

Data Management plan (2 pages)

i. Types

This project would generate three types of data, all of which would lend themselves to archiving and sharing. (1) The fieldwork would generate a large quantity of population- and community-level data on the soft corals of St. John. These data would take the form of colour images, field censuses for abundance, and retrospective analyses of photo quadrats for abundance of soft corals 1987-present; (2) Physical data quantifying underwater flow, light, and temperature regimes at multiple sites; and (3) results of process-oriented analyses designed to test hypotheses such as the effect of soft coral “forests” on coral recruitment beneath the canopy.

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 (for example, because % cover changes to an unrealistic extent between years) and marks 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 7 years, the Edmunds lab has 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 Edmunds LTREB award has benefited greatly from this system, and at the end of 2010, the first phase of the St. John project went “live” on the MCR server (<http://mcr.lternet.edu/vinpl/>). While this is a work in progress, it demonstrates the progress that has been made in making 25 y of LTREB data publically available. A significant portion of this data will also be used in the current award, and the new data will be added to the LTREB system (see letter of support from the lead PI of the MCR award). In additionally, throughout 2010-2012 I co-organized an NCEAS working group focused on the topic “coral reefs of the future” and one product of this working group has been several databases in the knb system that describe coral community structure over time (<http://www.nceas.ucsb.edu/projects/12595>); a large portion of the St. John LTREB data are in this system already. Finally, other projects in my lab are contributing shared data to EPOCA (<http://epoca-project.eu/index.php/what-do-we-do/science/bibliography.html>), Dr. Jeremy Jackson and his ongoing work with the IUCN

(contact: Ms. Vivian Lam), and Dr. Greg Mitchell at SIO who is developing a computer-based image analysis system capable of automated analysis of digital images of benthic communities.

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>).