Aichi Biodiversity Target 11 Country Dossier: NEW ZEALAND

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GLOSSARY

AZEs	Alliance for Zero Extinction sites
CEPF	Critical Ecosystem Partnership Fund
EBSA	Ecologically or Biologically Significant Marine Area
EEZ	Exclusive Economic Zone
GCF	Green Climate Fund
GD-PAME	Global Database on Protected Area Management Effectiveness
GEF	Global Environment Facility
IBA	Important Bird and Biodiversity Area
ICCAs	Indigenous and Community Conserved Area Area (may also be referred to as territories and areas conserved by Indigenous peoples and local communities or "territories of life")
IPLC	Indigenous Peoples and Local Communities
KBA	Key Biodiversity Area
MEOW	Marine Ecosystems of the World
MPA	Marine Protected Area
NBSAP	National Biodiversity Strategy and Action Plan
OECM	Other Effective Area-Based Conservation Measures
PA	Protected Area
PAME	Protected Area Management Effectiveness
PPA	Privately Protected Area
PPOW	Pelagic Provinces of the World
ProtConn	Protected Connected land indicator
SOC	Soil Organic Carbon
TEOW	Terrestrial Ecosystems of the World
WDPA	World Database on Protected Areas
WD-OECM	World Database on Other Effective Area-Based Conservation Measures

Disclaimer

The designations employed and the presentation of material in this dossier do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Convention on Biological Diversity (SCBD) or United Nations Development Programme (UNDP) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The information contained in this publication do not necessarily represent those of the SCBD or UNDP.

This country dossier is compiled by the UNDP and SCBD from publicly available information. It is prepared, within the overall work of the Global Partnership on Aichi Biodiversity Target 11, for the purpose of attracting the attention of the Party concerned and other national stakeholders to facilitate the verification, correcting, and updating of country data. The statistics might differ from those reported officially by the country due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Furthermore, the suggestions from the UNDP and SCBD are based on analyses of global datasets, which may not necessarily be representative of national policy or criteria used at the national level. The analyses are also subject to the limits inherent in global indicators (precision, reliability, underlying assumptions, etc.). Therefore, they provide useful information but cannot replace analyses at a national level nor constitute a future benchmark for national policy or decision-making.

The preparation of this dossier was generously supported by: the Government of the Federal Republic of Germany, *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GMbH*; the European Commission; the Government of the United Kingdom of Great Britain and Northern Ireland; and the Government of Japan (Japan Biodiversity Fund). The dossier does not necessarily reflect their views.

EXECUTIVE SUMMARY

This document provides information on the coverage of protected areas (PAs) and other effective area-based conservation measures (OECMs), as currently reported in global databases (the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM)). It also includes details on the status of the other qualifying elements of Aichi Biodiversity Target 11 based on this data. These statistics might differ from those reported officially by countries due to difference in methodologies and datasets used to assess protected area coverage, differences in the base maps used to measure terrestrial and marine area of a country or territory, or if global datasets differ from the criteria and indicators used at the national level. Where available, data from national statistics for the elements of Target 11 are included alongside records from these global databases. This dossier also provides a summary of commitments made under Aichi Biodiversity Target 11, and a summary of potential opportunities regarding elements of the target for future planning.

The dossier has been developed in consultation with the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), which manages the WDPA, WD-OECM and Global Database on Protected Area Management Effectiveness (GD-PAME). Parties to the CBD are requested to contact protectedareas@unep-wcmc.org with any updates to the information in these databases.

Please note, that New Zealand has identified some issues with the data reported in the WDPA that will impact on the analysis presented in this dossier. Issues with the WDPA data include (but are not limited to):

- Reported area statistics for individual marine PAs differ from national records
- The classification of what is a coastal area verses a predominately marine area is inconsistently applied to marine PAs (and some terrestrial PAs too)
- The method for identifying marine areas used by the WDPA has meant over 800 individual areas have been identified as having a marine component and are included in the assessments of ecological representativeness, areas important for biodiversity, areas important for ecosystems services, and protected area management effectiveness (PAME) in the marine domain
- Specifically, for PAME, there are 6 reported areas for New Zealand that have been added to the WD-PAME, 5 of which are recorded in the WDPA as being predominantly marine and/or have some area reported as being in the marine environment (Bird Island Scenic Reserve, Campbell Island Nature Reserve, Goat Island/Rakiriri Scenic Reserve, and Te Wahipounamu South West New Zealand and NZ Subantarctic Islands World Heritage Sites); New Zealand would not consider these areas to be marine protected areas.
- There are potentially overlaps in marine areas that haven't been accounted for in this analysis.

The process for updating the WDPA is ongoing.

Aichi Biodiversity Target 11 Elements: Current status and opportunities for action

Coverage - Terrestrial & Marine

- **Status:** as of May 2021, the WDPA reports terrestrial coverage in New Zealand is 90,051.3 km^2 (33.4%) and marine coverage is 1,249,398.6 km^2 (30.4%). Nationally, New Zealand reports 17,697 km^2 (0.4%) of its marine and coastal area (9.8% of the territorial sea and 0% of the exclusive economic zone) in MPAs that meet the strictest definition of IUCN categories (those areas protected as 100% no-take marine reserves). In addition, New Zealand protects a further 1,268,369 km^2 under a variety of protection measures.

- **Opportunities for action:** opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, focus on relatively intact areas, while addressing the elements in the following sections, could be considered when planning new PAs or OECMs.

Ecological Representativeness– Terrestrial & Marine

- **Status:** New Zealand contains 13 terrestrial ecoregions, 10 marine ecoregions, and 2 pelagic provinces: 10 terrestrial ecoregions (77%) have >17% coverage by reported PAs and OECMs; 5 marine ecoregions (50%) and 2 pelagic provinces (100%) have >10% coverage by reported PAs and OECMs, while 5 marine ecoregions (50%) have <1% coverage.

- **Opportunities for action:** there is opportunity for New Zealand to increase protection in terrestrial and marine ecoregions that have lower levels of coverage by PAs or OECMs; and focus on effective management for ecoregions that already have higher coverage. The New Zealand Government is working on several initiatives to further advance marine protection in New Zealand, including the Kermadec/Rangitāhua Ocean Sanctuary, the Government response to the Sea Change – Tai Timu Tai Pari marine spatial plan, and the Southeast marine protected area planning process.

Areas Important for Biodiversity

- **Status:** New Zealand has 165 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 42.2%, while 40 KBAs have no coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for New Zealand to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

Areas Important for Ecosystem Services

- **Status:** coverage of areas important for ecosystem services: In New Zealand, 49.6% of aboveground biomass carbon, 40.8% of belowground biomass carbon, 28.7% of

soil organic carbon, 25.6% of carbon stored in marine sediments is covered by PAs and OECMs.

- **Opportunities for action:** for carbon, there is opportunity for New Zealand to increase PA and OECM coverage in both marine and terrestrial areas with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.
- For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

Connectivity and Integration

- **Status:** coverage of protected-connected lands is 28.7%.
- **Opportunities for action:** there is opportunity to focus on PA and OECM management for enhancing and maintaining connectivity. Increasing connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.
- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

Governance Diversity

- **Status:** the most common governance type for reported PAs in New Zealand is: governance by Government (Federal or national ministry or agency), accounting for 96.7% of the area of PAs (44.2% of reported sites).
- **Opportunities for action:** explore opportunities for governance types that have lower representation.
- There is also opportunity for New Zealand to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

Protected Area Management Effectiveness

- **Status:** ~30% of terrestrial PAs have completed Protected Area Management Effectiveness (PAME) assessments reported; No marine PAs have completed PAME assessments.
- **Opportunities for action:** the 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has**

not been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for both terrestrial and marine PAs to achieve the target.

- There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.

INTRODUCTION

The Strategic Plan for Biodiversity 2011-2020 was adopted at the tenth meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) held in Nagoya, Aichi Prefecture, Japan from 18-29 October 2010. The vision of the Strategic Plan is one of "Living in harmony with nature" where *"By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people"* (CBD, 2010). In addition to this vision, the Strategic Plan is composed of 20 targets, under five strategic goals. Aichi Biodiversity Target 11 states that *"By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes."*

With the conclusion of the Aichi Biodiversity Targets in 2020, Target 11 on area-based conservation has seen success in the expansion of the global network of protected areas (PA) and other effective area-based conservation measures (OECMs). The negotiation of the post-2020 Global Biodiversity Framework (GBF) and its future targets provide an essential opportunity to further improve the coverage of PAs and OECMs, to improve other aspects of area-based conservation, to accelerate progress on biodiversity conservation more broadly, while also addressing climate change, and the Sustainable Development Goals. This next set of global biodiversity targets are to be adopted at the fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity. These new targets must aim to build upon lessons learned from the last decade of progress to deliver transformative change for the benefit of nature and people, to realize the 2050 Vision for biodiversity.

The United Nations Development Programme (UNDP) and the Secretariat of the Convention on Biological Diversity have developed the Aichi Biodiversity Target 11 Country Dossiers, which provide countries with an overview of the status of Target 11 elements, opportunities for action, and a summary of commitments made by Parties over the last decade. Each dossier can support countries in assessing their progress on key elements of Aichi Biodiversity Target 11 and identifying opportunities to prioritize new protected areas and OECMs.

This dossier provides an overview of area-based conservation in New Zealand. Section I of the dossier presents data on the current status of New Zealand's PAs and OECMs. The data presented in Section I relates to each element of Target 11. Section I also presents the PA and OECM coverage for two critical ecosystem services: water security and carbon stocks. In addition, the dossier presents potential opportunities for action for New Zealand, in relation to each Target 11 element. The analyses present options for improving New Zealand's area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on New Zealand's existing PA and OECMs commitments as a summary of existing efforts towards achieving Target 11. This gives focus not only to national policy and actions but also voluntary commitments to

the UN. Furthermore, where data is available, this dossier provides information on potential OECMs, Indigenous and Community Conserved Areas (ICCAs; also often referred to as territories and areas conserved by Indigenous peoples and local communities or "territories of life") and Privately Protected Areas (PPAs) and the potential contribution they will have in achieving the post-2020 targets.

The information on PAs and OECMs presented here is derived from the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM). These databases are joint products of UNEP and IUCN, managed by UNEP-WCMC, and can be viewed and downloaded at www.protectedplanet.net. Parties are encouraged to provide data on their PAs and OECMs to UNEP-WCMC for incorporation into the databases (see e.g. Decisions 10/31 and 14/8). The significant efforts of Parties in updating their data in the build up to the publication of the Protected Planet Report 2020 (UNEP-WCMC and IUCN, 2021) were greatly appreciated. UNEP-WCMC welcomes further updates, following the data standards described here (www.wcmc.io/WDPA_Manual), and these should be directed to protectedareas@unep-wcmc.org. The statistics presented in this dossier are derived from the May 2021 WDPA and WD-OECM releases, unless explicitly stated otherwise. Readers should consult www.protectedplanet.net for the latest coverage statistics (updated monthly).

Some data from the WDPA and WD-OECM are not made publicly available at the request of the data-provider. This affects some statistics, maps, and figures presented in this dossier. Statistics provided by UNEP-WCMC (terrestrial and marine coverage) are based upon the full dataset, including restricted data. All other statistics, maps, and figures are based upon the subset of the data that is publicly available.

Where data is less readily available, such as for potential OECMs, ICCAs and PPAs, data has also been compiled from published reports and scientific literature to provide greater awareness of these less commonly recorded aspects. These data are provided to highlight the need for comprehensive reporting on these areas to the WDPA and/or WD-OECM. Parties are invited to work with indigenous peoples, local communities and private actors to submit data under the governance of these actors, with their consent, to the WDPA and/or WD-OECM.

Overall, PAs and OECMs are essential instruments for biodiversity conservation and to sustain essential ecosystem services that support human well-being and sustainable development, including food, medicine, and water security, as well as climate change mitigation and adaptation and disaster risk reduction. The data in this dossier, therefore, aims to celebrate the current contributions of PAs and OECMs, whilst the gaps presented hope to encourage greater progress, not just for the benefit of biodiversity and the post-2020 GBF, but also to recognize the essential role of PAs and OECMs to the Sustainable Development Goals and for addressing the climate crisis.

