Data Management Plan

The overall NSF philosophy of data management and dissemination is embodied in the NSF Award and Administration Guide (AAG):

Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing.

We are committed to follow this policy throughout the project duration and beyond.

1. Types and Format of Data and Metadata

Field Collections – Three main types of data will be collected: (1) field measurements of biotic variables for seagrass primary production estimates, (2) surveys of artificial reefs and photographs of coral for surface area estimates, and (3) field measurements that include fish community visual surveys on artificial reefs over time. Field measurements will be recorded in waterproof notebooks and entered into Excel spreadsheets daily. Fish surveys will be recorded on waterproof paper and entered into Excel spreadsheets the same day they are conducted in the field. Photographs used to assess coral surface area will be downloaded daily, stored as JPEGs. All files will be backed up on the field laptop, an external hard drive, and uploaded to UM Box - a cloud-based storage system run by the University of Michigan (UM) after new entries are made.

Laboratory Analysis – Seagrass growth rates and coral fragment surface area estimates via visual imaging (ImageJ software) will be the primary data collected in the laboratory at UM. These measurements will be recorded directly into Excel spreadsheets, and files will be backed up on the lab computer, an external hard drive, and uploaded to UM Box after new entries are made.

Metadata – Metadata will be prepared in accordance with the Biological and Chemical Oceanography Data Management Office (BCO-DMO) conventions (i.e. using the BCO-DMO metadata forms) and will include detailed descriptions of collection and analysis procedures.

2. Access to Data and Data Sharing Practices and Policies

Following NSF policy, complete datasets will be provided to BCO-DMO no more than 2 years after collection. The project investigator will work with BCO-DMO data managers to make project data available online in compliance with the NSF OCE Sample and Data Policy. Data, samples, and other information collected under this project will be made publicly available without restriction once submitted to the public repositories.

3. Policies for Re-Use, Re-Distribution

All policies regarding re-use and re-distribution will follow guidelines of the BCO-DMO office. Any questions we have regarding re-use or re-distribution will be resolved with that office.

4. Archiving of Data

In addition to depositing data with BCO-DMO, our lab will maintain its own long-term archive on external hard drives for at least 10 years.