

# Oceanography Seminar

Nicholas Hawco\*

Postdoctoral Scholar

Marine Trace Element Laboratory (MTEL)

University of Southern California

“Is a cobalt a limiting nutrient in the oceans?  
A macro view of an overlooked  
micronutrient.”

Phytoplankton growth in the ocean depends on an adequate supply of over a dozen elements to sunlit waters. Of these elements, the metal cobalt is found at the lowest concentrations in seawater and several nutrient amendment experiments have suggested a role for cobalt in regulating phytoplankton production. However, it has been difficult to extrapolate from these incubations because measurements of cobalt in seawater are sparse and the amount of cobalt needed by important phytoplankton groups is unknown.

I will present results from over 1000 measurements of dissolved cobalt from two full-depth transects in the Pacific Ocean, which show a cobalt cycle that is strongly influenced by dissolved oxygen. Low oxygen conditions appear to enhance coastal Co sources and inhibit Co removal by

**Monday February 4<sup>th</sup>, 2019 12:00p.m. POST 723**

\*The speaker is a candidate for a faculty position in the Department of Oceanography.