SECTION I: CURRENT STATUS

Aichi Biodiversity Target 11 refers to both protected areas (PAs) and other effective area-based conservation measures (OECMs). This section provides the current status for all elements of Aichi Biodiversity Target 11 where indicators with global data are available. Statistics for all elements are presented using data on both PAs and OECMs (where this data is available and reported in global databases like the WDPA and WD-OECM). It is recognized that statistics reported in the WPDA and WD-OECM might differ from those reported officially by countries due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Details on UNEP-WCMC's methods for calculating PA and OECM coverage area available here. The global indicators adopted here for presenting the status of other elements of Target 11 may also differ from those in use nationally. Where available, results from national reporting are also included.

COVERAGE - TERRESTRIAL & MARINE

As of May 2021, New Zealand has 10,449 protected areas reported in the World Database on Protected Areas (WDPA).

As of May 2021, New Zealand has **0** OECMs reported in the world database on OECMs (WD-OECM).

Current coverage for New Zealand:

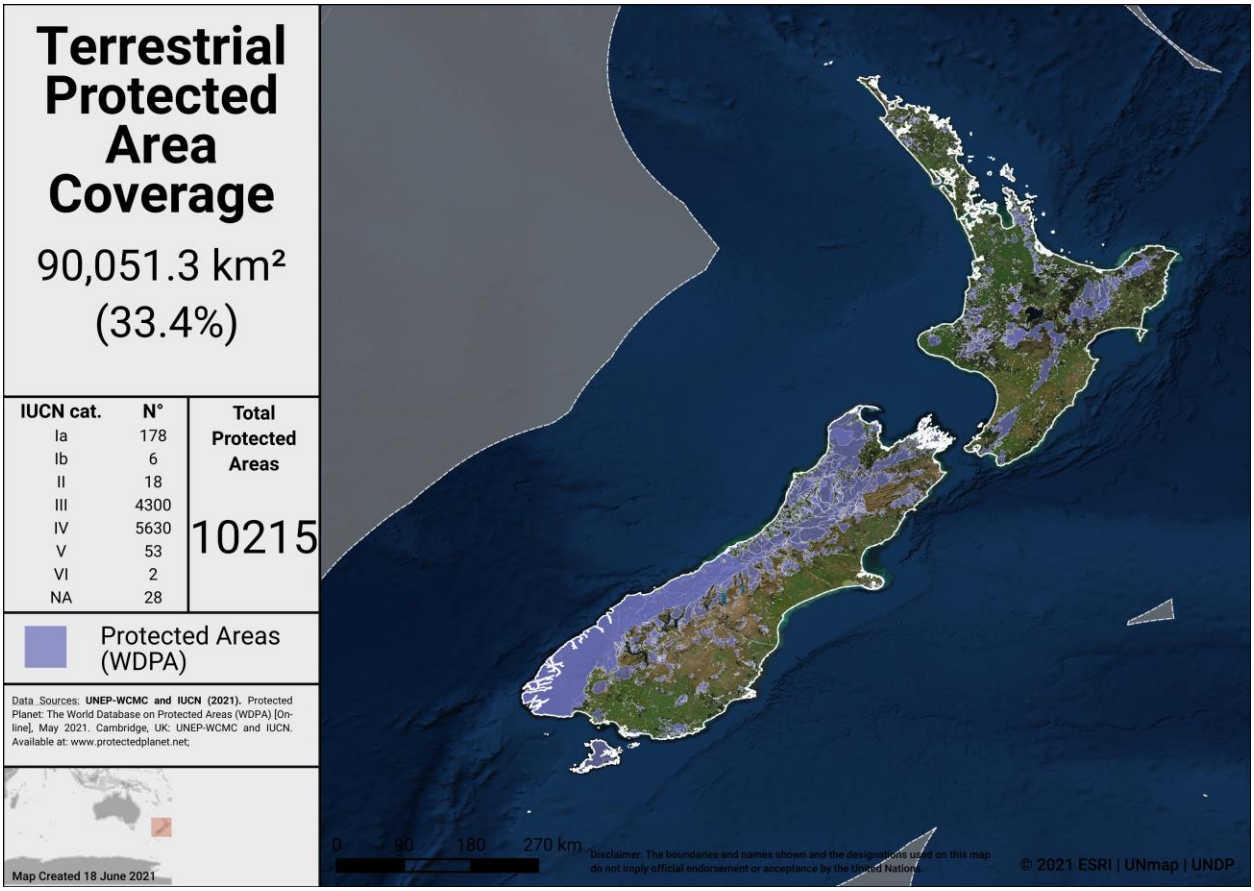
- 33.4% terrestrial (10,215 protected areas, 90,051.3 km^2)
- 30.4% marine (649 protected areas, 1,249,398.6 km^2)

Currently New Zealand reports 17,697 km^2 (0.4%) of its marine and coastal area (9.8% of the territorial sea and 0% of the exclusive economic zone) in MPAs that meet the strictest definition of IUCN categories (those areas protected as 100% no-take marine reserves).

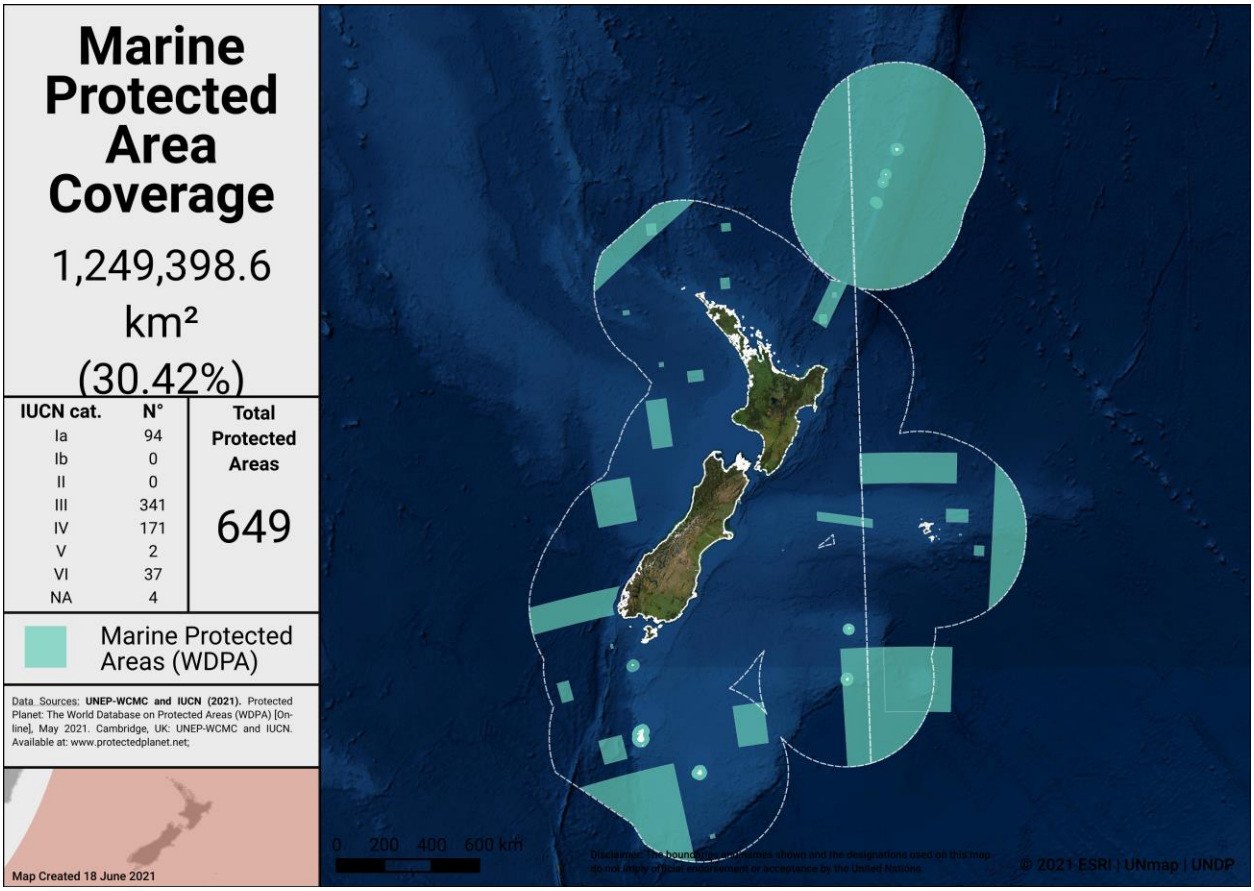
In addition, New Zealand protects a further 1,268,369 km^2 under a variety of protection measures:

- 27.4% of marine and coastal area is protected from fishing impacts on the benthic marine environment and a further 2.6% is seamounts protected from trawl impacts.
- 0.7% of marine and coastal area is in Marine Mammal Sanctuaries (spatial conservation measures applied to manage risks to marine mammals).
- 0.1% of marine and coastal area is in Type 2 marine protection measures (management tools that meet New Zealand's domestic protection standard for MPAs; the minimum level of protection required for a Type 2 MPA is the prohibition of bottom trawling, Danish seining and dredging (commercial and amateur)).

See New Zealand's 6th National Report to the CBD for full details on national reporting and statistics for Target 11.



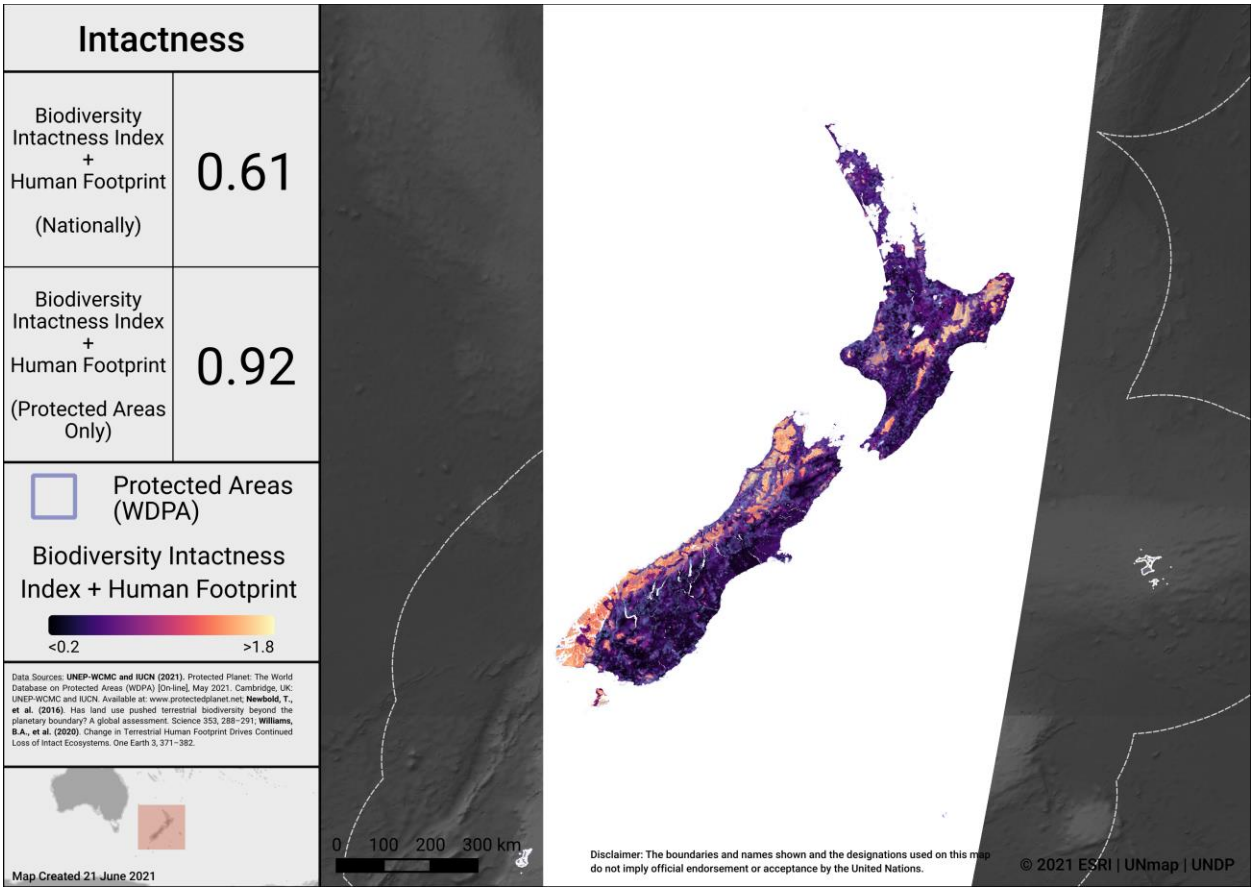
Terrestrial Protected Areas in New Zealand



Marine Protected Areas in New Zealand

Opportunities for action

Opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, as New Zealand considers where to add new PAs and OECMs, the map below identifies terrestrial areas in New Zealand where intact terrestrial areas are not currently protected. Focus on relatively intact areas, while addressing the elements in the following sections, could be considered if planning new PAs or OECMs.



