New Zealand Sub-Antarctic Islands

2017 Conservation Outlook Assessment

SITE INFORMATION

Country: New Zealand
Inscribed in: 1998
Criteria: (ix) (x)

Site description:
The New Zealand Sub-Antarctic Islands consist of five island groups (the Snares, Bounty Islands, Antipodes Islands, Auckland Islands and Campbell Island) in the Southern Ocean south-east of New Zealand. The islands, lying between the Antarctic and Subtropical Convergences and the seas, have a high level of productivity, biodiversity, wildlife population densities and endemism among birds, plants and invertebrates. They are particularly notable for the large number and diversity of pelagic seabirds and penguins that nest there. There are 126 bird species in total, including 40 seabirds of which five breed nowhere else in the world. © UNESCO
SUMMARY

2017 Conservation Outlook

Finalised on 09 Nov 2017

GOOD

The New Zealand Sub-Antarctic Islands World Heritage site, made up of a unique assemblage of habitats and species, continues to enjoy a good conservation outlook, thanks largely to its isolation and legal protection status. The site’s internationally important ecological values are relatively safe under current management policies, which have been progressively improved through, for example, an update of the property’s management strategy, the creation of additional adjoining marine reserves, ambitious invasive species eradication goals, strengthened biosecurity protocols and a robust research programme. Sound management is critical as even a short-term weakening of policies and enforcement, including biosecurity or development, could have long-term or permanent impacts.

Current state and trend of VALUES

Low Concern
Trend: Stable

The site contains five geographically isolated but linked island groups containing a unique assemblage of wildlife and plants. While there has been a legacy of past human impact on many of the larger islands including fire, introduced mammals and non-native plants, many of the smaller islands remain near pristine and provide breeding sites for a wide range of marine mammals and especially seabirds, many of which breed nowhere else. Due to a sustained history of effective management, including the removal of introduced mammals and tight visitor controls, many of the islands are slowly recovering. However, several marine based species including albatross, penguins and sea lions have seen significant drops in their populations, which is particularly critical due to the prolonged breeding cycle of some species. Many of these impacts occur outside the site.
**Overall THREATS**

*Low Threat*

The site’s World Heritage values are subject to limited threats. The fact that it comprises five separate isolated island groups provides its greatest protection. Currently the major threats to the site are from outside the site including climate change and invasive species. Since the property’s 1998 inscription and since the 2014 Conservation Outlook Assessment, management planning, policy and action have continued to improve protection. Ongoing strict biosecurity, removal of the remaining introduced species and continued controls on access and permissible activities are seen as the top priorities for protection. If current management controls are kept in place and tightened as per the updated Conservation Management Strategy then the level of threats will remain low.

**Overall PROTECTION and MANAGEMENT**

*Highly Effective*

The protection and management of the New Zealand Sub-Antarctic Islands continues to be overall very effective. Improvements in protection and management include updating the Conservation Management Strategy and increasing the number of marine reserves adjoining the property. Protection and management can be improved primarily through ensuring compliance with the strict biosecurity policies and practices which are articulated in the updated 2016 Conservation Management Strategy.
FULL ASSESSMENT

Description of values

Values

World Heritage values

- Abundance and diversity of pelagic seabirds, penguins, land birds, invertebrates and plants and important breeding areas for marine mammals

Criterion:(x)

The New Zealand Sub-Antarctic Islands, and the ocean that surrounds and links them, support an extraordinary and outstanding array of endemic and threatened species among the marine fauna, land birds, and invertebrates. As a group they are distinct from all other island groups, having the highest diversity of indigenous plants and birds. Of particular significance: the most diverse community of seabirds in the world with eight species endemic to the region; including four species of albatross, three species of cormorants (one of which, the Bounty Island shag, is the world’s rarest cormorant) and one species of penguin; 15 endemic land birds including snipe, parakeets and teal; breeding sites of the world’s rarest sea lion (the New Zealand (or Hooker’s) sea lion); and a significant breeding population of the southern right whale. Together with neighbouring Macquarie Island, the New Zealand Sub-Antarctic Islands represent a Centre of Plant Diversity and have the richest flora of all the Sub-Antarctic Islands with 35 endemic taxa. The ‘megaherbs’ are unique to the property and Macquarie Island. The Snares Group and two of the Auckland Islands are of particular biodiversity conservation significance due to the absence of any human and exotic species modification (World Heritage Committee, 2012).
**Distinctive examples of evolutionary processes which result in high levels of endemism**

