

I. EDUCATION

Michigan State University, Ph.D. in Microbiology and Molecular Genetics, expected 2015
University of Delaware, M.S. in Marine Biosciences, 2009
Clark University, B.A. in Biology with Departmental High Honors, 2007

II. RESEARCH EXPERIENCE

Graduate Research Assistant, Michigan State University under the advisement of Dr. Matt Schrenk, 2014-present
Graduate Research Assistant, East Carolina University under the advisement of Dr. Matt Schrenk, 2011-2013
Laboratory Manager, University of Delaware under the supervision of Dr. Jennifer Biddle, 2010
Laboratory Manager, University of North Carolina-Chapel Hill under the supervision of Dr. Andreas Teske, 2009
Graduate Research Assistant, University of Delaware under the advisement of Dr. Barbara Campbell, 2007-2009
Undergraduate Research Assistant, Clark University under the advisement of Dr. Deborah Robertson, 2006-2007

III. PUBLICATIONS

Crespo-Medina, M., **K. I. Twing**, M. D. Kubo, T. M. Hoehler, D. Cardace, T. McCollom, and M. O. Schrenk. 2014. Environmental controls on microbial communities in continental serpentinite fluids. *Frontiers in Microbiology*. In Review.

Cardace, D., T. Hoehler, T. McCollom, M. Schrenk, D. Carnevale, M. Kubo, and **K. Twing**. 2013. Establishment of the Coast Range ophiolite microbial observatory (CROMO): Drilling objectives and preliminary outcomes. *Scientific Drilling*. **16**: 45-55.

Rossmassler, K. E., A. S. Engle, **K. I. Twing**, T. E. Hanson, and B. J. Campbell. 2012. Drivers of *Epsilonproteobacteria* community composition in sulfidic caves and springs. *FEMS Microbiology Ecology*. **79**: 421-432.

Twing, K. I., D. L. Kirchman, B. J. Campbell. 2011. Detection of pathogenic *Epsilonproteobacteria* in Delaware waterways and their relationship with indicators of fecal contamination. *Water Research*. **45** (4): 1897-1905.

Brown, K.L, **K. I. Twing**, and D. L. Robertson. 2009. Unraveling the regulation of nitrogen assimilation in the marine diatom *Thalassiosira pseudonana* (Bacillariophyceae): Diurnal variations in transcript levels for five genes involved in nitrogen assimilation. *Journal of Phycology*. **45**: 413-426.

IV. POSTERS AND PRESENTATIONS

Twing, K. I., W. J. Brazelton, M. Crespo-Medina, T. M. Hoehler, T. McCollom, D. Cardace, and M. O. Schrenk. Microbial diversity and metabolic potential from the Coast Range Ophiolite Microbial Observatory. International Symposium for Subsurface Microbiology, Monterey, CA. October 2014. [oral presentation]

Twing, K. I., W. J. Brazelton, and M. O. Schrenk. The metabolic potential of the serpentinite subsurface microbiome. American Society of Microbiology General Meeting, Boston, MA. May 2014 [oral presentation]

Twing, K., W. Brazelton, D. Cardace, T. Hoehler, and M. Schrenk. Rock-hosted serpentinite microbiome. Goldschmidt, Florence, Italy. August 2013. [poster]

Brazelton, W., D. Cardace, G. Fruh-Green, S. Lang, M. Lilley, P. Morrill, **K. Twing**, and M. Schrenk. Biogeography of serpentinite-hosted ecosystems. Goldschmidt, Florence, Italy. August 2013. [invited talk]

Crespo-Medina, M., W. Brazelton, **K. Twing**, M. Kubo, T. Hoehler, and M. Schrenk. Microbial metabolism of serpentinite fluids. Goldschmidt, Florence, Italy. August 2013. [oral presentation]

Twing, K. I., W. J. Brazelton, D. Cardace, T. M. Hoehler, T. McCollom, and M. O. Schrenk. Identity of the serpentinite subsurface microbiome. American Geophysical Union Fall Meeting, San Francisco, CA. December 2012. [poster]

Brazelton, W., D. Cardace, G. Fruh-Green, S. Q. Lang, M. D. Lilley, P. L. Morrill, N. Szponar, **K. I. Twing**, and M. O. Schrenk. Biogeography of serpentinite-hosted microbial ecosystems. American Geophysical Union Fall Meeting, San Francisco, CA. December 2012. [invited talk]

Schrenk, M. O., C. George, **K. I. Twing**, and W. J. Brazelton. Alkaliphilic clostridia and the serpentinite-hosted deep biosphere. American Geophysical Union Fall Meeting, San Francisco, CA. December 2012. [poster]

Cardace, D., D. Carnevale, M. O. Schrenk, **K. I. Twing**, T. M. McCollom, and T. M. Hoehler. Mineral controls on microbial niche space in subsurface serpentinites of the Coast Range Ophiolite, Northern California. American Geophysical Union Fall Meeting, San Francisco, CA. December 2012. [poster]

Twing, K. I., W. J. Brazelton, and M. O. Schrenk. Biogeography of functional genes in serpentinitization-driven ecosystems. Gordon Research Conference on Marine Microbes, Barga, Italy. June 2012. [poster]

