The Australian Ocean Data Network as a tool for supporting management of marine biodiversity

Roger Proctor (1), Piers Dunstan (2), Paul Hedge (2), Natalia Atkins (1), Sebastien Mancini (1), and Nic Bax (2)

(1) University of Tasmania, Integrated Marine Observing System, Hobart, Australia (roger.proctor@utas.edu.au, natalia.atkins@utas.edu.au, sebastien.mancini@utas.edu.au), (2) CSIRO Marine and Atmospheric Research, Hobart, Australia (piers.dunstan@csiro.au, paul.hedge@csiro.au, nic.bax@csiro.au)

The Australian Ocean Data Network (AODN) is a rapidly growing distributed data network bringing together marine data collections from Commonwealth Agencies, Universities, State Governments, national programs and private industry. These data are made publicly available through the AODN portal (http://portal.aodn.org.au), an open source information infrastructure itself downloadable from https://github.com/aodn/aodn-portal. Increasingly, the data collections are multi-disciplinary requiring access to multiple layers of information from different sources. This requires rich metadata to enable the appropriate layers to be discovered and integrated.

Recently, the Marine Biodiversity Hub of the National Environmental Research Program (NERP), funded by the Australian Government Department of Sustainability, Environment, Water, Population and Communities, has commited to making its data publicly available through the AODN. The next 3-4 years provide a key opportunity to fundamentally change the way we monitor marine biodiversity throughout Australia. The Hub collaborates with the Department and stakeholders to understand ecosystems and biodiversity especially in Northern Australia. Key outcomes will include better methods for measuring ecosystem health and Marine Protected Area (MPA) performance, more management options, and increased understanding of marine biodiversity and ecosystem functioning, leading to improved monitoring and management of marine biodiversity and listed species in Australia.

The ability to bring together the wide range of data necessary to fulfil the Marine Biodiversity Hub's aims represents a challenge for the AODN. This will be illustrated through a test case based on marine park requirements.