

# Shane Lahman Hogle

Massachusetts Institute of Technology  
Department of Civil and Environmental Engineering  
MIT 48-209  
15 Vassar Street  
Cambridge, MA 02139

Phone: 617.253.2796  
Office: MIT 48-209  
Email: [shogle@mit.edu](mailto:shogle@mit.edu)  
Website: [slhogle.github.io](http://slhogle.github.io)

## Positions Held

Postdoctoral Associate; 2016 - present  
Department of Civil and Environmental Engineering, MIT (Advisor: Dr. Sallie W. Chisholm)  
Graduate Researcher; 2014 - 2016  
Scripps Institution of Oceanography, UCSD (Advisor: Dr. Katherine A. Barbeau)  
Graduate Fellow; 2010 - 2014  
Scripps Institution of Oceanography, UCSD (Advisor: Dr. Katherine A. Barbeau)

## Education

Ph.D. Oceanography; 2016  
The Scripps Institution of Oceanography at the University of California San Diego  
B.A. with highest honors, Chemistry; 2010  
Earlham College, Richmond, Indiana

## Research

### *Published Peer-Reviewed Papers*

**Hogle SL**, Thrash JC, Dupont CL, Barbeau KA. (2016) Trace metal acquisition by heterotrophic bacterioplankton with contrasting trophic strategies. *Appl. Environ. Microbiol.* 82(5): 1613-1624  
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. (2015). 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. (2014). Heme in the marine environment: from cells to the iron cycle. *Metallomics* 6:1107-1120. doi: 10.1039/C4MT00031E  
Kharbush JJ, Ugalde JA, **Hogle SL**, Allen EE, Aluwihare LI. (2013). 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. (2013). 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. (2011). Deepwater Horizon Oil Spill: A Review of the Planktonic Response. *Oceanography* 24(3):294-301, <http://dx.doi.org/10.5670/oceanog.2011.80>

### *Papers Under Review*

**Hogle SL**, Brahamsha B, Barbeau KA. *In review* Heme as a molecular intermediate in the microbial remineralization of marine biogenic Fe.  
**Hogle SL**, Bundy RA, Blanton JM, Allen EE, Barbeau KA. *In review* Linking phytoplankton and bacterioplankton community dynamics to iron-binding ligand production in a microcosm experiment.

### *Papers in Preparation*

**Hogle SL**, Dupont CL, Hopkinson B, King A, Barbeau KA *and others*. *In prep*. Geochemical, physiological, and molecular evidence for Fe limitation in subsurface chlorophyll maxima of the eastern subtropical Pacific ocean.

### Conference and Seminar Presentations

**Hogle SL**, Bundy RM, Barbeau KA. Linking phytoplankton and bacterioplankton community dynamics to iron-binding ligand production in a microcosm experiment. Poster presentation, TOS/ASLO/AGU 2016 Ocean Sciences Meeting, February 2016

**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 2015

**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 2015 - Dec 2015: Teaching Assistant - SIO40: Life and Climate on Earth

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

### 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

Last updated: April 27, 2016