

Data Management Plan

The proposed work will generate biological and chemical data from a suite of laboratory-based experiments and field sampling. Biological data generated from this project will include sequence data, quantitative PCR data and biological materials. Chemical data will include macronutrient (nitrate+nitrite, nitrite, ammonium, phosphate, silicate), micronutrient (iron and other trace elements) and iron speciation (iron(II) and organic iron-binding ligand concentrations and conditional stability constants) data.

Macronutrient and speciation samples will be stored in -20 °C freezers in the Buck lab at the University of South Florida (USF). All filters and DNA extracts will be stored at -80 °C in the Breitbart lab. Host cultures will be maintained as glycerol stocks at -80 °C and phage stocks will be stored in the dark at 4 °C. Experiments will be performed with all phage and host isolates to ensure the optimum method of preservation since this can vary between isolates. All refrigerators and freezers with samples will be linked to emergency backup power and have alarm notification systems.

All data generated from this project will be organized in electronic spreadsheets stored on local and backup servers, as well as in USF's Box program online in order to ensure data is protected from local server failures. Results from this project will be disseminated in a timely manner through presentations at scientific meetings, peer-reviewed journal articles, and outreach activities.

Upon publication, all experimental and field data, along with associated metadata, will be submitted to the Biological and Chemical Oceanography Data Management Office (BCO-DMO). These data sets will be made freely available online from the BCO-DMO website (<http://bcodmo.org>) and archived permanently at the National Oceanographic Data Center (NODC) database (www.nodc.noaa.gov). PI Buck has experience with this data system, which maintains the data from her U.S. GEOTRACES and CoFeMUG iron speciation studies.

Finally, once published, biological materials generated by this project will be made available to other researchers upon request as long as sufficient quantities exist. We will keep NSF abreast of our compliance with data management through our annual reports.