

DATA MANAGEMENT PLAN

The overall goals of the proposed Data Management Plan are: 1) to promptly publish significant findings in appropriate peer-reviewed journals and with authorship that accurately reflects the contributions of participants, 2) to make data available to other researchers at minimal expense and within a reasonable time, 3) to carefully archive any samples and materials collected and to make these available to other researchers whenever possible, 4) to share methods developments, software or other innovations that are useful to the scientific community.

The proposed work will result in multiple data sets generated either by in situ sensors, by water sample analyses in the laboratory, and by experimental incubations. We will create data sets for chemical, biological, and biochemical parameters during the two research cruises. This work will not generate any samples for long-term archiving. The data collected will be used to describe the ecological and biochemical effects of the treatments. All data will be developed using standards accepted by the scientific community and as depicted in our earlier publications, some of which are cited in the Project Description. We do not foresee that our data will result in any issues of privacy, security, confidentiality, intellectual property, or other rights or requirements as described in NSF documentation. If such issues arise, privileged or confidential information will be released only in a form that protects the privacy of individuals and subjects involved. Any laboratory data will be entered into spreadsheets for analyses prior to publication and presentation to the scientific community, and metadata describing them will also be generated. Our typical laboratory practice is to attach descriptive, metadata worksheets to all spreadsheets developed in the labs. As such, specific user requests can be handled at minimal cost because our organizational efforts during data development will prevent responses from requiring significant further time investment. We will present and publish these data as soon as possible. Publication will constitute our primary means of data sharing, though user-specific requests for more detailed data will be granted as appropriate. Many journals will publish Supplementary data along with the primary article. We have used this as a mechanism to widely disseminate data, and we will continue this practice. We anticipate publication of these results within a year of their generation. Publication authorship will be determined as data sets reveal their stories, and priority will be given to graduate students for first authorship when feasible.

Data processing, management, and sharing

The cruise data will be deposited in the Biological and Chemical Oceanography Data Management Office (BCO-DMO) (<http://www.bco-dmo.org>), the primary data facility where marine biogeochemical and ecological data and information developed in the course of scientific research can be disseminated, protected, and stored for short and intermediate time frames. We will work with representatives of BCO-DMO to generate commonly defined field names, generating metadata, and will complete this process within 2 years of the project end.