Intactness in New Zealand

To explore more on intactness visit the UN Biodiversity Lab: map.unbiodiversitylab.org.

ECOLOGICAL REPRESENTATIVENESS – TERRESTRIAL & MARINE

Ecological representativeness is assessed based on the PAs and OECMs coverage of broad-scale biogeographic units. Globally, ecoregions have been described for terrestrial areas (Dinerstein et al, 2017), marine coastal and shelf ecosystems (to a depth of 200m; Spalding et al 2007) and surface pelagic waters (Spalding et al 2012).

New Zealand has 13 **terrestrial** ecoregions. Out of these:

- All 13 ecoregions have at least some coverage from PAs and OECMs
  - All have >5% coverage
- 10 ecoregions have at least 17% protected within the country
  - Of which, 7 have >50% coverage

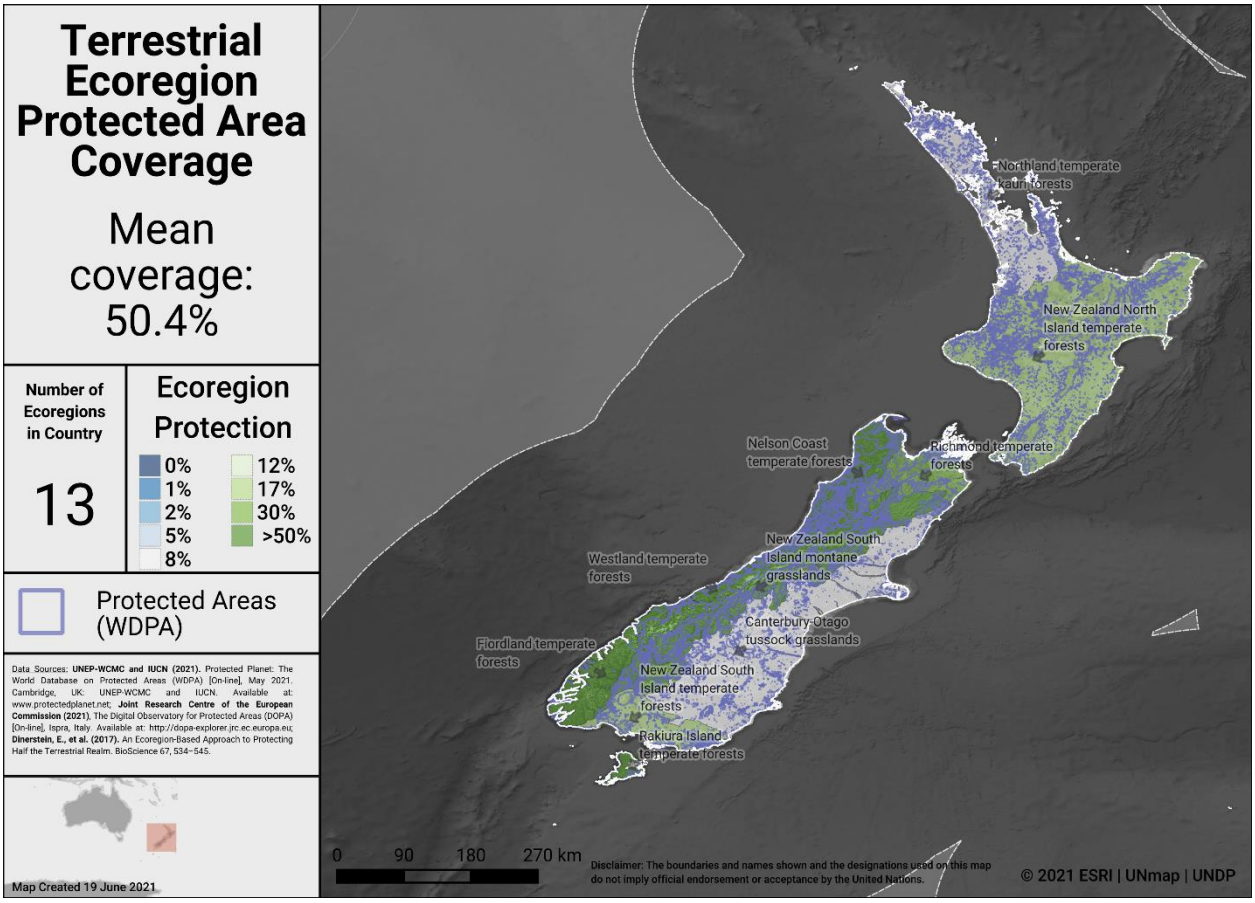
New Zealand has 10 **marine** ecoregions and 2 **pelagic provinces**. Out of these:

- All 10 marine ecoregions and 2 pelagic provinces have at least some coverage from reported PAs and OECMs
  - Though 5 marine ecoregions have <0.5% coverage
- 5 marine ecoregions and 2 pelagic provinces have at least 10% protected within New Zealand's exclusive economic zone (EEZ).

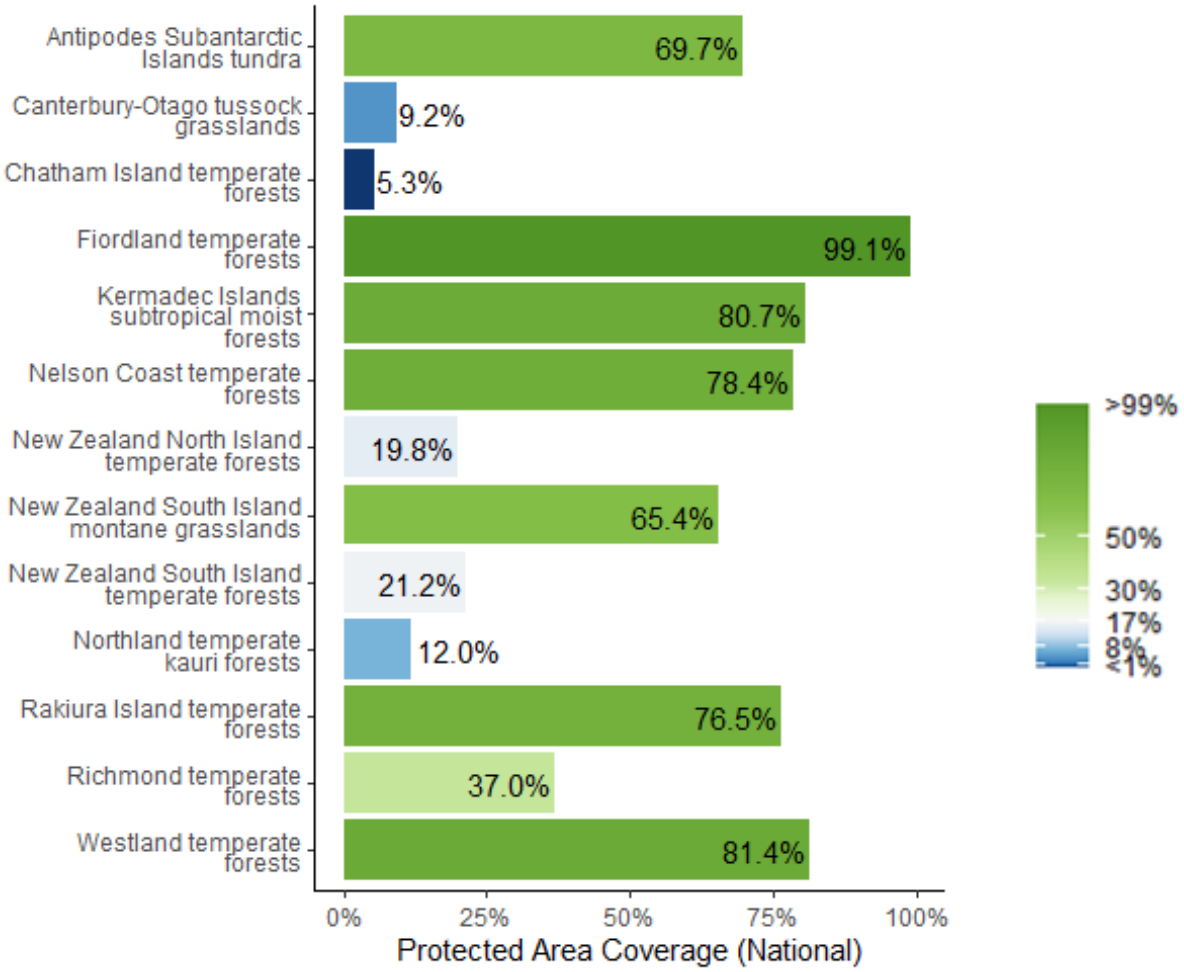
A full list of ecoregions in New Zealand is available in Annex I.

In New Zealand territorial sea, the distribution of marine protection is uneven across the 14 coastal marine biogeographic regions. A large proportion (96.5%) of marine reserve coverage is located around offshore islands in the northern (the Kermadec Islands) and southern (the Subantarctic Islands) extremes of the territorial sea.

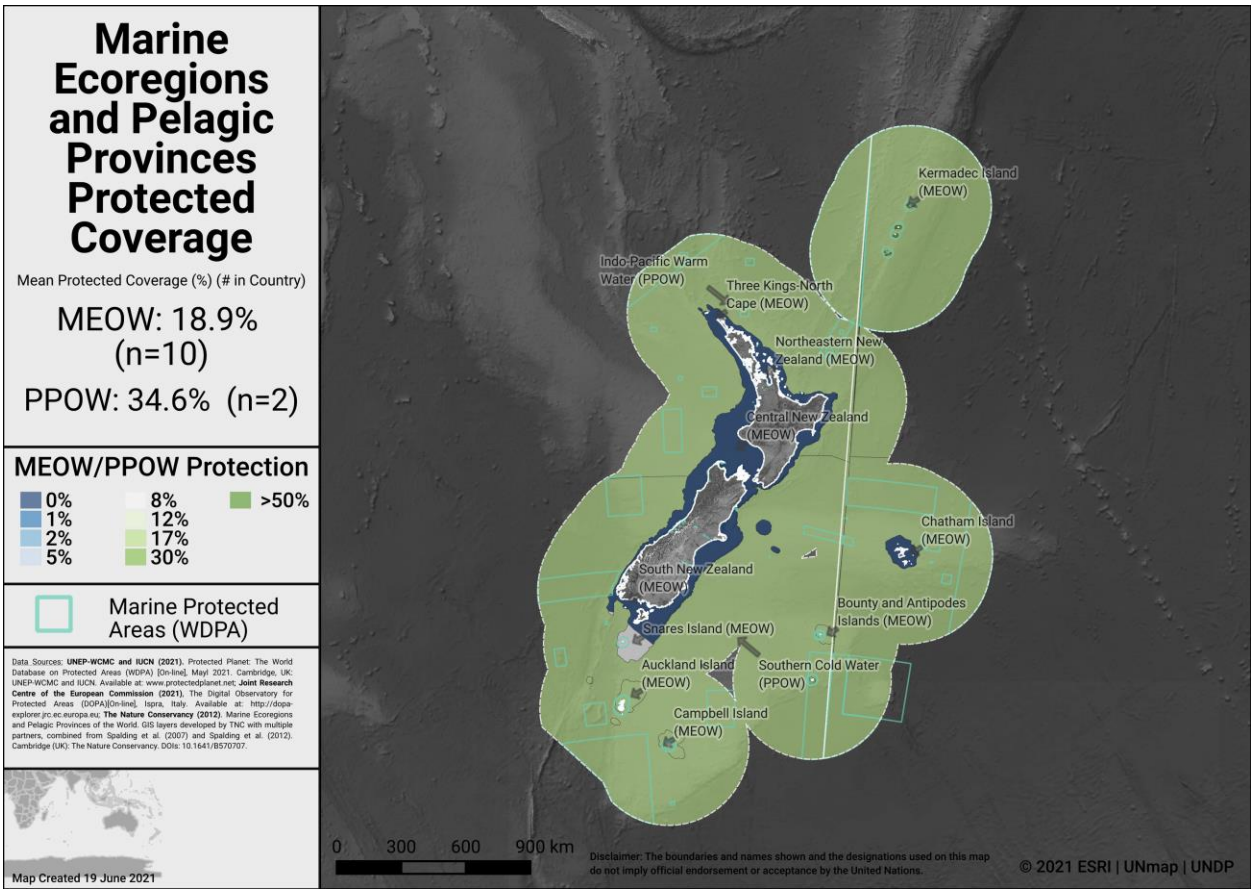
The remaining 3.5% of marine reserves and other marine protection measures in the mainland territorial sea are not well spread across biogeographic regions. Consequently, our current coastal marine protection network does not yet protect a fully representative range of habitats, with significant gaps in protection within mainland biogeographic regions. The New Zealand Government is working on several initiatives to further advance marine protection in New Zealand, including the Kermadec/Rangitāhua Ocean Sanctuary, the Government response to the Sea Change – Tai Timu Tai Pari marine spatial plan, and the Southeast marine protected area planning process.



