Travel Award - Fall 2015

UW-Madison Dept. of Bacteriology Travel Award - Spring 2014

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