

DATA MANAGEMENT PLAN

Data and metadata collected under the project, “Collaborative Research: Zooplankton Mediation of Particle Flux in the Sargasso Sea”, will be served and archived through a number of repositories, including the Biological and Chemical Oceanography Data Management Office (BCO-DMO), EcoTaxa, GenBank and other dedicated repositories.

We will work with BCO-DMO members to publish and link our analytical data characterizing the biodiversity and biogeochemical contributions of the community in a timely fashion, compliant with the requirements of the Division of Ocean Sciences Data and Sample Policy. Molecular, processed image data and metadata will be stored separately (see below), but these datasets will be cross-listed on BCO-DMO so that all outcomes of the project have a centralized repository. We aim for public release of the data within 2 years of collection.

All PI's maintain a continuous backup of their laboratory computers using various online or institutional backup facilities at their respective locations. They will maintain project specific data on a business class Dropbox drive. Data backups will further be maintained throughout the project on external hard drives and archived on BIOS's 96TB enterprise class storage array at the end of the project.

Specific plans for particular data types include:

1. **Hydrographic Data from BATS**: Metadata for chemical and physical data from seawater samples collected during hydrographic casts concurrent to sampling will be supplied in association with the BATS time series (<http://bats.bios.edu>) which are supplied to BCO-DMO. Furthermore, Physical and hydrographic data from BATS are deposited at OceanSITES: <http://www.whoi.edu/virtual/oceansites/>
2. **MOCNESS hydrographic data and metadata**: raw and processed files will be supplied to BCO-DMO. Final datasets will be given a DOI that will be cited in all associated publications.
3. **Zooplankton counts and biogeochemical contributions**: Abundance counts, biovolume calculations and inferred biogeochemical contributions will be stored in BCO-DMO. Final datasets will be given a DOI that will be cited in all associated publications.
4. **Sequence data**: Raw and processed sequence data will be archived with GenBank (NCBI). Upon conclusion of analyses, more heterogeneous datasets combining molecular, temporal, and spatial information will be submitted to DRYAD Data Repository or similar. The project codes for these repositories will be included in associated publications and the link will be posted to BCO-DMO.
5. **Image data**: Image data from ZooScan will be archived with EcoTaxa in the form of processed vignettes and will be posted to BCO-DMO. Original scans (raw images) of each sample will be directly posted to BCO-DMO. Processed images of the scanned gels, isolated aggregates from particle traps, fecal pellet and roller tank experiments will also be posted to BCO-DMO.
6. **Educational component**: The elements of videographic educational content will be developed by the Ask-A-Biologist team at ASU together with BIOS' Development Department. These educational vignettes will reach tens of thousands of students and teachers through the Ask-A- Biologist website. The digital library and species guide will be developed by Co-PI Noyes and will be disseminated via BIOS's webserver and the physical library will reside in the campus teaching lab. This library and guide will be available for

courses such as Invertebrate Biology, Modern Observational Oceanography, and Marine Biology as well as for teacher training events.