

# Research Priorities in the Subantarctic Region

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Setting the direction for research and monitoring  
by Te Papa Atawhai in New Zealand's  
Subantarctic Region



Department of  
Conservation  
Te Papa Atawhai





45°S

50°S

170°E

180°

South Island / Te Waipounamu

Stewart Island / Rakiura

Snares Islands / Tini Heke

**Bounty Islands**  
*Moutere Hauriri / Bounty Islands Marine Reserve*

**Antipodes Island**  
*Moutere Mahue / Antipodes Island Marine Reserve*

**Auckland Islands**  
*Auckland Islands – Motu Maha Marine Reserve*

**Campbell Island / Motu Ihupuku**  
*Moutere Ihupuku / Campbell Island Marine Reserve*

OFFICIAL INFORMATION ACT 1982

# Research Priorities in the Subantarctic Region

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## Our Purpose

This interim document sets the direction for biodiversity, climate change, cultural heritage and visitor research and monitoring undertaken by Te Papa Atawhai, the Department of Conservation (DOC) in the World Heritage Area Subantarctic region.

The purpose of this document is to guide researchers to the types of research that Te Papa Atawhai considers useful for the effective conservation and management of this significant region. And as one tool for island managers to discriminate amongst the many research applications that are received each year.

It is important to note that this is an interim summary of priorities and considers only those research and monitoring needs required by Te Papa Atawhai, and not those of mana whenua, or researchers external to the organization. The intention is to co-develop a more comprehensive research strategy in partnership with Ngāi Tahu, that reflects the cultural and scientific research and monitoring needs of mana whenua and New Zealand researchers more broadly.



## Our Guiding Principles

The following principles guide the work and partnerships of Te Papa Atawhai in the Subantarctic Region.

### ***Atawhaitia a Papatuanuku - We care for nature***

- We take a precautionary approach to managing research and visitor access while, most importantly, ensuring the long-term protection of the island's biodiversity, their tangible and intangible cultural heritage values, and for visitors, protecting the experiences they are seeking; and
- We ensure research carried out does not compromise the high value of this region and is consistent with the primary goals of protecting indigenous biodiversity and the intrinsic values and life-supporting capacity of indigenous ecosystems; implementing biosecurity methods, and managing historic values and visitors.

### ***Whakawhanaungatanga – We build relationships***

- We apply the Te Ao Māori lens, including Mātauranga Māori respecting biological information as taonga, when we make decisions, prioritise research and share information;
- We influence and contribute to international research to understand the impacts of climate change in the region and more broadly New Zealand; and
- We recognize that the New Zealand subantarctic islands and coastal marine areas are part of a larger region where our work, relationships and commitments are critical to the future of the global subantarctic region.

### ***Whakaaauaha – We seek innovation***

- We identify strategic research and monitoring priorities for the New Zealand Subantarctic islands and surrounding coastal marine area.

### ***Whakatinanatia - We deliver***

- We ensure the core responsibilities of managing this region as National Nature Reserves, and as a World Heritage Area are met and maintained;
- We make research findings accessible to inform conservation management and policy;
- We evaluate the effectiveness of our research, monitoring, and policies to inform our future work, decision-making and strategic direction; and
- We achieve the outcomes within Te Mana o te Taiao (Aotearoa New Zealand Biodiversity Strategy), and Te Papa Atawhai Visitor and Heritage Strategy, to ensure that indigenous species and their habitats are thriving, cultural heritage is managed by best practice principals and that Treaty partners are exercising their full role as rangatira and kaitiaki.



## The Subantarctic Region

The New Zealand subantarctic islands are a remote cluster of islands set in a cool climate influenced by the surrounding oceanic conditions, and home to a large number of endemic plants and animals. This region has long appealed to researchers wishing to explore and understand the human history, physical environment and biological communities of these islands and adjacent seas.

The region is made up of five islands groups: Snares Islands/ Tini Heke; Bounty Islands; Antipodes Islands; Auckland Islands; and Campbell Island/Motu Ihupuku, and are located on the Pacific Plate, on two plateaus on the continental shelf, collectively referred to as the Southern Plateau.

The New Zealand subantarctic islands are accorded the highest level of protection possible under New Zealand law. All islands in every group are National Nature Reserves and in 1998 they were included in the New Zealand Subantarctic Islands World Heritage Area due to the high level of biological integrity, population densities and endemism among the fauna and flora as well as the biogeography of the biota. The World Heritage status of the islands also applies to the surrounding marine environment, out to the limits of the Territorial Sea.

## Biodiversity in the Subantarctic

The distances between each island group and their different geological ages, mean each has its own unique assemblage of terrestrial, freshwater and marine flora and fauna. The islands have a high level of endemism, and diving surveys around the Bounty and Antipodes Islands showed that these areas support as many marine species as renowned areas such as Galapagos Island and Puget Sound.

