Biological Oceanography Program Data Inventory Request

The Biological Oceanography Program is required to provide oversight for data compliance for projects we support. Compliance with data sharing policies needs to be a priority consideration from the beginning of the project because when compliance is deferred to the end of project, the results are often inadequate. In addition, the types of data generated within ocean sciences are changing rapidly and we need an effective way to support data requests and cyberinfrastructure. We hope this Data Inventory Request will provide a platform to make compliance with data policy more manageable throughout your project and allow NSF to improve infrastructure accessibility with this aspect of research.

The following statements reiterate important points covered in the Division of Ocean Science Data and Sample Policy that we feel need emphasis and clarification:

- You have an obligation to provide both inventory metadata and primary data within specified time limits (section III, A). The data policy now specifies marine environmental data, but with increasing use of genomic based approaches (see section VI, D) there is a much wider range of data that should be reported and shared. Clearly, there are measurements and observations that are neither practical nor useful to regard as data to be openly shared. However, we do expect an adherence to the overall data sharing philosophy (section II) and a pragmatic approach to achieving these objectives.

- We expect you to address data sharing issues in annual and final reports (Section IV), and we will return reports not addressing progress with data compliance.

- The Biological and Chemical Oceanography Data Management Office (BCO-DMO) was created to serve PIs funded by the NSF Biological and Chemical Oceanography Sections as a location where marine biogeochemical, ecological and oceanographic data and information developed in the course of scientific research can easily be disseminated, protected, and stored on short and intermediate time-frames. We encourage use of this supported facility (this updates information in Appendix II, B and C in NSF 04-004).

Data Inventory – Please outline the data to be collected as a part of your project and your plans for sharing and/or eventually archiving the data. The following is an example of the type of information we would like you to provide:

1) Hydrographic and other oceanographic data from cruises. Metadata will be reported in UNOLS cruise report and posted on PI web site; final data will be supplied to NODC. Other standard oceanographic data such as phytoplankton primary productivity, HPLC pigments, etc. can also be reported and submitted in a similar fashion.

2) More “unusual” data such as species identification and counts, feeding rates etc. can be provided as meta data on PI web site and finalized data supplied to BCO-DMO data management facility.

3) Genomic data will be deposited in NCBI data bases.

If you think your project does not require data sharing, please explain.

Outline of data to be obtained in Consequences of Sea Star Wasting Epidemic proposed research project:

The overall data management framework for this project will involve the use of BCO-DMO as the primary metadata catalog and where appropriate, data storage and access portal. The core data management objectives will be to archive and make accessible data sets from ecological and experimental studies as coupled, cross-referenced data resources. Depending on data type and standards, metadata and data will be hosted by BCO-DMO, the PISCO database (http://www.piscoweb.org), and Data One. For datasets that are not directly hosted by BCO-DMO, access will be provided through web links made available through the BCO-DMO portal. BCO-DMO will submit metadata and data to the NODC for long-term archiving as per policy. Data to be collected will include temperature from intertidal sensors, densities and sizes of predators, abundance of prey, and recruitment of sessile invertebrates. We will also continue to document the changes in sea star wasting.

1. Ecological data. Metadata describing the ecological results from lab and field experiments on sea stars and whelks will be placed on the PISCO website. Finalized metadata will be provided to the BCO-DMO data management facility.

2. Intertidal thermal sensors. Intertidal temperature will be collected over the course of this project. These data will be made available on the PISCO data portal within 1 month or 1 year of collection, depending on the dataset.

3. Outreach. Material relating to public dissemination of wasting syndrome, including publications, podcasts, any available recorded lectures, microdocumentaries, film and TV appearances when available and any other recorded media will be made available on the PISCO data portal.