

Project Endorsement Form

1. PROJECT TITLE

Full title	Biodiversity assessment of Australia's Indian Ocean Territories
Acronym	IN2021_V04
Website	
Keywords (up to 10, describing the project research)	Marine, Deep-sea, Biodiversity, Benthos, Seamounts, Indonesian ThroughFlow, Phylodiversity, Vulnerable Marine Ecosystems
New initiative or continuing programme?	New Initiative

2. APPLICANTS

Lead applicant / Project Leader / key research contact person:

First name	Tim
Last name	O'Hara
Affiliation	Museums Victoria
Role in the project	Lead Principle Investigator
Postal address	GPO Box 666, Melbourne, 3001
Country	Australia
Telephone	+61383417441
Email address	tohara@museum.vic.gov.au
Institutional or personal website	https://museums victoria.com.au/about-us/staff/dr-tim-ohara/

Other key participants / research team leaders: (repeat as needed)

First name	Alan
Last name	Williams
Role in the project	Principle Investigator
Affiliation	CSIRO
Country	Australia
Email address	Alan.Williams@csiro.au
Institutional or personal website	https://people.csiro.au/W/A/Alan-Williams

N.B.: Please note that all these names and contact details will be added to the IIOE-2 membership database.

3. ABSTRACT– Brief description of the project: (1/4 page maximum)

This will be placed on the IIOE-2 Website after endorsement.

Almost nothing is known about the biodiversity values of Australia's Indian Ocean Territories and Exclusive Economic Zones (IOT) around the remote Cocos (Keeling) and Christmas Islands. This has impeded conservation management and there are no marine parks proposed or designated across these regions. Australia's National Representative System of Marine Protected Areas is therefore incomplete. The fauna

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around the seamounts and islands of the IOT are likely to be different from anything else that occurs in Australia's marine estate. The seamounts occur in the path of the Indonesian Through Flow (ITF) carrying water from the Pacific to Indian Oceans. The seamounts are mostly of late Cretaceous age (65-80 my) and may harbour ancient endemic communities. Seamount communities worldwide are highly vulnerable to disturbance by fish trawling, demersal longlining or mining for cobalt-rich ferromanganese crusts, particularly if they harbour vulnerable coral communities.

This project has been granted 45 days on Australia's Research Vessel 'Investigator' to map and describe the biodiversity values of the territories' EEZs. It will assess the biological relevance of the bioregional scheme previously proposed from oceanographic and geological data using model-based statistics. It will assess the endemism of the fauna, testing whether selected deep-water fauna of the Indian Ocean are endemic or connected to the western Pacific. This work will assess the conservation significance of the seamount fields, including the presence of vulnerable marine ecosystems (VMEs) such as mesophotic and cold-water coral beds. An important focus of the voyage will be the communication of the biodiversity values of the area to the broader community through an extensive media program.

4. LINKS TO IIOE-2 SCIENCE PLAN: (1/2 page maximum)

How do you anticipate your project to contribute to the IIOE-2 strategy and science delivery, with reference to which (either one or more) of the six IIOE-2 Science Plan themes that your project responds. Please state the specific issues and questions addressed by your project in the context of the IIOE-2 Science Plan themes and key issues.

The voyage will contribute to the following IIOE-2 science strategy theme:

6. Unique geological, physical, biogeochemical and ecological features of the Indian Ocean

Specifically it will address a) how do the physical characteristics of the Indonesian ThroughFlow and Southern Indian Ocean Gyre influence the biogeography and ecology of seafloor animals in the NE Indian Ocean, and b) how the physical, biogeochemical and ecological effects of shallow seamounts and ridges in the Indian Ocean need to be assessed in relation to their contributions to Indian Ocean biodiversity.