Significant natural features of the NZ subantarctic region include:

- The endemic New Zealand sea lion, which has its principal breeding grounds at the Auckland Islands;
- Among the greatest diversity of penguin species found in the world, comprising four breeding species (Snares crested, erect crested, the yellow-eyed and rockhopper—three of which are endemic) and seven transient species;
- 40 seabird species breed on the islands—11% of all seabird species in the world and 30% of the world's petrels;
- The world's only breeding populations of southern royal albatross and Campbell albatross;
- The world's largest populations of wandering albatross, white-capped mollymawk and Salvin's mollymawk;
- Over five million (estimated) breeding seabirds on the 328-hectare Snares Islands/ Tini Heke;
- The world's rarest cormorant, duck, snipe and penguin species (Bounty Island shag, Campbell Island teal, Campbell Island snipe and yellow-eyed penguin, respectively);
- The main breeding ground for southern right whales in the southwest Pacific (Port Ross on Auckland Island)—formerly endangered;
- 14 endemic species or sub-species of land birds;
- 120 species of birds and 200 species of indigenous vascular plants;
- A high level of endemic species of vascular plants (including some that are otherwise only found on Macquarie Island);
- The spectacular subantarctic megaherbs, including the daisy genus *Pleurophyllum*, which is endemic to the New Zealand subantarctic biological region;
- The colourful rātā forests and the southernmost tree ferns in the world on the Auckland Islands;

- One of the world's largest near-pristine islands (outside the Antarctic and Arctic)— Adams Island at 9896 hectares has never had an introduced mammal become established; and
- 11 geological sites and landforms of national and regional importance, including granite features (Tertiary dikes and sills), and volcanic features (columnar jointing, lava flows, an intrusive plug, a gabbro, scoria cones and a rare occurrence of peralkaline rhyolite).

## Cultural Heritage in the Subantarctic

New Zealand's subantarctic islands have a rich human history which extends back to the late 13<sup>th</sup> century during a time of the exploration and settlement of the farthest reaches of the Pacific by Polynesians. Polynesians were the first to set foot in the Subantarctic with the later Iwi of Ngāi Tahu, Ngāti Mutunga and Moriori developing connections to the area. Pakeha did not encounter the islands until the early 1800s, but several European cultures occupied or visited the islands on numerous occasions since this time including the British, French, Germans, Americans and Norwegians. The islands, therefore, have tangible and intangible links to a variety of Pakeha and Maori cultural groups with the intangible links recounted through oral tradition or written accounts.

Tangible evidence of these various cultures can be seen readily on the islands today through the 192 known heritage sites have been recorded to date. More extensive co-ordinated surveys and investigations of all the islands are sure to encounter more sites. Polynesian cultural heritage sites consist of the Enderby Island late 13<sup>th</sup>/early 14<sup>th</sup> century middens and ovens in Sandy Bay. Maori occupation is depicted by the remains of the British 1849-1852 Enderby Settlement where it is known Ngāti Mutunga & their Moriori captives also lived before, during and after this settlement in Port Ross from 1842-1856. The Enderby Island site is of international importance as it represents the most known southerly extent of Polynesian occupation in the world and shows that Polynesians were exploring the Subantarctic hundreds of years before Pakeha/European explorers.

The ca. 210 years of Pakeha/European history is depicted by a large variety of cultural heritage sites throughout the islands consisting of sealing and whaling sites with abandoned huts and equipment, shipwrecks of the sailing era, extensive remains of the failed 1849-1852 Enderby Settlement, sites related to pioneer pastoralism, war-time coast-watching, scientific investigation, astronomy and meteorology etc. All the sites from the various cultures make a significant contribution to national and international stories of exploration and settlement of the Southern Ocean and Antarctica and bear testament to this rich tapestry of human interaction with the Subantarctic.

## Tourism and visitors in the Subantarctic

Today, the direct human impacts on the Subantarctic Islands come from research and management teams, commercial fishing and eco-tourism. Tourism to these islands has been common during the summer months since 1979/80. Most visitors reach the islands on large Antarctic adventure cruise vessels, seeking rare subantarctic fauna, flora, photography, and heritage experiences. Visitor numbers are specified in the Southland Murihiku Conservation Management Strategy (CMS), and access is managed by DOC via permits. Currently the permitted maximum number of visitors per year is 1100 at the two main visitor sites, with fewer visitors permitted at other visitor sites on Campbell Island, Auckland Island and Enderby Island. Visitors are allowed ashore only on Campbell, Enderby and Auckland Islands (the larger "Ecosystem Recovery" islands) and they are confined to specific parts of those islands in order to manage impacts on the significant natural values. All islands may be viewed from the sea and inflatable motorboat cruising is regularly undertaken off The Snares and sometimes other islands. The CMS notes that a precautionary approach to managing access to the islands is necessary because of the difficulty in monitoring the impacts of visitors due to the

remoteness of these islands, and because the environment or wildlife could take many decades, or more, to recover from any adverse effects.

## Mana whenua

Three principal tribes of Te Waipounamu (South Island) and Stewart Island/Rakiura— Waitaha, Kāti Māmoe and Ngāi Tahu—occupied those lands in succession before the arrival of Europeans. Ngāi Tahu established their control of the rohe (tribal area) by intermarriage, diplomacy and warfare with Waitaha and Kāti Māmoe, so that today Ngāi Tahu holds mana whenua in southern New Zealand.

Ngāi Tahu also claims mana whenua for the southern islands including the Subantarctic Islands, which are said to have been known to and used by expeditions seeking food and other natural resources prior to the arrival of Europeans. Ngāi Tahu has established its right under the Treaty of Waitangi to a reasonable share of the sea fisheries off its rohe within the 200-mile exclusive economic zone.

