



Overview

Marine protected areas (MPAs) are one of a number of tools for conserving marine biodiversity.

New Zealand has led global marine protection with the establishment of the Marine Reserves Act in 1971, the creation of one of the world's first no-take marine reserves in 1975, and the implementation of large marine protected areas (MPAs) within our 200 nm Exclusive Economic Zone (EEZ) (Benthic Protection Areas and 'Seamount' Closures under the Fisheries Act).

The New Zealand Government remains committed to protecting marine biodiversity for future generations and for healthy oceans and has set a goal to protect 10% of New Zealand's waters.¹ This has been achieved with over 30% of New Zealand waters now protected under MPAs.

These MPAs have been recognised for their contribution to New Zealand's conservation estate, to New Zealand's international obligations, and to global marine protection efforts.²

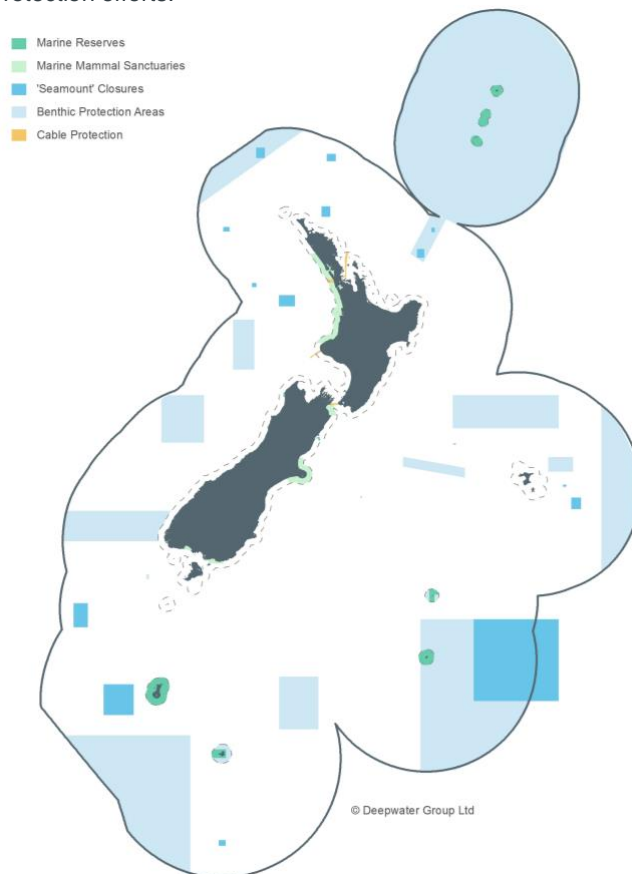


Figure 1 New Zealand's Marine Protected Areas

¹ New Zealand Government. (2000). [New Zealand Biodiversity Strategy 2000-2020](#).

² Protected Planet, the most up to date source of information on protected areas managed by the UN: www.protectedplanet.net/country/NZL

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What is a Marine Protected Area?

Internationally the most widely accepted definitions of ‘protected areas’ are those of the 1992 Convention on Biological Diversity (CBD) and International Union for Conservation of Nature (IUCN), which are often interpreted to effectively mean the same thing. The IUCN defines a protected area as:

“A clearly defined geographical space recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.”³

IUCN has developed a set of categories to classify protected areas based on the main conservation objective (Table 1). This classification system recognises that there is a range of protection measures and that although different in approach each has a role to play in protecting biodiversity. The UN and many governments have long used these categories.

Table 1 IUCN Protected Areas Classification System

IUCN Classification	Type of Area	Main Objective
Ia	Strict nature reserve	Managed mainly for science and environmental baseline monitoring
Ib	Wilderness area	Managed mainly for the protection of wilderness qualities
II	National park	Managed mainly for ecosystem protection and recreation
III	Natural monument	Managed mainly for conservation of specific natural or cultural features
IV	Habitat/species management area	Managed mainly for conservation through management interventions
V	Protected landscape/seascape	Managed mainly for landscape/seascape conservation and recreation
VI	Managed resource protected area	Managed mainly for the sustainable use of natural ecosystems and resources

