Working Paper 2015/02

Assessment of Organisations Involved With the Antarctic and Their Engagement With New Zealand Youth



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Working Paper 2015/02: Assessment of Organisations Involved With the Antarctic and Their Engagement With New Zealand Youth

Author: Miranda Voke

1. Purpose

The purpose of this paper was to record what organisations are currently doing to engage New Zealand youth with the Antarctic and Southern Ocean region. The paper also provides an historical context by recording a brief history of the region from AD 650 to today.

The paper has been prepared for the New Zealand Antarctic Youth Council (NZAYC). In 2014 the McGuinness Institute brought together nine youths between the ages of 18 and 30 to formally establish the NZAYC in 2015. This paper aims to describe the current landscape, identifying where opportunities exist for the NZAYC going forward. This paper may prove useful for other parties interested in progressing informed debate on the future of the Antarctic.

2. Methodology

Given the purpose above, the approach was to produce three tables in three appendices. The first two appendices reflect the current landscape – who is doing what in regard to youth engagement. Appendix 1 lists organisations unique to New Zealand whereas Appendix 2 lists international organisations operating in New Zealand. Appendix 3 is a timeline which reflects the historical context. Please note a list of all abbreviations can be found on page 4.

Organisational Analysis (Appendices 1 and 2)

At the first NZAYC organising committee meeting (Tuesday, 21 October 2014) it was decided a review of the current landscape was necessary. At this meeting, attendees brainstormed a list of organisations, which was further expanded in coming weeks. Information contained in Appendices 1 and 2 include:

- a) the name of the organisation;
- b) the overall purpose of the organisation;
- c) the date the organisation was established;
- d) the contact details of the organisation; and
- e) any engagement with New Zealand youth.

To gather this information, a search was conducted on the website of each organisation. In some instances, all the required information was clearly displayed on the website. In other instances, information such as the purpose, date of creation or the organisation's engagement with New Zealand youth was not clearly identified and in-depth research was necessary. In a few situations, this led to direct contact with the organisation in question.

About the author: Miranda Voke holds a B.A. in politics and a Master of Research in environmental management from Swansea University. The McGuinness Institute would like to thank reviewers of the paper from the New Zealand Antarctic Youth Council: Peggy Cunningham-Hales, Bella Duncan, Christoph Kraus, Hanne Nielsen, James Tremlett, Lagi Tuimavave and Charlie Wilkinson. Published 26 January 2015.

Timeline (Appendix 3)

Although there are a number of timelines currently online, it was decided that the committee would benefit from having its own timeline on its website. It was also decided to separate the timeline into New Zealand-specific events and the more broader global context. The final timeline can be viewed in Appendix 3 and on the NZAYC and McGuinness Institute's website*. Please note that in contrast to this paper, the timeline will be updated over time.

A draft of the paper was distributed to the organising committee of the NZAYC for review and comment. The reviewers were then able to give feedback on any organisations they felt needed to be added or removed from the appendices.

Limitations

There were limitations to the organisations analysis in Appendices 1 and 2. The primary issue encountered was a decision on how to include international organisations which are influential in New Zealand but are not based here. As the Antarctic is managed largely through international collaboration, there are many international organisations of this nature. These organisations were separated from New Zealand-based organisations and comprise Appendix 2.

A second limitation which emerged related to the required level of involvement between the organisation and the Antarctic for the organisation to be considered relevant to the list. Certain organisations are clearly relevant, such as Antarctica New Zealand and the New Zealand Antarctic Society (NZAS), while other organisations are not, such as Air New Zealand or Forest and Bird. In some instances, the organisation had links to the Antarctic via research collaborations, competitions or campaigns focusing on the Antarctic and the subantarctic region, but the Antarctic is not a focus of their primary work. In these cases where a degree of judgement was required, the role of external reviewers was crucial.

A third limitation focused on the classification of New Zealand 'youth'. As a starting point, the NZAYC used the age bracket of 18 to 30 to define youth. In this working paper, we have kept this definition in mind. However, in the list below, details were included of organisations engagement with teenagers or children below the age of 18. This provides as much information as possible on the work organisations are undertaking to engage those aged 30 or below with the Antarctic.

There were no obvious limitations to the timeline in Appendix 3.

4. What we found

There are a large number of organisations working hard to engage youth in the Antarctic. However, there is currently no youth organisation able to provide an independent youth voice on this important topic. There is clearly a role for the NZAYC and a wide group of other stakeholders who may be interested in partnering with the council to achieve shared goals.

We hope this will provide a useful resource for the NZAYC and others to explore ways to engage and inform youth about the Antarctic.

^{*} See the Antarctic Timeline on the NZAYC and the McGuinness Institute's website: http://antarcticyouthnz.org/?page_id=98 and <a h

Table 1: New Zealand-based organisations involved with the Antarctic

- 1. Air New Zealand
- 2. Antarctic Environments Portal
- 3. Antarctic Heritage Trust
- 4. Antarctica New Zealand
- 5. Antarctic Research Centre (ARC) (Victoria University of Wellington)
- 6. Department of Conservation (DOC)
- 7. Enderby Trust
- 8. Environmental Conservation Organisations of Aotearoa New Zealand (ECO)
- 9. Forest and Bird
- 10. Gateway Antarctica (University of Canterbury)
- 11. GNS Sciences: DrillNZ
- 12. International Antarctic Centre
- 13. International Centre for Terrestrial Antarctic Research (ICTAR) (University of Waikato)
- 14. Landcare Research
- 15. Land Information New Zealand (LINZ)
- 16. Ministry of Business, Innovation and Employment (MBIE):

National Science Challenges: Sustainable Seas National Science Challenges: The Deep South

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- 17. Ministry of Foreign Affairs and Trade (MFAT)
- 18. National Institute of Water and Atmospheric Research Ltd (NIWA)
- 19. New Zealand Antarctic Research Institute (NZARI)
- 20. New Zealand Antarctic Society
- 21. NZ IceFest
- 22. Polar Environment Research Theme (PERT) (University of Otago)
- 23. Snow and Ice Research Group New Zealand (SIRG)
- 24. The Morgan Foundation: Our Far South Project
- 25. The Sir Peter Blake Trust
- 26. World Wildlife Fund for Nature (WWF) New Zealand

Table 2: International organisations involved with the Antarctic partially operating in New Zealand

- 1. ANDRILL: Antarctic Geological Drilling (ANDRILL)
- 2. Antarctic Climate & Ecosystems Cooperative Research Centre (ACE CRC)
- 3. Antarctic Oceans Alliance (AOA)
- 4. Antarctic and Southern Ocean Coalition (ASOC)
- 5. Association of Polar Early Career Scientists (APECS)
- 6. Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
- 7. Council of Managers of National Antarctic Programs (COMNAP)
- 8. The Scientific Committee on Antarctic Research (SCAR)
- 9. Polar Educators International (PEI)

