

A blueprint for monitoring management outcomes and environmental health of Australian Commonwealth waters

The Australian
Government has been
working with CSIRO and
the NERP Marine Biodiversity
Hub to develop a sustained,
cost-effective, environmental
monitoring system to assess
the Commonwealth Marine
Reserve (CMR) network and
the environmental health of
Commonwealth waters.

The system aims to document the management outcomes of the CMR network, and report on a select suite of ecosystem health indicators for Key Ecological Features (KEFs), identified by the Australian Government for their high biodiversity and productivity value.

CSIRO and NERP scientists have canvassed Australian specialists to develop conceptual models that predict how KEF indicators will respond to various anthropogenic pressures. These models, together with the ecosystem's response to CMR management, will provide the basis for testing scientific predictions, assessing ecosystem health, State of the Environment reporting and management planning.

Technical aspects of the monitoring strategy are being tested in pilot studies designed to investigate logistical and statistical challenges. Pilot studies have been completed at the Flinders



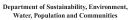
The RV Challenger prepares to leave Hobart on a Marine Biodiversity Hub voyage to trial environmental monitoring techniques in the Flinders Island Commonwealth Marine Reserve. (Image: CSIRO)

Island CMR (SE Marine Bioregion), and the shelf KEF in the vicinity of the Solitary Islands (Eastern Temperate Marine Bioregion). Additional studies are planned at the Houtman-Abroholos KEF (SW Marine Bioregion) in 2013. The first exploratory survey of the Ocean Shoals KEF (Northern Marine Bioregion) was completed in August 2012.



Keith Hayes CSIRO Keith.Hayes@csiro.au



















Further information:

Director NERP Marine Biodiversity Hub Prof Nic J Bax T +61 3 6232 5341 E Nic.Bax@csiro.au



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). (February 2013)