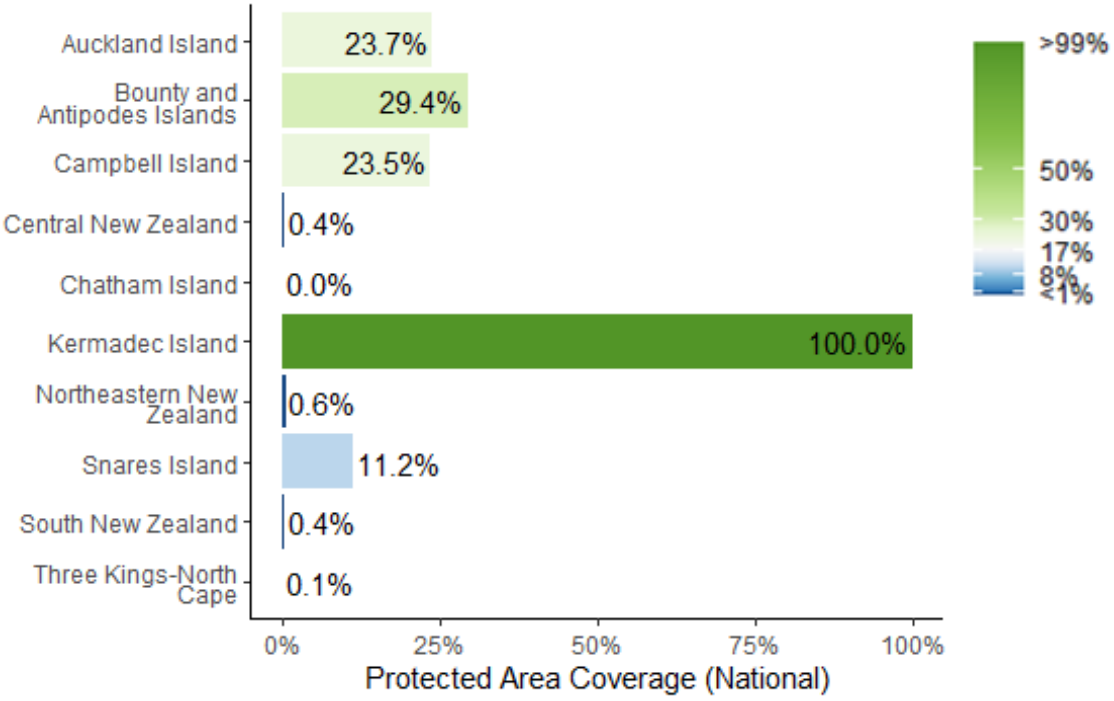
Terrestrial ecoregions in New Zealand



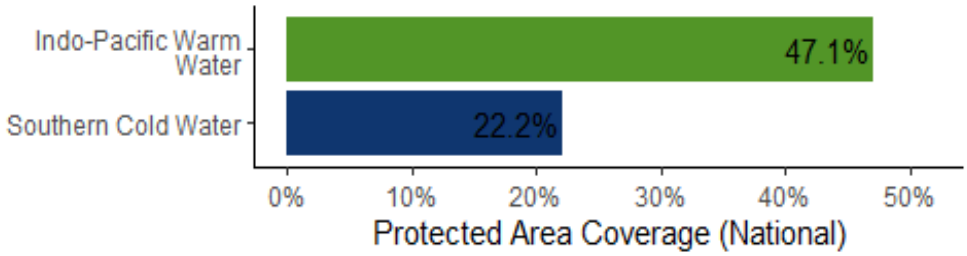
Terrestrial ecoregions of the World (TEOW) in New Zealand



Marine ecoregions and pelagic provinces



Marine Ecoregions of the World (MEOW) in New Zealand



Pelagic Provinces of the World (PPOW) in New Zealand

Opportunities for action

There is opportunity for New Zealand to increase protection in terrestrial and marine ecoregions that have lower levels of coverage by PAs or OECMs; and focus on effective management for ecoregions that already have higher coverage. The New Zealand Government is working on several initiatives to further advance marine protection in New Zealand, including the Kermadec/Rangitāhua Ocean Sanctuary, the Government response to the Sea Change – Tai Timu Tai Pari marine spatial plan, and the Southeast marine protected area planning process.

AREAS IMPORTANT FOR BIODIVERSITY

Key Biodiversity Areas (KBAs)

Protected area and OECM coverage of Key Biodiversity Areas (KBAs) provide one proxy for assessing the conservation of areas important for biodiversity at national, regional and global scales. KBAs are sites that make significant contributions to the global persistence of biodiversity (IUCN, 2016). The KBA concept builds on four decades of efforts to identify important sites for biodiversity, including Important Bird and Biodiversity Areas, Alliance for Zero Extinction sites, and KBAs identified through Hotspot ecosystem profiles supported by the Critical Ecosystem Partnership Fund. Incorporating these sites, the dataset of internationally significant KBAs includes Global KBAs (sites shown to meet one or more of 11 criteria in the Global Standard for the Identification of KBAs, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and irreplaceability), Regional KBAs (sites identified using pre-existing criteria and thresholds, that do not meet the Global KBA criteria based on existing information), and KBAs whose Global/Regional status is Not yet determined, but which will be assessed against the global KBA criteria within 8-12 years. Regional KBAs are often of critical international policy relevance (e.g., in EU legislation and under the Ramsar Convention on Wetlands), and many are likely to qualify as Global KBAs in future once assessed for their biodiversity importance for other taxonomic groups and ecosystems. To date, nearly 16,000 KBAs have identified globally, and information on each of these is presented in the World Database of Key Biodiversity Areas: www.keybiodiversityareas.org.

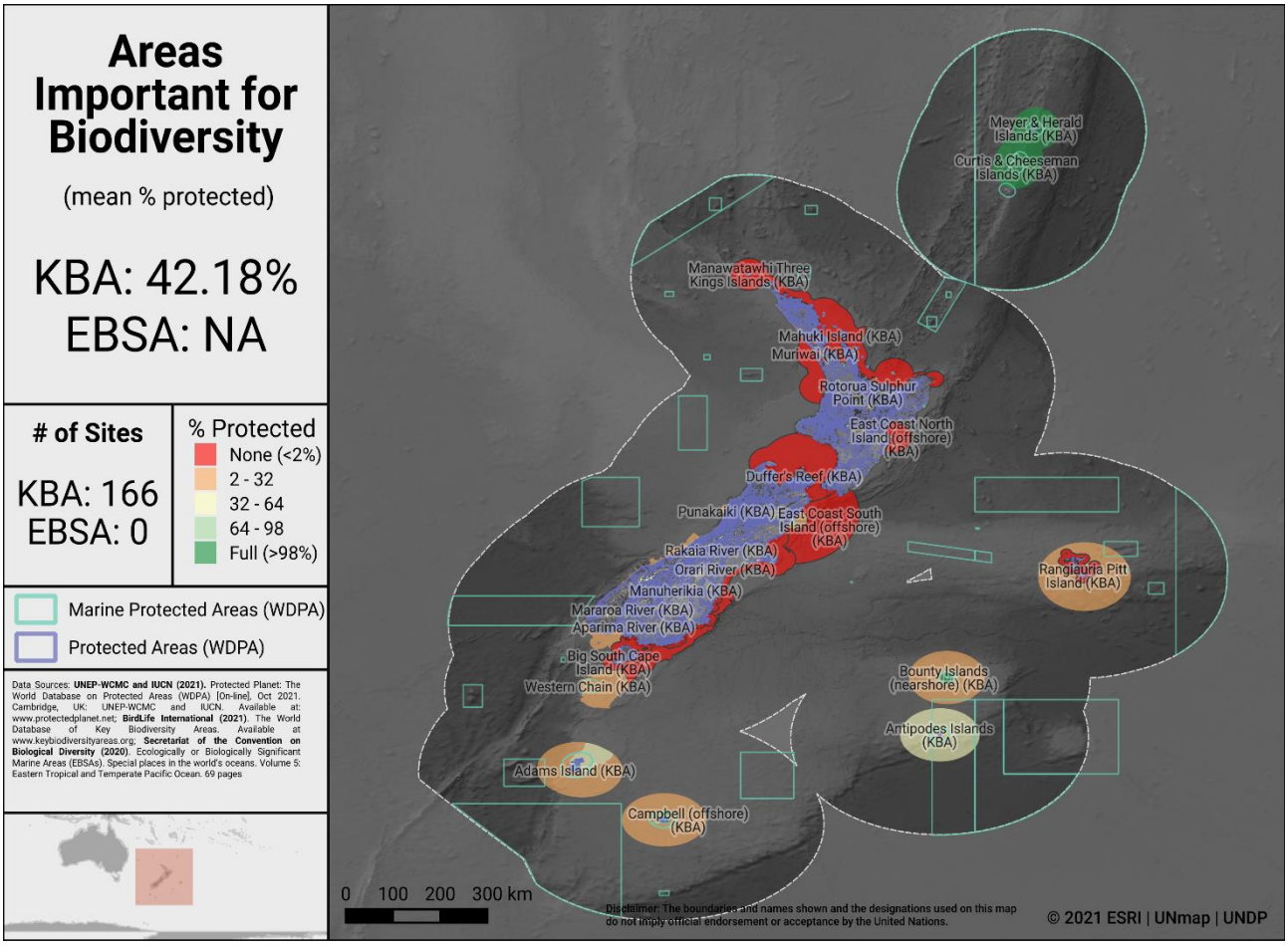
New Zealand has **165** Key Biodiversity Areas (KBAs).

- Mean percent coverage of all KBAs by PAs and OECMs in New Zealand is **42.2%**.
- **34** KBAs have full (>98%) coverage by PAs and OECMs.
- **91** KBAs have partial coverage by PAs and OECMs.
- **40** KBAs have no (<2%) coverage by PAs and OECMs.

