

DMP for Temperature Regulation of Top-Down Control in a Pacific Upwelling System

Data Policy Compliance

The project investigators will comply with the data management and dissemination policies described in the *NSF Award and Administration Guide* (AAG, Chapter VI.D.4) and the *NSF Division of Ocean Sciences Sample and Data Policy*.

Description of Data Types

The types of data that will be collected include: (1) community pattern data (e.g., fish community composition) collected via *in situ* video and SCUBA count surveys, (2) environmental data including temperature, nutrient concentration, light, and pH (from dataloggers at field sites), and (3) experimental data (algal biomass, urchin grazing rate and metabolism, algal metabolism and other respirometry measurements, algal tissue N, primary productivity, etc.).

Data and Metadata Formats and Standards

All field data will be stored as xlsx files. Metadata will be prepared in accordance with BCO-DMO conventions (i.e. using the BCO-DMO metadata forms) and will include detailed descriptions of collection and analysis procedures. Metadata will include date, time, latitude, longitude, site name, field condition, and the reference page to the electronic field notebook as well as the link to the GitHub repository where all R code and outputs, used in the analysis of the data will be stored.

Data Storage and Access During the Project

The investigators will store project data (spreadsheets, videos, ASCII files, images, field notes in txt format) on laboratory computers backed up: 1) daily using Apple Time Machine to an onsite external hard drive, 2) immediately to the Dropbox cloud server, 3) the projects GitHub repository (https://github.com/johnfbruno/Galapagos_NSF.git), 4) by UNC Biology Department's IT staff.

Mechanisms and Policies for Access, Sharing, Re-Use, and Re-Distribution

All information and materials generated by this project will be disseminated in accordance with University and NSF policies. We will adhere to and promote the standards, policies, and provisions for data and metadata submission, access, re-use, distribution, and ownership as prescribed by the BCO-DMO Terms of Use (<http://www.bco-dmo.org/terms-use>). All data will be freely shared and made available on the PI web site <http://johnfbruno.web.unc.edu/data/>, via GitHub, and archived and shared through the Biological and Chemical Oceanography Data Management Office (BCO-DMO). We plan to make much of the data available immediately and all of it freely available six months after the completion of the project. There are no ethical or privacy issues concerning the content or release of the data. The data is not covered by copyright and will not be licensed. All data will be released and openly shared free of charge and there will be no restrictions on re-use and redistribution.

Plans for Archiving

The PI will work with BCO-DMO to ensure that project data are submitted to the appropriate national data archive.