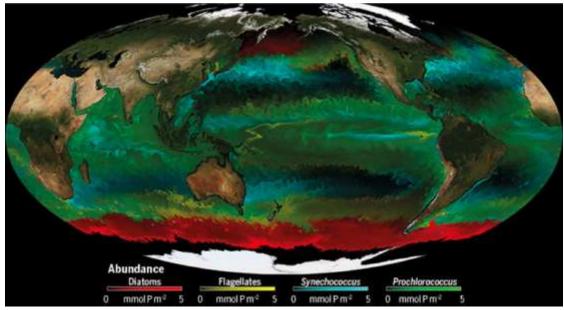
California State University, Fresno Department of Biology presents

Life in limitation; understanding microbial life in oligotrophic aquatic regions



MIT Darwin Project

Dr. Aric Mine
California State University, Fresno
Earth and Environmental Sciences Department
Friday, February 16, 3:00 PM
Science 2, room 109

Phosphorus is a primary limiting nutrient in the surface ocean, where phosphate availability controls the extent of primary production, carbon export fluxes, and ultimately climate. In phosphate-limited regions, organisms rely on efficient recycling of nutrients to meet metabolic demand when nutrient concentrations are low. My work investigates the mechanisms responsible for nutrient availability and nutrient cycling in aquatic habitats at the microbial level. Aquatic microbes have evolved an array of techniques for accessing a diverse group of nutrient-rich molecules. This seminar will focus on the microbial mechanisms that sustain productivity in nutrient starved regions and assess the consequences on trophic level structure, community composition, nutrient stoichiometry, and broader biogeochemical cycles. This work provides a new approach for resolving the link between nutrient availability and climate, and can be applied to past, current, and future climate change.