The New Zealand Government has not adopted the IUCN categories. The New Zealand MPA Policy sets the standard for designating MPAs within New Zealand and classifies areas according to a more restricted set of categories largely based around whether an area is enacted under the Marine Reserves Act 1971 (i.e. no-take marine reserves) or not (Table 2).⁴

Table 2 New Zealand MPA Policy Classification

NZ MPA Policy Classification	Type of Area	Main Objective
Type 1 MPA	Marine reserves	Established under the Marine Reserves Act for the purpose of preserving marine life for scientific study
Type 2 MPA	Other MPAs	Meets the MPA Policy’s Protection Standard but has not been established under the Marine Reserves Act such as marine mammal sanctuaries
Protection Tools	-	Not recognised as an MPA because does not meet the MPA Policy Standard but still recognised as a protection tool

³ Dudley, N. (Editor) (2008). [Guidelines for Applying Protected Area Management Categories](#).

⁴ Department of Conservation. (2005). [MPA Policy and Implementation Plan](#).

Why are MPAs important to New Zealand?

MPAs are one of a number of tools for conserving marine biodiversity.

In some jurisdictions MPAs are an important component of fisheries management.

In New Zealand MPAs have less importance as a fisheries management tool because we have a comprehensive, science-based and well-developed fisheries management system that encompasses all of the main commercial and bycatch species, as well as requiring any adverse effects of fishing on the aquatic environment to be avoided, remedied, or mitigated.

What marine protection exists in New Zealand waters?

New Zealand is leading the world in marine biodiversity protection with 30% of our waters afforded protection in some form (Figure 2 and Table 3).

Overall, MPAs cover 7% (26.3 million km²) of the world's ocean with New Zealand contributing around 5% (1.2 million km²) of this total.⁵ Globally, MPA growth has been focussed on national waters (0-200 nm) with around 17% protected (Figure 2 and Table 3). Whereas, Protected Planet has assessed that MPAs cover only 1% of areas beyond national jurisdiction (>200 nm).⁵ Although this likely underestimates the level of protection on the high seas, as there has been significant closures and restrictions implemented in recent years by regional fisheries management organisations (RFMOs), where bottom-contact fishing, in particular, is now a highly confined activity. For example, more than 80% of the South Pacific Regional Fisheries Management Organisation (SPRFMO) Convention Area is closed to bottom-contact fishing.

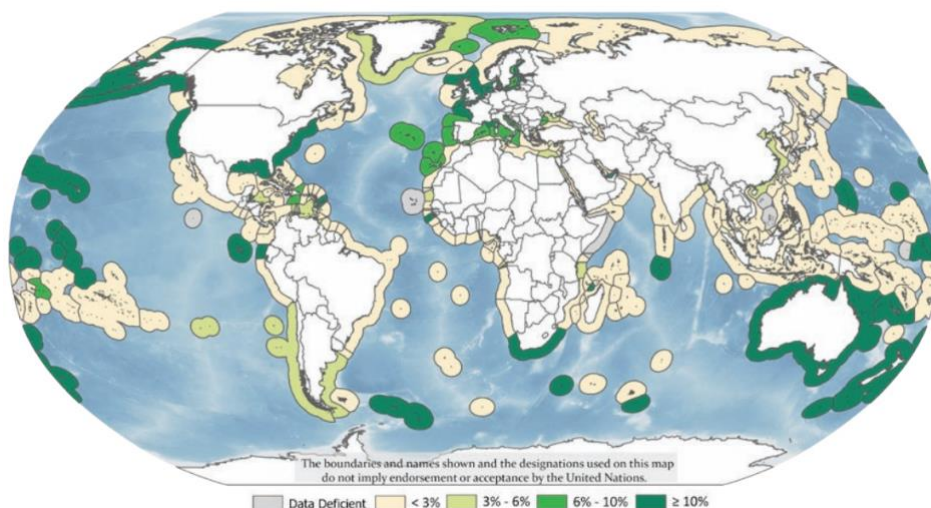


Figure 2 Percentage of Marine Areas within National Jurisdictions (0-200 nm) in MPAs⁶