**Criterion (ix)**

Isolation, climatic factors and seven degrees of latitudinal spread have combined to significantly influence the biota of the New Zealand Sub-Antarctic Islands. Consequently they provide scientific insights into the evolutionary processes affecting widely-spread oceanic islands, varying from relatively mature endemic forms to relatively immature taxa, constituting a fascinating laboratory for the study of genetic variation, speciation and adaptation, particularly in the Insulantarctic biogeographic province. Evolutionary processes, such as the loss of flight in birds and invertebrates, offer unique opportunities for research into island dynamics and ecology. Another outstanding feature is the preponderance of ‘megaherbs’ within the plant biodiversity. These large herbs, often with brightly coloured flowers, are considered to display unique evolutionary adaptation to the distinctive Sub-Antarctic climate – with its cloud cover (and lack of solar radiation), lack of frosts, strong winds and high nutrient levels (derived from seabird transference of nutrients) (World Heritage Committee, 2012).

**Assessment information**

**Threats**

**Current Threats**

**Low Threat**

Currently the major threats to the site are from outside the site including climate change and invasive species threats. Current management policies manage internal threats well but any relaxation of those policies, such as biosecurity and access controls, will raise the threat level. Strengthened biosecurity measures and proposals to manage tourism impacts are spelled out in the updated Conservation Management Strategy, 2016-2026. Active monitoring and management of invasives continues within the property. The aspiration to eradicate all invasive mammal species from the islands by 2025 is
commendable and should be strongly encouraged.

▶ **Chemical changes in oceanic waters, Temperature changes**  
**Data Deficient**  
**Inside site, throughout (>50%)**  
**Outside site**

It is recognised that as global temperatures increase, new habitats, both terrestrial and marine, are likely to become suitable for introduced species, upsetting any current balance between native and introduced species and allowing the establishment of new species further modifying these fragile ecosystems. The potential for increased impacts from invasive species in the future due to climate change is also a key reason for maintaining the highest biosecurity possible to avoid new species, which are not currently deemed a major threat, from establishing. Global climate changes are also likely to have an impact on oceanic systems, such as currents, nutrient availability and organism distribution. As the ecosystem of the site relies heavily on oceanic nutrients any change is likely to negatively impact both individual species and also the overall ecosystem. Increased rainfall induced by climate change, may also increase the risk of erosion.

▶ **Household Sewage/ Urban Waste Water**  
**Low Threat**  
**Inside site, localised (<5%)**

Increased waste management issues, especially sewage and waste water, become a greater issue with increased visitor numbers and duration, and especially the researchers and managers who stay on the islands. Tourists are not permitted to stay overnight and it is important this restriction is maintained. There were reports of a proposed research station at the Auckland Islands which may result in pollution impacts (Department of Conservation, 2014). The updated Conservation Management Strategy prohibits the disposal of non-biodegradable waste on the islands and only permits the disposal of biodegradable waste in such a way to avoid any adverse effects (Department of Conservation, 2016). The proposed Regional Coastal Plan: Kermadec and Subantarctic Islands has been in process since 2011 and is reported as nearing completion. The purpose of this plan is to
promote the sustainable management of the natural and physical resources of the coastal marine area including the property and surrounding territorial waters (IUCN Consultation, 2017; Department of Conservation, 2016). The risk of oil spills is noted in the updated Conservation Management Strategy, and the Regional Coastal Plan, while still to be finalised, specifies measures to protect against oil spills and other marine sourced pollution (Department of Conservation, 2016).

**Other**

*Low Threat*

**Inside site, localised (<5%)**

The disused base at Campbell Island will continue to deteriorate. The buildings contain asbestos which will need special management. While its removal is supported by the major parties involved, funding to cover the cost is not available.

