

DATA MANAGEMENT PLAN

Data produced during the course of this project:

- Acoustics data from animals feeding in captivity, fixed hydrophones and animal-borne hydrophones (.wav)
- Video footage of animals feeding in captivity (.mp4)
- Video footage and imagery of benthic sampling in Bermuda and Florida (.mp4, .jpeg, .tiff)
- ArcGIS based data interpolations of movement trajectories/paths, spatial interpolation raster imagery (.mxd, .shp, .tiff)
- Spreadsheets/databases of field notes on animal sizes, location/acoustic detection data, etc. (.xlsx, .accdb)
- Depth/temperature/acceleration/gyroscope/magnetometer sensor data, time and calibration files from Loggerhead AMX (.DSG, .CAL,.txt)

Upon award notification, we will immediately contact the Biological and Chemical Oceanography Data management Office (BCO-DMO) and register our project by submitting applicable project metadata.

Standards to be used for data and metadata format and content

All data collection will be documented by metadata and subject to Quality Assurance (QA) and Quality Control (QC) procedures. The QA/QC will, at the minimum, adhere to national and/or international standards (depending on the type of data) where appropriate. The QA/QC will be the responsibility of the PI because they are most familiar with their data, the standards required, and the sensors used. Metadata will all follow the same standards and will be Federal Geographic Data Committee (FGDC) compliant. At the minimum, they will include the location and time the data have been collected, the instrument used, and the data type. Consistent with the "NOAA IOOS Data Integration Framework" recommendations, the standards employed will include those for various formats, and image formats.

Biological and environmental data will be transcribed from field notes into database software on project-dedicated computers after cessation of field operations. Data generated during laboratory work on collected specimens (e.g. species identification, biometric data), will be transcribed manually and entered into digital repositories. All project personnel will maintain the highest standards of data access, maintenance, and quality assurance/quality control; QA/QC will be performed using manual and automated techniques. Additionally, there will be plain-text README documents to describe the data. All data collected will be backed up to a secure password protected server FAU-HBOI as soon as possible for permanent backup to tape in a hurricane safe bunker (updated daily).

Policies and procedures for data access and sharing

The Division of Ocean Sciences requires that metadata files, full data sets, derived data products and physical collections must be made publicly accessible within two (2) years of collection. This includes software and derived data products (e.g., model results, output, and workflows). As per this policy, we will share all products related to animal distribution collected in the field and associated environmental data with the Ocean Biogeographic Information System Spatial Ecological Analysis of Megavertebrate Populations (OBIS-SEAMAP) within two years Federal management purposes. Scientists or entities requiring access to these data prior to two years after collection can make a formal request to the PI.

Policies and provisions for re-use and re-distribution

The research team anticipates data generated from this project will be widely distributed throughout multiple disciplines, leveraging websites, digital archives, and open access peer-reviewed publications in ecology, fisheries science, marine biology, oceanography, and other related disciplines. Researchers who may wish to make extensive use of the data are required to contact the creator(s) prior to beginning their work and to cite the data in subsequent publications

in accordance with the style appropriate to their discipline and are asked to include the Digital Object Identifier.

Plans and timelines for archiving

The PI of this project will handle the data management with their partners and their host agency. He will handle all aspects of electronic data collection and archiving, as well as be responsible for submission of this data to national data centers such as NODC, BCO-DMO, or OBIS. All data will be backed up on an additional password-protected server, and retained for a minimum of 5 years beyond completion of this project. Beyond this time frame, we will utilize the NOAA NCEI for long-term preservation of our oceanographic and ecological data, which will provide the public access to project data and metadata in perpetuity. Metadata will be available to the NODC and BCO-DMO database within a month after data collection. It is anticipated that the QA/QC process will take no longer than one month, after which time the data will be posted on the internal project database for use within the project.