Data Management Plan

A shipboard computer will record in-situ sensor data, including pCO_2 and related physical data (temperature, salinity, etc.), in real time as individual files. We will also collect and log discrete water samples for later lab analysis (approximately 25-30 samples collected per estuary during each survey). Sensor data will be processed with Matlab and assembled as an ASCII file in NASA Seabass format. Discrete samples will be analyzed by several types of instruments in various labs, where and the data will be recorded in lab notebooks and copied into an Excel spreadsheet.

For short-term storage, data will be stored in redundant locations on and off site and synced nightly (storage includes Co-PI's computer, an external hard drive, and UNH Box cloud storage). The combined size of all data files for this project is projected to be 100MB. Additional metadata, including sensor calibration and specifications, analytic procedures and calibrations, and cruise summary information, will be saved with the data as .txt files.

In-situ pCO_2 data and related physical data will be submitted to the Carbon Dioxide Information Analysis Center (Coastal Carbon Data project) at Oak Ridge National Laboratory. This will expand the CDIAC pCO2 database for critically important coastal and estuarine ecosystems. The unique dataset of estuary and coastal T-Alk, DIC, pH, pCO2, O-Alk, nutrients, DOC, Ca^{2+}, B, and pK_a's will be submitted to the NSF Biological and Chemical Oceanography Data Management Office (BCO-DMO) with related physical data. Appropriate associated oceanographic data will also be submitted to the National Centers for Environmental Information (formerly the National Oceanographic Data Center).