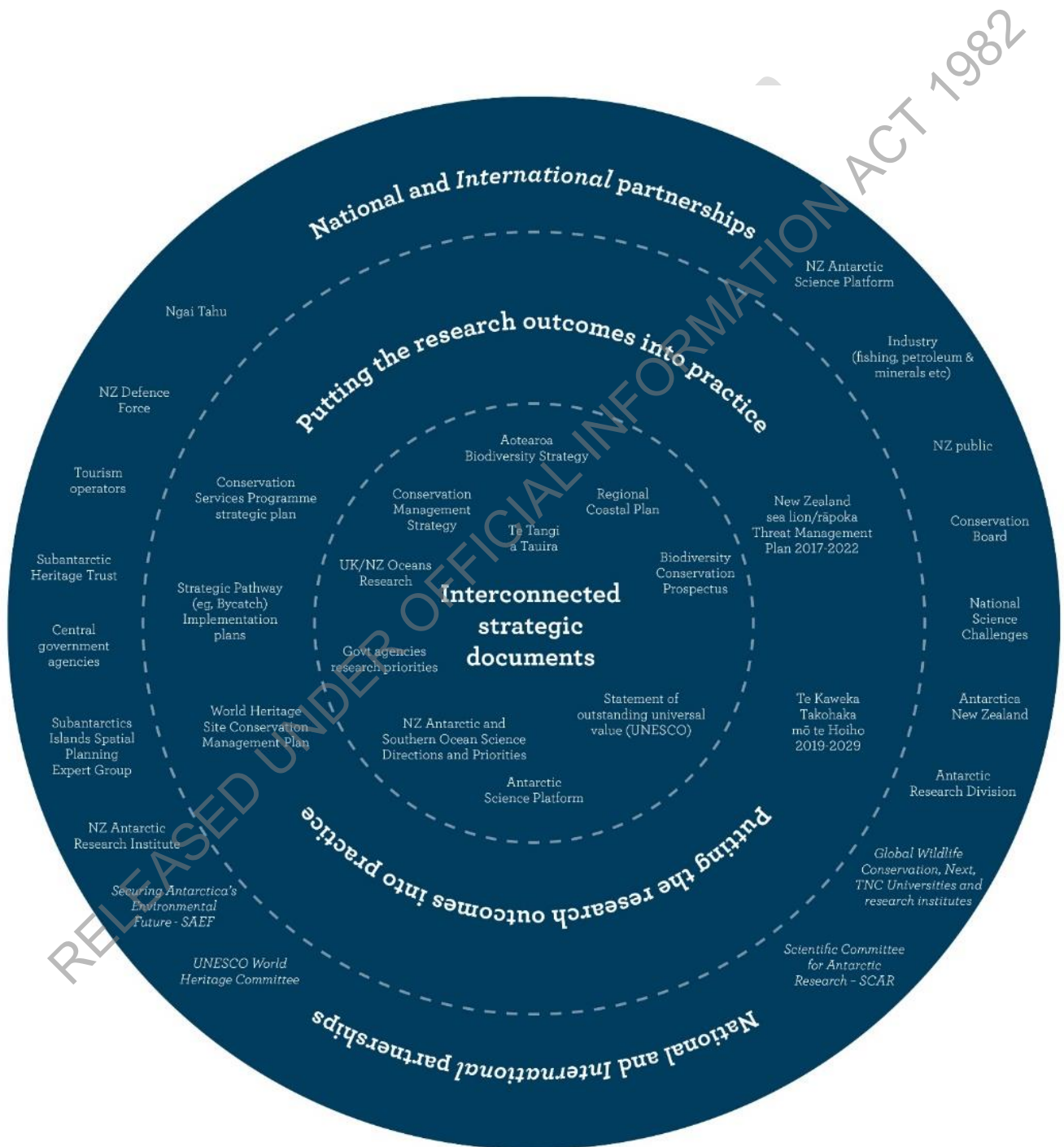
The Ngāi Tahu Claims Settlement Act 1998 (the Settlement Act) gives effect to the Deed of Settlement signed by the Crown and Te Runanga o Ngāi Tahu on 21 November 1997 to achieve a final settlement of Ngāi Tahu's historical claims against the Crown.

The Settlement Act acknowledges the special association of Ngāi Tahu with taonga species found in the Southern Ocean, including hoiho (yellow-eyed penguin), tītī (petrels), toroa (albatrosses and mollymawks), rimurapa (bull kelp) and marine mammals.

As a part of the Crown's settlement with Ngāi Tahu, protocols have been developed on how the Department and Ngāi Tahu will work together on specified matters of cultural significance to Ngāi Tahu. Ngāi Tahu ki Murihiku are kaitiaki of the Southland region, including the Subantarctic Islands and other southern islands. They have prepared a management plan: Te Tangi a Tauira—The Cry of the People, which consolidates Ngāi Tahu ki Murihiku values, knowledge and perspectives on natural resource and environmental management issues

# Our Science, Research & Monitoring Networks

This interim document is intended to guide researchers and managers in planning research and monitoring activities that support the conservation and management of the New Zealand Subantarctic Islands World Heritage Area. This list of current priorities does not exclude other research needs and opportunities that may arise, and is linked where relevant to other strategic drivers, documents, and plans produced by Te Papa Atawhai and other agencies as indicated in the figure below.





