

Data Management Plan

The PIs in the project are well aware of the needs for sharing of scientific information and will include multiple activities to provide unrestricted access for other researchers and the public as final results are available. Information generated by this project will be made available to other investigators through the NSF preferred archival arrangements.

This proposal includes both a shipboard field component to measure in situ nutrients and biogeochemical rates as well as a manipulative experiments component. The types of data to be collected include shipboard measurements of hydrography and hydrographically resolved concentrations of a suite of dissolved and particulate carbon, nitrogen and phosphorus compounds. We will also be measuring biogeochemical rate data (including nitrogen uptake, primary production and photochemical production) collected along cruises transects during vertical profiles. In addition, apparent quantum yield measurements will be made at coastal and inland stations. Other environmental data will be collected during CTD casts and these include: salinity, temperature, pH, concentrations of nutrients (nitrate, nitrite, ammonia, phosphate and silicate), chlorophyll *a*, pigment concentrations and particulate N and C concentrations. Each sample will have a unique identifier and associated metadata (e.g. cruise, station, depth, date, etc.). As samples are processed and data are generated they will be loaded into spreadsheets and backed up. PIs will submit all the physical, chemical and biological data collected through this project to the designated National Data Centers (<http://www.nodc.noaa.gov/>) within the time frame suggested by NSF.

We will also work with the staff of the Biological and Chemical Oceanography Data Management Office (BCO-DMO, see below) to manage our data and data generated during this project. BCO-DMO staff will provide additional assistance to coordinate interactions with other repositories that are natural locations for archival and access of some of our expected data. We will communicate with BCO-DMO staff to discuss details associated with each of our data types and define protocols for producing appropriate data format, documentation of quality control, and metadata with BCO-DMO before our field campaigns. In addition, we will make data from e.g. physiological experiments available via our laboratory websites in a timely fashion and no later than one year after concluding the experiments.

All the data will be stored on PI's computers and backed up automatically on a daily basis. Results will be made available through multiple outlets, including PI websites, which have links to presentations and publications and contact information for specific requests. PIs will meet annually to discuss research progress including data sharing activities. Annual reports will include the progress on the dissemination of data and research products.