Abbreviations

ACE CRC	Antarctic Climate & Ecosystems Cooperative Research Centre
ANDRILL	Antarctic Geological Drilling
	Antarctic Oceans Alliance
ADECS	
APECS	Association of Polar Early Career Scientists The Antarctic Research Centre
ARC	
ASOC PAE1	Antarctic and Southern Ocean Coalition The first Dund Antarctic Synadition
BAE1 BAE2	The first Byrd Antarctic Expedition The second Byrd Antarctic Expedition
BANZARE	The British, Australian and New Zealand Antarctic Research Expedition
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CEP	Antarctic Treaty System's Committee for Environmental Protection
CoEnCo	New Zealand Conference on Environment and Conservation
COMNAP	Council of Managers of National Antarctic Programs
CRI	Crown Research Institute
CRP	Cape Roberts Project
DOC	Department of Conservation
DSIR	The Department of Scientific and Industrial Research
ECO	Environmental Conservation Organisations of Aotearoa New Zealand
GNS	Institute of Geological and Nuclear Sciences Limited
ICSU	International Council for Science
ICTAR	International Centre for Terrestrial Antarctic Research
IGY	International Geophysical Year
JARPA II	The second Japanese Whale Research Program under Special Permit in the Antarctic
KCC	The Kiwi Conservation Club
LINZ	Land Information New Zealand
MBIE	Ministry of Business, Innovation and Employment
MoE	Ministry of Education
MFAT	Ministry of Foreign Affairs and Trade
MPI	Ministry for Primary Industries
MYD	Ministry of Youth Development
NIWA	National Institute of Water and Atmospheric Research Ltd
NGO	Non-governmental organisation
NZAM	The New Zealand Antarctic Medal
NZARI	New Zealand Antarctic Research Institute
NZARP	New Zealand Antarctic Research Programme
NZAS	The New Zealand Antarctic Society
NZAYC	New Zealand Antarctic Youth Council
NZGSAE	The New Zealand Geological Survey Antarctic Expedition
NZTABS	New Zealand Terrestrial Antarctic Biocomplexity Survey
PCAS	The Postgraduate Certificate in Antarctic Studies, University of Canterbury
PEI	Polar Educators International

PERT	Polar Environment Research Theme
USSR	The Union of Soviet Socialist Republics
RDRC	Ross Dependency Research Committee
RNZAF	The Royal New Zealand Air Force
SCAR	The Scientific Committee on Antarctic Research
SIRG	Snow and Ice Research Group New Zealand
SMO	Science Management Office
TAE	Trans-Antarctic Expedition
TEAL	Tasman Empire Airways
WWF	World Wildlife Fund for Nature

Table 1: New Zealand based organisations involved with the Antarctic.

Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
Zealand	'Air New Zealand delivers uniquely Kiwi journeys to more than 13 million passengers who fly to, from and within New Zealand each year. The airline operates more than 4,000 flights each week, connecting customers to 26 destinations within New Zealand and to Australia, the Pacific Islands, Indonesia, China, Japan, Canada, USA and the United Kingdom.' 'As a global airline, Air New Zealand helps people experience the world. So it's important for us to find ways to help minimise our impact. Balancing our business needs with our environmental responsibilities is an ongoing mission. Partnerships with trailblazers in environmental science and innovation help us make a difference. Air New Zealand has deep links to Antarctica and has been a strong supporter of New Zealand scientific research on the continent for several years by providing travel for international research collaboration and educational grants for Antarctic scientists. In 2012 we formally signed up to a three year partnership with Antarctica New Zealand and the Nazarlarctic Research Institute (NZARI). Through this partnership we are supporting essential scientific research on the ice that provides a greater understanding of Antarctica and the impacts of climate change.'2	1956 when Tasman Empire Airways Limited (TEAL) was renamed Air New Zealand.	Air New Zealand Head Office 185 Fanshawe Street Auckland 1010 New Zealand Phone: +64 9 366 2929 www.antarctica. airnewzealand.com	• 'In late 2013, Air New Zealand launched a global search to find environmental enthusiasts keen to share the wonders of the Antarctic frozen continent with the world. Australian student filmmaker Marli Lopez-Hope and Kiwi 'outdoorsman' Michael Armstrong were selected from almost 2,000 applicants across 52 countries to travel to Antarctica on assignment with Air New Zealand. Marli and Michael deployed to Antarctica in January 2014, where they spent two weeks assisting National Geographic photographer Jason Edwards capture life on the ice and to help draw worldwide attention to scientific research and the environment in Antarctica.'3