## Research Delivery framework

The New Zealand Subantarctic Islands are managed by the Southern South Island Region of Te Papa Atawhai. The surrounding seas are managed partly by DOC (via marine reserves and the regional coastal plan) and partly by Ministry for Primary Industries (MPI) (fisheries, benthic protection areas, type 2 marine protected areas around Campbell Is and Bounty Islands). Other activities, such as mining and shipping, are managed by other Government agencies.

The Southland Murihiku CMS states five main themes for managing and contributing to conservation in Southland Murihiku region. These are:

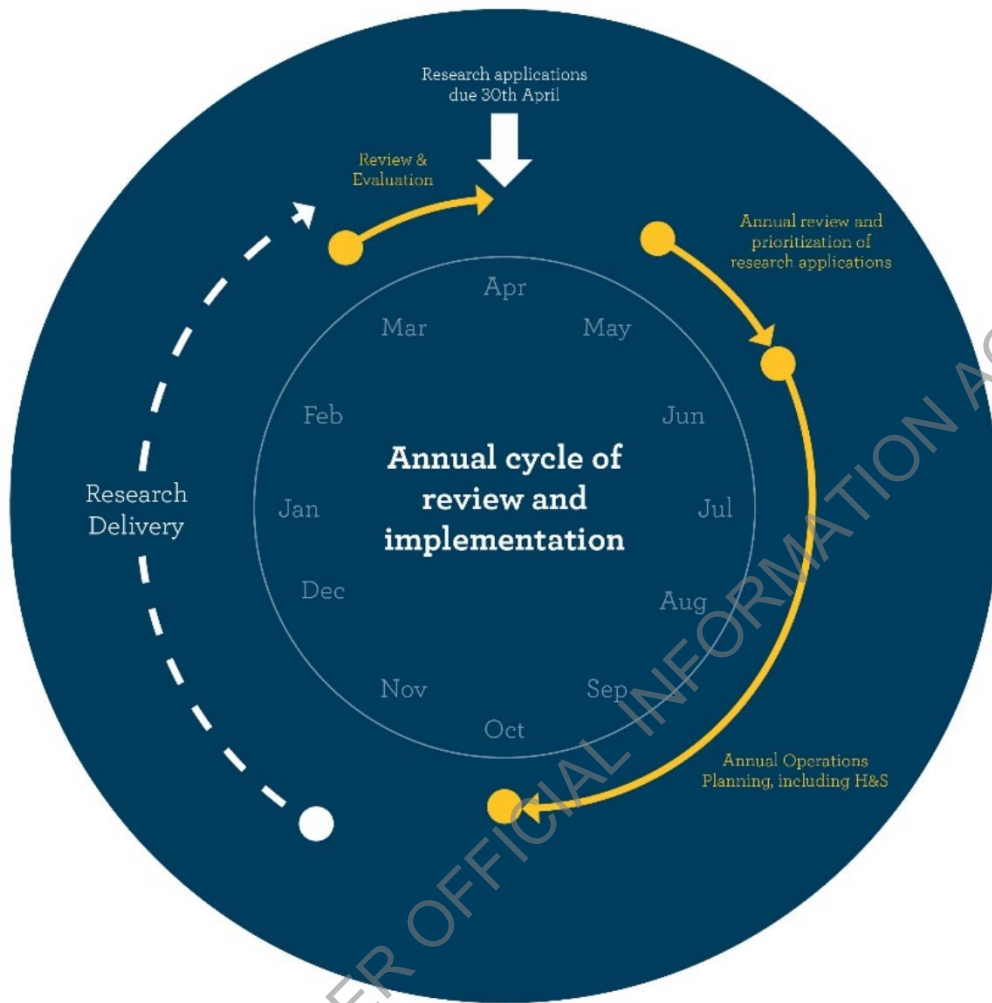
- Collaborating with others
- Safeguarding valuable flora and fauna
- Connecting people with indigenous biodiversity
- Maintaining accessible, well-managed visitor destinations
- Valuing a rich and diverse cultural and historic heritage.

These themes are reflected in how we manage research activities and opportunities on the New Zealand subantarctic islands and adjacent marine protected areas. All management operations within the subantarctic island groups are the responsibility of the Operations Manager, Murihiku District, who is accountable for all activities undertaken within the Department's area of jurisdiction in the subantarctic islands.

Entry permits are required to land on any of the subantarctic islands, since they are all National Nature Reserves and authorisation for the collection of scientific materials from these sites is still mandatory. Researchers must also adhere to the standards outlined in any operational guidelines, including health and safety plans, required as part of entry permits. Research within the marine reserves requires a research permit and may also require resource consents.

The remote and dynamic nature of the Subantarctic region makes research both challenging and expensive to undertake. Processes to facilitate the annual planning of research are, therefore, needed for the efficient, effective and safe delivery of research.

The following diagram illustrates the planning steps and timeframes we would like to see established to improve prioritisation and delivery of science and monitoring each year, and ideally two to three years in advance. This planning structure is not in place yet.