5. INTERNATIONAL COLLABORATION(S):

Is the project part of a related multi-national activity? **NO**

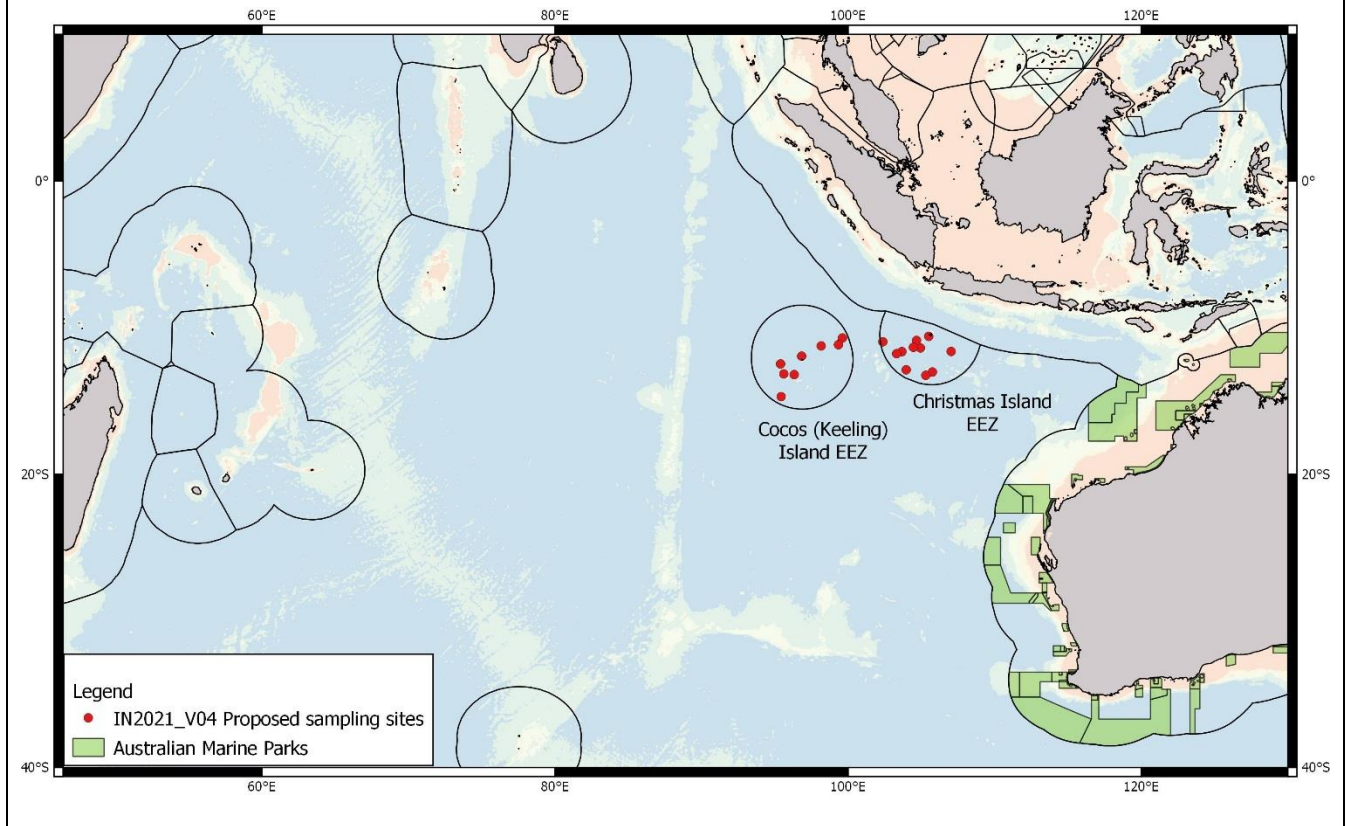
If No, would you welcome international collaboration in your project? **YES**

6. REGION(S) OF STUDY

Provide a description of 'where' the research is to be conducted (for field based activities) and/or the region or regions to which the research pertains (you are encouraged to consider providing either the coordinates of the area of studies or the coordinates of the planned cruise tracks, as well as a figure as an addendum to your proposal).

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Australia's Indian Ocean Territories, including the Cocos (Keeling) Islands and the Christmas Island Exclusive Economic Zones, in the region of 10-15°S, 94-108°E.



6. TIMETABLE OF THE PROJECT

Start date: 13 June 2021	End date: 29 July 2021
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7. LINKAGES WITH OTHER PROJECTS / PROGRAMMES / INITIATIVES

Is the project part of a related national or multi-national activity?

If yes, provide the related activity title and website for reference, if available:

No

Is your project part of, or affiliated to, another SCOR, IOC or IOGOOS activity or project?

If "yes", please indicate which activity or project:

No

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Perth Australia Node
IOC Perth Programme Office
c/o Commonwealth Bureau of Meteorology
3rd Floor, 1 Ord Street
West Perth, Western Australia, 6005, Australia.
Phone: +61-8-92262899
Email: iioe-2@bom.gov.au

<http://www.iioe-2.incois.gov.in>

Hyderabad India Node
Indian National Centre for Ocean Information Services
(INCOIS)
Pragathi Nagar
Hyderabad, Telangana 500 090, India.
Phone: +91-40-2388 6142
Email: iioe-2@incois.gov.in

8. DATA MANAGEMENT AND SHARING

1. Will new data be collected as part of this project (yes or no?)

New data will be collected.
New seafloor mapping data will be uploaded to the AusSeabed Atlas.
New biodiversity data will be uploaded to the Atlas of Living Australia.
New genetic data will be uploaded to publically accessible global databases and archives.

2. Contact information if any, of the person in charge of the data management from whom the metadata can be accessed by interested IIOE-2 stakeholders.

Please note that for all IIOE-2-endorsed projects, IIOE-2 will have developed its own metadata portal. Once the project is endorsed, the project leader will be asked to provide the metadata information of the project.

Dr Tim O'Hara

3. Recognizing the need for an initial period of exclusive data use, would you be willing to provide timely access to all data generated under this project and associated metadata in accordance with relevant national and funding agency data sharing policies? **YES/NO**

9. FUNDING

Please note that IIOE-2 strongly encourages funded/resourced projects. However, IIOE-2 may endorse projects yet to receive funding/resourcing if IIOE-2 endorsement can be clearly shown to significantly aid in prospects for funding/resourcing.

Has funding and resources to successfully achieve and undertake the project been obtained? Indicate the sources of funding and resources that have been approached and/or secured.

Ship time has been fully funded. Operational funds are currently being negotiated with the Australian Government.

10. BENEFITS FROM IIOE-2 ENDORSEMENT (1/4 page maximum)

Specify why you are seeking endorsement and how the activity would benefit from endorsement, and how the IIOE-2 SC could assist in the implementation of your project.

IIOE-2 endorsement will be a recognition of the contribution of the Australian Government to the greater understanding of the ecology and conservation requirements of the Indian Ocean. The IIOE-2 endorsement is also a framework for negotiating potential international collaboration in the project. There is potential for the project to negotiate berths for early career biodiversity researchers from the wider IIOE-2 community.

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11. OPTIONAL: OTHER COMMENTS/INFORMATION/MATERIAL (*length and detail may be at the discretion of and as deemed necessary by the applicant*)

Please feel free to provide any other comments, information or materials that you feel relevant to your proposal for the IIOE-2 Steering Committee's information and benefit. You may provide this as general information or provide the additional comments/information/materials as relevant to any of the specific Sections above.

3 March 2020

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