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
2	Antarctic Environments Portal	'The Antarctic Environments Portal provides an important link between Antarctic science and Antarctic policy. The Portal makes science-based information available to the Antarctic Treaty System's Committee for Environmental Protection (CEP) and all the Antarctic Treaty nations. The information in the Portal is there to support the CEP in its development of advice and recommendations to the Antarctic Treaty Consultative Parties on environmental protection. The Portal also enables Antarctic scientists, particularly through SCAR, to provide independent scientific advice to the Antarctic Treaty including to bring new or emerging issues to the attention of policy makers.'4	2014. The full version is to be launched in 2015. ⁵	Current management by: Antarctica New Zealand Administration Building International Antarctic Centre 38 Orchard Road Christchurch 8053 New Zealand Phone: +64 3 358 0200 www.environments.aq	A workshop was run for APECS members in Auckland during the 2014 SCAR Open Science Conference to obtain input from young scientists.
m	Antarctic Heritage Trust	'Ensure the expedition bases and the thousands of associated artefacts survive for the benefit of future generations; Inspire people through the values associated with adventure, discovery and endurance.'6	1987	Antarctic Heritage Trust Administration Building International Antarctic Centre 38 Orchard Road Christchurch 8053 New Zealand Phone: +64 3 358 0212 www.nzaht.org	The Trust is an associate supporter of the Sir Peter Blake Trust Antarctic Youth Ambassador programme.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
4	Antarctica New Zealand	'Antarctica New Zealand is the Crown Entity responsible for developing, managing and executing New Zealand Government activities in Antarctica and the Southern Ocean, in particular the Ross Dependency. We manage Scott Base, New Zealand's Antarctic research station. We maintain New Zealand's operational presence in the Ross Dependency for the benefit of present and future generations of New Zealanders. Key activities include supporting scientific research, conserving the intrinsic values of Antarctica and the Southern Ocean and raising public awareness (in part through arts, media and youth programmes) of the international significance of the continent.'	1996	Antarctica New Zealand Administration Building International Antarctic Centre 38 Orchard Road Christchurch 8053 New Zealand Phone: +64 3 358 0200 www.antarcticanz.govt.nz	The Postgraduate Research Scholarship Programme is designed to encourage researchers to pursue interests in Antarctica and the Southern Ocean. The scholarships support master's or doctoral research and logistical support for one or two seasons in Antarctica. (The Scholarship Programme is supported by Antarctica New Zealand, Kelly Tarlton's Antarctic Encounter and Underwater World and New Zealand Post.) Antarctica New Zealand is an associate supporter of the Sir Peter Blake Trust Antarctic Youth Ambassador programme.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
ы	Antarctic Research Centre (ARC) (Victoria University of Wellington)	'Our mission is to better understand Antarctic climate history and processes, and their influence on the global climate system, especially in New Zealand and the southwest Pacific region. We believe this research opens up exciting opportunities and challenges for young scientists, as well as providing a sound basis for international debate and policy development on global change issues.'8	1972	Antarctic Research Centre Victoria University of Wellington PO Box 600 Wellington 6140 New Zealand Phone: +64 4 463 6587 www.victoria.ac.nz/ antarctic	 The ARC staff and students undertake various activities to promote interest and research in the Antarctic, including youthfocused activities. These cover: talks to the public, community groups and schools; annual Kids Conferences; annual S.T. Lee Lectures in Antarctic studies; participation in NZ IceFest; International Polar Year outreach programmes; and ANDRILL outreach programmes; and Antarctic climate change documentary films
Q	Department of Conservation (DOC)	'Our purpose is: Conservation leadership for a prosperous New Zealand By "prosperous New Zealand" we mean a country that is flourishing socially, economically and environmentally.'9	1987	Whare Kaupapa Atawhai / Conservation House 18–32 Manners Street Wellington 6011 New Zealand Phone: +64 4 471 0726 www.doc.govt.nz	 DOC runs volunteer opportunities in the Subantarctic Islands. These are not aimed at youth specifically but could be utilised by youth. The Subantarctic Scribe newsletter informs readers about DOC's work in the subantarctic. Again, this is not youth focused but can inform youth if they subscribe.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
_	Enderby Trust	'Enderby Trust works in conjunction with New Zealand's premier expedition travel company, Heritage Expeditions, to offer scholarship positions aboard expeditions to the Subantarctic Islands and Antarctica aboard the <i>Spirit of Enderby</i> and <i>Akademik Shokalskiy</i> . Enderby Trust was founded by the Russ Family knowing the opportunities for young people to visit these regions are limited but believing it is vitally important that young people experience this amazing region. The Trustees hope scholarship participants will share their experiences and enthusiasm with other people and grow the awareness of the Southern Ocean and Antarctica.'10	1998	Enderby Trust P.O. Box 7218 Christchurch 8240 New Zealand Phone: Not listed. Enderby Trust scholarships are arranged with Heritage Expeditions whose phone number is +64 3 365 3500. www.heritage-expeditions.	• Scholarships are open to applicants between the ages of 18 and 30 who would otherwise be unable to travel to the Southern Ocean to travel with Heritage Expeditions to the Subantarctic Islands and Antarctica aboard the Spirit of Enderby. Successful applicants for the scholarships are expected to make a contribution to the expedition cost. This equates to 30% of the advertised cost of the expedition; Enderby Trust contributes the remaining 70% plus applicable government landing fees.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
∞	Environmental Conservation Organisations of Aotearoa New Zealand (ECO)	'ECO - New Zealand's national network working to protect our environment. ECO works to protect New Zealand's unique natural heritage and to foster the relationship New Zealanders have with it. The natural environment is central to our culture, economy and identity. ECO acts to protect it for recreation, for its intrinsic quality and for our children and grandchildren to enjoy. We strive to empower and inform people to work for better management and protection of New Zealand's forests, coasts, sea, rivers, land, atmosphere and our unique species. ECO is a network of fifty-plus large and small environmental organisations based all around New Zealand, as well as several hundred individual Friends. The core of ECO's work is promoting and strengthening community environmental action, and working collaboratively towards better government policies and management decisions. ECO also works on global issues such as climate change, Antarctica, and oceans.'11	Founded in 1971 as the New Zealand Conference on Environment and conservation (CoEnCo). Renamed ECO in 1976.	Environment and Conservation Organisations of Aotearoa New Zealand (ECO) Level 2 126 Vivian St Wellington 6011 New Zealand Phone: +64 4 385 7545 www.eco.org.nz	No direct engagement with New Zealand youth is specified.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
o	Forest and Bird	'Originally established to protect our native forests and birds, our role has been extended in recent years to include protection of all native species and wild places – on land and in our oceans, lakes and rivers.'11	1923	Forest and Bird Central Office Level One 90 Ghuznee Street PO Box 631 Wellington 6140 New Zealand Phone: + 64 4 385 7374 www.forestandbird.org.nz	 Forest and Bird runs various volunteer opportunities which are open to youth to participate in. These are limited in terms of their subantarctic activities, which focus on marine reserves and marine mammal sanctuaries for sea lions around the Subantarctic Islands. The Kiwi Conservation Club (KCC) run by Forest and Bird engages with children aged 3–13 years. They do not have a specific group for youth above the age of 13. The KCC included a visit to the ARC for KCC members in the past.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
01	Gateway Antarctica (University of Canterbury)	'Gateway Antarctica will contribute to increased understanding and more effective management of the Antarctic and the Southern Ocean by being a focal point and a catalyst for Antarctic scholarship, attracting national and international participation in collaborative research, analysis, learning and networking.'13	1999	Gateway Antarctica University of Canterbury Private Bag 4800 Christchurch 8140 New Zealand Phone: +64 3 364 2136 www.anta.canterbury. ac.nz	 As part of Canterbury University, Gateway Antarctica supports teaching of students and the public. There is no specification towards youth as such beyond a commitment to: Encouraging and coordinating Antarctic and Southern Ocean teaching, seminars, publications, presentations, postgraduate courses, conferences and visiting scholars (including Erskine). The Postgraduate Certificate in Antarctic Studies (PCAS) graduate certificate course includes a field trip to Antarctica and is a common way for young New Zealanders to gain Antarctic experience.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
11	GNS Sciences: DrillNZ	'DrillNZ is an initiative of several New Zealand Universities and Crown Research Institutes (CRIs) aimed at coordinating efforts/resources in the field of scientific drilling. Drilling investigates topics of societal and economic significance, such as research into groundwater, energy, petroleum, coal, underwater natural resources, and hazards. Our main purposes are to generate synergies across institutes, stimulate exchange of ideas and expertise, compile national inventories of equipment, databases, and people involved in scientific drilling, and create closer links and opportunities between government, industry, and academia.'14	Not specified.	GNS Science 1 Fairway Drive Avalon 5010 PO Box 30-368 Lower Hutt 5040 New Zealand Phone: +64 4 570 1444 http://drill.gns.cri.nz	No direct engagement with New Zealand youth is specified.
12	International Antarctic Centre	'Experience the wonder and magic of Antarctica without leaving Christchurch, at one of New Zealand's best, award winning tourist attractions.'15	1992	International Antarctic Centre 38 Orchard Road Christchurch Airport 8053 New Zealand Phone: +64 3 357 0519 www.iceberg.co.nz	 The Centre is open to the public as an attraction for all ages. The Centre runs education programmes which cater for primary, secondary, tertiary, international student groups, sports teams or community groups.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
13	International Centre for Terrestrial Antarctic Research (ICTAR) (University of Waikato)	'Our mission is to promote the protection of Antarctica through integrated international research into Antarctic terrestrial ecosystems assuring New Zealand's continued leadership in this area.'16	Not specified. 2008/2009 is implied (after the first New Zealand Terrestrial Antarctic Biocomplexity Survey (NZTABS) project). ¹⁷	ICTAR c/o Prof. Craig Cary Department of Biological Sciences University of Waikato Private Bag 3105 Hamilton 3240 New Zealand Phone: +64 7 838 4593 (Prof. Craig Cary) www.ictar.aq	None specified, although the Centre does offer public talks within the Hamilton area upon request, which could be utilised by schools or youth groups.
14	Landcare Research	'Landcare Research's purpose is to drive innovation in New Zealand's management of terrestrial biodiversity and land resources in order to both protect and enhance the terrestrial environment and grow New Zealand's prosperity Landcare Research will work with other research providers and end-users to contribute to the development of the following areas: • biosecurity, land, soil and freshwater management • climate change adaptation and mitigation • industry and business environmental performance, including verification • indigenous forestry • urban environments	1992	Landcare Research Head Office Gerald Street Lincoln 7608 New Zealand Phone: +64 3 321 9999 www.landcareresearch. co.nz	Landcare Research provides teaching resources, including information on Antarctica and in particular Adélie penguins.

Contact Details Engagement with New Zealand Youth LINZ Level 7, Radio New Zealand House 155 The Terrace PO Box 5501 Wellington 6145 New Zealand Phone: +64 4 460 0110 www.linz.govt.nz	No contact address given. A public engagement strategy will be developed incorporating the views, needs, and attitudes of appropriate stakeholders, Māori, enge.co.nz MBIE Wellington 6140 New Zealand New Zealand New Zealand youth is specified.
Level 7, Radio New Zealand House 155 The Terrace PO Box 5501 Wellington 6145 New Zealand Phone: +64 4 460 0 www.linz.govt.nz	No contact address give Phone: Not listed. www.sustainableseaschenge.co.nz MBIE 15 Stout Street Wellington 6140 New Zealand
1996	2014
Purpose LINZ is a New Zealand government department responsible for land titles, geodetic and cadastral survey systems, topographic information, hydrographic information, managing Crown property and a variety of other functions. LINZ's purpose is to: maintain and build confidence in property rights in land and geographic information, and encourage land information markets to develop and mature. ²³ 'LINZ supports New Zealand's role in the Ross Sea region of Antarctica and the Pacific region through its work in place naming, surveying, and providing maps and charts and geodetic information. ²⁰	The aim of the Sustainable Seas National Science Challenge is to enhance use of New Zealand's vast marine resources, while ensuring that our marine environment is understood, cared for, and used wisely for the benefit of all, now and in the future. This requires a new way of managing the many uses of our marine resources that combines the aspirations and experience of Māori, communities, and industry with the evidence of scientific research to transform New Zealand into a world-leader in
Land Information New Zealand (LINZ)	Ministry of Business, Innovation and Employment (MBIE): National Science Challenges: Sustainable Seas
# 15	16

