

UConn

UNIVERSITY OF CONNECTICUT

Department of Marine Sciences
Presents a Seminar By

Julie Granger
UConn Marine Sciences

Isotopic overprinting of nitrification on denitrification as a unifying feature of environmental nitrogen cycling

Stable isotopes of nitrate have long provided a tool for tracking environmental sources and biological transformations. However, divergent interpretations of fundamental nitrate isotope systematics exist among disciplinary divisions. In an effort to transcend disciplinary boundaries of terrestrial and marine biogeochemistry, we use a quantitative model for coupled nitrogen and oxygen isotopes of nitrate founded on benchmarks established from microbial cultures, to reconcile decades of nitrate isotopic measurements in freshwater and seawater and move toward a unified understanding of cycling processes and isotope systematics. Our findings indicate that denitrification operates within the pervasive context of nitrite reoxidation mechanisms, specifically highlighting the relative importance of nitrification in marine denitrifying systems and anammox in groundwater aquifers.

Host: Frank Bohlen

Time & Date: 11:00 am, Friday, October 21, 2016

Place: Marine Sciences Building, Seminar Room 103

Please see this [page](#) for cancelations and additional seminar information,
email marinesciencesseminars@uconn.edu, or call 860-405-9152 or 860-405-9151