



Transit Voyage ss2010_t02

Deep Water Benthic Biodiversity of the GAB Marine Park

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Contribution to Australia's national benefit:

The Benthic Protection Zone (BPZ) of the Great Australian Bight (GAB) Marine Park was proclaimed in 1998 and consists of a 20 nautical mile wide strip of seabed orientated north to south and extending from three nautical miles from the coast to the edge of Australia's Exclusive Economic Zone, 200 nautical miles offshore. Within this zone, the benthic assemblages are protected from demersal trawling and other potentially destructive human activities.

The BPZ is presently one of fourteen temperate Commonwealth Marine Protected Areas (MPAs) in Australia. These MPAs form part of an integrated strategy for marine conservation and management through the National Representative System of Marine Protected Areas. Conservation of marine biological diversity is the overarching goal of the strategy, but it remains to be determined what biological diversity is being conserved offshore on the seafloor of the BPZ slope. This research voyage addresses this knowledge gap and provides, for the first time, quantitative information on the regional significance and diversity of the deep water faunal communities of the BPZ.

Addressing National Research Priorities:

An Environmentally Sustainable Australia:

- Goal 5: Sustainable use of Australia's biodiversity.
- Goal 7: Responding to climate change and variability.

As a result of this voyage:

1. We have a better understanding of the composition and distribution of the seafloor fauna inhabiting the deep offshore areas of the GAB Marine Park.
2. We have found that the upper continental slope is characterised by a diverse suite of soft sedimentary facies that support rich and varied benthic communities.

3. We have mapped large areas of Australia's upper slope seafloor in greater detail than in any previous study and have uncovered several novel topographic features, including a 200m high volcanic seamount situated at a depth of 2000m within the GAB Marine Park.
4. We have commenced a post-voyage program of biological data analysis to evaluate the regional significance of the GAB Marine Park fauna and to assess the effectiveness of the BPZ in representing deep-slope biodiversity.

Itinerary

Departed Fremantle, WA
17:00 Tuesday 10 August 2010
Arrived Hobart, TAS
11:00, Friday 20 August 2010

> Voyage track ss2010-t02

