#### **Data Management Plan**

Our data management plant is based on the requirements details in the NSF Grant Proposal Guide.

# 1. Types of Data and Other Materials Produced

This project will produce isotopologue data, which will include bulk- and clumped-isotope compositions at various depths and locations in the Pacific. It will also produce laboratory data relating to the determination of isotopic fractionation factors. A simplified numerical model of the N. Pacific ocean basin will be constructed, and model outputs for various hypothetical diffusive-advective-reactive transport scenarios will be generated to test the hypothesis set forth in the proposal.

#### 2. Standards for Data and Metadata

Isotopic data and model code will be preserved as annotated text files and/or comma-delimited .csv files. Data quality will be in accordance with published uncertainty ranges.

## 3. Data Access and Sharing Policies

There will be no special privacy, confidentiality, security or property rights restrictions that would apply to any data collected by this project. All ocean isotopologue data will be made available as per NSF guidelines as soon as manuscripts are published. They will be made freely available with the published manuscripts as supplementary information.

# 4. Policies for Re-Use, Re-Distribution, and Production of Derivatives

For the proposed project, no policies beyond those common to using previously published data (i.e., citing the original work) are imposed on the collected data or code modifications.

#### 5. Data Archiving and Preservation

Isotopic data and model code will be stored on Crate, University research storage solution, Rice Box, a University cloud-backup service, and the Rice Digital Scholarship Archive based on the DSpace open source software platform. The primary archive will be the Biological & Chemical Oceanography Data Management Office (BCO-DMO; <a href="www.bco-dmo.org">www.bco-dmo.org</a>) at the Woods Hole Oceanographic Institution, as well as published papers and associated on-line supporting documents in peer-reviewed, international journals.