IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 12 November 2014

Please note: this is an archived Conservation Outlook Assessment for New Zealand Sub-Antarctic Islands. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

New Zealand Sub-Antarctic Islands

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

2014 Conservation Outlook

Good

The New Zealand Subantarctic Islands World Heritage site, which is made up of a unique assemblage of habitats and species has a good conservation outlook, thanks largely to its isolation and legal protection status. The sites internationally important ecological values are relatively safe under current management policies but these are always under threat from economic and political pressure. 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: Improving

The site contains five geographically isolated but linked island groups containing a unique assemblage of wildlife and plants. While there has been human induced 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 previous management actions, including the removal of introduced mammals and tight visitor controls, many of the islands are slowly recovering although given the climatic conditions in the area that is likely to take many decades. However, several marine based species including albatross, penguins and sea lions have seen significant drops in their populations which is particularly true due to the prolonged breeding cycle of some species. Many of these impacts occur outside of 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. Current management policies manage internal threats well but any relaxation of those policies e.g. biosecurity and access controls will raise the threat level. In general, since its acceptance as a World Heritage site, the sites controls have tightened but there is a risk that this may be reversed. 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 or preferably tightened e.g. controls on visitor numbers and restrictions on available sites as well as tight biosecurity then the level of threats will remain low.

Overall PROTECTION and MANAGEMENT

Highly Effective

The current protection and management of the New Zealand Subantarctic Islands is overall very effective but can be improved primarily through increased biosecurity. The weakening of current controls on access and activities on the islands due to internal and external pressure is a constant risk.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► High level of endemism

Criterion:(ix)

Isolation, climatic factors and seven degrees of latitudinal spread have combined to significantly influence the biota of the New Zealand Subantarctic 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 Subantarctic 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). (http://whc.unesco.org/en/list/877)

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

Criterion:(x)

The NZSAI, 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 NZSAI represent a Centre of Plant Diversity and have the richest flora of all the Subantarctic islands with 35 endemic taxa. The "megaherbs' are unique to the NZSAI 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.

(http://whc.unesco.org/en/list/877)

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 e.g. biosecurity and access controls will raise the threat level. Continuing the eradication of introduced species will continue to remove major threats to the site.

► Tourism/ visitors/ recreation

Low Threat
Inside site

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 boardwalk) where higher numbers are permitted. A current proposal to substantially increase both visitor sites and numbers poses a risk to areas which take decades to heal form any damage.
Increasing the number of visitors, both the number of individuals and the number of boats/ days of disturbance also increases the disturbance to wildlife especially as it is during the breeding season.
Every visitor/ landing increases the likelihood of a biosecurity breach. While this is closely managed for researchers and management staff, it is not always as well managed for tourists and risks being further weakened by increased visitor numbers.
A key control on impacts is the presence of independent Government representatives on cruise ships. Past actions have shown that without an independent observer compliance with rules can be significantly reduced including disturbance of wildlife, unauthorized landings and poor trip reporting. This system is currently under review but it is important that this requirement is continued. (R1-R22)

► Chemical changes in oceanic waters, Temperature changes

Data Deficient
Inside site
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 form 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 of oceanic systems e.g. currents, nutrient availability, organism distribution. As the ecosystem at the site relies heavily on oceanic nutrients any change is likely to negatively impact both individual species and also the overall ecosystem.
Climate change, for example increased rainfall may also increase the risk of erosion. (R1-R22)

▶ Household Sewage/ Urban Waste Water

High Threat
Inside site

Increased waste management issues, especially sewage and waste water become a greater issue with increased visitor numbers and duration, especially researchers and managers who stay on the islands. Tourists are not permitted to overnight and it is important this restriction is maintained. The proposed research station at the Auckland islands will bring additional impacts which to date have been managed partially through limiting visitor numbers and through constraining the number of accommodation sites. Human waste also poses a threat to marine mammals via disease. (R1-R22)

▶ Invasive Non-Native/ Alien Species

High Threat
Inside site

While significant restoration work in the form of invasive mammal removal has been carried out, pigs, cats and mice still remain on the Auckland Island and mice on the Antipodes. A project is underway to remove the mice from the Antipodes but while cats and in particular pigs remain on Auckland island they will continue to have a major negative impact the ecosystem. These impacts include predation of birds, especially albatross and petrels, which in turn affects nutrient cycling, and in the case of pigs, damaging vegetation and actively disturbing the soil structure. Investigations are currently underway into removing pigs and possible cats pending funding availability. The presence of Oleria traverse at the Auckland Islands has the potential to significantly change the ecosystem of much of the island, taking over non forested habitats both around the coast and above the forest line. The mode of introduction of this species, which originates on the Snares Islands and arrived post European discovery, has long been debated as to whether it was natural i.e. bird assisted, or human assisted. There is limited control at some

sites which should be continued, and consideration should be given to restricting its spread around the islands. (R1-R22)