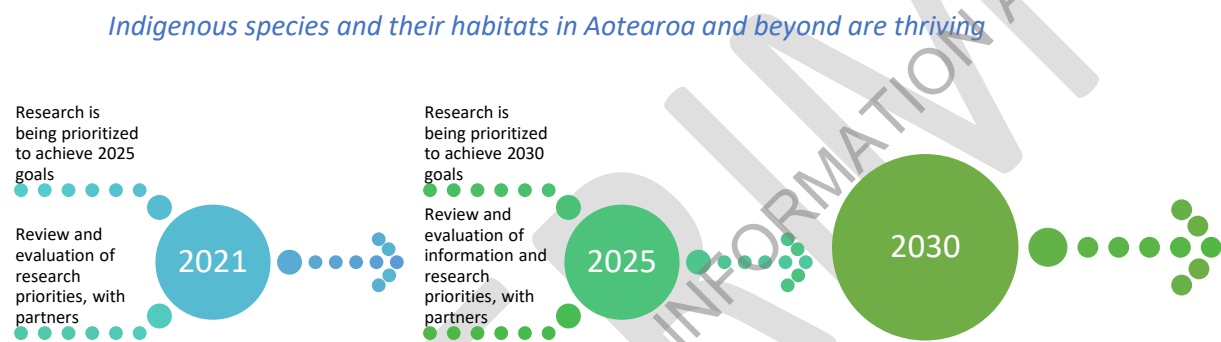


## Strategic science, research & monitoring priorities

Te Papa Atawhai is responsible for leading management of the natural and historic heritage of New Zealand and is particularly accountable in the Subantarctic via the additional territorial authority role. In support of the outcomes of Te Mana o te Taiao (Aotearoa New Zealand Biodiversity Strategy), and the Heritage and Visitor Strategy, Te Papa Atawhai encourages alignment with the goals therein with respect to the subantarctic islands and adjacent marine reserves.

The following sections set out the strategic research setting and underpinning priorities. They are organised into three sections; Biodiversity and Climate Change, Cultural Heritage, and Tourism and Visitors research.

The following diagram illustrates the strategic pathway to achieving the 2025 and 2030 goals within Te Mana o Te Taiao and the Heritage and Visitor Strategy



*Cultural heritage is protected, conserved and maintained to ensure the human stories of the Subantarctic survive*



# Indigenous species and their habitats throughout NZ and beyond are thriving

## Biodiversity and Climate change

### Current state

**Despite the remoteness of these islands, many seabirds and marine mammal species are heavily impacted by fishing activity and disease. There are still huge gaps in our knowledge about the ecology of other unique terrestrial, freshwater, and marine organisms and habitats found in the region, all of which are highly vulnerable to the impacts of climate change in ways we do not yet fully understand.**

The focus of research and monitoring over the last 15 years has been on the population dynamics of those threatened and protected species caught as bycatch in fisheries: corals, sea lions and several species of albatross and petrel. High rates of sea lion pup mortality, and the causes of disease prevalent in the Auckland Island sea lion population have also been investigated.

But with only a handful of published studies looking at the impact of introduced mammals, terrestrial invertebrates, non-vascular plants, fungi, microorganisms, and coastal ecosystems, there are big gaps in our understanding of what lives on and around the islands, their ecology and physiology, and so to guide us on how best to manage this unique region.

The islands and the seas have a high level of productivity, biodiversity, wildlife population densities, and endemism among birds, plants and invertebrates. The bird and plant life, especially endemic albatrosses, cormorants, land birds and "megaherbs" are unique to these islands and of outstanding value. Information is needed on the systematics of all subantarctic organisms so that priorities for management can be determined. In the marine environment, a large number of species remain unknown and undescribed.

New Zealand's Subantarctic offers a globally unique opportunity and vantage point to observe how climate change in Antarctica and the Southern Ocean affects New Zealand and global systems. It is home to a range of iconic species highly adapted to their environments that may be sentinels of change. The archipelagos are hotspots of biodiversity and are particularly sensitive to change and an excellent opportunity to undertake long-term ecological research that spans atmospheric, terrestrial, freshwater and marine processes and environments. Linking changes in subantarctic island and nearshore ecology to oceanographic changes and fishing activity remains a challenge.

### Future state

- The health and connectivity of ecosystems in the Subantarctic region have been maintained or restored, and species populations are healthy, genetically diverse, and have increased resilience to future threats, including climate change.
- Effective monitoring programmes are in place and providing regular updates on the population status of key species and ecosystems in response to management interventions. Annual research planning processes are in place to deliver on strategic research priorities and fill knowledge gaps.
- The mana of taonga species is restored, and migratory species and their habitats are secured across international boundaries. Treaty partners, whānau, hapū, iwi and Māori organisations are central to the biodiversity system and recognised as leaders.

- Opportunities for priority research ensure that the unique indigenous species and ecosystems of this place are well understood. The islands can be an international benchmark for research on changes in state and trend of bio-heritage free of the direct human imprint so pervasive elsewhere.

