

Southwest Pacific Ocean IODP Workshop

Sydney, Australia, 9–12 October, 2012



**Australian and New Zealand
IODP Consortium**

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This workshop, to be held at Sydney University, will address global geoscience problems in the Southwest Pacific Ocean by building on existing and new geophysical and geological information including earlier scientific drilling. Its aim is to commence building coherent and well-integrated IODP proposals. The convenors are Neville Exon, Maria Seton and Stephen Gallagher (Australia), Minoru Ikehara (Japan) and Walter Roest (France), with many others in key roles. At this stage IODP-MI and ANZIC funding is assured. More information will be sent to likely participants soon. For more information contact Neville.Exon@anu.edu.au.

This region has had a complex tectonic history, with plate boundary interactions resulting in an assemblage of deep oceanic basins, volcanic arcs, back-arc and fore-arc basins, continental ribbons, and emerged and submerged carbonate platforms. The workshop will identify the global scientific hypotheses and questions in this region that require ocean drilling to resolve them. The region's extensive plateaus and basins can provide crucial sedimentary records to help understand the developing interactions between the tropics and Antarctica, and between the Pacific and Indian Oceans. Furthermore, Australia has been one of the two major land masses undergoing major northward migration during the Cretaceous and Cenozoic (the other being India) with resulting fundamental changes in the tectonic and climate development of Earth and its biota. The workshop themes are:

1) Climate and Ocean Change: Reading the Past, Informing the Future

This will cover questions related to climate and paleoceanographic change in this complex region, on all timescales.

2) Biosphere Frontiers: Deep Life, Biodiversity, and Environmental Forcing of Ecosystems

Almost nothing is known about the deep biosphere in the region, so pioneering studies of both sediments and basalts should lead to exciting results.

3) Earth Connections: Deep Processes and Their Impact on Earth's Surface Environment

The links between surface lithosphere and deep earth processes are of great interest in this tectonically complex region.

4) Earth in Motion: Processes and Hazards on Human Timescales

This region has its share of earthquakes, tsunamis and submarine slides that have impacted on populations and will continue to do so. Targeted scientific drilling will help address some of these hazards.

5) Marine Resources: Opportunities and Responsibilities

What contribution can IODP make to the exploration, characterization and responsible exploitation of marine resources in the Southwest Pacific region and under what arrangements? These resources may include offshore oil and gas, gas hydrates and offshore minerals.