▶ Other

Low Threat
Inside site

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. This may lead to attempts at a “quick and dirty” disposal methodology which could present unacceptable risks to wildlife and the island or surrounding seas. (R1-R22)

▶ Fishing / Harvesting Aquatic Resources

Low Threat
Inside site
Outside site

While exploitive industry 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 nation’s waters. (R1-R22)

Potential Threats

Low Threat

If current management controls are kept in place or preferably tightened e.g. controls on visitor numbers and restrictions on available sites as well as tight biosecurity then the level of threats will remain low. However, as the potential for oil and gas exploration increases so might the pressure to identify the islands as suitable refuge sites for drilling and support vessels, as well as possible land based infrastructure.

▶ Other Activities

Low Threat

Inside site

With possible loosening of restrictions on helicopter access to the islands being considered, most notably to the Auckland's, there would be increased risk of disturbance to wildlife. This would also pose greater risks due to increased fuel supplies and reprovisioning required. (R1-R22)

► Oil/ Gas exploration/development

Data Deficient
Outside site

While mining and oil/gas extraction are currently prohibited in the site the high value of these activities poses a continual risk. As the potential for oil and gas exploration increases so will the pressure to identify the islands as suitable refuge sites for drilling and support vessels, as well as possible land based infrastructure. (R1-R22)

Protection and management

Assessing Protection and Management

► Relationships with local people

Highly Effective

Not applicable

► Legal framework and enforcement

Mostly Effective

Land area has highest available legal protection (National Nature Reserve); most of the marine area has highest available marine protection (this area has increased since the last review). However, the interpretation of the legal protection of the land area is sometimes variable. (R1-R22)

► Integration into regional and national planning systems

Highly Effective

The site is well integrated into the national planning system, being included in the Conservation Management Strategy for the adjoining mainland. While

previously it was covered under its own management strategy, the national planning framework has been altered with less detail included in the current document developed in 2013.
Management of the marine area is integrated through the development and implementation of the Regional coastal plan – Kermadec and Subantarctic Islands, which fits under the National Coastal Plan. (R1-R22)

► Management system

Highly Effective

99% of the site including all the land area is under the coordinated management of the Department of Conservation. This leads to an integrated management system for all the islands which works well. (R1-R22)

► 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/ enhanced. (R1-R22)

► 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” (Decision CONF 203 VIII.A.1.).
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 which is currently not progressing primarily due to lack of funding (R1-R22).

▶ Boundaries

Highly Effective

The boundaries of the site are the reasonable maximum at 12km into the marine ecosystem which is near the limit of territorial waters at 12 nm.

▶ 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 is highly variable. Major projects such as eradications are funded on a one off basis (R1-R22).

▶ 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 the 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 management organisation (the Department of Conservation) works with other organizations 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 (R1-R22).

▶ Tourism and interpretation

Mostly Effective

The legislation protecting the islands is interpreted in a range of management documents. There is a real risk of this interpretation changing to reduce the level of protection e.g. increasing number of visitors, allowing previously restricted activities, reducing the level of supervision (R1-R22).

▶ 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 (R1-R22).

▶ Research

Some Concern

Research on the islands is managed by a permit system. To date there have been tight controls on the type and impact of research permitted however there is a real risk of this being watered down to allow higher impact research including the establishment of a new research station rather than utilising existing facilities.

Overall assessment of protection and management

Highly Effective

The current protection and management of the New Zealand Subantarctic Islands is overall very effective but can be improved primarily through increased biosecurity. The weakening of current controls on access and activities on the islands due to internal and external pressure is a constant risk.

▶ Assessment of the effectiveness of protection and management in

addressing threats outside the site

Mostly Effective

Primary long term risk outside of the site is climate change which is beyond the control of the management agency. Controls on bycatch of relevant species, especially albatross, are generally improving within the control of the New Zealand Government but are ongoing in international waters. The risk from oil exploration outside the site will continue to increase as demand for oil increases.

► Best practice examples

Tight controls on visitors – both numbers and sites
High level of biosecurity for research and management trips.
Maximum legal protection for all of terrestrial and most of marine area.

State and trend of values

Assessing the current state and trend of values

World Heritage values

► High level of endemism

Low Concern
Trend:Improving

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, giving a continued high level of endemism. However, several marine based species including albatross, penguins and sea lions have seen significant drops in their populations which poses medium to long term risks to their species/ subspecies. This is particularly true due to the prolonged breeding cycle of some species. Many of these impacts occur outside of the site. (R1, R2, R3, R6, R7, R12, R14, R16, R18, R20, R21)

►

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

Low Concern
Trend:Deteriorating

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. This is particularly true due to the prolonged breeding cycle of some species. Many of these impacts occur outside of the site. (R1, R2, R3, R6, R7, R12, R14, R16, R18, R20, R21)

Summary of the Values

► Assessment of the current state and trend of World Heritage values

Low Concern

Trend: Improving

The site contains five geographically isolated but linked island groups containing a unique assemblage of wildlife and plants. While there has been human induced 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 previous management actions, including the removal of introduced mammals and tight visitor controls, many of the islands are slowly recovering although given the climatic conditions in the area that is likely to take many decades. However, several marine based species including albatross, penguins and sea lions have seen significant drops in their populations which is particularly true due to the prolonged breeding cycle of some species. Many of these impacts occur outside of the site.