⁵ www.protectedplanet.net/c/protected-planet-report-2016/december-2016--global-update

⁶ <https://protectedplanet.net/c/protected-planet-report-2016/protected-planet-report-2016--data--maps-figures>

Table 3 Top national jurisdictions (0-200 nm) for MPA coverage by area⁷

Country incl. their overseas territories	National Waters		Overseas Territories Waters		Combined Waters	
	km ²	%	km ²	%	km ²	%
USA	3,526,500	41	1,575,179	44	5,101,678	42
France	170,443	50	3,229,417	34	3,399,860	35
Australia	3,014,429	41	259,565	16	3,273,994	36
UK	208,863	29	3,001,950 ⁸	50 ⁸	3,210,813	47
New Zealand	1,247,330	30	10	0	1,247,339	28
Denmark	17,933	18	102,354	4	120,287	5
Norway	7,696	1	82,717	5	90,413	4
Netherlands	17,126	27	2,809	3	19,936	14
Global National Waters Total					23,684,818	17

A range of protection measures exist within New Zealand waters (Figure 1 and Table 4). Each contributes to protecting New Zealand's biodiversity in some form and is recognised as an MPA under the CBD and IUCN definitions.

Table 4 Existing MPAs in New Zealand⁹

	Exclusive Economic Zone		Territorial Sea		Total	
	km ²	%	km ²	%	km ²	%
Type 1 MPA ¹⁰	0	0.0	17,539	9.4	17,539	0.4
Type 2 MPA ⁹	0	0.0	4,584	2.5	4,584	0.1
Benthic Protection Areas	1,124,539	28.5	13,926	7.7	1,138,465	27.6
'Seamount' Closures	78,466	2.0	0.0	0.0	78,466	1.9
Total Protected Area¹¹	1,200,748	30.5	21,813	12.0	1,222,561	29.7

Over 90% of New Zealand's EEZ has never been contacted by bottom trawl and over 30% of the EEZ is closed by law to bottom trawling. These closures protect at least 10% of each of the different Marine Environment Classifications in the EEZ.¹²

⁷ <https://www.protectedplanet.net/marine>

⁸ This includes the Chagos MPA (representing 640,000 km²), which is under negotiation between the UK Government and Mauritius Government after a court decision found the MPA was established without proper regard for the rights of Mauritius.
<http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06908>

⁹ Analyses performed by GNS Science based on shapefiles provided by the Department of Conservation and Land Information New Zealand as at 25 February 2015.

¹⁰ Refer Table 2 for a definition.

¹¹ "Total Protected Area" accounts for overlap between different MPAs and represents the total protected area 'footprint'. Note there is a difference in total protected area for New Zealand in Table 3 compared with Table 4, as these were calculated by different authors who may have slightly different methodologies.

¹² Ministry for the Environment. 2005. [The New Zealand Marine Environment Classification](#).

Marine Protection in New Zealand's Exclusive Economic Zone

To date New Zealand's MPA Policy has only been applied to the 12 nm TS. It was intended that the Policy's application would be extended to the Exclusive Economic Zone (i.e. EEZ, New Zealand's jurisdictional waters which extend 12 nm to 200 nm offshore) from 2013.¹³ Its application to the EEZ remains a 'work in progress'.

In the interim, the Fisheries Act 1996 has been the primary legislation for establishing marine protection in the EEZ (given the Marine Reserves Act only applies in the TS).

The main protection measures established in the EEZ to date have been the 'Seamount' Closures and the Benthic Protection Areas.

Spotlight on Benthic Protection Areas

In 2007 New Zealand established Benthic Protection Areas (BPAs) to set aside large areas based New Zealand's Marine Environment Classification. Their objective is to set aside a network of MPAs that encompass a representative range of the benthic (seabed) biodiversity within New Zealand's EEZ.

BPAs close 17 large areas to bottom trawling and to dredging. These areas comprise over 1.1 million km² of largely pristine seabed, an area equal to about 30% of New Zealand's EEZ or more than four times New Zealand's landmass.

