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RAPID: Understanding thresholds and regime shifts in marine ecosystems: effects of the 2014-2015 El Nino in the Galapagos rocky subtidal

Data Management Plan

Meta data collected during this NSF RAPID project will posted so that it is available to the public in timely fashion in compliance with the Division of Ocean Science Sample and Data policy (NSF 2011). As with data from our most recent NSF award, this will be accomplished by creating a website with the assistance of WHOI's Biological and Chemical Oceanography Data Management Office (BCO-DMO) http://bco-dmo.org/ .

1. Expected Data. The principal types of expected data from this project include the following components:

a. Ocean temperature data documenting the ENSO period from 24 locations (12 sites, 2 depths per site; 6 and 15 m) in the central Galapagos Islands during August 2014 – July 2015.
b. CTD profiles from 12 sites including salinity, temperature, depth data taken during January and July 2015 depicting the effects of ENSO on water column stratification and upwelling
c. Data on the abundance (percent cover) of barnacles in photo transects at the beginning and end of the project.
d. Data on the abundance of barnacles (counts) recruiting to 10 x 10 cm plates during the sampling periods.
e. Raw data on the frequency of bleached corals in the coral transects during the 3 sampling periods.
f. Assuming that the bleaching occurs, data on changes in coral colony size and mortality in experimental conditions where bleached corals with and without barnacle colonists are exposed to predatory and grazing fish

We do not plan to collect biological samples.

2. Data Format. Data will be distributed in the common format *.csv files. All files will be accompanied with metadata indicating the location, time and depth of data collection.

3. Access to Data and Data Sharing Practices and Policies. Data collected under the project will be made widely available to the public according to the BCO-DMO guidelines. Since the temperature and CTD profile data do not require considerable analysis, they will be posted before the conclusion of the project. Due to the high replication of the ecological sampling (12 sites x 3 time periods) extensive analysis is

required to work up data on the abundance and recruitment of barnacles and the frequency of coral bleaching. These data will be posted on the project website no later than two years after the time of the data collection according to BCO-DMO's specifications.

4. & 5 Policies for Re-Use, Re-Distribution and Archiving. Data will be archived and stored as Excel .csv files to ensure long-term readability via WHOI's Biological and Chemical Oceanography Data Management Office. In addition, some of the data will be published as appendices accompanying scientific journal publications. These additional data sets will be maintained according to the archiving standards of journals (i.e.http://esapubs.org/archive/default.htm)