Plan Overview

A Data Management Plan created using DMPonline

Title: CTD and ADCP Oceanographic data

Creator: Willem Coetzer

Principal Investigator: Thor Eriksen

Data Manager: Thor Eriksen, Willem Coetzer

Affiliation: Other

Template: DCC Template

Project abstract:
  The objective of this project is to collect oceanographic data (mainly conductivity,
  temperature and depth) to contribute to ongoing marine biodiversity research.

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CTD and ADCP Oceanographic data

Data Collection

What data will you collect or create?

A CTD instrument is used to measure conductivity, temperature and pressure directly, and other variables are derived from these (pH, fluorescence, density, depth). Data are collected on a quarterly basis. An Acoustic Doppler Current Profiler (ADCP) is used to measure water temperature, pressure, current speed and direction. Other variables can be derived from these measurements. The Instrument is deployed for 8 months.

CTD and ADCP data are collected in order to gain a better understanding of the physical and chemical driving forces of the ocean and how this affects biological events and processes.

How will the data be collected or created?

Data type	Data collection/storage
CTD and ADCP (sampling)	Deployment of CTDs is done at a downward and upward rate of 1 meter per second. When deploying the CTD it needs to be held at a depth of 1 meter for a period of 1 minute before sending the CTD downward. Sample time is dependent on sample depth. The ADCP units can be deployed in two ways. The one way is to lower the unit over the side of the vessel and secure it in place ~ 1.5 meters below the water line. The sample time is usually 10 minutes long for this method. The other method is to deploy the ADCP in a moored fashion to the ocean floor. The sample time is usually 8 months for this method. Quality assurance when downloading data is carried out according to SOPs.
Naming Data files	Data files are named "DD_MM_YYYY_PROJECT NAME" unless otherwise requested by project leader.
Metadata	Recorded on hard copy sheet during sampling trip and transcribed into Excel template file according to SOPs & named according to unique sample code as mentioned above. Metadata includes position data, time, date, depth and other relevant information.
Calibration files	A CTD and ADCP calibration file is required whenever uploading data. Calibration files are to be kept in the cloud system. Whenever handing over data to the project leads, the calibration files need to accompany the data files. The ADCP and CTD units need to be re-calibrated annually.

Documentation and Metadata

What documentation and metadata will accompany the data?

Metadata collected include the project name, date, time and location.

Ethics and Legal Compliance

How will you manage any ethical issues?

Data sharing agreements put in place should cover consent for data sharing/preservation.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

Data sharing will be postponed to publish

Storage and Backup

How will the data be stored and backed up during the research?

Sufficient storage and requirements?
Datasets are originally stored on mobile hard drives (one primary and one back up copy). Immediately after each sampling trip, the project administrator will ensure data are backed up in a SAIAB restricted-access template folder system. Only a single copy will be uploaded. After quality control procedures have determined that datasets on mobile hard drives and the SAIAB storage system are identical, the mobile hard drive datasets will be deleted.

How will you manage access and security?

Question not answered.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

All data collected during sampling trips are saved in a template folder system on the institute's storage system to ensure data traceability. It is planned to retain complete datasets as the permanent video record has a high reuse value, enabling one to return to datasets and ask new ecosystem, community or species-level research questions. Videos can also be applied for other teaching opportunities etc.

What is the long-term preservation plan for the dataset?

Data Sharing

How will you share the data?

Are any restrictions on data sharing required?

Strict adherence to SOPs and templates with strict quality control procedures in place.

Videos and biodiversity datasets need to be exclusive for a specified time period, depending on the outputs being produced by the platform.

Data sharing agreements will be required.

Responsibilities and Resources

Who will be responsible for data management?

Thor Eriksen is primarily responsible for operational data management. Willem Coetzer is responsible for broad oversight, including initiating relationships with other organisations (e.g. SAEON).

What resources will you require to deliver your plan?

To be confirmed

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