

Data Management and Dissemination

During the course of this study, we will produce four types of data/products. First, we will create model code that should be applicable to a broad range of species that exhibit stage structure under environmental variability. Second, we will generate detailed demographic data across environmental and experimental disturbance gradients. These data will be first recorded onto standardized data sheets, then will be entered and saved in computer spreadsheets for analysis. Where appropriate (our analysis, publication of data), these data will be converted into column-formatted ASCII files; the lack of program-specific formatting commands makes this the most adaptable file type for analysis programs as they evolve through time. Finally, our results will yield detailed temperature dynamics and wave wash information across exposure and tidal gradients. These data are saved immediately onto data loggers, and the data then transferred as ASCII files to computer for further analysis.

Aside from standard publication in the peer-reviewed literature, we will use four means of making our data accessible: through the University of Chicago, through the National Oceanographic Data Center (NODC), through Data Dryad, and through GitHub. At the University of Chicago, the PI is guaranteed server space via the Biological Sciences Division Information Services (BSDIS). The BSDIS is the primary technology provider for biological and medical sciences at the U of Chicago and is committed to providing this service. The PI has also developed a University of Chicago website, partially supported by the NSF, which includes overviews of the core projects and publications from the grant, and on which the PI will post data sets or links to published data (voices.woottonlab.uchicago.edu). NODC is an updatable archive relevant to marine systems, which is overseen by NOAA. We will post our high-resolution temperature dynamics data on this site as other coastal oceanographers and marine biologists who use this site may find this information of value. Data Dryad is a common archiving program for data used in many publications. We will post demographic data to this site, or to a similar archiving site sponsored by publishing organizations (e.g. *Ecological Archives* for data published by Ecological Society of America journals). Finally, we will post relevant computer code for modeling and analysis to GitHub, which is a common repository for these types of products. The PI has a record of posting data to these sites in the past (see References, <http://voices.woottonlab.uchicago.edu>). To the extent that the core datasets can be interposed among archives, we will do so to increase visibility. We will post the core data sets collected in the project within two years of the conclusion of the project, or sooner when they are associated with publications.

Links to these data storage programs are and will be available on my website. Posting data on the PI's website provides a central point where multiple subsets of data can be integrated, while circumventing the need to shoehorn data sets of different structures into the same file with a highly complex format. However, the existing web-based resources are independent of both the PI's website and academic department and will thus serve as a stable and long-term means of making the data accessible to a wide community.