Marine Protection for the New Zealand Subantarctic Islands

A BACKGROUND RESOURCE DOCUMENT

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Introduction

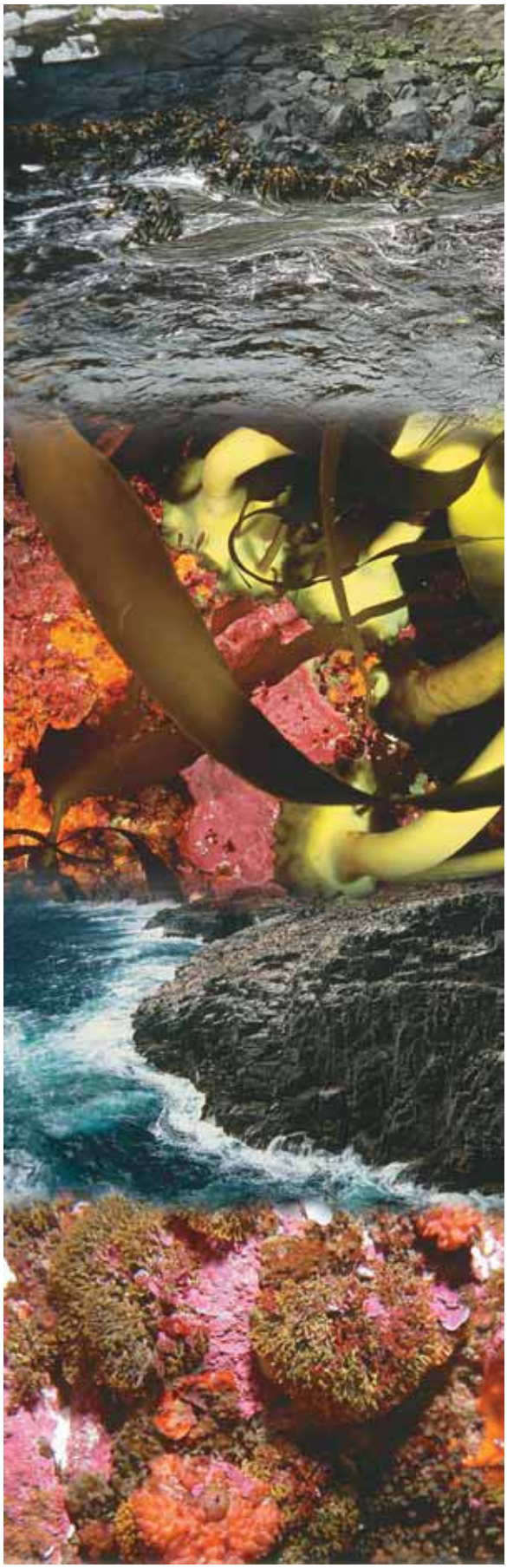
Far off the southern coast of New Zealand, scattered across the Southern Ocean are five island groups we call 'the subantarctics'. These disparate, diverse communities – Snares/Tini Heke, Auckland/Motu Maha, Bounty, Antipodes and Campbell/Motu Ihupuku Islands – together form one of the last bastions of nature on the planet. Now without any human inhabitants, and always to some measure protected by their stormy situation and isolation, they are one of the least modified environments in the world.

