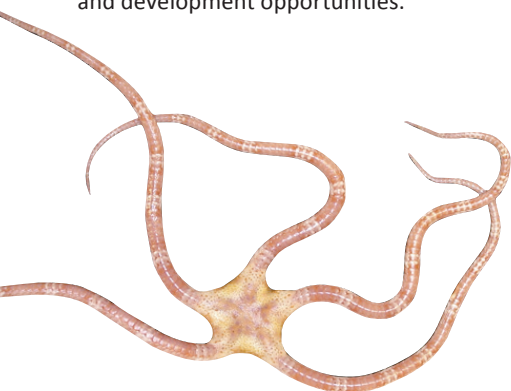


The Marine Biodiversity Hub is a national marine research collaboration supported through funding from the Australian Government's National Environmental Research Program. The Hub aims to:

- 1. Build strategic capacity and collaboration between marine research agencies; and**
- 2. Support the Department of Sustainability, Environment, Water, Population and Communities in accessing timely and relevant information to support evidence based management.**

The Hub establishes an unparalleled research capacity in Australia's marine biodiversity research drawing together the knowledge and skills from seven research partners, including: the Australian Institute of Marine Science, Charles Darwin University, CSIRO, Geoscience Australia, Museum Victoria, University of Tasmania – Institute of Marine and Antarctic Studies and University of Western Australia.

This capacity is enhanced by collaboration with a broad range of marine research institutions and agencies, such as the Integrated Marine Observing System, Australian Ocean Data Network, universities, conservation and fisheries agencies and the oil and gas industry. The Hub also invests in developing the next generation of scientists through provision of PhD scholarships and development opportunities.



The Hub is providing the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) with new evidence and options to help fulfil its responsibilities under the Environment Protection and Biodiversity Conservation Act 1999, in particular the implementation of marine bioregional plans and management of the Commonwealth Marine Reserve (CMR) networks. This will be accomplished through four tightly integrated national research themes:

## THEME 1

**National Monitoring, Evaluation and Reporting** is contributing towards two blueprints: (1) for a sustained national environmental monitoring strategy to evaluate marine ecosystem health, and; (2) for a sustained monitoring strategy to help manage the Commonwealth Marine Reserve Network (focusing on the Southeast Marine Region). We are facilitating closer liaison between federal agencies such as DSEWPaC, Bureau of Meteorology, and Department of Industry, Innovation, Science, Research and Tertiary Education, and state agencies responsible for the management of Marine Protected Areas (MPAs), to identify the data infrastructure requirements and logistical/statistical constraints of a sustained national marine monitoring strategy.

## THEME 2

**Supporting Management of Marine Biodiversity** is providing methods and tools to value marine biodiversity, identify threats and cumulative impacts, and evaluate and provide guidance on the effectiveness of management tools to meet conservation objectives in a multi-jurisdictional and multi-sectoral environment. Tools and options are designed to add value to existing management processes, including

implementing marine bioregional plans and assessing and managing listed species under the EPBC Act. Our goal is to provide scientific advice that can be used by conservation and resource management agencies, thus supporting a shared understanding of the environmental and economic values, and options for monitoring and management.

## THEME 3

### **National Ecosystems Knowledge**

is providing a better understanding of linkages between seabed physical features and ecological processes that sustain important areas for marine biodiversity including Key Ecological Features (KEFs), will estimate and test connectivity between these important areas and those areas being actively managed for biodiversity conservation (e.g. CMRs), and provide the long-term perspective on biodiversity dynamics to inform future management under climate change. The research will support implementation of Marine Bioregional Plans by providing new data, maps and interpretations (e.g. inputs to the Marine Conservation Atlas) to inform assessments under the EPBC Act.

## THEME 4

### **Regional Biodiversity Discovery to Support Marine Bioregional Plans**

is addressing regional knowledge gaps in Northern Australia, identified as a Departmental priority in recognition of the global marine biodiversity significance of these regions, and the rapidly increasing pressures facing them. A broad suite of physical and biological data will be collected by an interdisciplinary team from Australian Institute of Marine Science, Geoscience Australia, Museum Victoria, and the University of Western Australia using a diverse set of data collecting methods.



# NERP MARINE BIODIVERSITY hub

THEME 1 National Monitoring, Evaluation and Reporting Keith Hayes (CSIRO)		THEME 2 Supporting Management of Marine Biodiversity Tony Smith (CSIRO)				THEME 3 National Ecosystems Knowledge Scott Nichol (GA)		THEME 4 Regional Biodiversity Discovery to Support Marine Bioregional Plans Julian Caley (AIMS)
1.1 Collation and analysis of existing data sets  Keith Hayes, CSIRO	1.2 Analysis of approaches for monitoring biodiversity in Cwth MPAs  Keith Hayes, CSIRO	2.1 Integrating social, economic and environmental values  Sarah Jennings, UTAS	2.2 Integrating threats, values and assets for management  Piers Dunstan, CSIRO	2.3 Landscape approaches to managing high priority conservation values  <i>Task 1</i> – High Conservation priority species (Tony Smith CSIRO) <i>Task 2</i> – Marine benthic priority (Roland Pitcher CSIRO)	2.4 Supporting management of listed and rare species  Peter Kyne, CDU	3.1 Shelf and canyon ecosystems – functions and processes  Scott Nichol, GA  <i>Task 1</i> – Data discovery <i>Task 2</i> – Data analysis and synthesis	3.2 National maps of connectivity and biodiversity  Tim O'Hara, MV  <i>Task 1</i> – Maps <i>Task 2</i> – Datasets for sharks, rays, teleosts	4.1 Twenty-one day RV <i>Solander</i> Survey  Andrew Heyward, AIMS
CSIRO, UTAS, UWA,AIMS,GA	CSIRO, UTAS, UWA, GA	CSIRO, UTAS, UWA	CSIRO	CSIRO, UWA	CDU/NT Fish, CSIRO	GA, UWA, AIMS, CSIRO	MV, AIMS, CSIRO	AIMS, GA, MV, UWA

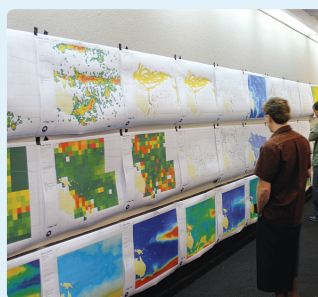
Find out more in the Marine Biodiversity Hub Newsletters: [www.nerpmarine.edu.au](http://www.nerpmarine.edu.au)



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no substitute . . .



Predicting the success of  
predator eradication . . .



Mapping marine conservation  
in the South Pacific . . .



Spinning knowledge to  
and from the Hub . . .



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The NERP Marine Biodiversity Hub is supported through funding from the Australian Government's National Environmental Research Program, administered by the Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC). Our goal is to support marine stakeholders in evidence-based decision making for marine biodiversity management. Stakeholders include DSEWPAC, the Australian Fisheries Management Authority (AFMA), the Australian Petroleum Production and Exploration Association (APPEA) and the Integrated Marine Observing System (IMOS). (July 2012)