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
17	Ministry of Business, Innovation and Employment (MBIE): National Science Challenges: The Deep South	'The mission of the Deep South National Science Challenge is to transform the way New Zealanders adapt, manage risk, and thrive in a changing climate. Working with communities and industry we will bring together new research approaches to determine the impacts of a changing climate on our climate-sensitive economic sectors, infrastructure and natural resources to guide planning and policy. This will be underpinned by improved knowledge and observations of climate processes in the Southern Ocean and Antarctica - our Deep South - and will include development of a world-class earth systems model to predict Aotearoa/New Zealand's climate. ²³	2014	No contact address given. Phone: Not listed. www.deepsouthchallenge. co.nz MBIE 15 Stout Street Wellington 6140 New Zealand Phone: +64 4 901 1499 www.mbie.govt.nz	 'A public engagement strategy will be developed incorporating the views, needs, and attitudes of appropriate stakeholders, Māori, educators, media, and the public. During this process the science will be centre stage, but will be discussed and debated openly and honestly.²⁴ No direct engagement with New Zealand youth is specified.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
18	New Zealand Ministry of Foreign Affairs and Trade (MFAT)	'The Ministry of Foreign Affairs and Trade is the government agency responsible for New Zealand's overall interests in Antarctica and the Southern Ocean. It: • coordinates policy advice to the Government on Antarctica and the Southern Ocean including the Ross Dependency;	Not specified.	MFAT 195 Lambton Quay Wellington New Zealand Phone: +64 4 439 8000 www.mfat.govt.nz	• None specified.
		 pursues new zealand's interests in the Antarctic Treaty System; conducts New Zealand's relations with other countries in respect of Antarctica; 			
		 advises the Minister of Foreign Affairs on the implementation of the Antarctica (Environmental Protection) Act 1994, including developing clear procedures for tourists, tour operators and non- governmental visitors to Antarctica; 			
		 advises on the implementation of the Antarctic Marine Living Resources Act 1981 with the Ministry for Primary Industries (MPI).²⁸ 			

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
19	National Institute of Water and Atmospheric Research Ltd (NIWA)	YNIWA's mission is to conduct leading environmental science to enable the sustainable management of natural resources for New Zealand and the planet.'	1992	NIWA 41 Market Place Viaduct Harbour Auckland Central 1010 Private Bag 99940 Newmarket Auckland 1149 New Zealand Phone: +64 9 375 2050 www.niwa.co.nz	 The NIWA Interactive Room at Kelly Tarlton's Aquarium in Auckland was opened to the public in 2005. The room provides interactive activities for children aged 5–10 on marine biodiversity and ecosystems, focusing on both the ocean and Antarctic environments. Over 60,000 children visit the room each year – most as part of organised school trips. NIWA supports three postgraduate centres of excellence to attract the best students and train them at postgraduate level (PhD and MSc) in areas of growing demand. NIWA and the MPI are offering postgraduate scholarships for master's degree students in the field of quantitative fisheries science, particularly stock assessment modelling and undergraduate scholarships to students interested in a double major in mathematics or statistics combined with biology or marine biology. NIWA collaborates directly with teachers through its involvement with the Royal Society of New Zealand Teaching Fellows. As part of the programme, teacher fellows participate in the life of NIWA (including field work), engage in discussion and generally enhance their science skills and background. They work on defined projects and create teaching resources and activities to take back to the classroom.²⁹

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
20	New Zealand Antarctic Research Institute (NZARI)	'NZARI partners with research agencies to develop a global understanding of Antarctica's impacts and vulnerability in a changing global climate. Our vision is to inform industry, government and community alike so that we can plan for impacts of change and where possible mitigate them. Our focus is Antarctica, the Southern Ocean and the Sub-Antarctic. In particular the Ross Sea Sector, where the Southern Ocean reaches its furthest south (85°S) beneath the Ross Ice Shelf. ²⁵	2012	New Zealand Antarctic Research Institute Administration Building International Antarctic Centre 38 Orchard Road Christchurch 8053 New Zealand Phone: +64 3 358 0200 www.nzari.aq	NZARI helps Antarctica New Zealand administer master's and doctoral scholarships and provides support for other short-term research projects (up to one year in duration).
21	New Zealand Antarctic Society (NZAS)	'The Society brings together people interested in Antarctica, to share knowledge in the fields of all sciences, exploration, discovery and mapping of Antarctica, to seek protection of the Antarctic environment, and to promote New Zealand's interests in Antarctica.'26	1933	New Zealand Antarctic Society (Inc) PO Box 404 Christchurch New Zealand Phone: Not listed www.antarctic.org.nz	The NZAS and Antarctica New Zealand have entered into an agreement to provide an opportunity for two NZAS members to work voluntarily at Scott Base. [Please note these are not necessarily youth designated positions.] Networking opportunities for young New Zealanders to hear about Antarctica in the 1950s and 1960s.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
55	NZ IceFest	'NZ IceFest highlights New Zealand's leadership in Antarctica and the Southern Ocean. This unique Christchurch festival focuses the world's attention to the importance of the mysterious continent and its surrounds. Through creative and interactive experiences the Festival brings Antarctica to the general public, the Antarctic community and international visitors. Goals: Highlight and value the importance of Antarctica and the Southern Ocean to New Zealand and the World. Highlight how climate change will affect New Zealanders and the global public, making the issue accessible to all, enabling change on a personal, community, organisational and policy level. Establish NZ IceFest as the key outreach vehicle for our Antarctic partners and provide world-class public engagement experiences. Ensure an iconic, sustainable and international Festival. Gedent New Zealand as the world's leading 'Gateway to Antarctica'. Attract nationwide and international exposure and visitors to New Zealand to cement the country as a place to live, visit and do business.'30	2012	NZ IceFest c/o Events Production Team Christchurch City Council PO Box 73014 Christchurch 8154 New Zealand Phone: +64 3 941 8999 www.nzicefest.co.nz	 The NZ IceFest tagline is 'Bringing Antarctica to the World' which is not age specific. In 2014 NZ IceFest partnered with the Enderby Trust and Heritage Expeditions to run a competition for 18–30-year-olds to win a trip to the Subantarctic Islands. The competition required applicant to submit a three-minute video on the Southern Ocean or Subantarctic Islands. NZ IceFest runs a 'Schools and Libraries Education Programme' in the lead up to the festival. The programme includes competitions with prizes, resources and suggested learning objectives for teachers. NZ IceFest and Canterbury Museum open the exhibitions especially for schools in the run up to the festival.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
23	Polar Environment Research Theme (PERT) (University of Otago)	'Our goal is to foster interdisciplinary collaboration and research in polar studies at the University of Otago. In particular, we encourage the involvement of graduate students and young researchers. A key objective is to mentor emerging researchers with and interest in polar studies, and provide them with support to develop knowledge and networks nationally and internationally.'31	Not specified.	Polar Environment Research Theme Antarctic Science and Marine Environments of the Southern Oceans University of Otago PO Box 56 Dunedin, 9054 New Zealand Phone: +64 3 479 8306 (Department of Marine Science, University of Otago) http://polarresearch.	 Mentoring activities are encouraged to support young researchers. Three summer scholarships are offered to University of Otago students, two for \$2,500 and one for \$5,000, to cover 10-weeks' work on any research project relevant to the 'Polar Environments' theme.
24	Snow and Ice Research Group New Zealand (SIRG)	'SIRG is an association of researchers interested in cryospheric observations and processes SIRG forms the New Zealand branch of the International Glaciological Society.'32	Not specified.	No contact address given. Phone: Not listed. www.sirg.org.nz	None specified.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
25	The Morgan Foundation: Our Far South Project	'The objective of this project was to raise New Zealanders' awareness of the importance of the area between Foveaux Strait and the South Pole, to highlight the reasons why it is of such value and to outline the threats and opportunities. The more aware New Zealanders are of these issues, the more likely our future governments are to make decisions that reflect an ongoing commitment to this region. Specifically, commitment to preserve the integrity of the environment, respect the unique value it has for scientific progress, minimise the chances of its ecosystem being destroyed by short term exploitative ventures, and maintain it as a valued destination. In short, without knowledge the public cannot be expected to provide the commitment needed to ensure New Zealand governments protect our interests in Our Far South.'33	specified.	The Morgan Foundation PO Box 19218 Wellington 6149 New Zealand Phone: +64 4 385 1697 www.morganfoundation. org.nz/far-south/	Teachers were taken on the voyage south to try to bring Antarctica into classrooms in New Zealand.

