

## **Data Management Plan**

***Types of data and samples:*** This project will generate several types of data and samples including (1) dried tissue samples from more than 400 marine organisms and particles from the Pacific, (2) amino acid nitrogen isotope analysis of approximately 240 samples of marine organisms (particles, zooplankton and micronekton) and carbon isotope analysis of amino acids of 66 samples of sinking and suspended particle samples (3) nitrogen and carbon stable isotope analysis for those samples and an additional ~200 zooplankton and micronekton (4) specimen capture records (GPS location, date, time, effort expended and all body measurements) and environmental measurements (e.g., water temperature, pH, salinity, light) from and (5) quantitative trawl information (volume filtered, depth profile, location etc). Samples and subsamples will be physically archived in appropriate locations (e.g., freezers, climate-controlled facilities) for subsequent (re)analysis in PIs' laboratories.

***Data and Metadata Standards:*** Data quality will be assured through proper analysis of replicate samples, certified reference materials, and blanks/controls. Our quality control protocols are stringent and we will discard data that do not meet all requirements. Data will also be archived in multiple locations, including hard copies, laboratory computers, and cloud-based servers. All data will be compiled in a commonly-used database management program, and metadata and primary data will be submitted to archiving data repositories as appropriate.

Experimental data and observations not appropriate for archiving in national data repositories will be reported in peer-reviewed publications, either as tabulated data in the publication or in supplementary data tables. Where appropriate, data will also be made available on laboratory websites for download. To increase accessibility to project data and the dissemination of our research findings—particularly among scientists from developing countries—we will make every effort to publish our results as open-access articles or within open-access journals. Ph.D. or M.S. theses associated with the project will also be made available electronically.

***Data Sharing, Reuse and Redistribution Policies:*** We will share and archive data collected as part of this research project in compliance with the Division of Ocean Science Data and Sample Policy. Underway data collected aboard ship will be made available as soon as possible after each cruise by depositing it in the National Oceanographic Data Center database. All data will be publicly available within six months of the project end date. There are no ethical and privacy issues with the proposed data. The dataset from this project will not be copyrighted.

***Policies and provisions for re-use, re-distribution:*** All data from this project are considered within the public domain for all not-for-profit uses and there will be no permission restrictions placed on use of the data.