**Fishing / Harvesting Aquatic Resources**

*Low Threat*

**Inside site, extent of threat not known**

**Outside site**

While resource exploitation is tightly restricted over most of the site through legislative controls, there are still some areas open to commercial fishing which poses risks to native species (marine mammals and seabirds) through competition for food species and bycatch. This is also true for fishing well outside the site as many of the species forage widely including other nations’ waters (New Zealand Government, 2013).

At the time of inscription, only one island group had a marine reserve (Auckland Islands). Additional marine reserves have been established to improve conservation. Four marine reserves now exist within the property: Antipodes Island, Auckland Islands, Bounty Islands and Campbell Island. These better protect marine values and the connectivity between marine and terrestrial systems (Department of Conservation, 2017b).

**Tourism/ visitors/ recreation**

*Low Threat*
Inside site, localised(<5%) 

In general, this site consists of soft peat soils which are very vulnerable to erosion once the covering vegetation is damaged. To date, this has been managed by restricting the locations tourists can visit and hardening (installing boardwalks in two locations) where higher numbers are permitted. Commercially run expeditions have been running to the islands since the 1970s/80s (State Party of New Zealand, 1997) and continue to be conducted to various places in the property (Heritage Expeditions, 2017). At the time of the previous assessment, concerns were raised about proposed plans to substantially increase both visitor sites and numbers, due to the biosecurity risks and potential damage to fragile ecosystems. However, there does not appear to be evidence of this occurring. A comprehensive biosecurity programme is managed by the Department of Conservation for all expeditions visiting and landing on the islands to minimise the risk of introduced species. Extremely rigorous biosecurity practices apply to any visitors making landfall (RadioNZ, 2017). Improved visitor management planning is also reported as underway (IUCN Consultation, 2017). The new Conservation Management Strategy (CMS) 2016-2026 commits to the continued practice of a Department of Conservation official accompanying every voyage where people land on the islands (Department of Conservation, 2011; 2016).

Invasive Non-Native/ Alien Species

High Threat
Inside site, scattered(5-15%) 

Following the eradication of goats, cattle and rabbits on these islands, the majority of islands are free of introduced mammals, with the exception of Auckland Island (pigs, cats and mice) and Antipodes Island (mice) (Department of Conservation, 2016; McClelland, 2011; Miskelly & Fraser, 2006). A mice eradication programme was carried out on the Antipodes Island in the winter of 2016, the outcome of which will be known in 2018 (Million Dollar Mouse initiative, 2017). The eradication of pigs has been proposed for the Auckland Islands and the feasibility of this is currently being undertaken. The New Zealand Government has announced an ambitious target to eradicate all rats, stoats and possums from New Zealand by 2050 in a proposal called Predator Free New Zealand 2050. This programme has an
interim target of complete removal of all introduced predators from offshore island nature reserves by 2025 (Department of Conservation, 2017a). Weed species are present on several of the islands. These are not being actively managed unless it is considered that they will endanger the island ecosystems. Olearia lyallii in the Auckland Islands has recently been determined to have arrived by humans and is therefore considered an alien species. It is being monitored to determine its potential impact on the island ecosystems (Wilmshurst et al., 2015).

**Potential Threats**

**Low Threat**

If current management controls are kept in place and tightened as per the updated Conservation Management Strategy (e.g. controls on visitor numbers and restrictions on available sites as well as tight biosecurity) then the level of threats will remain low. Continued monitoring and adaptive management intervention will be needed to safeguard the property from marine based threats such as oil spills.

► **Other Activities**

**Very Low Threat**

*Inside site, extent of threat not known*

Concerns were raised at the time of the 2014 assessment about possible relaxing of restrictions on helicopter access to the islands being considered, most notably to the Auckland Islands. The updated CMS has tightened aircraft use and management. All aircraft landings require an entry permit and permanent restricted airspace areas have been prescribed pursuant to Civil Aviation Rules, which mean that all overflights (up to 3,500 feet AMSL) over the islands require the permission of Department of Conservation (Department of Conservation, 2016).