#### How will we measure success?

- The 2025 Te Mana o te Taiao goals (below) to protect and restore biodiversity are being achieved
- A Subantarctic Research Advisory Group, comprised of Ngāi Tahu, Te Papa Atawhai staff, national and international experts, has been established
- Monitoring and evaluation infrastructure and investment is in place and providing the evidence-base for how well we are performing
- Biodiversity system governance, in partnership with Treaty partners, whānau, hapū, iwi and Māori organisations, and informed by multi-stakeholder involvement, is in place and providing leadership, accountability and inclusive and transparent decision-making

OUTCOME: Indigenous species and their habitats throughout NZ and beyond are thriving			
<b>OBJECTIVES</b>	Ecosystems and species are protected, restored, resilient, and connected from mountain tops to ocean depths.	Natural resources are managed sustainably	Biological threats and pressures are reduced through management
<b>ANZBS 2025 Goals</b>	<ul style="list-style-type: none"> <li>• Prioritised research is improving baseline information, and knowledge of species and ecosystems</li> <li>• The cumulative effects of pressures on biodiversity are better understood</li> <li>• Significant progress has been made in identifying, mapping, and protecting coastal and marine ecosystems of high biodiversity value</li> <li>• There have been no human-driven extinctions of indigenous species</li> <li>• The number of fishing related deaths of protected marine species is decreasing towards zero for all species</li> <li>• Introduced predators have been eradicated from all uninhabited offshore islands</li> <li>• New and emerging biosecurity threats are actively identified and managed early through improvements in decision making, Treaty partnerships approaches, skills and technology.</li> <li>• Potential impacts from climate change have been integrated into ecosystems and species management plans and strategies, and a rangahau strategy has been developed to increase knowledge and understanding of climate change effects</li> </ul>		
<b>Strategic priorities:</b>			
	<ul style="list-style-type: none"> <li>• Identify which terrestrial, freshwater and marine, species, habitats and ecosystems are most at risk from climate change. Use innovation and emerging technology to extend the collection of climate, habitat and biodiversity information to inform regional models and risk assessments</li> <li>• Establish data management systems that facilitate data storage, QA/QC processes, reporting and sharing across agencies and stakeholders. Data should be supplied following research trips and made publicly available.</li> <li>• Assess the current knowledge of baseline biodiversity in existing protected areas (nature reserves, MPAs, BPAs, etc) using samples held in collections for; followed by a gaps analysis of the completeness of existing biodiversity data and an ecological risk assessment to direct future sampling efforts.</li> <li>• Evaluate the risk of pest incursions across all domains in relation to changing environmental variables, and biosecurity management practices. Review the conservation management needs for marine areas that are currently unprotected, in particular the Snares and Campbell Islands; can the Campbell Island Marine Reserve be expanded to include the entire territorial sea?</li> <li>• Carry out an assessment of Campbell Island Hoiho population state, trends, and ecology; followed by erect-crested and rockhopper penguins, then Snares and Auckland Island Hoiho.</li> <li>• Investigate the population status, trends, distribution and productivity of white chinned petrels, on Auckland, Antipodes, and Campbell islands, in order of priority</li> <li>• Investigate the population size, trend, demography and distribution of Antipodean albatross as a priority, followed by Gibson's, Southern Royal, Salvins and Bullers albatross.</li> <li>• Investigate the status of sea lion population on Auckland and Campbell islands.</li> <li>• Investigate the response of Auckland Island terrestrial invertebrates to pests, pre- and post-terrestrial pest eradication.</li> <li>• Research the faunal associations of the Subantarctic tree daisy, <i>Olearia lyalli</i>, and the impact on invertebrate communities and ecosystems as coverage increases.</li> <li>• Investigate the distribution, abundance and functional ecology of native subantarctic flora, with a focus on the megaherbs.</li> <li>• What is the current state (distribution, abundance, condition and threats) of Category A species that are currently streamed for management?</li> <li>• Investigate the distribution and impact of introduced plant and animal species on the islands via desktop analyses and field surveys.</li> </ul>		
For a more detailed list of prioritised research questions, see here ( <a href="#">DOC-6694056</a> )			



# Cultural Heritage is Protected, Conserved and Maintained to Ensure the Human Stories of the Subantarctic Survive

## Cultural heritage

### Current state

Although many cultural heritage sites are known in the Subantarctic, few systematic cultural heritage surveys have been undertaken of the islands by heritage professionals. Little is known about the condition of the marine archaeological record such as the historic shipwrecks. Many sites have been discovered through the work of other specialists with this information then compiled by the heritage experts. More planned terrestrial and marine surveying of the islands is required to better understand past human knowledge of the islands particularly by Polynesians and Maori. Various sites also need more extensive invasive investigations to better understand the importance of the sites and to inform how to manage and conserve them for future generations. planned research programmes will aid in prioritising cultural heritage sites to conserve.

It is crucial that any research on cultural heritage sites results in the improvement of their future management. Research must also result in the updating of heritage/ archaeological site records and the timely production of reports and/or publications which are publicly accessible (where appropriate). Much of this research work can only be achieved by working with external researchers, and in many instances, more will be achieved by integrating this research with wider programmes of academic research in the Subantarctic or large scale flora and fauna management programmes.

### Future state

- Cultural heritage in the Subantarctic is protected, conserved, and managed as per best heritage practice.
- The management of Polynesian and Maori cultural heritage sites is undertaken in close consultation with Iwi.
- Historic shipwrecks in the Subantarctic are researched and recorded in detail by qualified marine archaeologists.
- Effective monitoring programmes are in place and providing regular updates on the condition of cultural heritage sites. Research will be planned with the central aim of conserving the cultural heritage sites under investigation.
- Stories about cultural heritage places which are significant to informing on the history of the islands are told on site such as at Sandy Beach site on Enderby island where the Polynesian discovery of the Auckland Islands in the late 13<sup>th</sup> century is illustrated.

