

Data Management Plan

1. Types of Data, Formats, & Standards

A. Operational data and metadata about the conduct of the project. These data will be maintained in physical notebooks according to standard lab practices. Digital copies will be produced and maintained as analyses occur.

B. Organismal phenotypic data (HPLC and PE/PC pigment data, absorption spectra, photosynthesis and growth rate data). Collected in standard laboratory notebooks, or in digital files produced by analytical equipment. These data will be deposited in the Biological and Chemical Oceanography Data Management Office (BCO-DMO) archive as soon as possible, but will be embargoed until the associated manuscript is published.

C. RNAseq data. Metadata about the production of RNAseq data will be maintained in laboratory notebooks and digital description files produced by sequencing facilities. RNAseq data, both raw and processed, will be maintained in standard sequence file formats, and provided to RNAseq data repositories (Gene Expression Omnibus at NCBI). Data storage hardware will be dedicated to maintaining operational copies of the data during the project.

D. Other Sequencing data. Metadata about the production of other sequence data (nucleomorph genomes, amplicon sequencing) will be maintained in laboratory notebooks and digital description files produced by sequencing facilities. Raw and processed data will be maintained in standard sequence file formats, and provided to data repositories (Genomes and NCBI). Data storage hardware will be dedicated to maintaining operational copies of the data during the project.

E. Field site data, including locations, times, and environmental parameters of sampling. Collected in standard laboratory notebooks. These data will be deposited in Dryad (freshwater) and BCO-DMO (marine) as soon as possible, but no later than 2 years after the data are collected.

2. Data storage after the grant ends

A. Physical notebooks and binders of biological and assessment data will be maintained in the PI's and co-PI's labs for at least 10 years after publication.

B. Molecular, organismal, and field data will be deposited in permanent public repositories as described above.

3. Data dissemination and availability after the grant ends.

A. Most publication venues we are likely to use require deposition of data in to public repositories and we will use the repositories recommended by the publisher (most likely NCBI and Dryad). Biological Oceanographic data will be uploaded to the BCO-DMO web site.

B. Nucleic acid sequence data will be publicly available through NCBI.

C. Metadata not available through other means will be available from direct request to the PI.

4. Policies for Data Sharing and Public Access

A. All finished sequencing data and associated metadata will be made available by the PI at the time of publication. (Data will already be uploaded into public databases as described above).

B. All finished organismal data and standard associated metadata will be made available by the PI at the time of publication. (Data will already be uploaded into public databases as described above).

C. All finished field data and standard associated metadata will be made available by the PI at the time of publication. (Data will already be uploaded into public databases as described above).

5. Roles and responsibilities

A. All participants will be responsible for recording data and maintaining its integrity under ordinary standards for the Responsible Conduct of Research.

B. The PIs will be responsible for overall data storage, archiving, and public dissemination. However, the PI will delegate authority to distribute data to project participants as needed.

C. Contingency for departure of key personnel. Physical copies of the data will not be allowed to leave the PI's lab (or co-PI's lab, as appropriate). Passwords protecting digital data copies will be kept in a secure location by the PI.

6. Permits

A. No collecting or import permits are required.

7. Special considerations for LTER data

A. All field data produced from the Northern Lakes LTER site will be archived and made available in accordance with policies and facilities of the LTER site.

8. Patents

A. No aspect of this Data Management Plan shall be construed as limiting the patent rights of the University of South Carolina or the participating investigators beyond provisions in the NSF Standard Patent Clause.