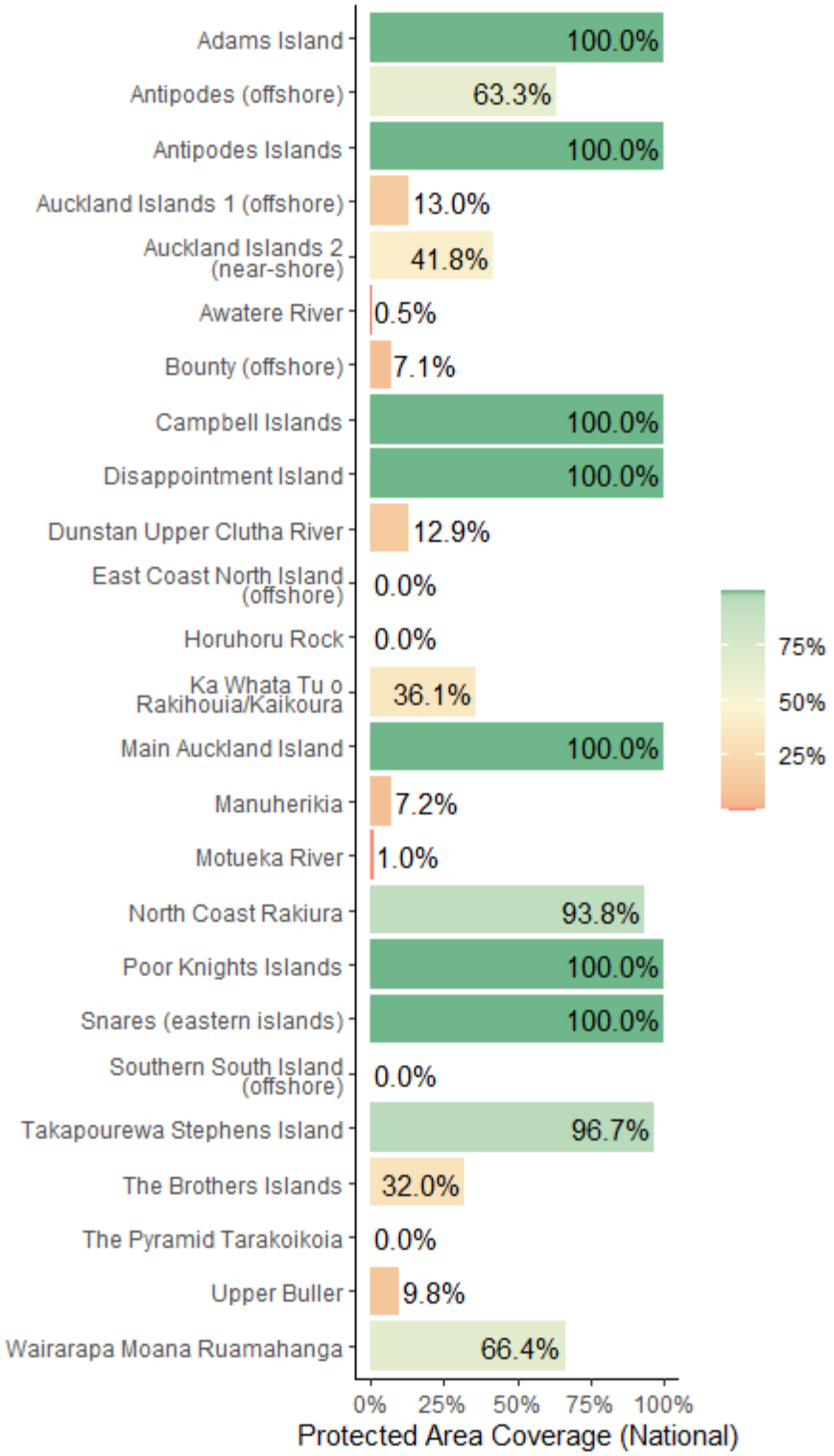
Ecologically or Biologically Significant Marine Areas (EBSAs)

Other important areas for biodiversity may also include Ecologically or Biologically Significant Marine Areas (EBSAs), which were identified following the scientific criteria adopted at COP-9 (Decision IX/20; see more at: https://www.cbd.int/ebsa/). Sites that meet the EBSA criteria may require enhanced conservation and management measures; this could be achieved through means including MPAs, OECMs, marine spatial planning, and impact assessment.

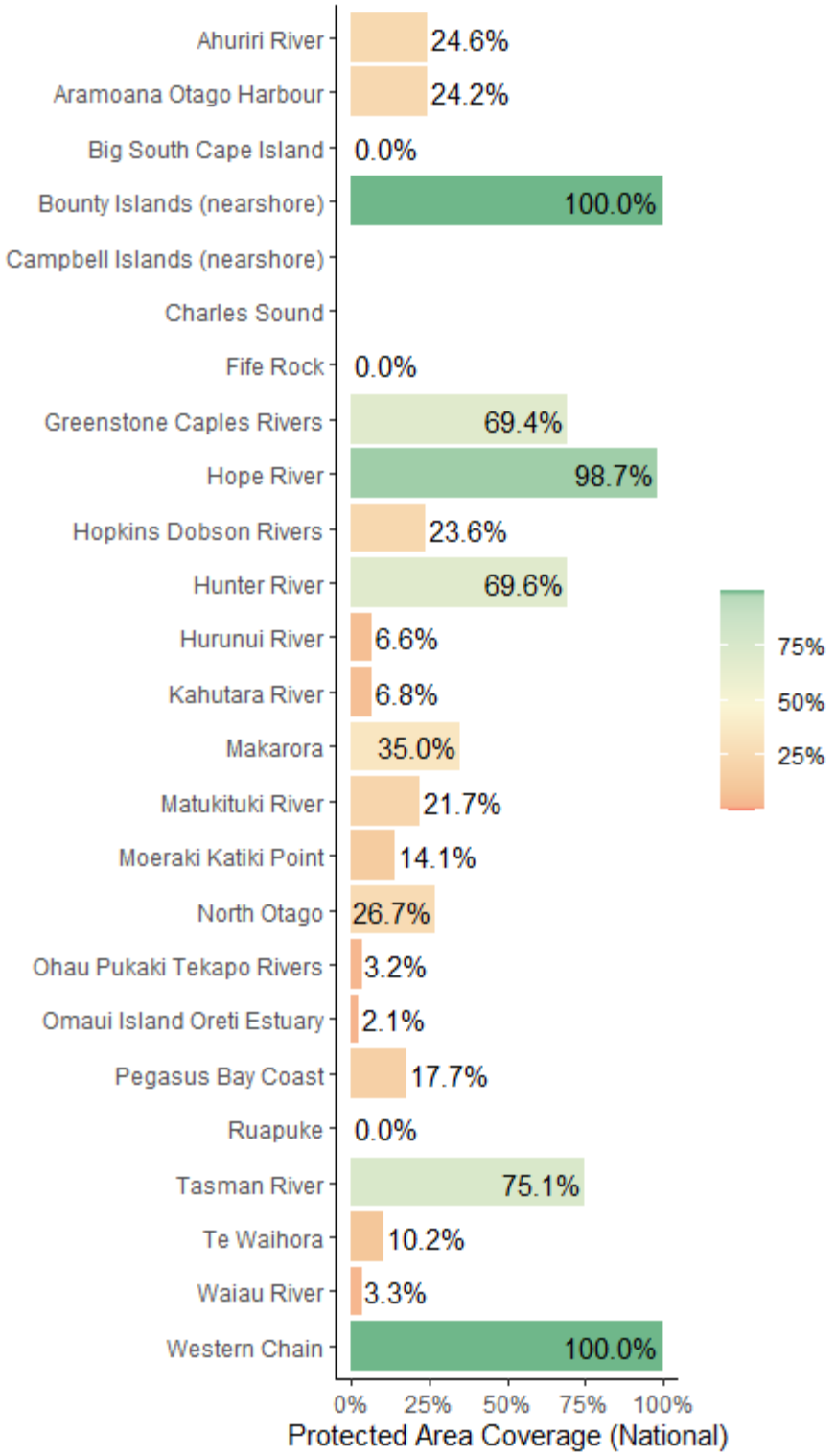
There are **no EBSAs** to report in New Zealand.



Areas Important for Biodiversity in New Zealand



Key Biodiversity Area Coverage (KBA) in New Zealand



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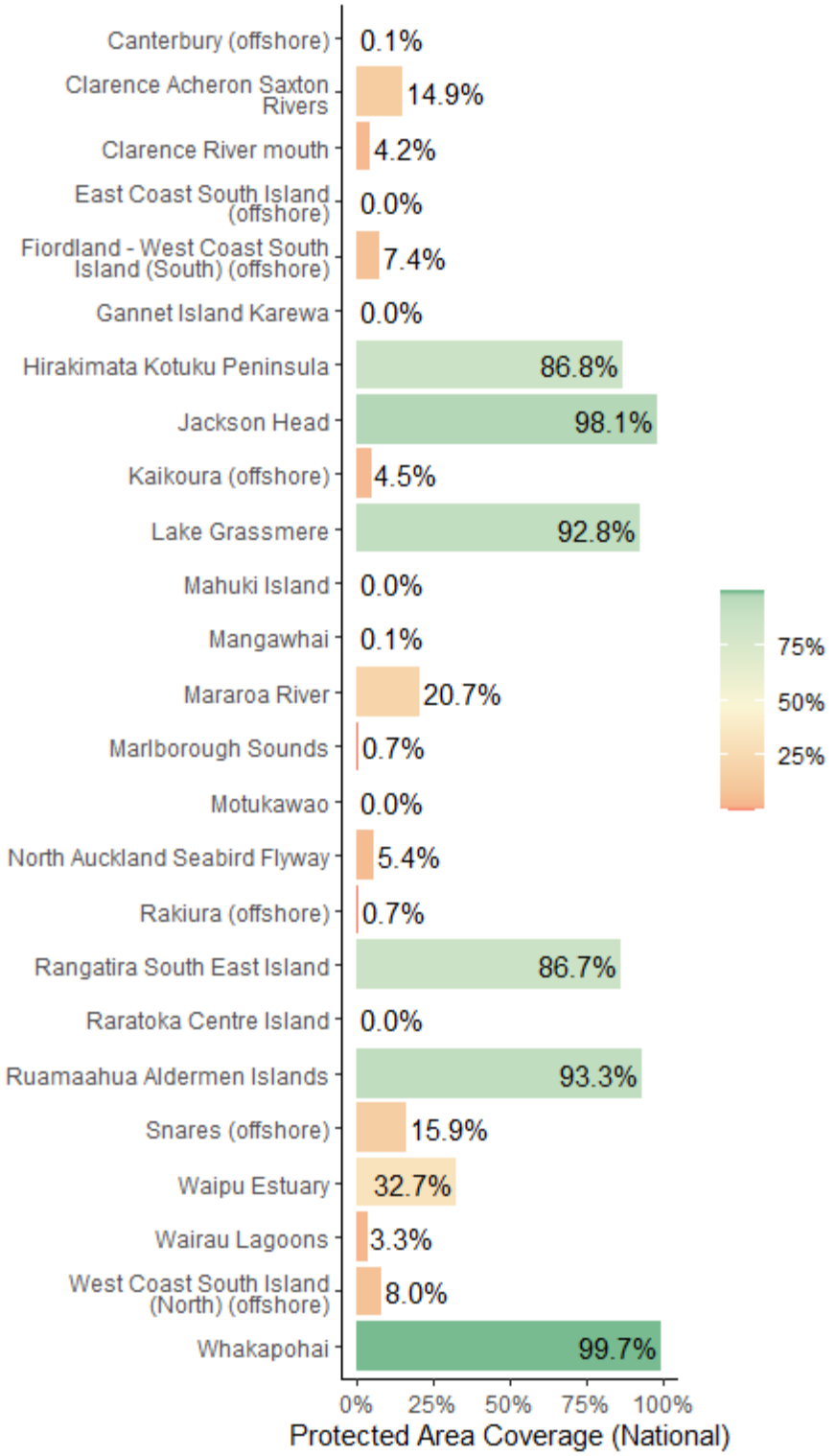