### How will we measure success?

- A Cultural Heritage Management Plan is written for the Subantarctic Islands.
- Long Term Cultural Heritage Research Plans are produced in association with heritage researchers/professionals and Iwi.
- Significant cultural heritage sites and those sensitive to damage by fauna are fenced and vegetation is kept clear and removed.
- Maintenance plans are produced for significant cultural heritage sites.
- Stories about cultural heritage sites are presented on site by way of interpretation and/or Pou whenua, and oral traditions about the Subantarctic documented.

OUTCOME: New Zealand’s cultural and historic heritage is protected and restored to maintain cultural and historic values*.	
<b>OBJECTIVES</b>	<p>*Cultural heritage in the Subantarctic is protected, conserved, and managed as per best heritage practice</p> <p>*Threats to cultural heritage sites are reduced and research on sites is management focused</p>
<b>2025 Goals</b>	<ul style="list-style-type: none"> <li>• The nature and distribution of cultural heritage sites in the Subantarctic is understood</li> <li>• Key cultural heritage sites are protected and maintained according to conservation management plans</li> <li>• Iwi have a direct role in the research and management of Iwi cultural heritage sites</li> <li>• Oral traditions and stories about the Subantarctic are compiled and presented at key locations</li> </ul>
<b>Strategic priorities:</b>	
<ul style="list-style-type: none"> <li>• Carry out comprehensive terrestrial and maritime cultural heritage surveys on all islands, to determine extent, condition, and threats.</li> <li>• Prioritise cultural heritage sites that need active management or investigation, to either preserve them or recover information before their imminent loss.</li> <li>• Work closely with Iwi to understand the nature and extent of their interactions in the subantarctic, and then to implement their aspirations for their cultural heritage sites.</li> <li>• Explore and ensure that oral and written histories from Iwi, Pakeha and European, of the Subantarctic have been recorded, and are presented at place, or accessible.</li> <li>• Formulate a cultural heritage research strategy with external researchers and Iwi for each of the Subantarctic islands.</li> </ul>	
For a more detailed list of prioritised research questions, see here ( <a href="#">DOC-6694056</a> )	

\*The objectives and priorities for cultural heritage in the Subantarctic are interim in nature. They are based on various documents and publications regarding the research and management of cultural heritage in the Subantarctic and limited discussions with cultural heritage experts with an interest in this World Heritage Area. Thorough consultation with all Iwi groups with cultural heritage values in the Subantarctic are yet to be undertaken.

# Sustainably manage visitors to protect and enhance the values of New Zealand's natural, cultural and historic heritage

## Tourism and visitors

### Current state

All visitors to the Subantarctic Islands have a direct effect on the islands whether through their interactions with wildlife or by compaction of soils and treading on plants and invertebrates. To date, in the NZ Subantarctic Islands, very little research has been done on the effect of visitors on the behaviours of birds and marine mammals or human physical impacts on vegetation and soils. All visits bring the risk of introduction of alien biota, from micro-organisms through to rodents. Thus, research on the effectiveness of present quarantine measures is needed. There are also wider risks relating to pollution from vessels including sound, light and oil spills.

The Southland Murihiku Conservation Management Strategy 2016 requires DOC to develop, implement and annually review a visitor monitoring programme for the Subantarctic islands, in consultation with Ngāi Tahu, the Southland Conservation Board, concessionaires, researchers and interested parties. This programme should determine the effects of visitors on a) the soils, wildlife and vegetation; b) the visitor experience; and c) the historic or cultural fabric. Currently no such monitoring programme exists, meaning there is no clear baseline from which we can monitor and manage visitor impacts in this highly sensitive and important place. Establishing this monitoring programme is a key research priority.

Alongside the establishment of a visitor monitoring programme, Te Papa Atawhai is required to implement and regularly review a visitor management plan for the Subantarctic islands. The management plan will assess the results of the visitor monitoring from the previous summer season(s); b) identify those sites that have not been subject to any permanent adverse effects and can be made available to visitors in the following summer season(s); c) identify those sites that should not be made available to visitors in the following summer season(s); and d) determine the maximum number of permitted visitors allowed at each site that can be made available the following summer season(s).

Visitor numbers are monitored via the visitor returns required from operators as a condition of their concessions. Monitoring of visitor impacts via photo-point sites has been undertaken in the past. Without active visitor monitoring and visitor management plans, Te Papa Atawhai cannot make well-informed decisions around visitor management and investment in visitor assets.