BPAs are not a 'fisheries management' tool for the purpose of managing the sustainable utilisation of New Zealand's fisheries resources. They have been deliberately selected to set aside large areas that broadly represent the wide variety of benthic habitats and communities within the EEZ, based on the best available scientific information at that time. Preference has been given to the closure of areas unmodified by human activity.

BPAs arose from:

- Concerns that bottom trawling may have adverse effects on benthic biodiversity
- Unsubstantiated claims that these effects are widespread; despite independent analyses showing less than 10% of the EEZ has been contacted once or more by bottom trawling and, in any year, only 1-2% is bottom trawled, the same areas being fished each year for the most part¹⁴
- Concerns that, because regeneration times increase with increasing depths, deepwater environments may be more vulnerable to impacts from fishing than shallower environments, and
- Calls for management measures to address such impacts.

Within the BPAs, bottom trawling and dredging is prohibited and any form of mid-water trawling may only be undertaken under strictly controlled and monitored conditions to preclude contact with, and therefore impacts on, the benthic environment. Industry has also placed a moratorium on Danish seining within BPAs, pending legislative amendments to exclude this fishing method as well.

In addition to the BPA closures, there is comprehensive management of the fisheries in the water column above through the Quota Management System. This adds to the integrity of the conservation and management regime.

¹³ Ministry of Fisheries and Department of Conservation. (2008). [Marine Protected Areas: Classification, Protection Standard and Implementation Guidelines](#).

¹⁴ Baird, S.J. & Wood, B.A. (2018). Extent of bottom contact by New Zealand commercial trawl fisheries for deepwater Tier 1 and Tier 2 target fishstocks, 1989-90 to 2015-16. New Zealand Aquatic Environment Biodiversity Report No. 193.

Black, J. & Tilney, R. (2017). Monitoring New Zealand's trawl footprint for deepwater fisheries: 1989-90 to 2012-13. New Zealand Aquatic Environment Biodiversity Report No. 176.

Development of BPAs

In 2005 the seafood industry, through the Deepwater Group (DWG), proposed that the Government establish a series of BPAs that would prohibit bottom trawling and dredging across a broad range of deepwater benthic habitats. This was largely in response to concerns about the impacts of bottom trawling on benthic communities. DWG commissioned a spatial analysis of the location of bottom trawl grounds within the EEZ, based on trawl tows (New Zealand law requires vessel masters to log start and end positions of all tows).

The initial proposal sought to establish 14 BPAs, closing approximately 31% of New Zealand's EEZ to bottom trawling. In recognition of the contribution BPAs made to marine conservation, the government agreed not to focus on marine protection in the EEZ until 2013, unless new information came to light, and agreed to collect further information on the benthic environment to inform future management decisions.

Using guidance from the Minister of Fisheries, DWG enhanced its proposal to increase representativeness across different benthic habitat types, geological regions and spread. The Ministry of Fisheries released the revised proposal for public consultation. After taking into consideration public submissions, the final regulations expanded earlier proposals to include three more BPAs.

In 2007 regulations were passed to implement the BPAs.



Figure 3 Gorgonian coral © NIWA

Selection criteria used to establish BPAs

The key selection criteria used to establish BPAs were:

