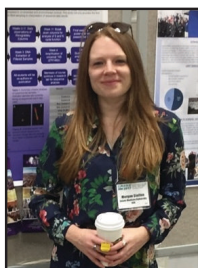


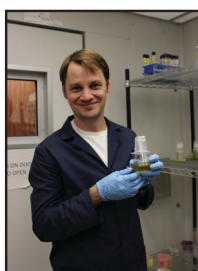
# SUTER SCIENCE SEMINARS 2022-23

## Phycosphere Interactions: Novel Insights into Harmful Algal Bloom Dynamics



**Morgan Steffen, PhD**

*Associate Professor of Biology  
James Madison University  
Harrisonburg, VA*



**Louie Wurch, PhD**

*Associate Professor of Biology  
James Madison University  
Harrisonburg, VA*

**Wednesday, February 8, 2023**

**4:00 p.m.**

*This seminar will focus on aspects of microbial interactions occurring in the phycosphere, the microenvironment surrounding phytoplankton cells (analogous to the rhizosphere of plants). These interactions have critical implications for harmful algal bloom formation, persistence, and decline.*

Dr. Morgan Steffen is an Associate Professor of Biology at James Madison University. She got her PhD in Microbiology from the University of Tennessee. Her laboratory uses a systems biology approach to study biological dynamics within aquatic microbial communities, especially those associated with freshwater harmful algal blooms. Her field sites span multiple counties and continents, as well as the Shenandoah Valley.

Dr. Louie Wurch is an Associate Professor of Biology at James Madison University. He got his PhD in Biological Oceanography from the MIT-WHOI Joint Program in Oceanography/Applied Ocean Science and Engineering. His research examines how marine microorganisms interact with each other and their environment, with a particular focus on phytoplankton. Marine phytoplankton produce about half of the oxygen on earth and form the base of the marine food web. However, many species of phytoplankton are also “harmful” to the environment. His laboratory seeks to understand the ecological niche of these harmful phytoplankton species.



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