



# The Science Behind Red Tides – Understanding The Organism As A Key To Mitigate Its Impact On Our Communities

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Red tides occur around the globe and are commonly associated with eutrophication of coastal marine ecosystems. The microscopic single celled organism forming these red tides , so called phytoplankton, often affect the ecology and economy of coastal communities and can even impact human health. While red tides are projected to increase in intensity and frequency in a future ocean affected by higher global temperatures and enhanced nutrient loads, we still don't fully understand which cellular processes lead to the success of the phytoplankton species contributing to red tides. In this talk, I will discuss the organisms responsible for red tides, explain their interesting evolution and ecophysiology, and highlight the state of research on the Florida red tide organism *Karenia brevis*. I will also introduce some recommendations to reduce the impact of red tides on the West-Florida-Shelf.



Thursday, January 10, 2019

7 - 8 pm FSUCML Auditorium

Free & Open to the Public  
Refreshments Available Before Lecture

**Speaker Bio:** Dr. Kranz received his PhD at the Alfred-Wegener-Institute for Polar and Marine Research (AWI) in Bremerhaven, Germany. After a short Post-Doc in the same group he worked with Professor François Morel at Princeton University. In 2014 he started at the



Earth, Ocean, & Atmospheric Science Department at FSU as an Assistant Professor. Current work includes CO2 effects on the dinoflagellate *Karenia brevis*, CO2 and light effects on the diatom *Pseudonitzschia*, *Thalassiosira* and light effects on the cyanobacteria *Synechococcus* and *Prochlorococcus*.



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