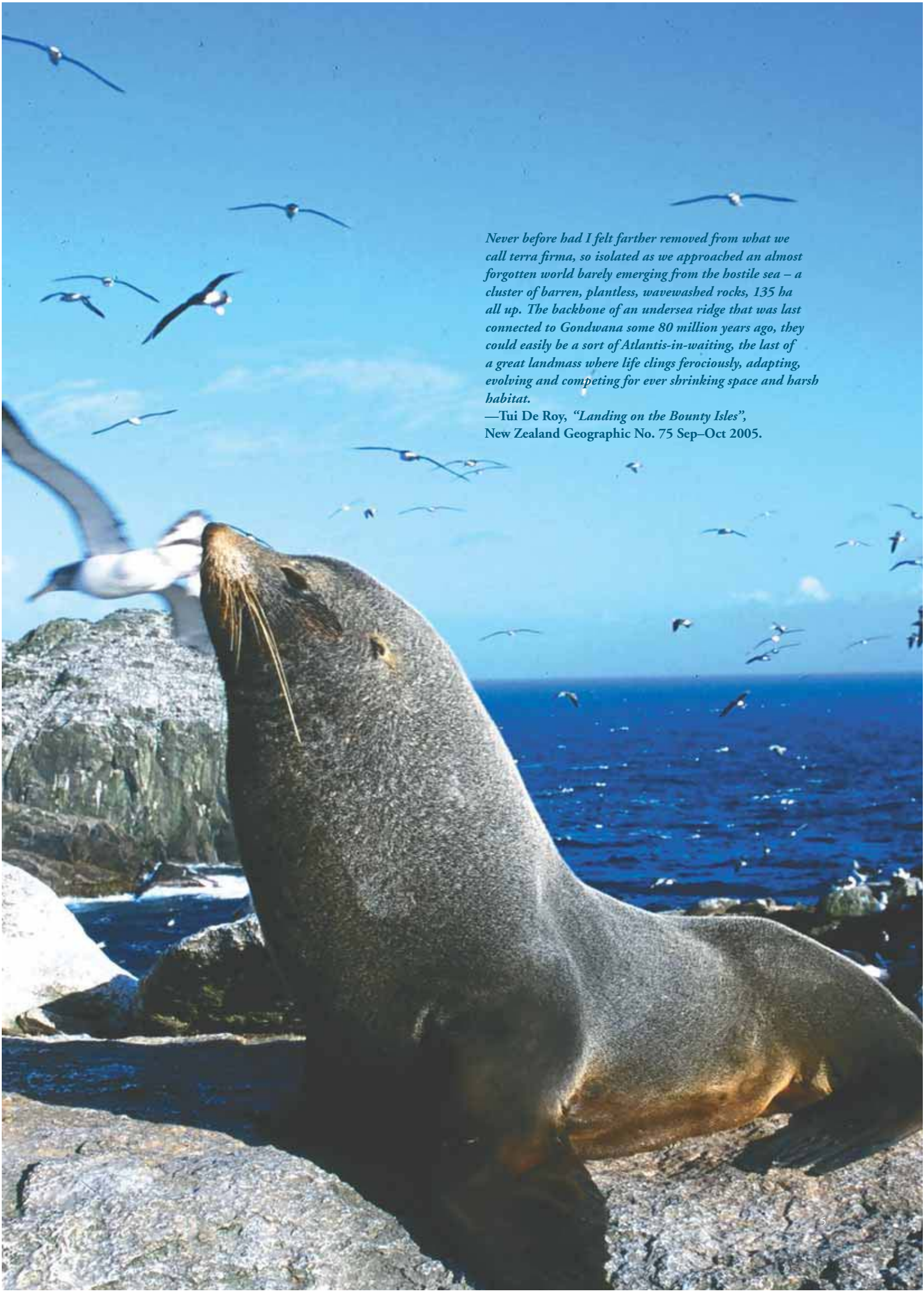
These tiny islands are the stuff of legend: this is where the General Grant was lost with its cargo of gold, where sealers once harvested up to 100,000 animals per voyage, where the Roaring Forties run into the Furious Fifties and that means gales three-quarters of the year, where despite everything albatrosses sit on nests as still as snow, and land plants and seaweed grow to inordinate size, and some of the wildest and grandest inhabitants of the Southern Ocean make their home – albatross, sea lions, penguins, fur seals, great whales.

But there are stories rarely told about 'our' subantarctics – stories of the marine wonderland around these islands. While above the tideline the world of the islands is often bleak, wind and rain lashed, and in some places without even the softening green of plants, below there is a riot of colour, of animals and plants thick in brilliant mosaics on rock walls, crammed into sheltered crevices and caves, or clustered in the very rise and fall of the ocean itself.

The few divers who have visited bring back extraordinary images – thick forests of bull kelp with half-metre diameter holdfasts and 10 m blades swirling like slow motion hair in the swell, platters of pink coralline algae stacked in crazy piles, white-footed paua with giant spider and masking crabs peeking out of narrow cracks, the surreal soft-spined shapes of shell-less nudibranchs, and fish moving so slowly it is as if they are partly frozen. Amongst them all, diving off shore platforms to hunt and harvest are the marine mammals and seabirds that depend so entirely on these rare areas of surface rock and surrounding shallow water.

