

Shane Lahman Hogle

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Education

Ph.D. Oceanography - Expected 2015
The Scripps Institution of Oceanography at the University of California San Diego
B.A. Chemistry, Highest Honors - 2010
Earlham College; Richmond, Indiana
Visiting student - 2008
University of Canterbury; Christchurch, New Zealand

Fields of Research

Ecological effects of iron limitation on phytoplankton and bacterioplankton
Molecular biomarkers of iron nutrition in the marine environment
Functional genomics of marine bacterial tonB dependent receptors

Research

Peer-Reviewed Journal Articles

Hogle SL, Dupont C, Barbeau KA. Ecology, evolution, and biogeochemical impact of trace metal acquisition strategies in the marine *Roseobacter* lineage. *ISME J.* *submitted*
Dupont CL, McCrow JP, Valas R, Moustafa A, Walworth N, Goodenough U, Roth R, **Hogle SL**, Bai J, Johnson ZI, Mann E, Palenik B, Barbeau KA, Venter JC, Allen AA. (2014). Genomes and gene expression across light and productivity gradients in eastern subtropical Pacific microbial communities. *ISME J.* 1(17):1751-7362/14
Hogle SL, Barbeau KA, Gledhill MA. Heme in the marine environment: from cells to the iron cycle. *Metalomics* 6:1107-1120. doi: 10.1039/C4MT00031E
Kharbush JJ, Ugalde JA, **Hogle SL**, Allen EE, Aluwihare LI. Composite Bacterial Hopanoids and Their Microbial Producers across Oxygen Gradients in the Water Column of the California Current. *Appl. Environ. Microbiol.* 79(23): 7491-7501. doi: 10.1128/AEM.02367-13
Roe KL, **Hogle SL**, Barbeau KA. Utilization of heme as an iron source by marine Alphaproteobacteria in the *Roseobacter* clade. *Appl. Environ. Microbiol.* 79(18) 5753-5762, doi:10.1128/AEM.01562-13
Abbriano RM, Carranza MM, **Hogle SL**, *et al.* Deepwater Horizon Oil Spill: A Review of the Planktonic Response. *Oceanography* 24(3):294-301, <http://dx.doi.org/10.5670/oceanog.2011.80>

Conference and Seminar Presentations

Hogle SL, Dupont C, Brahamsha B, Barbeau KA. Evolution, ecology, and mechanisms of heme uptake in the marine *Roseobacter* lineage. Oral presentation, ASLO 2015 Meeting, February 2013
Hogle SL, Dupont C, Brahamsha B, Barbeau KA. What do marine bacterial transporters tell us about ocean chemistry? Oral Presentation, Scripps Student Symposium, September 2014

Hogle SL, Brahamsha B, Barbeau KA. Mechanisms for Trace Metal Assimilation in Marine *Roseobacters*. Poster presentation, Goldschmidt Meeting: Session 17e Trace Elements, Microbes, and Biogeochemical Cycles in the Ocean Environment, June 2014

Hogle SL, Brahamsha B, Barbeau KA. An Outer Membrane Receptor Critical for Heme Utilization in a Marine *Roseobacter*. Poster presentation, TOS/ASLO/AGU 2014 Ocean Sciences Meeting, February 2014

Hogle SL, Brahamsha B, Barbeau KA. Heterotrophic bacterioplankton utilize heme-based molecules for growth: a case study in the biological controls on a model iron-binding ligand. Oral presentation, ASLO 2013 Meeting, February 2013

Hogle SL, Hopkinson BM, Barbeau KA, Dupont C. Comparative Prokaryotic Metagenomics Across Subsurface Chlorophyll Maxima in the Southern California Bight. Oral presentation, TOS/ASLO/AGU 2012 Ocean Sciences Meeting, February 2012

Teaching Experience

Sep 2014 - Dec 2014: Teaching Assistant - SIO40: Life and Climate on Earth

Field Experience

Jun 2011 - July 2011: R/V Melville, California Current Ecosystem LTER Process Cruise, San Diego, CA

Mentoring

Jun 2014 - Aug 2014: Leila Whitener - Northwest Indian College. Title: A novel approach to measuring heme in the marine environment. Project resulted in poster presentation at UCSD undergraduate research conference

Apr 2014 - Aug 2014: Kelsey Dowdy - UCSB. Volunteer student, assisted with microbial community DNA extraction and high throughput sequencing library preparation

Jan 2012 - Jun 2013: Aarani Arulmoli - UCSD. Title: Bacterial community composition in iron induced phytoplankton blooms. Project resulted in material for undergraduate thesis

Professional and Academic Affiliations

American Society for Limnology and Oceanography

American Chemical Society

Honors, Awards, & Fellowships

National Science Foundation Graduate Research Fellowship, 2011 - 2014.

University of California San Diego Director's Fellowship, 2010 - 2011

Phi Beta Kappa, Delta Chapter of Indiana, 2010

American Chemical Society Undergraduate Award in Inorganic Chemistry, 2010.

Thomas Clarkson Grave and Anna Hubbard Grave Graduate Scholarship in Natural Science, 2010.

NSF Research Experience for Undergraduates (University of Minnesota and the National Science Foundation), 2009.

Gertrude P. Hubbard Distinguished Student in the Natural Sciences Award (Earlham College), 2009.