in brief

Australia's marine jurisdiction extended

Australia's submission for jurisdiction over an additional 2.5 million square kilometres of seabed has been confirmed by the United Nations Commission on the Limits of the Continental Shelf.

'This is a major boost to Australia's offshore resource potential and also to our ability to preserve the marine environment on the seabed,' Minister for Resources, Energy and Tourism, the Hon Martin Ferguson AM MP, said. This decision means Australia now has jurisdiction over an additional area of continental shelf which is approximately the same size as Western Australia.

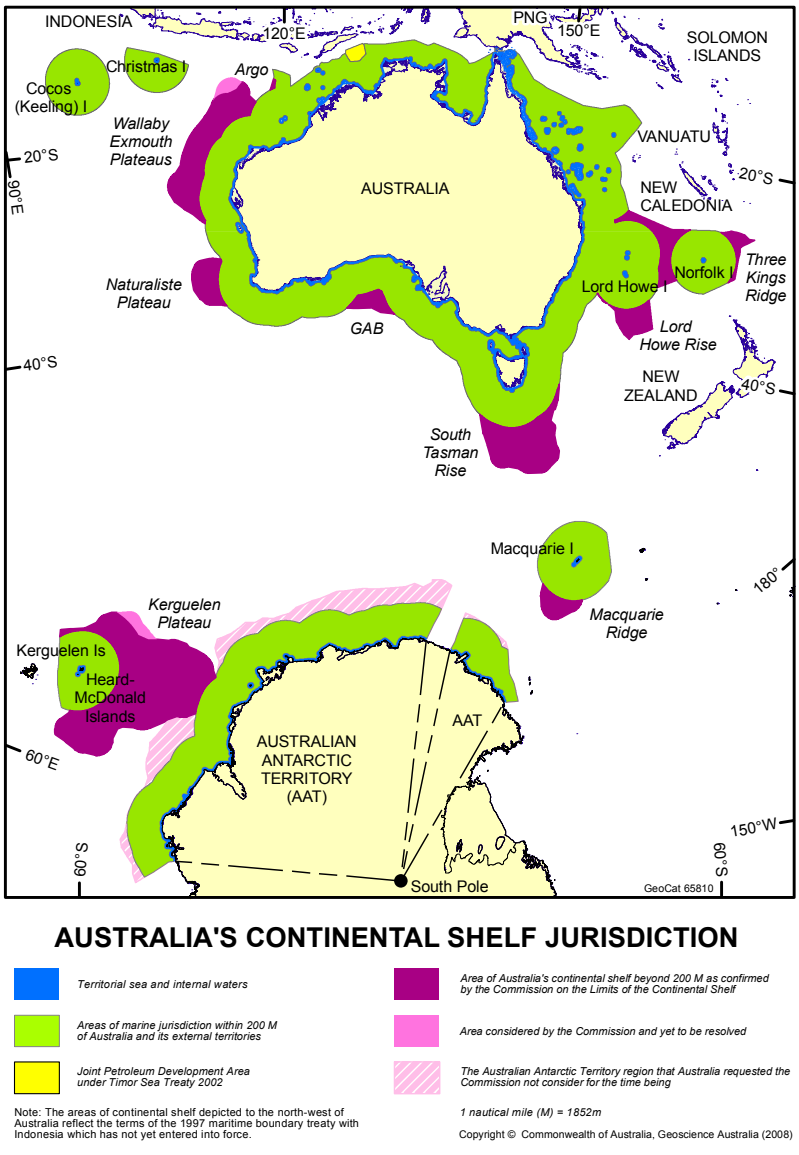
The Commission has confirmed the location of the outer limit of Australia's continental shelf in nine distinct marine regions, which entitles Australia to large areas of continental shelf beyond 200 nautical miles. In these areas, Australia has exclusive rights to what exists on or under the seabed, including oil, gas and biological resources.

The submission was made through a close partnership between Geoscience Australia, the Attorney General's Department and the Department of Foreign Affairs and Trade.

It is the culmination of 15 years of cutting edge work, carried out under Geoscience Australia's Law of the Sea and Maritime Boundaries Advice project.

To support Australia's case Geoscience Australia analysed an enormous amount of new data gathered on 17 marine surveys conducted over eight years in some of the most remote and inhospitable parts of the world's oceans.