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
56	The Sir Peter Blake Trust	'Through its programmes the Trust strives to honour Sir Peter Blake's legacy by inspiring his visionary leadership qualities in all New Zealanders and keeping his spirit and values alive for future generations. ²³⁴	2004.	The Sir Peter Blake Trust 2nd Floor, ASB Auckland 2000 Building Viaduct Harbour Cnr Quay & Hobson Streets Auckland 1010 New Zealand Phone: +64 9 307 8875 www.sirpeterblaketrust. org	 The Antarctic Youth Ambassador programme, launched in 2007 and run in association with Antarctica New Zealand and the Antarctic Heritage Trust, selects two young New Zealanders annually to participate in and contribute to the environmental and heritage restoration work in Antarctica, and to educate others through their experiences. In doing so, this programme invests in the future of the Antarctic environment by building capability and understanding in young New Zealanders.³⁵ The Sir Peter Blake Trust, together with the Royal New Zealand Navy, DOC, NZARI, NIWA, the Ministry of Fouth Development (MYD) and the Lion Foundation, undertook an expedition to the Auckland Islands with 12 young New Zealanders from 10-23 February, 2014. The expeditions aim was to inspire New Zealanders to understand the global significance of the Southern Ocean and Sub-Antarctic Islands and the role they play in understanding and monitoring the effects of climate change.³⁶

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
27	World Wildlife Fund for Nature (WWF) New Zealand	'WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature. This is achieved by working on the ground with local communities, and in partnership with government and industry, using the best possible science to advocate change and effective conservation policy. Our New Zealand programmes include research, advocacy and partnerships aimed at protecting precious habitats and species, minimising harm from fishing and other activities, reducing impacts from climate change, and conserving and protecting New Zealand wildlife. The majority of donations to WWF-New Zealand are spent on conservation in New Zealand, Antarctica and the Southern Ocean.'37	1961	WWF-New Zealand Level 6 Davis Langdon House 49 Boulcott Street Wellington 6011 New Zealand Phone: +64 4 499 2930 www.wwf.org.nz	WWF-New Zealand administers various volunteer opportunities which are not age specific. However, no volunteer opportunities are specified in their Antarctic portfolio.

Table 2: International organisations involved with the Antarctic partially operating in New Zealand.

Engagement with New Zealand Youth	 ANDRILL provides educational resources. Many of these resources and educational projects are focused on U.S. students and teachers. No direct engagement with New Zealand youth is specified. 	No direct engagement with New Zealand youth is specified.
Contact Details	ANDRILL Science Management Office (SMO) 126 Bessey Hall University of Nebraska-Lincoln P.O. Box 880851 Lincoln, NE 68588-0341, USA Phone: +1 402 472 6723 www.andrill.org	ACE CRC 20 Castray Esplanade Hobart Tasmania 7000 Australia Phone: +61 3 6226 7888 www.acecrc.org.au
Established	Not specified. 2006 is implied as the first project. ³⁹	1991
Purpose	'ANDRILL (ANtarctic geological DRILLing) is a multinational collaboration comprised of more than 200 scientists, students, and educators from seven nations (Brazil, Germany, Japan, Italy, New Zealand, Republic of Korea, the United Kingdom, and the United States) to recover stratigraphic records from the Antarctic margin using Cape Roberts Project (CRP) technology. The chief objective is to drill back in time to recover a history of paleoenvironmental changes that will guide our understanding of how fast, how large, and how frequent were glacial and interglacial changes in the Antarctica region. Future scenarios of global warming require guidance and constraint from past history that will reveal potential timing frequency and site of future changes.'38	ACE CRC is a multidisciplinary partnership of 21 national and international organisations. We provide science, knowledge and understanding to help Australia meet the challenges of climate change. We do this by understanding the crucial role played by Antarctica and the Southern Ocean in global climate, and the impacts of climate change on Australia and the world. We inform governments, the community and scientists about climate change to guide Australia's future.
Name	ANDRILL: Antarctic Geological Drilling	Antarctic Climate & Ecosystems Cooperative Research Centre (ACE CRC)
#	1	8

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
m	Antarctic Oceans Alliance (AOA)	'The Antarctic Ocean Alliance (AOA) is a coalition of leading environmental and conservation organisations working to establish a network of designated, no-take marine reserves and marine protected areas in the Antarctic. This will be the most comprehensive regime of its kind on the planet. With such a network in place, key Antarctic ocean habitats and wildlife would be protected from human interference.'1	Not specified.	No address given. Phone: +61 448 801 044 www.antarcticocean. org	No direct engagement with New Zealand youth is specified.
4	Antarctic and Southern Ocean Coalition (ASOC)	'Founded in 1978, ASOC is the only non-governmental organization working full time to preserve the Antarctic continent and its surrounding Southern Ocean. A coalition of over 30 NGOs interested in Antarctic environmental protection, ASOC represents the environmental community at Antarctic governance meetings and works to promote important Antarctic conservation goals. Though Antarctica and the Southern Ocean are far away, we believe that the continent and its surrounding ocean are the natural heritage of all humankind and seek to ensure that Antarctic ecosystems - both terrestrial and marine – remain protected and intact. Our two major campaigns are creation of a network of large Marine Protected Areass (carried out in cooperation with the AOA), and negotiation of a legally binding Polar Code that covers all vessels operating in the Southern Ocean.'42	1978	ASOC 1320 19th Street, NW, 5th Floor Washington, D.C. 20036 U.S.A Phone: +1 202 234 2480 www.asoc.org	ASOC provides resources and lesson plans for teachers in primary and secondary schools. No direct engagement with New Zealand youth is specified.

vouth	ible to join irement ighlights the eer scientists.
Engagement with New Zealand Youth	New Zealand youths are eligible to join APECS. There is no age requirement identified but the website highlights the Association is for 'early' career scientists.
Engagen	• APE ASS
Contact Details	APECS University of Tromsø Faculty of Biosciences, Fisheries and Economics Hyperboreum 102 9037 Tromsø Norway Phone: +47 776 45 103 www.apecs.is/en/
Established	Not specified.
Purpose	'APECS is an international and interdisciplinary organization for undergraduate and graduate students, postdoctoral researchers, early faculty members, educators and others with interests in Polar Regions and the wider cryosphere. Our aims are to stimulate interdisciplinary and international research collaborations, and develop effective future leaders in polar research, education and outreach. We seek to achieve these aims by: • Facilitating international and interdisciplinary networking to share ideas and experiences and to develop new research directions and collaborations; • Providing opportunities for professional career development; and as an integral component of polar research and to stimulate future generations of polar researchers.'43
Name	Association of Polar Early Career Scientists (APECS)
#	ហ

