

Explore lost worlds of the deep

NORFANZ VOYAGE

10 MAY TO 8 JUNE 2003



Upcoming research expedition to explore the unique life of our deep seas.

If aliens came to earth and asked to see our most common habitat, we would have to take them to the deep sea. Two thirds of the earth is covered by oceans and most of this is away from the shallow margins of the land masses. Despite its huge scale we still know very little about our deep-sea environments and their unique and bizarre inhabitants.

The NORFANZ voyage will explore the life of the deep seas between Australia and New Zealand. Over four weeks from 10 May - 8 June this year, the NORFANZ cruise will explore the seamounts and abyssal plains around Lord Howe and Norfolk Islands through to northern New Zealand.

Australia's National Oceans Office, the body responsible for developing and implementing Australia's Oceans Policy, and the New Zealand Ministry of Fisheries have each committed around \$500,000 to the voyage, which will enhance international collaboration in oceans management. Australia's Commonwealth Scientific & Industrial Research Organisation (CSIRO) and the New Zealand National Institute of Water and Atmospheric Research Ltd are providing scientific support for the voyage.

Seamounts are underwater mountain ranges and pinnacles, the peaks of which rarely reach the surface. Deep ocean currents can concentrate nutrients around seamounts resulting in abundant marine life. Studies elsewhere have found these habitats can contain rich deep-sea coral reefs and sponge fields inhabited by many strange creatures. Commercial harvests of fish aggregations (such as Orange Roughy) on seamounts around New Zealand, off southern Australia and elsewhere in the world have been of considerable economic value. Creatures on these seamounts can be very slow growing and long-lived, many of the fishes and invertebrates living for more than 100 years.

The main objective of the expedition is to provide baseline information on the composition, nature and potential vulnerability of these unique habitats and their inhabitants. Where appropriate such information can be used to protect these ecosystems within marine protected areas, such as those recently established for seamounts south of Tasmania.

The expedition is a unique opportunity to explore these hidden worlds. Elsewhere such deep dark habitats are home to all sorts of bizarre creatures. Fishes with great names like fangtooths, gulper eels, rattails and snotheads. The invertebrates are even more fantastic. This is where giant squid roam, where sea spiders grow to half a metre across and where armour-plated crustaceans wander through forests of bamboo corals looking like giant slaters. This hidden world makes science fiction movies look tame.

Recent seamount explorations further north around New Caledonia found large numbers of animal species new to science. Some were thought extinct for millions of years. Research into these habitats is like exploring a lost valley of the dinosaurs. It is expected that the NORFANZ cruise will uncover many animals new to science.

The findings of this expedition will be posted daily on the NORFANZ website (www.oceans.gov.au/norfanz) between 12 May and 8 June.

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