

## Data Management Plan

Lead PI Fu will lead the data management effort with support from the coPIs, technician, graduate students, and postdoctoral researcher. All data collected during this laboratory-based culturing and experimental effort will be securely stored in multiple redundant formats (hand-written lab notebooks, backed-up files on discs/hard drives) indefinitely in the PI's offices. Duplicate back up drives will also be stored at locations off campus including at USC's High Performance Computing Center cluster.

Three general types of data will be produced from this project: 1. Culture experimental physiological and biogeochemical data, 2. Field data, and 3. Model output.

We will work closely with the Biological-Chemical Oceanography Data Management Office (BCO-DMO: <http://www.bco-dmo.org/>) to ensure that data used in our analyses and outcomes from our experiments are publicly available and in accordance with NSF guidelines, including formatting and metadata content.

All biochemical material produced will be stored at -20 or -80 °C, as appropriate for the sample type. Phytoplankton samples will be stored in 4% buffered glutaraldehyde. A database containing the location of all materials will be maintained for use by all PIs and submitted with the data to BCO-DMO. Access to data will be given once the data is quality controlled and published. Availability will be in accordance with NSF guidelines for data accessibility.

Mean monthly output from the model simulations generated during this project will be made publically available through BCO-DMO immediately after publication of the results. The model output will be uploaded as NetCDF files and will meet BCO-DMO's formatting requirements. A project website will be created that will describe the project and findings, and will direct researchers interested in downloading the model simulations to the BCO-DMO data system.

As we have always done in the past, we will continue to make the results of our work available to the marine science community through timely peer-reviewed publications and professional meeting presentations. Our budgets contain publication and travel funds that will cover the costs of free access publication and oral and poster presentations at professional venues such as the Gordon Research and ASLO Conferences.