Purpose	Established	Contact Details	Engagement with New Zealand Youth
'CCAMLR was established by international convention in 1982 with the objective of conserving Antarctic marine life. This was in response to increasing commercial interest in Antarctic krill resources, a keystone component of the Antarctic ecosystem and a history of over-exploitation of several other marine resources in the Southern Ocean.'44	1982	CCAMLR 181 Macquarie Street Hobart 7000 Tasmania Australia Phone: +61 3 6210 1111 www.ccamlr.org/en	• 'In 2010 CCAMLR established the CCAMLR Scientific Scholarship Scheme to assist early career scientists to participate in the work of the Scientific Committee and its working groups. The objective of the Scholarship Scheme is to contribute to capacity building within the CCAMLR scientific community in order to help generate and sustain a sound basis of scientific expertise able to support the requirements of CCAMLR in the longterm. Scholarships of up to A\$30,000 are available to facilitate participation in CCAMLR Scientific Committee workshops or working group meetings, relevant preparatory meetings, and exceptionally, meetings of the Scientific Committee, over a period of two years.'45
_ (LR was established by international trion in 1982 with the objective of ving Antarctic marine life. This was in se to increasing commercial interest rictic krill resources, a keystone nent of the Antarctic ecosystem and ry of over-exploitation of several narine resources in the Southern	as in est	Established nal 1982 f as in est

#	Name	Purpose	Established	Contact Details	Engagement with New Zealand Youth
7	Council of Managers of National Antarctic Programs (COMNAP)	'COMNAP's purpose which can be found in its Constitution is to "develop and promote best practice in managing the support of scientific research in Antarctica". It does this by: • Serving as a forum to develop practices that improve effectiveness of activities in an environmentally responsible manner; • Facilitating and promoting international partnerships; • Providing opportunities and systems for information exchange; and • Providing the Antarctic Treaty System with objective and practical, technical and non-political advice drawn from the National Antarctic Programs' pool of expertise.'46	1988	COMNAP Secretariat 7th Floor, Biology Building University of Canterbury Christchurch New Zealand 8140 Phone: +64 3 364 2273 www.comnap.aq	 Since 2011 COMNAP has offered Antarctic research fellowships with funding for early career researchers to carry out research within a COMNAP National Antarctic Program. Each year COMNAP offers senior students an opportunity to work on a summer project on Antarctica in collaboration with the University of Canterbury. Internships at the secretariat are periodically available.
∞ ×	The Scientific Committee on Antarctic Research (SCAR)	'SCAR is an inter-disciplinary committee of the International Council for Science (ICSU). SCAR is charged with initiating, developing and coordinating high quality international scientific research in the Antarctic region (including the Southern Ocean), and on the role of the Antarctic region in the Earth system. The scientific business of SCAR is conducted by its Standing Scientific Groups which represent the scientific disciplines active in Antarctic research and report to SCAR.'47	1958	Scientific Committee on Antarctic Research Scott Polar Research Institute Lensfield Road Cambridge CB2 1ER United Kingdom Phone: +44 1223 336550 www.scar.org	• The SCAR Fellowship Programme is designed to encourage the active involvement of early career scientists and engineers in Antarctic scientific research, and to build new connections and further strengthen international capacity and cooperation in Antarctic research The programme is for PhD students, or those within five years of having completed a PhD, to undertake research at major international laboratories, field facilities, and/or institutes in or operated by SCAR member.'

#	Name	Purpose	Established	Established Contact Details	Engagement with New Zealand Youth
ത	Polar Educators International (PEI)	'PEI is a vibrant network promoting polar education and research to a global community. By fostering dialogue and collaboration between educators and researchers, PEI aims to highlight and share the global relevance of the polar regions with the broader community.'49	Not specified.	No address given. Phone: Not listed. www.polareducator.org	No direct engagement with New Zealand youth is specified.

Appendix 1: Timeline on New Zealand's involvement in the Antarctic and Southern Ocean

Year	New Zealand Specific	Global
2014	2014: Antarctica New Zealand and Landcare Research with partners from Australia, Belgium, Norway and SCAR, launch a demonstration version of the Antarctic Environments Portal website. The final version, due to go live in 2015 will be an information portal that can be used by all the Antarctica Treaty partners to bridge the gap between scientists and decision-makers. ⁵⁰	2014: To date there are 50 signatory parties to the Antarctic Treaty. 51
	August 2014: The Royal Society of New Zealand hosts the SCAR Biennial Meetings and Open Science Conference in Auckland. ⁵²	31 March 2014: The International Court of Justice decides (by 12 votes to four) that Japan shall revoke its permit or licences granting whaling activities in the Antarctic in relation to the second Japanese Whale Research Program under Special Permit in the Antarctic (JARPA II) and refrain from granting any further permits in pursuance of that programme. ⁵³
	July 2014: Professor Naish, a Principal Scientist at GNS Science, is the first New Zealander to win the Martha T. Muse Prize for Science and Policy in Antarctica. This global award is administered by SCAR and recognises significant and sustained contribution to Antarctic scientific research and policy. ⁵⁴	
2013	2013: New Zealand and the United States jointly propose the establishment of a Ross Sea Region Marine Reserve to the CCAMLR.55	2013: CCAMLR meets to discuss proposals for marine protected areas proposed by Australia, the European Union, France, New Zealand and the United States. This included the joint proposal by New Zealand and the United States to establish a Ross Sea Region Marine Reserve. The commission did not enact the Ross Sea Marine Reserve proposal and it is has now been reviewed and resubmitted. ⁵⁶
2012	11 December 2012: The Antarctica (Environmental Protection: Liability Annex) Amendment Act 2012 is included in New Zealand legislation. The latest version is not yet in force as at December 2014. ⁵⁷	
	20 November 2012: New Zealand files a declaration of intervention to the International Court of Justice in regard to the whaling in the Antarctic (Australia versus Japan). ⁵⁸	

Year	New Zealand Specific	Global
2011		23 June 2011: On the fiftieth anniversary of the entry into force of the Antarctic Treaty, the consultative parties to the Antarctic Treaty reaffirm their continued commitment to upholding the Antarctic Treaty and all the other elements of the Antarctic Treaty system that have evolved since the Treaty's entry into force. By this date the number of parties to the Treaty had increased from the original 12 to 47. ⁵⁹
2010	27 April 2010: <i>'The New Zealand Antarctic and Southern Ocean Science Directions and Priorities 2010–2020</i> ' document is officially launched by the Minster of Conservation. ⁶⁰	
2008		2008: Declining numbers of toothfish (<i>Dissoctichus mawsoni</i>) in the Ross Sea are highlighted at a CCAMLAR Working Group meeting. ⁶¹
2007	2007: Kevin Biggar and Jamie Fitzgerald become the first New Zealanders to walk unsupported to the South Pole. ⁶²	
	4 June 2007: The first New Zealand Antarctic Medal (NZAM) is awarded to Dr Frederick Davey. ⁶³	
	20 January 2007: New Zealand's Scott Base celebrates its fiftieth anniversary. As part of the celebrations, Prime Minister Helen Clark formally opens a new laboratory building at Arrival Heights. ⁶⁴	
2006	2006: The New Zealand Government approves the New Zealand Strategy for the Future Management of the Marine Living Resources and Biodiversity of the Ross Sea. 'The Strategy states New Zealand should seek balance between: well managed sustainable harvesting in accordance with CCAMLR's conservation principles and marine protection to safeguard the long-term ecological viability of marine systems and protect Antarctic marine biological diversity and areas potentially vulnerable to human impacts.' s ⁶⁵	
	1 September 2006: The NZAM is instituted as a New Zealand Royal Honour to replace the (British) Polar Medal. ⁶⁶	