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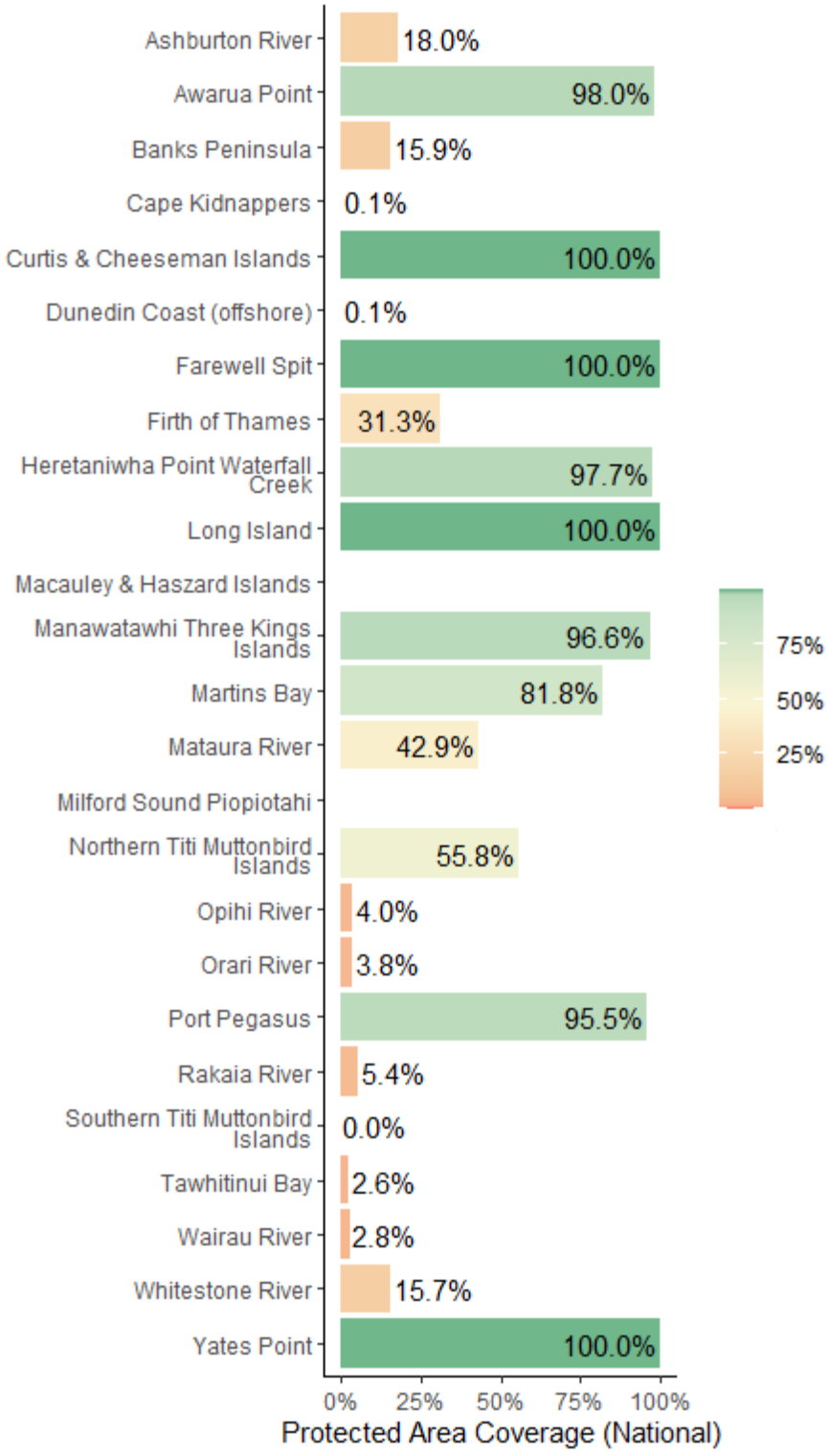

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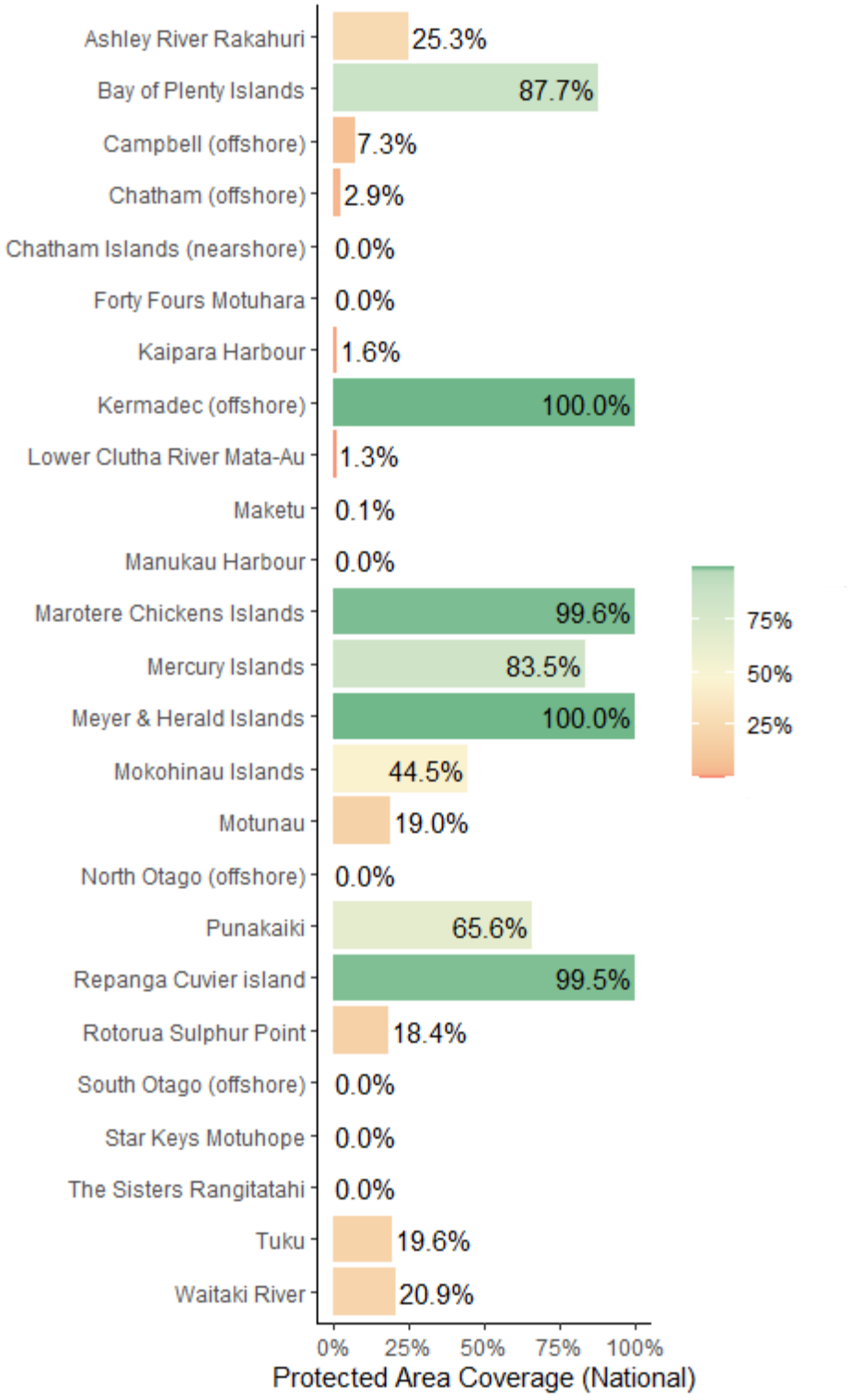
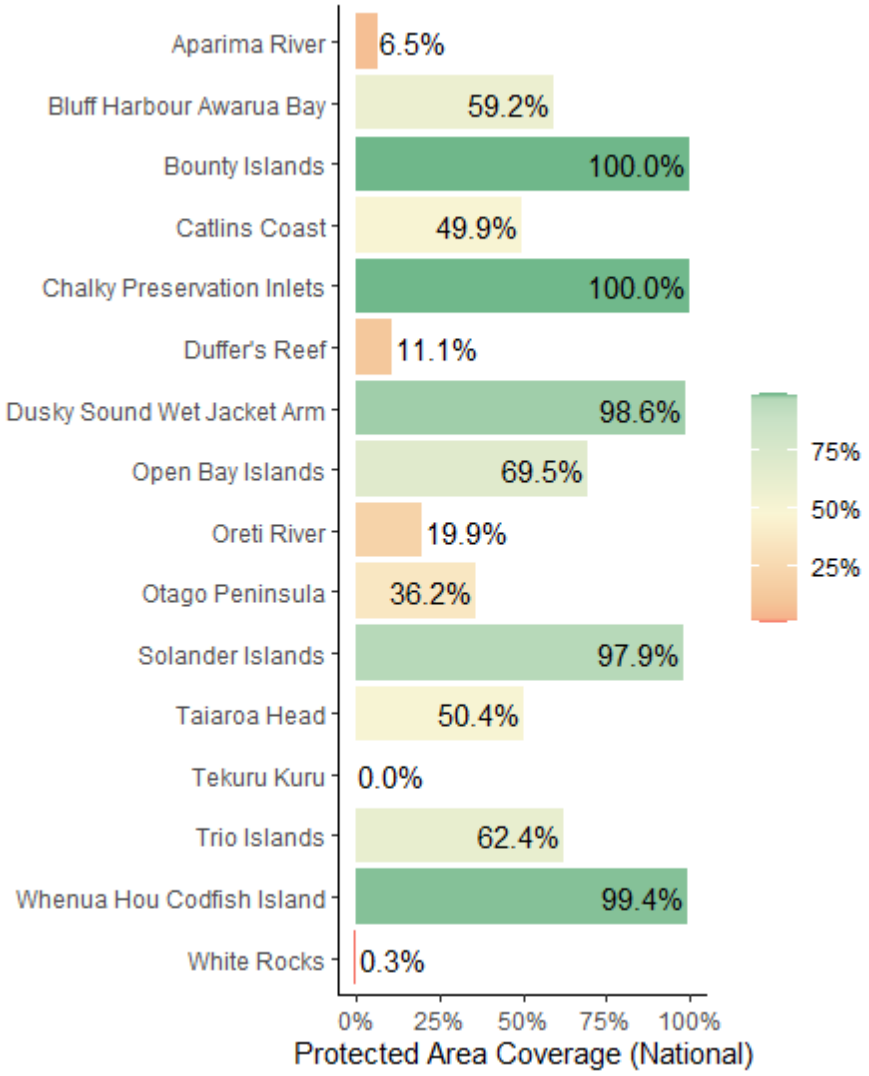


Key Biodiversity Area Coverage (KBA) in New Zealand



Key Biodiversity Area Coverage (KBA) in New Zealand

Opportunities for action

There is opportunity for New Zealand to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

