Macroalgal Essential Ocean Variable (EOV) data

Macroalgal Essential Ocean Variable (EOV) data processing and workflow

Macroalgal assemblages (such as the giant kelp forests of south east Australia) are highly productive and biodiverse ecosystems providing critical habitat for coastal marine biodiversity and for humans. These assemblages are vulnerable to global pressures including ocean warming, acidification, pollution, invasive species, and overfishing among other stressors. Macroalgal composition and cover has been identified as an 'Essential Ocean Variable' (EOV) acknowledging its importance as an indicator of coastal ecosystem health.

IMAS will host a global data aggregation point to build the collection necessary for the macroalgal composition and cover EOV and provide transformed data to the Ocean Biogeographic Information System (OBIS), making data accessible to an international audience and increasing potential for new research at a global scale.

A workshop in Hobart, including participants with international representation and relevant technical expertise, will focus specifically on the technical and data management specifications and design to meet the requirements for the processing of data, QA, publishing, transforming and aggregation.

Start date

24 July 2019

Expected completion date

21 October 2019

Investment by ARDC

$49,999

Co-investment partners

Institute for Marine and Antarctic Studies (IMAS)

Global Ocean Observing System (GOOS)

Ocean Biogeographic Information System

University of Pisa

University of Massachusetts Boston

National Autonomous University of Mexico

NESP Marine Biodiversity Hub

Deakin University

Australian Institute of Marine Science

University of Alaska

University of New South Wales

Universidade do Algarve

Lead node

IMAS
INSTITUTE FOR MARINE & ANTARCTIC STUDIES

1. Three day workshop

Run a 3 day marine workshop

2. Develop governance model

Develop a governance model, terms of reference and data management policy for managing the Macroalgal EOV.

3. Create plan of hardware and software infrastructure

Detailed plan of hardware and software infrastructure that will be used to collect, QA, publish and aggregate the data to OBIS.

4. Draft data sharing agreement

Draft data sharing agreement for data contributors (pre legal input).

5. Documented formats

Documented formats required to submit data to the repository.

6. Presentation of project

The results of the project are presented at the ARDC Data and Services Summit.

Core features

Community support and involvement

Strong global representation and support and acknowledgement of the project and its importance from relevant global organisations (GOOS, POGO, OBIS).

A model for global aggregation and transformation of biological data into an EOV

While this has been implemented for physical environmental attributes, this will likely be the first case of disparate biological data in a similar system.

Who is this project for?

- Peak bodies (GOOS, POGO, OBIS).
- Research organisations (universities, including 5 International and 3 Australian, AIMS, CSIRO).
- Infrastructure providers (AODN).
- Researchers globally working with macroalgal assemblages.

What does this project enable?

This project will lead to making data accessible for an international audience and increase potential for new research at a global scale.

Handy resources

- FAIR assessment [PDF 60KB]
- Final Report [PDF 100KB]
- Presentation [PDF 1MB]
- Visit the Australian Institute of Marine Science
- Visit the Institute for Marine and Antarctic Studies

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