Year	New Zealand Specific	Global
2005	November 2005: The twenty-fifth anniversary of the Erebus disaster is commemorated. Sir Edmund Hillary opens the Hillary Field Centre – the final stage of the reconstruction of Scott Base. ⁶⁷	2005: The Protocol on Environmental Protection to the Antarctic Treaty Annex VI on Liability Arising from Environmental Emergencies is adopted and will enter into force after its approval by the consultative parties that participated in the Stockholm Antarctic Treaty Consultative Meeting. ⁶⁸
2003	2003: The New Zealand Government adopts a policy statement on tourism and other non-governmental activities in Antarctica. The policy responds to increasing concern about managing environmental effects of tourism, safety and potential jurisdictional issues that may arise as a result of expansion and diversification of these activities. ⁶⁹	
2002	2002: The New Zealand Government releases the 'Revised New Zealand Statement of Strategic Interest'. The Statement declares that New Zealand is committed to conservation of the intrinsic wilderness values of Antarctica and the Southern Ocean for the benefit of every country and for present and future generations of New Zealanders. ⁷⁰	2002: The Protocol on Environmental Protection to the Antarctic Treaty Annex V on Area Protection and Management enters into force. ⁷¹
1999	1 January 1999: The Gateway Antarctica Centre for Antarctic studies and research is established at the University of Christchurch. ⁷²	
1998		1998: The Protocol on Environmental Protection to the Antarctic Treaty along with Annexes I to IV (Annex I [EIA], Annex II [Fauna and Flora], Annex III [Waste Disposal], Annex IV [Marine Pollution]) enter into force. 73 Note: The Protocol on Environmental Protection to the Antarctic Treaty which came into force in 1998 may be reviewed after 50 years if any of the Antarctic Treaty consultative parties request it. To view a copy of the Protocol please see the Secretariat of the Antarctic Treaty website.
		1998: The first meeting of the CEP, established by Article 11 of the Environment Protocol to the Antarctic Treaty takes place. ⁷⁴

Year	New Zealand Specific	Global
1996	1 July 1996: The New Zealand Antarctic Institute (Antarctica New Zealand) is established. Combining the work of the Ross Dependency Research Committee (RDRC) and the New Zealand Antarctic Research Programme (NZARP), it will develop, manage and administer New Zealand's activities in Antarctica and the Southern Ocean, particularly the Ross Sea region. ⁷⁵	
1995	1995: Lake Vanda Station in the Wright Dry Valley is decommissioned. Colin Bull from Victoria University started The Royal Vanda Swimming Club, which played an important role in station morale over the years. ⁷⁶	
1994	6 December 1994: The Antarctica (Environmental Protection) Act in passed in New Zealand. The Act is to provide for the comprehensive protection of the Antarctic environment and to recognise Antarctica as a natural reserve devoted to peace and science and to implement the Protocol on Environmental Protection to the Antarctic Treaty. ⁷⁷	
1992	1992: The Department of Scientific and Industrial Research (DSIR) is disbanded. The RDRC and the Antarctic Division otherwise known as the NZARP, are placed within MFAT. ⁷⁸	
	31 October 1992: New Zealanders Garth Varcoe and Terry Newport are killed in a helicopter crash while returning from working on the Cape Bird hut rebuild. ⁷⁹	
	October 1992: The hut at New Zealand base Cape Bird is rebuilt.80	
1991		4 October 1991: The Protocol on Environmental Protection to the Antarctic Treaty is open for signatures from the contracting parties to the Antarctic Treaty. It designates Antarctica as a 'natural reserve, devoted to peace and science'.81
		October 1991: On the thirtieth anniversary of the Antarctic Treaty, the parties to the Treaty reaffirm the objective of the Treaty by adopting a declaration that in the interests of all mankind Antarctica shall continue to be used exclusively for peaceful purposes. ⁸²
1990	September 1990: The International Antarctic Centre opens at Christchurch Airport. ⁸³	

Year	New Zealand Specific	Global
1989	December 1989: One of the original huts at Scott Base, 'A Hut', is moved 40 m. 'B-Hut' is dismantled and returned to New Zealand.84	
1988	2 June 1988: New Zealand adopts the Convention on the Regulation of Antarctic Mineral Resource Activities. This convention was signed by 19 states but not ratified or entered into force. Since the convention was signed it has been superseded by the 1991 Environmental Protocol to the Antarctic Treaty. ⁸⁵	
1987	1987: The New Zealand Antarctic Heritage Trust is formed to care for historic sites located in the Ross Sea Region of Antarctica. ⁸⁶	
1986	February 1986: The last New Zealand dogs return from Scott Base. ⁸⁷	
1982	1982: Prime Minister Robert Muldoon is the first prime minister to visit Scott Base for the site's twenty-fifth anniversary. ⁸⁸	7 April 1982: The Convention on the Conservation of Antarctic Marine Living Resources comes into effect. ⁸⁹
	June 1982: Negotiations for a possible mineral resource regime begin in Wellington, New Zealand. ⁹⁰	
	20 January 1982: New Zealand's Scott Base celebrates its twenty-fifth anniversary. 91	
1981	1981: New Zealand is a founding member of CCAMLR. 92	1981: The CCAMLR is established. The Commission's responsibility is to manage and protect marine living resources south of the Antarctic convergence, ranging from latitude 45 degrees south in the Indian Ocean to 60 degrees south in the Pacific sector. ⁹³
	October 1981: The Antarctic Marine Living Resources Act 1981 is passed to give effect to the Convention on the Conservation of Antarctic Marine Living Resources. ⁹⁴	
1980	1980: New Zealand is one of the original signatories to the Convention on the Conservation of Antarctic Marine Living Resources. The Convention came into force in 1982. 95	1 August 1980: The Convention on the Conservation of Antarctic Marine Living Resources is open for signature at Canberra from 1 August to 31 December 1980 by the States participating in the Conference on the Conservation of Antarctic Marine Living Resources held in May. ⁹⁶
1979	1979: New Zealander Thelma Rogers of the DSIR becomes the first woman to winter over in Antarctica. ⁹⁷	

Year	New Zealand Specific	Global
	1979: New Zealand based company Helicopters (NZ) Ltd secures its first Antarctic contract with the West German Federal Institute for Geosciences and Natural Resources. 98	
	28 November 1979: Air New Zealand Flight 901, a DC-10 registered ZK-NZP, crashed into Mt Erebus on Ross Island, Antarctica, instantly killing all 257 people on board. ⁹⁹	
1977	1977: The Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act is assented. There is also specific provision in New Zealand legislation for the establishment of an Exclusive Economic Zone beyond the outer limit of the territorial sea of the Ross Dependency. 101	
	1977: Reconstruction of New Zealand's Scott Base begins. 102	
1976	15 June 1976: New Zealand joins the International Whaling Commission. This includes regulation of whaling in the southern ocean. 103	
1974	1974: Canterbury Museum's Antarctic exhibition opens. 104	
	December 1974: A NZARP team climb into the crater of Erebus volcano for the first time to collect gas samples. Philip Kyle films the expedition. ¹⁰⁵	
1973		1973: Hallett Station closes. ¹⁰⁶
1972	1972: The ARC is established within the Department of Geology at Victoria University, Wellington. ¹⁰⁷	1972–1974: Dr David Lewis makes the first single-handed voyage to Antarctica in 1972 in his yacht <i>Ice</i> <i>Bird</i> . ¹⁰⁸
1970	May 1970: The Antarctic Division moves to Christchurch. 109	
1969	1969–1970: The New Zealand Geological Survey Antarctic Expedition (NZGSAE) of 1969–1970 names Marble Peak ¹¹⁰ and Surprise Spur. ¹¹¹	
	19 November 1969: New Zealander Jeremy Sykes, a National Film Unit cameraman, is killed in a helicopter accident in Antarctica. ¹¹²	
	November 1969: New Zealander Pamela Young is one of a party of six women who become the first women to reach the South Pole. 113	
	9 January 1969: Vanda Station, a New Zealand wintering-over station in the McMurdo Dry Valleys area, opens. ¹¹⁴	