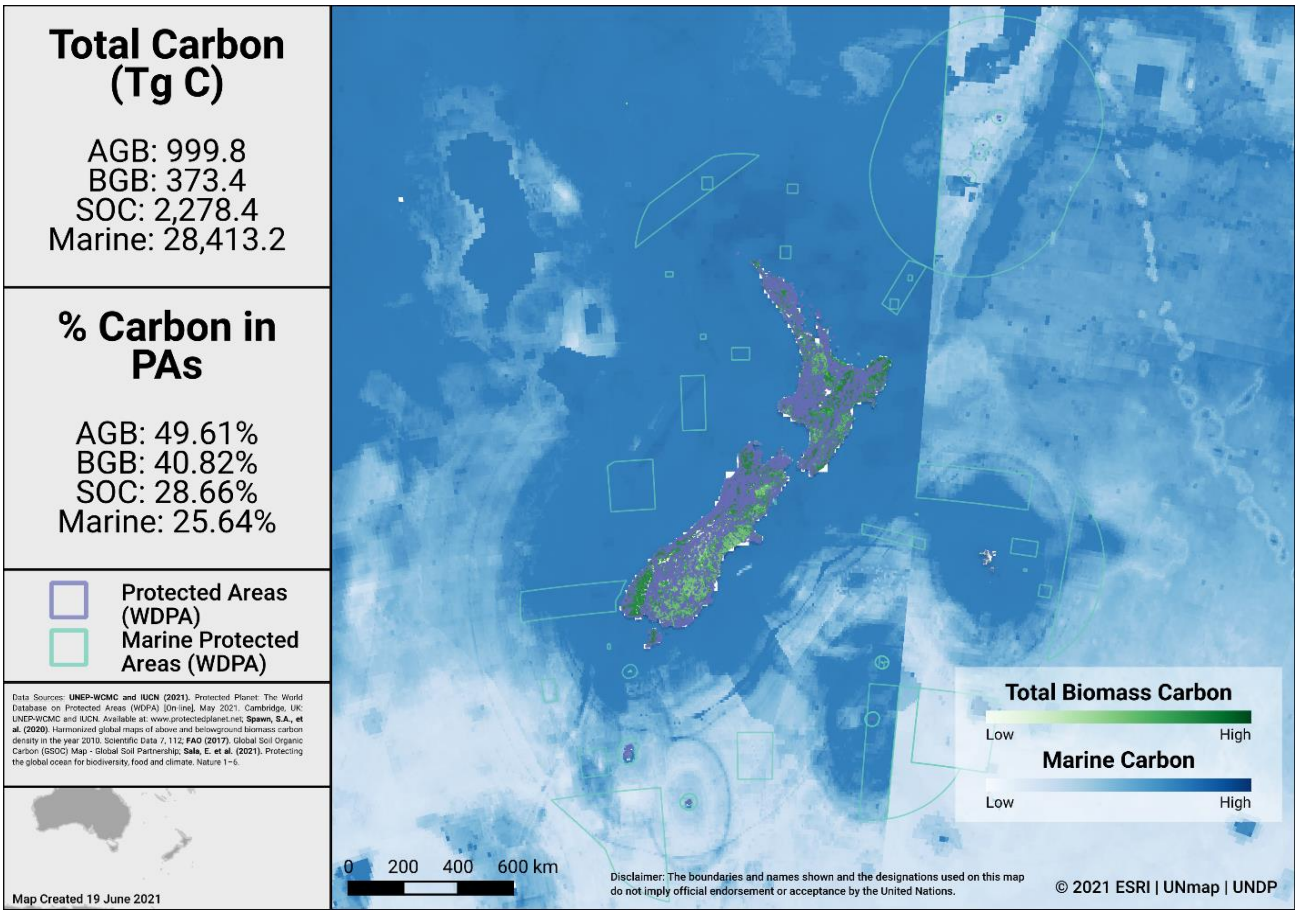
AREAS IMPORTANT FOR ECOSYSTEM SERVICES

There is no single indicator identified for assessing the conservation of areas important for ecosystem services. For simplicity, two services with available global datasets are assessed here (carbon and water). In future, other critical ecosystem services could be explored.

Carbon

Data for biomass carbon comes from temporally consistent and harmonized global maps of aboveground biomass and belowground biomass carbon density (at a 300-m spatial resolution); the maps integrate land-cover specific, remotely sensed data, and land-cover specific empirical models (see Spawn et al., 2020 for details on methodology). The Global Soil Organic Carbon Map present an estimation of SOC stock from 0 to 30 cm (see FAO, 2017). Data is also presented from global maps of marine sedimentary carbon stocks, standardized to a 1-meter depth (see Sala et al., 2021, and Atwood et al., 2020).

The map below presents the total carbon stocks in New Zealand and the percent of carbon in protected areas. The total carbon stocks is 999.8 Tg C from aboveground biomass (AGB), with 49.6% in protected areas; 373.4 Tg C from below ground biomass (BGB), with 40.8% in protected areas; 2,278.4 Tg C from soil organic carbon (SOC), with 28.7% in protected areas; and 28,413.2 Tg C from marine sediment carbon with 25.6% in protected areas.



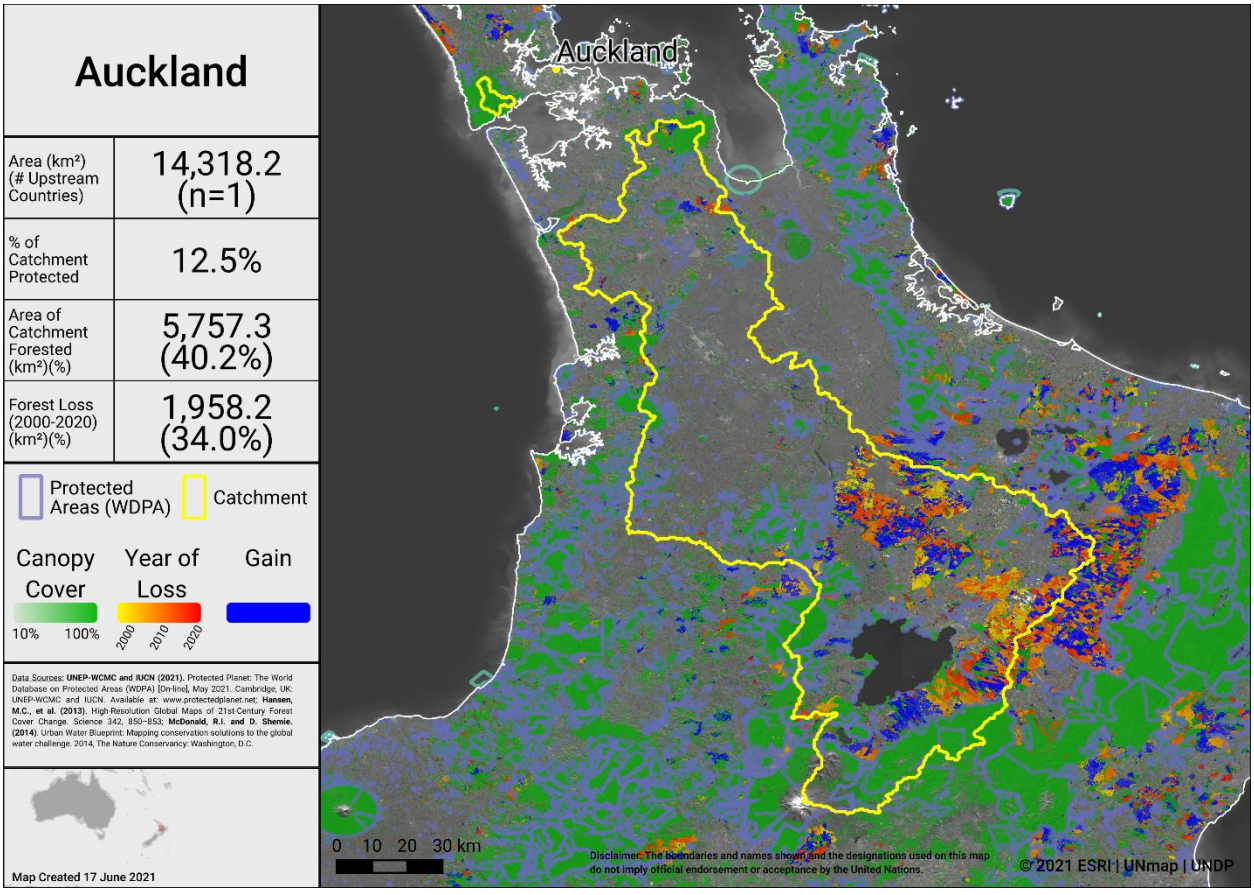
Carbon Stocks in New Zealand

Water

Information on the water sources for 534 cities is available via the City Water Map (CWM) and provides details on the catchment area of the watershed that supplies these cities (see McDonald et al., 2014 for details on methodology).

Forests support stormwater management and clean water availability, especially for large urban populations. Research that has examined the role of forests for city drinking water supplies shows that of the world's 105 largest cities, more than 30% (33 cities) rely heavily on the local protected forests, which provide ecosystem services that underpin local drinking water availability and quality (Dudley & Stolton, 2003)

Drinking water supplies for cities in New Zealand may similarly depend on protected forest areas within and around water catchments. The map below shows the percentage forest cover and the forest loss from 2000-2020 in the most heavily populated water catchment of New Zealand. Intact catchments can support more consistent water supply and improved water quality.



Water catchment in Aukland

Opportunities for action

For carbon, there is opportunity for New Zealand to focus on effective management for PAs and OECMs in both marine and terrestrial areas with high carbon stocks, as identified in the map above; if applicable, increase PA and OECM coverage in marine and terrestrial areas with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

CONNECTIVITY & INTEGRATION

Two global indicators, the Protected Connected land indicator (ProtConn; EC-JRC, 2021; Saura et al., 2018) and the PARC-Connectedness indicator (CSIRO, 2019), have been proposed for assessing the terrestrial connectivity of PA and OECM networks. To date there is no global indicator for assessing marine connectivity, though some recent developments include proposed guidance for the treatment of connectivity in the planning and management of MPAs (see Lausche et al., 2021).

Protected Connected Land Indicator (Prot-Conn)

As of January 2021, as reported in the Joint Research Centre of the European Commission's Digital Observatory for Protected Areas (DOPA) (JRC, 2021), the coverage of protected-connected lands (a measure of the connectivity of terrestrial protected area networks, assessed using the ProtConn indicator) New Zealand was 28.7%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in New Zealand is 0.48. This represents no significant change since 2010.

Corridor case studies

There are currently no corridor case studies available for New Zealand (but see general details on conserving connectivity through ecological networks and corridors in Hilty et al 2020).

Opportunities for action

There is opportunity to focus on PA and OECM management for enhancing and maintaining connectivity. Improving connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

GOVERNANCE DIVERSITY

There is a lack of comprehensive global data on governance quality and equity in PAs and OECMs. Here, we provide data on the diversity of governance types for reported PAs and OECMs.

As of May 2021, PAs in New Zealand reported in the WDPA have the following governance types:

- 96.6% of the area of PAs (44.2% of sites) are governed by **governments**
  - by federal or national ministry or agency
- 0.1% of the area of PAs (8.5% of sites) are under **shared** governance
  - by collaborative governance
- 0.0% are under **private** governance
- 0.0% are under **IPLC** governance
  - 0.0% by Indigenous Peoples
  - 0.0% by local communities
- 3.3% of the area of PAs (47.2% of sites) **do not** report a governance type

OECMs

As of May 2021, there are **0** OECMs in New Zealand reported in the WD-OECM, therefore there is no data available on OECM governance types.

Privately Protected Areas (PPAs)

In 2020, there were 4,700 PPAs (~1,600 km^2 in terrestrial coverage) added to the WDPA, submitted via the Queen Elizabeth II National Trust (QEII). As part of the QEII network, landowners retain ownership of their property and special areas are protected with legally binding covenants, which remain on the land title forever (see more here)

Territories and areas conserved by Indigenous Peoples and local communities (ICCAs)

There is no data available on ICCAs for New Zealand (see Kothari et al., 2012 and the ICCA Registry for details).

Other Indigenous lands

Lands managed and/or controlled by Indigenous Peoples cover an area of 13,870.0 km^2, of which 13,602.0 km^2 falls outside of formal protected areas. Indigenous lands with a human footprint less than 4 (considered as 'natural landscapes') cover an area of 5,837.0 km^2 (for details on analysis see Garnett et al., 2018).

For New Zealand, evidence for the presence of Indigenous Peoples comes from: Indigenous Work Group on Indigenous Affairs. Indigenous World 2017 (Indigenous Working Group on Indigenous Affairs, 2017).

Boundaries of the lands Indigenous Peoples manage or have tenure rights over come from: Land Information New Zealand. NZ Property Titles. https://data.linz.govt.nz/layer/50804-nz-property-titles (2011); Land Information New Zealand. Landonline: Title. https://data.linz.govt.nz/table/52067-landonline-title (2014).

Opportunities for action

Explore opportunities for governance types that have lower representation, this could relate to governance by Indigenous Peoples and/or local communities (IPLC), shared governance, etc. There is also opportunity for New Zealand to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. Examples of existing tools and methodologies include: Governance Assessment for Protected and Conserved Areas (Franks & Brooker, 2018), Social Assessment of Protected Areas (Franks et al 2018), and Site-level assessment of governance and equity (IIED, 2020). As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

PROTECTED AREA MANAGEMENT EFFECTIVENESS

This section provides information on the coverage of PAs and OECMs with completed protected area management effectiveness (PAME) assessments as reported in the global database (GD-PAME). The proportion of terrestrial and marine PAs with completed PAME assessments is calculated and compared with the 60% target agreed to in COP-10 decision X/31. Information is also included regarding changes in forest cover nationally within PAs and OECMs.