Additional information

Key conservation issues

▶ Increase in tourism

Local

Every visitor/ landing increases the likelihood of a biosecurity breach. While this is closely managed for researchers and management staff, it is not always as well managed for tourists and risks being further weakened by increased visitor numbers.

▶ Invasive species

Local

While significant restoration work in the form of invasive mammal removal has been carried out, pigs, cats and mice still remain on the Auckland Island and mice on the Antipodes. A project is underway to remove the mice from the Antipodes but while cats and in particular pigs remain on Auckland island they will continue to have a major negative impact the ecosystem. These impacts include predation of birds, especially albatross and petrels, which in turn affects nutrient cycling, and in the case of pigs, damaging vegetation and actively disturbing the soil structure.

Benefits

Understanding Benefits

▶ Is the protected area valued for its nature conservation?

The considerable nature conservation values of the site are reflected by the protection status of both the terrestrial, and most of the marine areas i.e. National Nature Reserve and Marine Reserve respectively which overlap, as well as the site being listed on the World Heritage list for its biodiversity

values.

► Sacred natural sites or landscapes

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

► 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.

Summary of benefits

The main benefits of New Zealand’s Subantarctic Islands are their Natural 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. 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

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Department of Conservation		Plan to remove mice from Antipodes Island

№	Organization/ individuals	Project duration	Brief description of Active Projects
2	Department of Conservation		Installation and maintenance of boardwalk to minimise tourist impacts
3	Department of Conservation		Resurveying of penguins on Antipodes and Auckland Islands
4	Department of Conservation		Surveying of cormorants – Auckland Islands and Bounty Islands.
5	National Institute of Water and Atmospheric Research		Buller’s Albatross Monitoring - Snares
6	Department of Conservation		New Zealand sea lion monitoring
7	Department of Conservation		Limited Oleria control – Auckland Islands

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Department of Conservation	Consideration of ongoing/ increased Oleria control – Auckland Islands	
2	Department of Conservation	Removal of pigs and cats from Auckland Island	

REFERENCES

№	References
1	Antipodes Island mouse eradication plans- DOC Invercargill, PO Box 743, Invercargill 9840, New Zealand
2	Chilvers, B.L. 2008. New Zealand sea lions (Phocarctos hookeri) and squid trawl fisheries: bycatch problems and management options. Endangered Species Research 5:193-204
3	Chilvers, B.L., Wilkinson, I.S. and Childerhouse, S. 2007. New Zealand sea lion, Phocarctos hookeri, pup production - 1995 to 2005. New Zealand Journal of Marine and Freshwater Research 41:205-213
4	Department of Conservation 1997 Subantarctic World Heritage nomination
5	Department of Conservation 1998 Conservation Management Strategy for Subantarctic Islands 1998 to 2008 (life extended to 2012). See http://www.doc.govt.nz/publications/about-doc/role/policies...
6	Department of Conservation 2000 Action Plan for Seabird Conservation in New Zealand; Part A: Threatened Seabirds Threatened species Occasional Publication No 16
7	Department of Conservation 2011 Subantarctic Tourism Policy – DOC Invercargill, PO Box 743, Invercargill 9840, New Zealand
8	Department of Conservation 2012 Proposed regional coastal plan – Kermadec and Subantarctic Islands. See http://www.doc.govt.nz/getting-involved/consultations/curre...
9	Department of Conservation 2013 http://www.doc.govt.nz/conservation/land-and-freshwater/off...
10	Department of Conservation 2013: Draft Southland Conservation Management strategy 2013 http://www.doc.govt.nz/Documents/getting-involved/consultat...
11	Department of Conservation unpublished reports and file notes covering pigs, undaria, oleria, tourism, facilities management and field reports. DOC Invercargill PO Box 743, Invercargill 9840, New Zealand
12	Francis, R.I.C.C.; Elliott, G.; Walker, K. 2012. Fisheries risks to the viability of Gibson’s wandering albatross Diomedea gibsoni. Draft New Zealand Aquatic Environment and Biodiversity Report to Ministry of Fisheries project PRO200602.

№	References
13	Hiscock, J.A., McClelland, P and Chilvers, B.L. 2014. First complete post-breeding survey of the Bounty Island Shag (Leucocarbo ranfurlyi) Notornis, 61: 60-62