- **Unmodified** – largely unfished or otherwise impacted by human activity
 - **Large** – both as individual parcels and cumulatively
 - **Simple in form** – to facilitate ease of interpretation and compliance
 - **Consistent with Government policy** – to protect not less than 10% of each of the identified marine environments within the EEZ
 - **Representative of:**
 - **Marine Environment Classification (MEC) areas within the EEZ** – the MEC was developed by the Ministry for the Environment, the Ministry for Fisheries, the Department of Conservation and the National Institute of Water and Atmospheric Research as an “ecosystem-based spatial framework for marine management purposes.”¹¹ The MEC describes 11 coastal and 9 oceanic classes. BPAs close between 11% and 86% of eight of the MEC oceanic classes. The ninth oceanic class (Class 55) lies predominantly within coastal waters adjacent to the northern North Island and is not fished by deepwater trawlers
 - **Biodiversity areas identified by the World Wildlife Fund** – key biodiversity areas identified by WWF-NZ in their report “Shining a Spotlight on the Biodiversity of New Zealand’s Marine Ecoregion” were incorporated into the development of the BPAs
 - **Geologic regions** – the New Zealand maritime area extends across the Indo-Australian tectonic plate (in the west) and the Pacific tectonic plate (in the east) and the zone between these two. To encompass the full range of geological habitats and structures, BPAs have been determined so that half of the closed area is to the west and half to the east
 - **Oceanographic regions** – the New Zealand maritime area also extends from sub-tropical waters (in the north) to sub-Antarctic waters (in the south) and includes the sub-tropical convergence between these. To encompass the full range of oceanographic conditions, BPAs have been determined so that half of the closed area is to the north and half is to the south
 - **Depth ranges** – BPAs were selected based on representative consideration of the depth regions 0-200 m, 200-750 m, 750-1,500 m and >1,500 m
 - **Underwater Topographical Features (UTFs)** – BPAs were selected to close a range of known UTFs which include underwater seamounts (>1,000 m elevation), knolls (500-1,000 m elevation) and hills (<500 m elevation). In addition, known hydrothermal vents were also considered. BPAs, when combined with the existing ‘seamount’ closures, protect 28% of known UTFs, 52% of known true seamounts and 88% of known active hydrothermal vents within the EEZ
 - **Transects** – as little is known of the exact spatial extent and locations of the various marine benthic habitats and communities, part of the selection criteria for the BPAs was to select large areas that transect from 12 to 200 nm offshore, contiguous with marine protected areas inside of the 12 nm TS. These are Fiordland Transect, Antipodes Transect and Kermadec
 - **Alignment with the Australian Fishing Zone (AFZ)** – in order to leverage off existing MPAs, the Sub Antarctic Deep BPA is contiguous with the Macquarie Island Marine Park in the south and the Norfolk Deep BPA aligns with the NZ EEZ:AFZ boundary in the north.
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BPAs assessed against the New Zealand MPA Policy

BPAs are the only protection measures within the EEZ that have been assessed against New Zealand's MPA Policy.

In 2011 Ministerial decisions confirmed that BPAs could be considered Type 2 MPAs under New Zealand's MPA Policy if Danish seining was prohibited from these areas.¹⁵

For some areas around the Subantarctic Islands this has been applied through legislation, with Danish seining prohibited by specific regulations under the Fisheries Act. However, the BPA regulations have not been amended and Danish seining is not prohibited within all BPAs.

The Seafood Industry proposes that BPAs be recognised as MPAs under New Zealand's MPA Policy and, as such, have voluntarily agreed to prohibit Danish seining within all BPAs. The Seafood Industry has asked that the Ministry for Primary Industries formalise this by amending the BPA regulations to prohibit Danish seining within these MPAs.

BPAs recognised as important to New Zealand conservation estate

In their decision released on 11 February 2015 the Environmental Protection Authority's Decision Making Committee (DMC) declined Chatham Rock Phosphate's (CRP's) application for a marine consent to mine phosphorite nodules on the Chatham Rise.

One of the principal reasons given for their decision was the significant adverse effects on the benthic environment, including that the proposal would undermine the conservation merits of an existing BPA.

The issue of whether mining is contrary to the purpose and function of BPAs as an existing marine management regime was a significant factor amongst all the matters that the DMC was required to take into account. Around 90% of the mining permit area overlapped with the Mid Chatham Rise BPA. The significance of this BPA warranted the DMC dealing with this as a separate issue.

The BPAs were established by regulations under the Fisheries Act 1996 and were understandably recognised by the DMC as constituting a marine management regime that they were required to take into account under the EEZ Act. When established, the BPAs were enacted under the Fisheries Act simply because fishing was the only significant human activity occurring in the EEZ at the time and there was no other legislation that applied to the EEZ that could be used to enact this level of marine protection. Their purpose is to protect a representative range of benthic biodiversity within New Zealand's EEZ. They are not fisheries management tools.

