

## ***Data Management Plan***

**Title:** Environmental consequences of expanded recruitment of an ecosystem engineer on a hypoxia-influenced continental shelf

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### I. Types of data/samples

**Grab stations:** Latitude, longitude, depth, time, and penetration depth for box cores plus latitude, longitude, depth, and time for associated CTD casts.

**CTD data:** CTD are stored onboard the CTD until downloaded to a PC. Each cast is offloaded as an individual raw data file. These files are batch processed and eventually the bottom value of each cast is taken from each individual file and entered into a .csv file using a Python script.

**Eddy Covariance benthic landers:** Latitude, longitude, depth, time and duration of deployment.

**Gravity cores for incubations:** Latitude, longitude, depth, time and penetration depth.

**Sediment:** Sediment samples from the box cores will be stored in jars under refrigeration on board the vessel and then in the Henkel lab at HMSC until processed. One subsample from each jar will be used for grain size analysis and a second subsample will be used for TOC/TN analysis. The remainder of the sediment is retained in the fridge until publication.

**Organisms:** Organisms collected via box core will be stored frozen (ghost shrimp) or preserved. They will remain in the Henkel lab post-cruise during sorting and enumeration of major taxonomic groups. Jars of worms, molluscs, and crustaceans will be mailed to the contracted taxonomic experts. Voucher labels with the metadata for each jar will also be provided. These individuals will return the identification and count data in spreadsheets via email. The contracted taxonomic experts will create vouchers of each identified species labeled with the species ID and sample metadata. The Henkel lab will create vouchers of any species that were not sent to contracted experts.

### II. Data and Metadata Standards

**Deployment data:** Grab, core, and EC lander deployment data initially will be stored in Excel spreadsheets and made into an ArcGIS point shape file.

**Box core sample data:** The Henkel lab maintains an Access database with all metadata and data from all box cores collected by the lab. The working version of the database is stored on a PC in the lab and is backed up regularly to OSU's "Box" cloud data storage.

### III. Policies for access and sharing and provisions for appropriate protection/privacy

**Project Team:** The PIs and students involved will maintain a secure, shared, computerized data archive via OSU's "Box" data storage interface with a detailed index of sub-folders to document all project documents, cruise plans, sample and instrument collections, methods, data processing scripts, photos, purchases and model results.

Archival storage and sharing: Project biological community analyses of box cores from the Oregon shelf, as well as eddy covariance data, coordinated CTD casts, and analyses of water-column samples and incubated sediment cores will be contributed to databases made available through the Biological & Chemical Oceanography Data Management Office (BCO-DMO), <https://www.bco-dmo.org/>. Following practices Reimers began under prior projects, eddy covariance data contributions will be in the form of quality assured, minimally processed records. That is, velocity, pressure, temperature and dissolved oxygen time-series measurements will be posted after removal of noise spikes and reduction from 64 to 8 hz records. Metadata will include information on time and position of deployments, sensor details, and contact information. Derived fluxes and other derived parameters will also be archived or made available through linked publications. Links to additional data sources (R2R, OOI, etc) will be incorporated as appropriate.

IV. Provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements

There are no privacy concerns.

V. Policies and provisions for re-use, re-distribution

We do not envision any permission restrictions on the data once the embargo periods have passed.

VI. Plans for archiving and Preservation of access

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