**Protection and management**

**Assessing Protection and Management**
**Relationships with local people**

**Highly Effective**

Whilst there are no resident human populations on the islands, a strong emphasis is placed on managing all protected areas in New Zealand in close cooperation with and respecting the rights of traditional owners. Ngāi Tahu are the ‘tangata whenua’ with ‘rangatiratanga’ or tribal authority over the area covered by the Conservation Management Strategy. They are Department of Conservation’s primary partner under the Treaty of Waitangi. Communities have indicated interest in initiating or leading conservation programmes in the property (known as “Subantarctic Ngā Moutere O Murihiku Ki Tonga Place”) (Department of Conservation, 2016).

**Legal framework and enforcement**

**Mostly Effective**

The terrestrial areas have the highest available legal protection (National Nature Reserve) in New Zealand; most of the marine area has the highest available marine protection (the level of marine protection has been significantly increased with the creation of new marine reserves) (Department of Conservation, 2012; 2017c). However, the interpretation of the legal protection of the land area is sometimes variable (New Zealand Government, 2013).

**Enforcement**

**Mostly Effective**

Visitation to the property is strictly controlled through a permit system and all tourism access is by guided tour. Control of shipping may present some challenges given the vast areas between the individual islands and marine reserves.

**Integration into regional and national planning systems**

**Highly Effective**

The site is well integrated into the national planning system. The updated CMS encompasses a wider system of protected lands including areas on the adjoining mainland.
Management of the marine area is integrated through the development and implementation of the Regional Coastal Plan – Kermadec and Sub-Antarctic Islands, which fits under the National Coastal Plan. This plan is still being finalised at the time of writing this report (IUCN Consultation, 2017), but provides rules that control structures, disturbance, deposition and reclamation and measures to address potential impact from oil spills (Department of Conservation, 2016).

▶ **Management system**

**Highly Effective**

99% of the site including all the land area is under the coordinated management of the Department of Conservation (Department of Conservation, 2012; 2017c). This leads to an integrated management system for all the islands which works well.

As noted above, the property’s management plan, the CMS, has been updated for 2016-2026, and has been incorporated into the larger Southland Murihiku region. The strategy outlines goals and outcomes specific to the property including the preparation, implementation and regular review of a visitor management plan in the next three years.

▶ **Management effectiveness**

**Mostly Effective**

While a formal management effectiveness assessment has not been undertaken for the site, it is believed that as long as the current management programme is maintained, including high biosecurity standards, the removal of invasive species and tight management of tourism, the values of the site will be maintained or enhanced. Department of Conservation intends to eradicate invasive animals from these islands within the term of the current CMS as logistics and resources allow (Department of Conservation, 2016).

▶ **Implementation of Committee decisions and recommendations**

**Highly Effective**

At the time of inscription, the World Heritage expressed its concern “over the integrity of the marine area and the conservation of the marine resources”
(IUCN, 1998; World Heritage Committee, 1998). Since then, there has been increased protection of the marine habitat within the site with additional no-take marine reserves around the Antipodes (full), Bounty (partial) and Campbell (partial with programmed review) being protected.

Following World Heritage acceptance, rats have been removed from Campbell Island and plans are currently underway to remove mice from the Antipodes. Greater effort needs to go into removing pigs and cats from the Auckland Islands as planned in the site’s CMS (Department of Conservation, 2016).

▶ **Boundaries**

**Highly Effective**

The boundaries of the site are the reasonable maximum at 12 km into the marine ecosystem, which is near the limit of territorial waters at 12 nm. There is one marine mammal sanctuary around the Auckland Islands, and four marine reserves around (all or parts of) the Antipodes Island Group, the Auckland Islands, the Bounty Islands and Campbell Island (Department of Conservation, 2016).

▶ **Sustainable finance**

**Mostly Effective**

Funding for the site is provided by the national government and is managed through the Department of Conservation. This is supported by revenue from tourist operations which are highly variable. Major projects such as eradications are funded on a one-off basis. Overall funding is considered adequate.

