Data Management Plan

In this project, the PI and Co-PIs will have full responsibility of the management and retention of the research data. These data will comprise a range across broad categories including metadata pertinent to biological measurements and genetic information associated to the response of the coral holobiont (host, *Symbiodinium* and associated microbes) to thermal stress and bleaching conditions. All the results of the proposed research will be disseminated via publication in peer-reviewed journals, presentations at national and international conferences, popular press interviews, and public presentations.

Integration of Data -- The Project's workflows include plans to integrate newly biological data with existing databases such as the Biological and Chemical Oceanography Data Management Office (BCO-DMO). Genetic data from the genotyping of samples will be integrated with the National Center for Biotechnology Information (NCBI) GenBank database.

The PI and Co-PIs are committed to providing data to other content providers upon request. Back-ups will be made monthly of all new digital content. It is reasonable to expect that the web portal linked on the PI's website would permit searches of study specimens, physiological and genetic data, abiotic factors, method and time of collection, method of preservation, and locality of sampling. And it is reasonable to expect that search result options would include sortable lists, tab-delimited files for download (and import into Excel, for example), a map showing the distribution of samples within coral nurseries and wild reefs, and a page of image thumbnails.

Types of data and samples to be produced in the course of the project --
Data will include photo-physiological, *Symbiodinium* biomass, growth, survivorship, and genotypic (DNA sequences) data.

In the field: Coral tissue samples, growth measurements, and digital photos.

Standards to be used for data and metadata format and content -- The PI and Co-PIs have ongoing research programs that accede to requirements for safety, subcontractual agreements, reporting requirements at various levels, and adherence to those of the National Science Foundation.

Plans for archiving data, samples, and other research products in a timely manner, and for preservation of access -- The proper preparation or storage of observations and samples for future research needs have all been standardized. The PI and Co-PIs will be responsible for their data archiving to identify, photograph, archive, process, and preserve the samples as needed for future research. The PI will keep frozen samples, and DNA extracts in his lab. Digitalized physiological data and DNA sequence in FASTA format, will be archived on the PI's external hard drives.

Policies for accessing and sharing data -- The PI and Co-PIs are fully supportive to provide reliable data appropriate for the various objectives involved in the project as soon as possible, and supply of the data and metadata to appropriate federal repositories upon completion of research-based, peer-reviewed publications. The sharing of metadata will be as transparent as scientifically possible. They will be made available on the PI's website (http://imageslab.fiu.edu). There will be no ethical and privacy issues associated with our data. There will no be any permission restrictions placed on the data. As soon as papers have been accepted for publications, they will be uploaded to the PI's website, or a link will be provided if a journal article is copyrighted. All the data generated in this study will be available from the PI upon request.