The islands themselves are protected, to give the surface-breeding creatures a safe base, and to protect the diverse ecological communities that have developed there. All five of the New Zealand subantarctic island groups have the highest level of protection as national nature reserves, and together they were listed as a World Heritage Area in 1998. However, marine protection around the subantarctic islands includes a marine reserve/marine mammal sanctuary reaching out 12 nautical miles around Auckland/ Motu Maha Islands, and commercial fishing restrictions and legal protection provided for various marine animals in New Zealand waters.





Never before had I felt farther removed from what we call terra firma, so isolated as we approached an almost forgotten world barely emerging from the hostile sea – a cluster of barren, plantless, wavewashed rocks, 135 ha all up. The backbone of an undersea ridge that was last connected to Gondwana some 80 million years ago, they could easily be a sort of Atlantis-in-waiting, the last of a great landmass where life clings ferociously, adapting, evolving and competing for ever shrinking space and harsh habitat.

—Tui De Roy, *"Landing on the Bounty Isles"*, New Zealand Geographic No. 75 Sep–Oct 2005.

There is international interest in the islands' marine surroundings being more robustly protected. These are the ocean commons that support the profusion of mammal and seabird life found on these scattered scraps of land. The terrestrial and marine ecological systems of the subantarctics are intertwined, almost seamlessly so – changes to life in the water have profound effect on the land-based communities.

There is also significant national interest involved, not least that these distant, inhospitable islands have provided a refuge for iconic species we might otherwise have lost entirely from around our shores – such as the southern right whales which continued to breed in the sheltered waters of the Auckland/Motu Maha and Campbell/Motu Ihupuku Islands and are now returning to visit the New Zealand mainland for the first time in many years.

There is no doubt that the complete communities, land and sea combined, of our subantarctic islands are of immense scientific and conservation value globally. In this extraordinary zone between subtropical and polar waters, life has evolved in unique ways. While the New Zealand subantarctic islands provide a disproportionate amount of the land and sea habitats that support life in the Southern Ocean, they are also remarkable for the number of species that occur there and nowhere else in the world. Amongst seabirds alone there are five endemic albatross species, two penguin species and three cormorants or shags, including the world's rarest, the Bounty Island shag. In the water, notable endemic species include unique seaweeds, a paua and a burrowing anemone while other organisms grow or link with others in ways not seen anywhere else. Many more marine species remain undescribed or yet to be discovered by scientists.

Knowledge of exactly what is where and how well the different communities are doing is limited by the very isolation and climate that has protected this region for so long. One recently rediscovered subspecies, the Campbell Island snipe, was found only in 1997, while new marine species are encountered almost every time conditions allow diving surveys – rare revelations from one of the last truly mysterious and wild places on our planet.

Action now to protect these marine areas will allow us to safeguard this treasure trove for years to come – keeping whole the dynamic systems that support spectacular life-forms in incredible circumstances, and keeping alive too our own wonder at what lies in our nation's depths.

Those who visit a subantarctic island usually leave with a feeling of having had a significant life experience… a lingering end-of-the-Earth feeling, more elemental than experienced elsewhere in New Zealand, of vibrant life stripped of its fripperies… Life is possible on subantarctic rocky reefs, but only for species hardy enough to make it across vast stretches of ocean and survive in the rugged terrain and cold conditions. Many species are castaways from the mainland, while others live only here, clearly at home in these isolated islands.
—David Shiel and Michael Kingsford *"Subantarctic Islands" in The Living Reef: The Ecology of New Zealand's Rocky Reefs,* eds. N. Andrew and M. Francis, Craig Potton Publishing, Nelson, 2003.

The ocean dominates the islands scattered upon its wild unbroken reaches. Even on the largest of New Zealand's subantarctic islands… one is never far from its overwhelming influence – whether of rapid fronts and squalls sweeping in from the sea, the unleashed wind on the barren high country, or the permanent lanes which gales have carved in the close canopy of stunted scrub and forests. The mammals and birds are those of the ocean.
—Conon Fraser, *Beyond the Roaring Forties: New Zealand's Subantarctic Islands.* GP Publishing, Wellington, 1986.