Under the 1982 United Nations Convention on the Law of the Sea, the continental shelf extends at least 200 nautical miles from Australia's coastline. Australia is also entitled to the submerged prolongation of its landmass extending beyond 200 nautical miles (the so-called extended continental shelf), to limits defined in the 1982 Convention.



AUSTRALIA'S CONTINENTAL SHELF JURISDICTION

- Territorial sea and internal waters
- Areas of marine jurisdiction within 200 M of Australia and its external territories
- Joint Petroleum Development Area under Timor Sea Treaty 2002
- Area of Australia's continental shelf beyond 200 M as confirmed by the Commission on the Limits of the Continental Shelf
- Area considered by the Commission and yet to be resolved
- The Australian Antarctic Territory region that Australia requested the Commission not consider for the time being

Note: The areas of continental shelf depicted to the north-west of Australia reflect the terms of the 1997 maritime boundary treaty with Indonesia which has not yet entered into force.

1 nautical mile (M) = 1852m

The outer area of Australia's continental shelf. The area beyond 200 nautical miles, as confirmed by the United Nations Commission on the Limits of the Continental Shelf, is shown in purple.

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Related website

Australia's continental shelf confirmed by the Commission on the Limits of the Continental Shelf
www.ga.gov.au/image_cache/GA11214.pdf

in brief

SHRIMP joins hunt for exploration targets

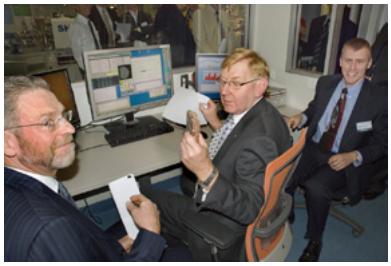
Geoscience Australia's Sensitive High-Resolution Ion Microprobe, or SHRIMP was officially launched by the Minister for Resources, Energy and Tourism, the Hon Martin Ferguson AM MP, at Geoscience Australia on 1 April 2008.

The SHRIMP, which weighs 12 tonnes and measures six metres long, allows scientists to analyse trace elements within individual minerals smaller than a grain of sand. The new facility will significantly increase the amount of high quality data about the age of Australian rocks for resource exploration companies, government geoscience agencies and researchers.

The Minister said 'Australia is developing a sophisticated understanding of how the timing of geological events millions, or even billions, of years ago have produced the mineral and energy resources we depend on today'.

'The SHRIMP will help to increase our knowledge of the geological evolution of the Australian continent, the formation of our mineral and petroleum resources today, and the hidden secrets of our new frontiers' Mr Ferguson said.

A product of 20 years' design and research at the Australian National University, the SHRIMP was built by Australian Scientific Instruments (ASI) in Canberra. SHRIMPs have been exported to laboratories in Japan, the United States and China. ASI and Geoscience Australia have entered into a unique 15 Year agreement which allows ASI opportunities to use the Geoscience Australia facility to test new hardware and software and to conduct customer demonstrations.



After opening the laboratory, the Minister became a part-time geochronologist and dated a zircon mineral from the Mt Neill Granite in the Mt Painter region of South Australia at 1.6 billion years.

Samples collected from New South Wales, South Australia and the Northern Territory have been processed already with some interesting results indicating potential exploration targets.

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Life under the ice

The first recordings of life beneath the Antarctic ice shelves was captured during a recent field expedition carried out as part of the Census of Antarctic Marine Life (CAML), which is a multinational project endeavouring to improve our knowledge of Antarctic marine life during the International Polar Year of 2007/2008.

Underwater video footage captured during this expedition identified live organisms including krill and jellyfish in a cavity below the ice. The cavity began forming at the end of the last ice age, when the ice shelf began to float. This void is now located hundreds of kilometres from the open sea. Researchers suspect that these organisms are feeding from nutrients, swept along in ocean currents.

The video footage captured was not the only evidence of life beneath the sea, with sediment cores containing fossil records illustrating the colonisation of the void. The cores were collected during the Australian Antarctic Division led expedition and were collected using a corer designed and built by Geoscience Australia. The fossil record observed contained successions of microscopic one-celled organism fossils, illustrating that life below the ice has existed for over 9000 years.

Microscope photo of fossil animals recovered from sediment cores taken beneath the Amery Ice Shelf. They include glass sponges, bryozoa, and molluscs (snails).

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