

Data Management plan

i. Types

This project would generate four types of data, all of which would lend themselves to archiving and sharing. (1) Physical and chemical data pertaining to treatment conditions in mesocosms, flumes, and In-water flume systems, as well as on-reef assays for DIC parameters, (2) archived data relating to the identity and phenotypes of cultivated lineages of corals and algae in the two common garden experiments, and (3) experimental (process-oriented) data from tests of short- and long-term effects of OA on the phenotypic traits of corals and algae, and (4) synthetic data arising from modelling efforts to couple organismic responses to population and community-levels effects.

ii. Standards to be used for data

This proposal will build on the strong recent history of sharing data through the MCR-LTER, NCEAS, and EPOCA sites. Through these efforts, we have considerable experience in developing relational databases (with metadata) that can be readily utilized by others. Additionally, we have designed QA/QC procedures that flag data based on the likelihood they are incorrect and mark them for further evaluation.

iii. Policies for access to and sharing data

Following NSF policies, we will make all project-related data available on publically accessible servers within 12 months of data collection. The exceptions to this rule will be data related to graduate thesis projects, which will not be made available until 12 months following graduation.

iv. Policies and provisions for re-use, redistribution, and production of derivatives

Users of our data will only be provided access to the data after they have digitally signed a data use agreement that stipulates the requirements for acknowledgement and contact with the lead PI.

v. Archiving and access to data

Over the last 8 years, the Carpenter and Edmunds labs have had a strong and well-developed policy of sharing data through web-accessible systems. The best developed of these has come through the Moorea Coral Reef LTER (<http://mcr.lternet.edu/data/>) which hosts all aspects of the Moorea database. The data from the present project will be archived on the MCR site and published data sets will be assigned a DOI for ease of access and matching to published deliverables.

In addition to these existing means for archiving our data, we will also exploit an in house system at CSUN (http://scholarworks.csun.edu/northridge_xmlui) and the BCO-DMO system developed by NSF (<http://bcodmo.org>).