

Data Management Plan

Data in the proposed project fall into three categories: (1) information from thermal tolerance trials and physiological and biochemical data, (2) molecular biology data associated with gene expression analysis (e.g., RNA sequencing), and (3) environmental temperature collected by ONSET tidbit temperature loggers. All data will be released within data within 2 years of collection and/or generation.

For the project, we propose to use the following Data Management Plan:

- (1) Environmental Data Initiative (<https://environmentaldatainitiative.org/>) will be used as a repository for the thermal tolerance trial data, the LT₅₀ data and any relevant physiological data and metadata.
- (2) Data from experiments on gene expression will be deposited in the NCBI Gene Expression Omnibus (<http://www.ncbi.nlm.nih.gov/geo/>). Finalized metadata will accompany these depositions; metadata will be placed for short-term information use on the PI's web site.
- (3) For all aspects of the project, data and metadata for all aspects of the project will be submitted BCO-DMO according to NSF policy.
- (4) All temperature data will be archived and managed as per the data management plans for the SBC LTER group. The SBC LTER data management plan is in compliance with LTER Network standards to provide high-quality and well-documented data collections, secure and easy data access through data catalog on the SBC LTER website, as well as contributions to the long-term data products by integrating with prevailing SBC research.
- (5) All Data will be stored on the server space in the Marine Science Institute at UC Santa Barbara (UCSB), in addition to dedicated hard drives in the Hofmann lab at UCSB. Data on the MSI server will have a full backup once a month and an incremental backup every day.

Data management activities for the project will be coordinated by the PI with assistance from all project participants. In addition, we intend to follow established procedures regarding the publication of physiological and genomic/transcriptomic data pursuant to the standards of the publishing journal. These archive details will be included in annual reports for the project.