Many parties submitted that mining in the BPA would be essentially incompatible with the purpose of the BPAs. The Crown, for instance, submitted that:

"[The BPAs] are of strategic significance for New Zealand's conservation obligations internationally" and

"Large scale mining within the BPAs has the potential to undermine the purpose of mitigating impacts on the benthic environment from deepwater bottom fishing activities and would be inconsistent with the fishing industry and decision-makers' intent in establishing the BPAs."

The DMC agreed noting that:

"...the destruction of a sizeable benthic area that is protected from an activity similar to mining, is clearly contrary to the purpose (a) of the BPA, which is not just to prohibit the specific activities of trawling and dredging but also to protect the benthos."¹⁶

The importance of the Mid Chatham Rise BPA and the BPA network to New Zealand was emphasised, particularly for their contribution to New Zealand's international biodiversity commitments and to the nation's conservation estate.

¹⁵ Department of Conservation. (2013) [Briefing on Subantarctic Marine Reserves Bill](#).

¹⁶ Environmental Protection Authority. (2015). [Decision on Marine Consent Application: Chatham Rock Phosphate Limited](#).

Quick Facts

- New Zealand's EEZ is recognised as the fourth largest in the world¹⁷
- Over 90% of New Zealand's EEZ has never been contacted by bottom trawl¹³
- Over 30% of New Zealand's EEZ is protected by BPAs and seamount closures (more than four times New Zealand's landmass)
- There are only about 19 countries whose entire EEZ is bigger than the area protected by BPAs¹⁸
- At least 10% of each of the Marine Environment Classifications within New Zealand's EEZ are protected¹¹
- Each Marine Environment Classification has not less than two BPAs providing them protection¹⁷
- BPAs are distributed from north to south (i.e. across the oceanographic range from subtropical to sub-Antarctic) and from east to west (i.e. across the geologic range of the two tectonic plates that characterise the New Zealand maritime region)¹⁷
- BPAs and 'Seamount' Closures protect 28% of Underwater Topographic Features (including seamounts); 52% of seamounts (underwater mountains >1,000 m in height); and 88% of active hydrothermal vents within New Zealand waters¹⁹

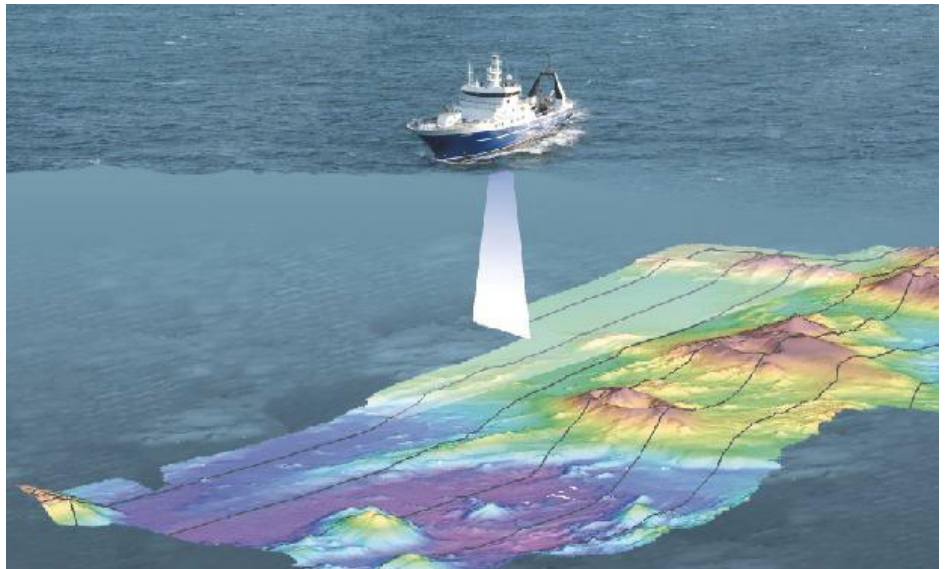


Figure 4 Multibeam Sonar Boat © NIWA

¹⁷ [Statistics New Zealand webpage](#)

¹⁸ Helson et al. (2010). [Private rights, public benefits: Industry-driven seabed protection.](#)

¹⁹ [Ministry for Primary Industries Webpage](#)