

Craig Johnson: Building the eResearch Marine Science Information Infrastructure

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Abstract

The talk will introduce the Australian Oceans Data Network (AODN) and two large associated projects, namely the BlueNet and the eMII initiatives. The AODN is a distributed data hosting and delivery infrastructure which provides a one-stop shop for marine science researchers. It encompasses data from all sectors, i.e. government, academic, public and commercial, but most of the hosting nodes are within the Australian Oceans Data Centre Joint Facility. The AODN is a sustainable and extensible solution based on standards, interoperability, and customized data management for particular marine science data streams. It provides the tools and services needed for end-to-end dataflows, and the associated transitions between data, information and knowledge.

BlueNet is a new Australian Marine Science Data Management initiative funded by DEST through the SII program, and builds on the vision of the AODN. Aimed at optimising use of the marine science research output from Australian Universities, BlueNet is establishing sustainable processes for better managing marine science data currently languishing in the academic and related sectors. This is a multipronged strategy, building and facilitating a data-sharing culture as well as developing and delivering the infrastructure, through the AODN, that is needed to effectively manage, describe and deliver heterogeneous marine science data. BlueNet offers universities a distributed data archiving, hosting and delivery solution which maximizes data discovery and re-use. The infrastructure includes tools and standards-based services that ensure interoperability, and provide customized discovery, downloading, visualization and manipulation of data.

The eMII (eMarine Information Infrastructure) project is the data management component of the NCRIS-funded Integrated Marine Observing System (IMOS). eMII will further build on the AODN, harnessing the AODN to facilitate management of the considerable diversity and volume of marine science data flowing from IMOS over the next 5 years.

About the speaker

Craig Johnson is the Professor of Zoology at the University of Tasmania. He is a marine ecologist who studies the dynamics and evolution of temperate and tropical reef ecosystems. His work covers a broad spectrum from empirical to theoretical, and includes the development of strategies for the management of reef and other marine communities. Professor Johnson chairs the Steering Committee for the Southern

Surveyor Marine National Facility, is a board member of the Australian Ocean Data Centre Joint Facility, leads the BlueNet Project and the eMII (eMarine Information Infrastructure) Project, and is a lead member of the international Modeling and Decision Support Working Group of the Coral Reef Targeted Research Project, which aims to design decision support systems for managing coral reefs worldwide. His research is published in over 70 peer-reviewed publications, including two edited books.

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