Protected area management effectiveness (PAME) assessments

As of May 2021, New Zealand has 10,449 PAs reported in the WDPA; of these PAs, 6 (0.1%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

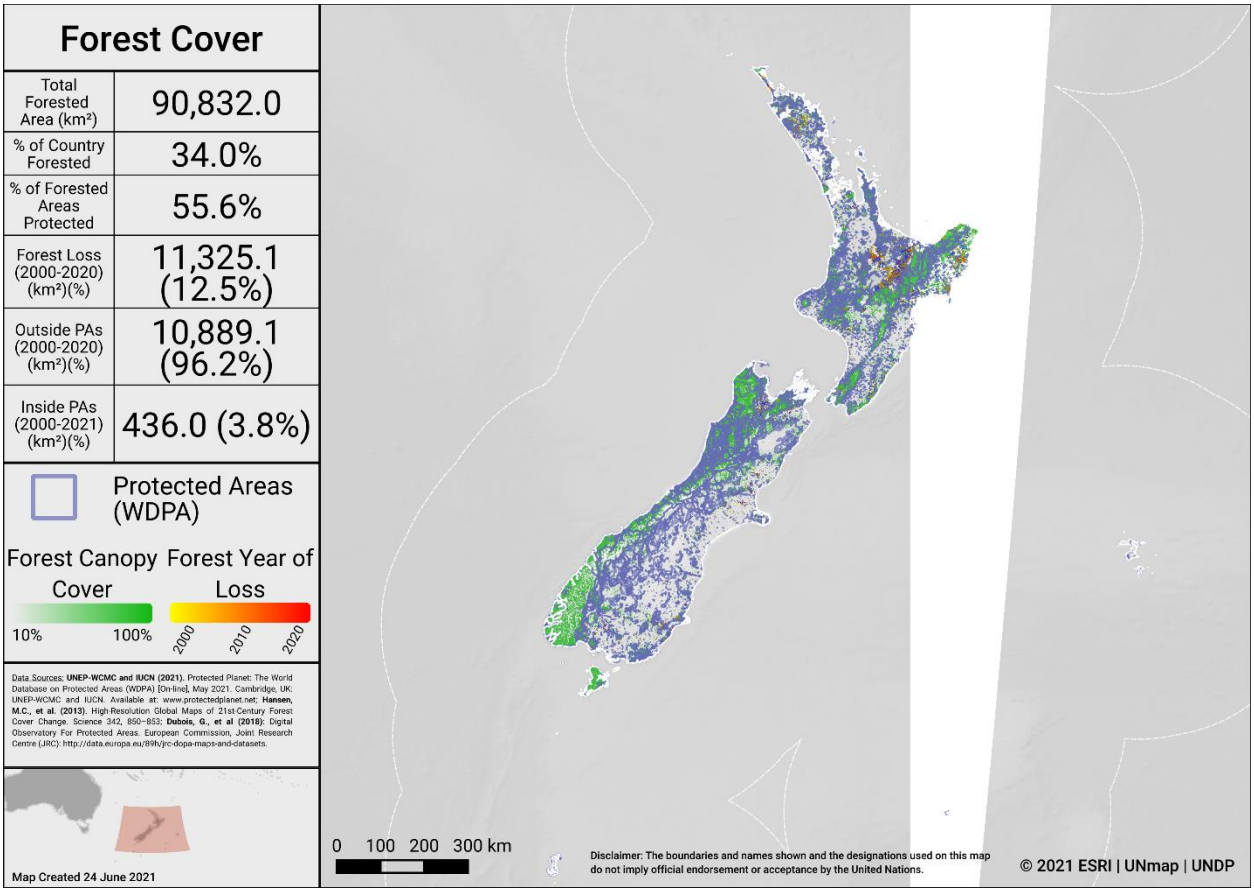
- 9.7% (26,073 km^2) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 29.0% of the area of terrestrial PAs have completed evaluations.
- No marine PAs have had a management effectiveness assessment completed
  - The WDPA and GD-PAME show 14,582 km^2 of 'marine area' with completed assessments for New Zealand; this statistic is an artefact of the methodologies used and does not reflect the situation in the country.

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has not** been met for marine PAs.

As of May 2021, there are 0 OECMs in New Zealand reported in the WD-OECM and no information available on the management effectiveness of potential OECMs.

Changes in forest cover in protected areas and OECMs

Forested areas in New Zealand cover approximately 34.0% of the country, an area of 90,832.0 km^2. Approximately 55.6% (50,524.1 km^2) of this is within the protected area estate of New Zealand. Over the period 2000-2020 net loss of forest cover amounted to over 11,325.1 km^2, or 12.5% of forest area, of which 436.0 km^2 (3.8%) occurred within protected areas. The map below shows how forest cover has changed in New Zealand from 2000-2020 both inside and outside of PAs. This can indicate how effective PAs are in reducing forest cover loss.



Forest Cover and Forest Loss in New Zealand

Opportunities for action

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has not** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for both terrestrial and marine PAs to achieve the target.

There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.

SECTION II: EXISTING PROTECTED AREA AND OECM COMMITMENTS

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

New Zealand has submitted an NBSAP during the Strategic Plan for Biodiversity 2011-2020 (most recent NBSAP is available at: https://www.cbd.int/nbsap/search/).

Objective 10: Ecosystems and species are protected, restored, resilient and connected from mountain tops to ocean depths

2025 Goals:

- 10.1.1 Prioritised research is improving baseline information and knowledge of species and ecosystems
- 10.2.1 The cumulative effects of pressures on biodiversity are better understood
- 10.4.1 Significant progress has been made in identifying, mapping and protecting coastal ecosystems and identifying and mapping marine ecosystems of high biodiversity value
- 10.5.1 A framework has been established to promote ecosystem-based management, protect and enhance the health of marine and coastal ecosystems, and manage them within clear environmental limits
- 10.6.1 A protection standard for coastal and marine ecosystems established and implementation underway
- 10.7.1 There have been no known human-driven extinctions of indigenous species
- 10.8.1 The viability of current and future mahinga kai and cultural harvest of indigenous species has been assessed to guide future use

2030 Goals:

- 10.1.2 Improved baseline information, comprehensive mapping, and improved knowledge of species and ecosystems and causes of their decline are informing management
- 10.2.2 Management at different scales and across domains is reducing the cumulative effects of pressures on biodiversity
- 10.3.2 There has been no loss of the extent or condition of indigenous land, wetland or freshwater ecosystems which have been identified as having high biodiversity value
- 10.4.2 No loss of the extent or condition marine and coastal habitats which have been identified, mapped and designated as having high biodiversity value
- 10.5.2 Significant progress has been made in protecting marine habitats and ecosystems of high biodiversity value

- 10.6.2 Significant progress made in establishing an effective network of marine protected areas and other protection tools
- 10.7.2 Populations of all indigenous species known to be at risk of extinction are being managed to ensure their future stability or an improving state
- 10.8.2 Mahinga kai and cultural harvest of a wider range of indigenous species is being practiced, with no adverse impacts on ecosystems and species

2050 Goals:

- 10.1.3 Comprehensive baseline information integrated with spatial information and knowledge about effective management is informing the adaptive management of species and ecosystems
- 10.2.3 The cumulative effects of pressures on biodiversity have been reduced to a level that does not have significant detrimental effects on biodiversity
- 10.3.3 An interconnected series of indigenous land, wetland and freshwater ecosystems have been restored to a 'healthy functioning' state and are connected to marine and coastal ecosystems
- 10.4.3 An interconnected series of marine and coastal ecosystems have been protected and restored to a 'healthy functioning' state and are connected to indigenous land, wetland and freshwater ecosystems
- 10.5.3 (2035) Marine and coastal biodiversity is managed within environmental limits so that there is no net loss in the extent or condition of marine and coastal ecosystems
- 10.6.3 (2035) An effective network of marine protected areas and other tools, including marine and coastal ecosystems of high biodiversity value is established and is meeting the agreed protection standard
- 10.7.3 Indigenous species have expanded in range, abundance and genetic diversity and are more resilient to pressures, including climate change
- 10.8.3 Resilient biodiversity ensures that Treaty partners, whānau, hapū, iwi and Māori organisations can practice mahinga kai and cultural harvest

For other objectives and goals, see the full text of the strategy: Te Mana O Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020

UN OCEAN CONFERENCE VOLUNTARY COMMITMENTS

Voluntary commitments for the UN Ocean Conference are initiatives voluntarily undertaken by governments, the UN system, non-governmental organizations, among other actors—individually or in partnership—that aim to contribute to the implementation of SDG 14 (here we focus in particular on SDG 14.5). The registry of commitments was opened in February 2017, in the lead up to the first UN Ocean Conference (5 to 9 June 2017).

Ocean Actions improving MPA or OECM coverage:

#OceanAction18349: Estuary protected areas reporting, by New Zealand Department of Conservation (Government).

- Area to be added: **No area** given.
- Progress report: No progress report submitted (as of May 2021).
- See: https://oceanconference.un.org/commitments/?id=18349.

Other Ocean Actions

Other Ocean Actions submitted as voluntary commitments for SDG 14.5, will also create benefits for the qualifying elements of Aichi Biodiversity Target 11:

#OceanAction18274: To reform national marine protection through the introduction and implementation of modern marine protected areas legislation, by New Zealand Ministry for the Environment (Government).

- Types of actions involved: new decision making/establishment processes for MPAs (customary rights recognised; collaboration is supported; consideration of all existing and future uses and values; etc.).
- Target 11 element addressed: Equitably managed.
- Progress report: No progress report submitted (as of May 2021).
- See: https://oceanconference.un.org/commitments/?id=18274

OTHER ACTIONS/COMMITMENTS

Leaders' Pledge for Nature

New Zealand **has** signed onto the Leaders' Pledge for Nature.

Political leaders participating in the United Nations Summit on Biodiversity in September 2020, representing 84 countries from all regions and the European Union, have committed to reversing biodiversity loss by 2030. By doing so, these leaders are sending a united signal to step up global ambition and encourage others to match their collective ambition for nature, climate, and people with the scale of the crisis at hand.

ANNEX I

FULL LIST OF ECOREGIONS

Terrestrial ecoregions

Ecoregion Name	Area (km^2)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km^2)	% Protected in Country
Antipodes Subantarctic Islands tundra	759.6	86.6	0.3	529.4	69.7
Canterbury-Otago tussock grasslands	53,593.9	100.0	20.0	4,915.0	9.2
Chatham Island temperate forests	805.9	100.0	0.3	42.5	5.3
Fiordland temperate forests	11,053.5	100.0	4.1	10,953.4	99.1
Kermadec Islands subtropical moist forests	33.7	100.0	0.0	27.2	80.7
Nelson Coast temperate forests	14,596.8	100.0	5.4	11,440.2	78.4
New Zealand North Island temperate forests	84,500.4	100.0	31.5	16,721.9	19.8
New Zealand South Island montane grasslands	40,006.3	100.0	14.9	26,148.4	65.4
New Zealand South Island temperate forests	11,714.1	100.0	4.4	2,482.1	21.2
Northland temperate kauri forests	29,938.7	100.0	11.1	3,583.5	12.0
Rakiura Island temperate forests	1,695.0	100.0	0.6	1,296.2	76.5
Richmond temperate forests	13,216.1	100.0	4.9	4,886.2	37.0
Westland temperate forests	5,286.5	100.0	2.0	4,303.2	81.4

Marine ecoregions and pelagic provinces

Ecoregion Name	Type	% of Global Ecoregion in Country	% Protected in Country
Auckland Island	Marine ecoregion	100.0	23.7
Bounty and Antipodes Islands	Marine ecoregion	100.0	29.4
Campbell Island	Marine ecoregion	100.0	23.5
Central New Zealand	Marine ecoregion	100.0	0.4
Chatham Island	Marine ecoregion	100.0	0.0
Indo-Pacific Warmwater Realm	Pelagic province	8.2	47.1
Kermadec Island	Marine ecoregion	100.0	100.0
Northeastern New Zealand	Marine ecoregion	100.0	0.6
Snares Island	Marine ecoregion	100.0	11.2
South New Zealand	Marine ecoregion	100.0	0.4
Southern Coldwater Realm	Pelagic province	11.6	22.2
Three Kings-North Cape	Marine ecoregion	100.0	0.1

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