Purpose of the document

This document is a background paper in preparation towards planning for the protection of the marine environment around the three furthest flung subantarctic island groups located in the Subantarctic Islands Marine Biogeographic Region[1]: the Bounty, Antipodes and Campbell/Motu Ihupuku Islands.

It focuses on ways protection could be extended from the land masses into the inshore marine environment, as a first step; protection for the remainder of the wider sea area above the southern plateau (ie the Campbell Plateau and Bounty Platform) will be explored at a later date as part of the Offshore Marine Protected Area planning process[2].

The first part of this document describes the New Zealand subantarctic region in general, within a global context. It outlines the geological, climatic, oceanographic and biological characteristics of the island groups, and summarises the human history in the area, as well as the way the area is currently managed and used.

Each of the three island groups is then described in closer focus, with emphasis on the marine environment.

The document outlines the issues faced in the subantarctic region including the existing pressures on the natural environment and the potential ecological threats. It also outlines the current management regime: the agencies involved, the laws and policies they work to, and the current systems in place in the region, and then sets out the steps for developing options for protection of the marine environment for the future.

Although a number of references and material was used to provide the information for this document the information was sourced primarily from the *Nomination of the New Zealand Subantarctic Islands by the Government of New Zealand for Inclusion in the World Heritage List*, Neville Peat's *Subantarctic New Zealand: A Rare Heritage* and a report compiled by NIWA.3

[1] Marine protection around the The Snares Islands/ Tini Heke is not being considered here as The Snares Islands group is located in the Snares Island Marine Biogeographic Region which lies atop the Snares Shelf and drops to the Campbell Plateau in the south and the Solander Trough in the west. This region is influenced and surrounded by the Subtropical Front and the cool Southland Current. Marine protection for Snares Island Marine Biogeographic Region will be undertaken as part of the Offshore Marine Protected Area Planning process. The Auckland, Campbell, Antipodes and Bounty islands are located in the Subantarctic Islands Marine Biogeographic Region, an area influenced by cold water from the Subantarctic Front.

Sources:
Walls, K. (2006) Nearshore marine classification and inventory. A planning tool to help identify marine protected areas for the nearshore of New Zealand. Department of Conservation, Wellington, New Zealand.
Preliminary findings from the Marine Protected Areas Policy Classification Workshop convened by the Department of Conservation and the Ministry of Fisheries, held in December 2005, Wellington.

[2] Department of Conservation and Ministry of Fisheries (2006) Marine Protected Areas Policy and Implementation Plan. Department of Conservation and Ministry of Fisheries, Wellington, New Zealand.

[3] Booth, J. (2004) The marine ecosystem of New Zealand's subantarctic islands and their surrounding plateaus. NIWA Client Report: WLG2004-47, July 2004 – Prepared for the Department of Conservation. National Institute of Water & Atmospheric Research Ltd (NIWA), Wellington, New Zealand.
Government of New Zealand (1997) Nomination of the New Zealand Subantarctic Islands by the Government of New Zealand for Inclusion in the World Heritage List. Wellington, New Zealand.
Peat, N. (2003) Subantarctic New Zealand: A Rare Heritage. Department of Conservation Te Papa Atawhai, Southland Conservancy, Invercargill, New Zealand.

The Government's formal position

The New Zealand Government, as a signatory to the United Nations Convention on Biological Diversity, is committed to protecting a full range of natural marine habitats and ecosystems to effectively conserve marine biodiversity, using a range of appropriate mechanisms, including legal protection. The New Zealand Biodiversity Strategy 2000 is designed to give effect to the Government's international obligations and the Marine Protected Areas Policy and Implementation Plan has been developed jointly by the Department of Conservation and the Ministry of Fisheries as the key means to achieving these goals.

The Marine Protected Areas Policy and Implementation Plan, was released in January 2006[4]. The policy is a new and integrated approach to marine protection that will promote the systematic development of a comprehensive and representative Marine Protected Areas (MPA) network to protect marine biodiversity. The policy seeks to establish MPAs using a range of existing tools such as marine reserves, Fisheries Act measures, and Resource Management Act tools.

