

DATA MANAGEMENT PLAN

1. Data Description

The proposed work involves two cruises to the California Borderland: Santa Barbara Basin and Santa Monica Basin. Each cruise will generate a series of geochemical samples from the uppermost 3-4 m of the sediment column. Analyses of these samples will largely take place in the PIs' laboratories after each cruise is completed. Porewater samples will be analyzed for: dissolved carbon (organic, inorganic, methane) and their C-isotopic signatures, sulfate, total sulfide, alkalinity, ammonium, total dissolved Fe, organic acids (e.g., acetate), pH, Ca, and Mg. Each profile will consist of approximately 30 depth intervals, and at least two profiles will be collected per station. We will also analyze sediment solids for total and organic C, total N, total S, S speciation, reactive Fe, and porosity. Bottom water and surface water samples will be collected from the water column and analyzed for organic and inorganic dissolved carbon and their isotopic composition. An advection-diffusion-reaction model will be constructed and used to simulate the geochemical data.

2. Standards for Data and Metadata Format and Content

All PIs involved in this project will be responsible for the data that s/he generates directly. Lead PI Komada will organize the overall project dataset, and work with the staff from the Biological and Chemical Oceanography Data Management Office (BCO-DMO) to manage the data, and the data set will be made available online from their data system (<http://bco-dmo.org/data/>). Data and metadata will also be published in peer-review journals in text, graphical and tabulated forms, as appropriate.

3. Policies for Access, Sharing and Archiving of Data and Samples

Data and metadata will be published in peer-review journals in text, graphical and tabulated forms. They will also be presented at national and international conferences, and seminars at academic institutions and in outreach events aimed to the lay public.

In compliance with the OCE General Data Policy, geochemical data will be made available no later than 2 years after the analyses are complete. These data will be made available at no cost to the requester. Model scripts will also be made available via PI Burdige's website, and as electronic annexes to published papers, as appropriate.

Solid-phase samples will be frozen and archived for future use. Selected pore water samples will be similarly archived, either frozen or refrigerated. In the past, such samples, that are not set aside for future analyses, have been made available to other researchers, for a wide range of scientific purposes. We will continue this practice here.