### Future state

- Visitor impacts are monitored consistently over time to allow Te Papa Atawhai to set appropriate levels of access to the subantarctic islands with a high level of confidence that visitor activities are not having detrimental effects on soils, wildlife, vegetation, the quality of the visitor experience, or the historic and cultural fabric of the islands

### How will we measure success?

- Annual visitor data and other research outputs is being used to inform decision-making on visitor access and the management of impacts on the subantarctic islands (via the Visitor Management Plan)



**OUTCOME: Sustainably manage visitors to protect and enhance the values of New Zealand’s natural, cultural and historic heritage**

<b>OBJECTIVES*</b>	<b>Protect:</b> New Zealand’s natural, cultural and historic resources are protected and restored to maintain biodiversity, cultural and historic values, ecosystem health, landscapes and natural quiet	<b>Connect:</b> Visitors are enriched and better connected to New Zealand’s natural, cultural and historic heritage	<b>Thrive:</b> Tangata whenua, regions and communities benefit from protecting and connecting visitors with this natural, cultural and historic heritage
<b>2025 Goals**</b>	<ul style="list-style-type: none"> <li>• DOC has visitor management and visitor monitoring plans in place for the Subantarctic Islands;</li> <li>• DOC is using visitor monitoring data gathered each season to determine the effect of visitor activity on soils, wildlife, vegetation, the quality of the visitor experience, or the historic and cultural fabric of the islands (as outlined in Policy 2.10.13 of the Southland Murihiku CMS).</li> </ul>		
<b>Strategic priorities*:</b>			
<ul style="list-style-type: none"> <li>• Develop a better understanding of international best practice in management of visitors at similar locations through desktop literature review. This research should be used to inform the preparation of a Subantarctic Visitor Management Plan (as outlined in Policy 2.10.14 of the Southland Murihiku CMS).</li> <li>• Design and implement a visitor monitoring programme to determine the effects of visitors on the soils, wildlife and vegetation; the visitor experience; and the historic or cultural fabric of the Subantarctic Islands (as outlined in Policy 2.10.13 of the Southland Murihiku CMS).</li> <li>• Once the visitor monitoring programme is operational, assess the results of visitor monitoring from previous season(s) and determine the maximum number of permitted visitors allowed at each site the following season (as outlined in Policy 2.10.14 of the Southland Murihiku CMS).</li> </ul>			
For a more detailed list of prioritised research questions, see here ( <a href="#">DOC-6694056</a> )			

\* Informed by DOC’s Heritage and Visitor Strategy

\*\*Note these goals and priorities are interim pending the preparation of a Visitor Management Plan for the Subantarctic Islands.

## Annex

### Links to detailed research questions and key DOC policies and strategies

Document	Link	Notes
Detailed research questions	<a href="#">DOC-6694056</a>	
Southland Murihiku Conservation Management Strategy	<a href="https://www.doc.govt.nz/globalassets/documents/about-doc/role/policies-and-plans/southland/southland-cms-2016-volume-1.pdf">https://www.doc.govt.nz/globalassets/documents/about-doc/role/policies-and-plans/southland/southland-cms-2016-volume-1.pdf</a>	
Kermadecs and Subantarctic Regional Coastal Plan	<a href="https://www.doc.govt.nz/globalassets/documents/about-doc/conservation-management/coastal-management/regional-coastal-plan-kermadecs-subantarctics.pdf">https://www.doc.govt.nz/globalassets/documents/about-doc/conservation-management/coastal-management/regional-coastal-plan-kermadecs-subantarctics.pdf</a>	
Stocktake of permits, reports and papers	<a href="https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-6437848&amp;dID=7720681">https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-6437848&amp;dID=7720681</a>	For period 2005-2020
Permit applications and processes	<a href="https://www.doc.govt.nz/get-involved/apply-for-permits/researchers/">https://www.doc.govt.nz/get-involved/apply-for-permits/researchers/</a>	
Biodiversity Conservation Prospectus	<a href="https://www.doc.govt.nz/nature/biodiversity/biodiversity-conservation-science-prospectus/">https://www.doc.govt.nz/nature/biodiversity/biodiversity-conservation-science-prospectus/</a>	
Te Papa Atawhai Visitor and Heritage Strategy	<a href="https://www.doc.govt.nz/heritage-and-visitor-strategy">https://www.doc.govt.nz/heritage-and-visitor-strategy</a>	

### Links to relevant strategic documents

Document	Link
Aotearoa New Zealand Biodiversity Strategy	<a href="https://www.doc.govt.nz/nature/biodiversity/aotearoa-new-zealand-biodiversity-strategy/">https://www.doc.govt.nz/nature/biodiversity/aotearoa-new-zealand-biodiversity-strategy/</a>
Te Tangi a Taurira—The Cry of the People	<a href="https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/iwi-management-plan/documents/Te%20Tangi%20a%20Taurira%20-%20The%20Cry%20of%20the%20People.pdf">https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/iwi-management-plan/documents/Te%20Tangi%20a%20Taurira%20-%20The%20Cry%20of%20the%20People.pdf</a>
New Zealand Subantarctic Islands Statement of outstanding universal value (UNESCO)	<a href="https://whc.unesco.org/en/list/877/documents/">https://whc.unesco.org/en/list/877/documents/</a>
NZ Antarctic and Southern Ocean Science Directions and Priorities	<a href="https://www.antarcticnz.govt.nz/uploads/images/The-New-Zealand-Antarctic-and-Southern-Ocean-Science-Directions-and-Priorities-2010-2020.pdf">https://www.antarcticnz.govt.nz/uploads/images/The-New-Zealand-Antarctic-and-Southern-Ocean-Science-Directions-and-Priorities-2010-2020.pdf</a>
SCAR Integrated Science for the Subantarctic	<a href="https://www.scar.org/">https://www.scar.org/</a>
Antarctic Science Platform	<a href="https://www.antarcticscienceplatform.org.nz/">https://www.antarcticscienceplatform.org.nz/</a>

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