The planning process is designed to be inclusive of relevant interests. Planning for marine protection will be science-based, using a consistent approach to habitat and ecosystem classification, and an inventory of MPAs protected areas to determine gaps in the network. The aim will be to achieve biodiversity protection in a way that minimises the impact of new protected areas on existing users of the marine environment and Treaty settlement obligations. Over time, the full range of natural marine habitats and ecosystems will be protected including those that are outstanding, rare, distinctive, or internationally or nationally important.

The Subantarctic Marine Protection Project was initiated in 2003 through the Department of Conservation's Subantarctic Islands Conservation Management Strategy (1998–2008) which advocates for the further protection of marine ecosystems in this region and notes that the coastal marine areas around the subantarctic islands also warrant further protection to ensure their values are protected for future generations.

The Subantarctic Marine Protection Project planning process is well advanced and Ministers have agreed that this project is a priority for early progress. The Department of Conservation and the Ministry of Fisheries will continue this project in a way which aligns with the Marine Protected Areas Policy, to the extent possible.

We are jointly investigating marine protection options for the New Zealand subantarctic island groups of the Southern Ocean, for the protection of biological diversity and ecosystem functioning.

The overall goal is to enhance effective stewardship and lasting protection of the subantarctic waters of New Zealand, giving due consideration to the interests of and implications for all who use and care about our marine environments.

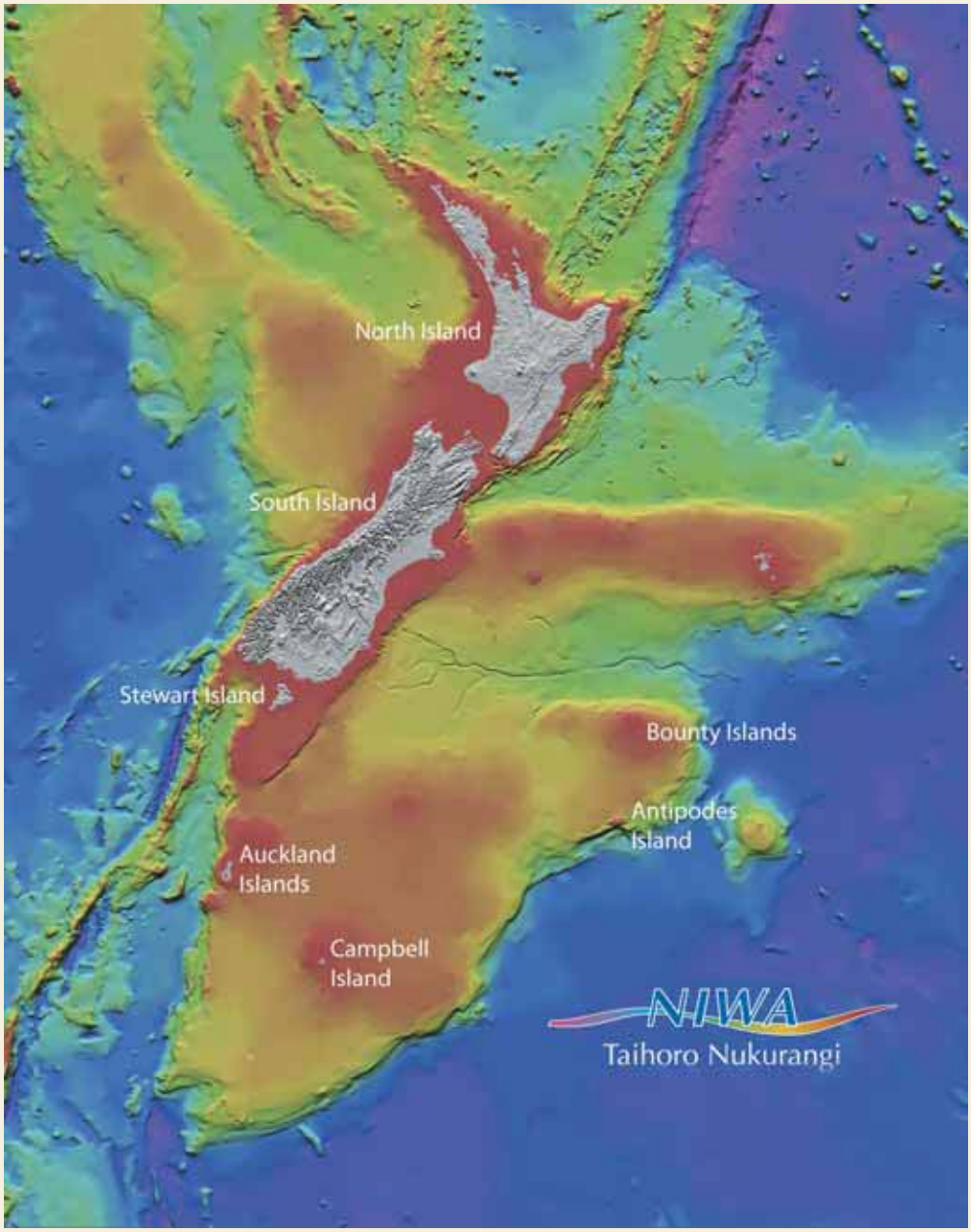
[4] Department of Conservation and Ministry of Fisheries (2006) Marine Protected Areas Policy and Implementation Plan. Department of Conservation and Ministry of Fisheries, Wellington, New Zealand. www.biodiversity.govt.nz