▶ **Staff training and development**

**Mostly Effective**

The site is managed from the Department of Conservation’s Invercargill office, and staff training and development is nationally coordinated to meet local needs.

▶ **Sustainable use**

**Mostly Effective**
There is no resource exploitation of the site aside from limited fishing in some areas.

Education and interpretation programs
Highly Effective

The Department of Conservation works with other organisations and groups to provide opportunities for students to visit the site. As most visitors to the island travel as part of organised tours, they receive on-site interpretation which is generally of high quality. As all visitors to the site require an entry permit they are provided with background information on the islands including the marine ecosystem, expected behaviours when on the islands and on biosecurity. The requirement for all tourists to be accompanied by an approved government representative also provides the opportunity for one-on-one interpretation although the degree to which this is taken up varies between tourist operators.

Tourism and interpretation
Mostly Effective

At the time of nomination, about 10 ships were reported as visiting the islands each year and a limit of 600 tourists per site per season was imposed (State Party of New Zealand, 1997). The updated CMS provides strict limits on daily and annual visitor numbers to key sites within the property (Department of Conservation, 2016).

All access is by permit. Visitor access is only permitted on the main Auckland Island, Enderby Island and the main Campbell Island. Guidelines are in place to manage the number of visitors permitted to access approved sites at each of these islands, in order to manage impacts on the significant natural values. There is also a limit of no more than one cruise ship in a bay or harbour at any one time, to ensure that those on board the cruise ship can experience the isolation of the site (Department of Conservation, 2016). The updated CMS provides additional prescriptions for managing visitors to the islands and notes that a specific visitor management plan will be prepared and reviewed every three years (Department of Conservation, 2016; IUCN Consultation, 2017). It is important that this more detailed visitor management planning is undertaken without delay.
Monitoring
Highly Effective

There are a variety of monitoring programmes set up on the island by researchers and management staff. These include long running (20+ years) programmes on albatross and sea lions as well as sporadic monitoring of a range of species. A visitor impact monitoring programme (vegetation and soils) has been established at tourist sites (Department of Conservation, 2016). A disease outbreak within a vulnerable population, such as the New Zealand sea lion, is of particular concern; and although such outbreaks occur naturally, human contact is an additional risk factor (Robertson & Chilvers, 2011). Consequently, Department of Conservation has introduced measures to minimise biosecurity risks. For example, a quarantine store is maintained on the mainland, where all researchers’ and managers’ gear is inspected for potential pest species and cleaned; and all vessels undergo quarantine inspections and cleaning before going to the islands (Department of Conservation, 2016).

Research
Highly Effective

Research on the islands is managed through a permit system. To date, there have been tight controls on the type and impact of research permitted. There is limited up-to-date information on the proposed new research station in Smith Harbour, Auckland Islands and whether this has proceeded.

Several of the species that contribute to the Outstanding Universal Value of the property are part of the research programme that is administered by the Department of Conservation Conservation Services Programme. Other external research is reported on yellow-eyed penguins, Antipodean albatross, Snares Island penguin, Campbell Island rockhopper and the Antipodes Island penguin population (IUCN Consultation, 2017).

Overall assessment of protection and management
Highly Effective

The protection and management of the New Zealand Sub-Antarctic Islands
continues to be overall very effective. Improvements in protection and management include updating the Conservation Management Strategy and increasing the number of marine reserves adjoining the property. Protection and management can be improved primarily through ensuring compliance with the strict biosecurity policies and practices which are articulated in the updated 2016 Conservation Management Strategy.

**Assessment of the effectiveness of protection and management in addressing threats outside the site**

**Mostly Effective**

The primary long-term risks outside the site are invasive species introductions and climate change, the latter being beyond the control of the management agency. Impressive efforts have taken place in eradicating invasive mammal species from many parts of the property, however, these persist on some islands. The Department of Conservation has a commendable goal to eradicate all introduced mammal species from the islands by 2025.

Controls on the bycatch of relevant species, especially albatross, are generally improving within the control of the New Zealand Government but are ongoing in international waters.