Katrina I. Twing
KatrinaTwing@gmail.com

- Brazelton, W. J., **K. I. Twing**, and M. O. Schrenk. Metagenomic evidence for primary production fueled by serpentinization. Gordon Research Conference on Marine Microbes, Barga, Italy. June 2012. [poster]
- Twing, K. I.**, W. J. Brazelton, and M. O. Schrenk. Microbial diversity and metabolic potential of the serpentinite-hosted subsurface biosphere. Astrobiology Science Conference, Atlanta, GA. April 2012. [poster]
- Brazelton, W. J., **K. I. Twing**, and M. O. Schrenk. Metagenome-enabled investigations of carbon and hydrogen fluxes within the serpentinite-hosted subsurface biosphere. DOE Joint Genome Institute User Meeting, Walnut Creek, CA. March 2012. [poster]
- Biddle, J. F., K. G. Lloyd, L. Lapham, **K. I. Twing**, C. Martin, S. Underwood, and A. Teske. Archaeal diversity patterns in relation to hydrocarbon seepage in the Gulf of Mexico. Ocean Sciences Meeting, Salt Lake City, UT. February 2012. [oral presentation]
- Biddle, J., **K. Twing**, and A. Teske. Bacterial and archaeal communities from North Pond. CDEBI: Sediment Microbiology Meeting, Chapel Hill, NC. March 2011. [poster]
- Twing, K. I.** and B. J. Campbell. Detection of pathogenic *Epsilonproteobacteria* in Delaware waterways and their relationship with indicators of fecal contamination. American Society of Microbiology General Meeting, Philadelphia, PA. May 2009. [poster]
- Twing, K. I.**, K. Brown, and D.L. Robertson. Diurnal oscillations in nitrate reductase transcript abundance in the marine diatom *Thalassiosira pseudonana* (Bacillariophyceae): Influence of nitrate, light, and the circadian oscillator. Northeast Algal Society, Narragansett, RI. April 2007. [poster]

V. WORKSHOPS AND PROFESSIONAL DEVELOPMENT

- DEBI-RCN Bioenergetics and Subsurface Microbiology Workshop, Los Angeles, April 2014
- C-DEBI Limits to Life Workshop, Redondo Beach, CA, April 2014
- Microbial Genomics and Metagenomics Workshop, JGI, Walnut Creek, CA, February 2014
- DCO Deep Life Directorate Workshop, Portland, OR, May 2013
- DCO Deep Life Directorate Workshop, San Francisco, CA, December 2012
- Gordon Research Seminar on Marine Microbes, Barga, Italy, June 2012
- Strategies and Techniques for Analyzing Microbial Population Structures, MBL, Woods Hole, MA, August 2012

VI. FIELD SAMPLING AND RESEARCH CRUISE EXPERIENCE

- July 2014: Coast Range Ophiolite Microbial Observatory (CROMO), Lower Lake, CA
- August 2013: Ligurian Ophiolite, Liguria, Italy
- August 2013: Coast Range Ophiolite Microbial Observatory (CROMO), Lower Lake, CA
- March 2013: Coast Range Ophiolite Microbial Observatory (CROMO), Lower Lake, CA
- December 2012: Coast Range Ophiolite Microbial Observatory (CROMO), Lower Lake, CA
- September 2012: Visiting Scientist SCUBA Diver at the Queen Anne's Revenge excavation site, Beaufort, NC
- July 2012: Ligurian Ophiolite, Liguria, Italy
- March 2012: Coast Range Ophiolite Microbial Observatory (CROMO), Lower Lake, CA
- October 2011: Ligurian Ophiolite, Liguria, Italy
- March 2010: R/V Sharp, Delaware Bay
- November 2008: R/V Atlantis with DSV Alvin, Guaymas Basin
- September 2007: R/V Sharp, Delaware Bay

VII. TEACHING EXPERIENCE

- Fall 2014: Teaching assistant for MMG408 Advanced Microbiology course, Michigan State University
- August 2014: Attended intensive 3-day Teaching Assistant Workshop, Michigan State University
- Spring 2014: Guest lecturer for Biological Oceanography course, East Carolina University
- Fall 2013: Guest lecturer for Microbiology course, East Carolina University
- Spring 2013: Tutor for SAT Biology Subject Test, East Carolina University
- Spring 2009: Presenter at EPSCoR Environmental Biotechnology Weekend, University of Delaware
- Fall 2006: Teaching Assistant for Bioinformatics course, Clark University
- Spring 2006: Tutor for introductory Biology course, Clark University

VIII. PROFESSIONAL MEMBERSHIPS

- Geochemical Society. Member since 2013
- American Geophysical Union. Member since 2012

American Society of Microbiology. Member since 2009

VIII. LEADERSHIP AND COMMUNITY SERVICE

Deep Carbon Observatory Census of Deep Life Website Coordinator, 2014-present

Deep Carbon Observatory Deep Life Directorate Postdoc Seminar Organizer, 2012-2013

Biology Graduate Student Association Secretary, East Carolina University, 2012

United States Peace Corps Volunteer, Philippines, August 2010- April 2011

Marine Studies Graduate Student Association Social Chair, University of Delaware, 2008-2009

Peer Advisor, Clark University, 2004-2007