Marine Protected Areas (MPAs)

By protecting special or representative marine habitats, we can 'bank' some of our biological wealth, as an investment for future generations. To this end, the New Zealand Government is creating a network of marine protected areas (MPAs), extending across our EEZ, to ensure all unique, rare and significant habitats and species are 'banked', as well as a range of areas representative of our more common coastal, offshore and deepwater habitats and communities.

Government policy defines a MPA as "*An area of the marine environment especially dedicated to, or achieving, through adequate protection, the maintenance and/or recovery of biological diversity at the habitat and ecosystem level in a healthy functioning state*". Some sites we select as part of a marine protected area network will already be in a near-pristine state; others may have been impacted by a range of human activities, and need some recovery.

MPAs are now regarded internationally as a pivotal tool to conserve examples of our marine realms in an undisturbed state, much like national parks and reserves do on land. MPAs are needed as an insurance policy to guarantee that future generations can continue to enjoy and draw profit from the marine environment.



What's been done so far?

Preliminary background investigations of the marine environment around the Bounty, Antipodes and Campbell/Motu Ihupuku Islands have already been made, and some consultation has commenced with key stakeholders. These are outlined here.

Investigation process

Initially, national and international literature relating to all aspects of New Zealand's subantarctic island marine environment was collated. This information has been used to create a comprehensive bibliography, which is available in a published form. This information is also available on CD and forms part of the Department of Conservation's subantarctic marine database. The literature search has provided over 400 peer-reviewed scientific papers, which indicates the emphasis placed by the international and national scientific community on the scientific importance of the subantarctic islands' and the marine environment.

Further to preparing a bibliography the department commissioned the National Institute of Water and Atmospheric Research (NIWA) to provide a 'desktop report' synthesising existing knowledge on the structure and function, risks to the biota and usage of the marine ecosystem of the southern plateau (Campbell Plateau and Bounty Platform combined), with a particular focus on the conservation values and biodiversity within the 12 nautical mile (territorial sea) region of the Auckland/Motu Maha, Campbell/Motu Ihupuku, Antipodes and Bounty Islands.

It is envisaged that this NIWA report will be used as a basis for the development of marine protection options for the subantarctic islands (see CD published with this report). It is also proposed to supplement this information through further discussions with key scientific researchers and stakeholders with an interest in the subantarctic islands and Southern Ocean.

Subantarctic Marine Protection Workshop November 2004

The Department of Conservation held a workshop in November 2004 designed to bring together academics, scientists, stakeholder representatives, government departments, non-governmental organisations and Ngài Tahu representatives with expertise and interest in the area to share existing knowledge of the remote and rugged Southern Ocean and in particular the near-shore environment of the subantarctic islands.

The workshop was for participants to openly talk about the values of the marine area, identify and explore ways to manage risks and threats and that these discussions would help provide direction on future marine protection for the subantarctic islands.

There was a general consensus from the workshop that protection of the marine ecosystems of these oceanic islands should be sought. It was agreed that the workshop provided a strong foundation on which to build the process.