**Best practice examples**

Tight controls on visitors – both numbers and sites and a high level of biosecurity for research and management trips.

Maximum legal protection for all of the terrestrial and most of the marine area. New Zealand is a recognised leader in invasive species control and management.

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**State and trend of values**

**Assessing the current state and trend of values**

**World Heritage values**
Abundance and diversity of pelagic seabirds, penguins, land birds, invertebrates and plants and important breeding areas for marine mammals

Low Concern
Trend: Stable

As above, the high standards of protection and management coupled with a relatively low threat environment have ensured the values of the property are being maintained. Many marine based bird species including albatross and penguins along with sea lions have seen significant drops in their populations which poses medium to long-term risks to their species/subspecies (Chilvers, 2008; Francis et al., 2015; Robertson & Chilvers, 2011). This is particularly critical due to the prolonged breeding cycle of some species (Hiscock & Chilvers, 2014; Hiscock et al., 2014). Many of these impacts occur outside the site.

Distinctive examples of evolutionary processes which result in high levels of endemism

Low Concern
Trend: Stable

Due to a high level of legal and physical protection, along with good biosecurity and restoration work, largely in the form of eradicating introduced mammals, the terrestrially based species have maintained or improved their status and the property’s high levels of endemism remain intact. Effective management and a low threat environment combine to ensure values are retained.

Summary of the Values

Assessment of the current state and trend of World Heritage values

Low Concern
Trend: Stable

The site contains five geographically isolated but linked island groups containing a unique assemblage of wildlife and plants. While there has been a legacy of past human impact on many of the larger islands including fire,
introduced mammals and non-native plants, many of the smaller islands remain near pristine and provide breeding sites for a wide range of marine mammals and especially seabirds, many of which breed nowhere else. Due to a sustained history of effective management, including the removal of introduced mammals and tight visitor controls, many of the islands are slowly recovering. However, several marine based species including albatross, penguins and sea lions have seen significant drops in their populations, which is particularly critical due to the prolonged breeding cycle of some species. Many of these impacts occur outside the site.

Additional information

Benefits

Understanding Benefits

► Wilderness and iconic features

Due to their harsh climate, rugged nature and isolation, the New Zealand Sub-Antarctic represent true wilderness to many people. Yet with appropriate planning and permission, the public can experience these unique islands.

Factors negatively affecting provision of this benefit:
- Pollution: Impact level - Low
- Invasive species: Impact level - Low

► Outdoor recreation and tourism

Tightly controlled tourism has minimal impact on the islands while providing important advocacy both specifically for the islands and for wilderness areas in general.

► Importance for research

The site has critically contributed to the understanding of numerous endemic
marine species as well as island ecology and specific endemic and native terrestrial species.

▶ Sacred natural sites or landscapes

The islands also hold deep spiritual value for the Ngāi Tahu people as the traditional owners of the area within which the property sits.

Summary of benefits

The main benefits of New Zealand’s Sub-Antarctic Islands are their nature conservation value, historical and wilderness values and significant knowledge and research values for the numerous endemic fauna and flora species and to some extent the nature based tourism and related benefits. The islands also hold deep spiritual and cultural values for the Maori people of New Zealand. There may be unexploited synergies between some of these benefits, such as between traditional natural resource use and nature conservation on the one hand and tourism on the other hand.

Projects

Compilation of active conservation projects

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<th>№</th>
<th>Organization/individuals</th>
<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<td>1</td>
<td>Department of Conservation</td>
<td>3-year timeframe: actions to plan eradication of all mammal species; review the property’s research strategy; manage historic sites; strengthen collaborative work with Ngāi Tahu</td>
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<td>2</td>
<td>Department of Conservation</td>
<td>5-year timeframe: actions to prepare the proposed Visitor Management Plan; monitor impact of pest plants</td>
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<tr>
<td>3</td>
<td>Department of Conservation</td>
<td>10-year timeframe: actions to improve knowledge of archaeological sites on Antipodes Islands; eradication of introduced mammals; ongoing review of management impact etc</td>
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## REFERENCES

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