Year	New Zealand Specific	Global
1968	1968: Zoologist Marie Darby becomes the first New Zealand woman to visit the Antarctic mainland. 115	
1967	1967: New Zealander Peter Barrett discovers the first tetrapod remains in Antarctica. 116	
1966	October 1966: A biological laboratory, Harrison Laboratory, is established at the New Zealand Cape Bird site. ¹¹⁷	
1965	27 October 1965: The Royal New Zealand Air Force (RNZAF) completes the first flight from New Zealand to Antarctica. In 'Operation Ice Cube', a Hercules of No 40 Squadron makes the first of what become annual summer flights. 118	
1964		6 March 1964: A fire destroys further buildings at Hallett Station. They are not rebuilt. The station continues to be used as a summer-only base. 119
1962	3 May 1962: Scott Base becomes a permanent Antarctic station in recognition of the value and importance of the science being conducted in the Antarctic. It is to be maintained by NZARP. ¹²⁰	25 December 1962: A fire destroys buildings at Hallett Station. ¹²¹
1961		23 June 1961: The Antarctic Treaty enters into force. 122
1960	1 November 1960: New Zealand's ratification of the Antarctic Treaty 1959 comes into effect. 123	
	October 1960: The Antarctica Act 1960 is passed to confer jurisdiction on the courts of New Zealand to deal with crimes committed in the Ross Dependency and certain other parts of Antarctica, and to restrict the jurisdiction of the courts in respect of acts or omissions in Antarctica of certain nationals of other countries. ¹²⁴	
1959	1959: Arrival Heights, a New Zealand unmanned observation hut, is established about 5 km from Scott Base. 125	1 December 1959: The Antarctic Treaty is signed in Washington by 12 nations: Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, Russian Federation (USSR at the time), South Africa, United Kingdom and the United States. The Treaty's primary purpose is to ensure 'in the interests of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord.' It applies to the area south of 60° South latitude. ¹²⁶

Year	New Zealand Specific	Global
	1 December 1959: New Zealand and 11 other countries active in Antarctica during the International Geophysical Year (IGY) sign the Antarctic Treaty. 127	
	19 November 1959: New Zealand engineer Tom Couzens is killed when the Sno-Cat he is driving falls into a 30-metre-deep crevice. 128	
	Early 1959: The DSIR establishes an Antarctic Division to work with the RDRC on New Zealand's activities in the Ross Dependency. It becomes known as the NZARP. It is initially based in Wellington. 129	
1958	1958–1959: NZGSAE names the Mountaineer Range, the range of mountains lying between the Mariner and Aviator Glaciers in Victoria Land. ¹³⁰	2 March 1958: British explorer Dr Vivian Fuchs and his party complete the first overland crossing of Antarctica, via the South Pole, as part of the Trans-Antarctic Expedition (TAE). ¹³¹
	24 March 1958: Responsibility for coordinating New Zealand's activities in the Ross Dependency is given to the minister in charge of scientific and industrial research. A RDRC is appointed to advise and assist the minister. The geophysics division of the DSIR continues to implement the Antarctic programme. 132	
	26 February 1958: The New Zealand Cabinet approves in principal an extension to scientific work into 1959 as part of an extended world IGY programme. ¹³³	
	4 January 1958: Sir Edmund Hillary and the New Zealand component of the TAE are the first to reach the South Pole overland since Scott in 1912. ¹³⁴	
1957	1957–1958: The Borchgrevink Glacier is named by the NZGSAE. 135	31 January 1957: Hallett Station, a joint New Zealand-United States operation, opens at Cape Adare. 136
	20 January 1957: New Zealand's Scott Base opens at Pram Point. 137	
1956	1956: The first issue of <i>Antarctic</i> , the flagship publication of the New Zealand Antarctic Society, is printed. This Journal is still in print as at 2015. 138	
	1956: The building of Scott base begins in 1956 to support the TAE and IGY of 1956–1959. 139	

Year	New Zealand Specific	Global
	1 May 1956: The RNZAF Antarctic Flight is formed to scout the route for the New Zealand component of the TAE, to air-supply depots and to provide emergency backup. It continues in this role until 1960. ¹⁴⁰	
1955	1955–1958: Vessels, aircraft and personnel from the American Operation Deep Freeze use New Zealand as a base for their expedition. 141	
	20 December 1955: The first long-distance flights into Antarctica from the outside world leave from New Zealand. 142	
	26 May 1955: The Ross Sea Committee of the Commonwealth TAE is established to coordinate New Zealand's contribution to the expedition. 143	
	14 May 1955: The New Zealand Government agrees to contribute £50,000 towards the costs of the proposed TAE and to set up a committee to organise a terminal base for the crossing party. ¹⁴⁴	
	February 1955: The New Zealand Government endorses the IGY and agrees to support New Zealand scientists in their endeavours to contribute to its programme of events. ¹⁴⁵	
1946	1946–1947: Some of Operation Highjump's vessels visit New Zealand ports during the expedition and Richard E. Byrd visits at the end of the expedition. ¹⁴⁶	1946–1947: The United States Navy Antarctic Developments Program, known as Operation Highjump, is led by Richard E. Byrd under the operational command of Admiral Richard Cruzens. ¹⁴⁷
1939	1939–1941: The United States Antarctic Service Expedition, led by Richard E. Byrd, does not generate the same amount of interest as previous expeditions as the New Zealand public is preoccupied with news of the war. Eventually the expedition is abandoned altogether because of rising international tensions. ¹⁴⁸	
1936	January 1936: New Zealand assists in a relief expedition for one of Lincoln Ellsworth failed attempts to fly from the Ross Sea to the Weddell Sea. 149	
1933	1933–1936: Lincoln Ellsworth uses Dunedin as his New Zealand base and New Zealanders serve in his expeditions. 150	1933–1936: American aviator and explorer Lincoln Ellsworth aims to make the first non-stop flight from the Ross Sea to the Weddell Sea. He fails in both his summer expeditions. ¹⁵¹

Year	New Zealand Specific	Global
	1933–1935: Wellington serves as Richard E. Byrd's New Zealand base for his expeditions. Byrd's ships leave from Wellington and return there during the expedition. Several New Zealanders serve in the expedition, including Bob Young, who also served in the first Byrd Antarctic Expedition, and Louis Potaka. 152	1933–1935: The second Byrd Antarctic Expedition, or BAE2 as it later becomes known, led by Richard E. Byrd, aims to answer some of the questions unresolved by his previous expedition. It makes extensive use of motorised land transport. In 1934 Byrd spends five winter months alone operating a meteorological station, Advance Base, and is lucky not to die after suffering carbon monoxide poisoning from his poorly ventilated stove. ¹⁵³
	1933: The NZAS is established with the aim of bringing together people interested in Antarctica. Since its first meeting, it has been involved in a wide range of Antarctic activities. ¹⁵⁴	
1929	1929–1931: The British, Australian and New Zealand Antarctic Research Expedition (BANZARE), led by Douglas Mawson, aims to investigate the entire coast of the territory over which Britain claims sovereignty. The expedition receives funding from New Zealand but there is no physical contact with the country. Two New Zealand scientists serve in the expedition: ornithologist Dr R.A. Falla and meteorologist R.G. Simmers. ¹⁵⁵	29 November 1929: Richard E. Byrd and his pilot, co-pilot and photographer make the first flight over the South Pole. ¹⁵⁶
1928	1928–1930: Dunedin serves as Richard E. Byrd's New Zealand base for his expeditions. Byrd's ships leave Dunedin and return there during the expedition, and his dogs are quarantined on Quarantine Island. Several New Zealanders serve with the expedition. ¹⁵⁷	1928–1930: The Byrd Antarctic Expedition, or BAE1 as it later becomes known, led by American polar explorer and aviator Richard E. Byrd, aims to explore the Antarctic continent by land and air. They establish a base camp, Little America, and explore the continent using planes. ¹⁵⁸
1923	30 July 1923: Administration over Ross Dependency is allocated to New Zealand. ¹⁵⁹	30 July 1923: Britain declares sovereignty over Ross Dependency. 160
1921	1921–1922: Shackleton and New Zealander Frank Worsley are due to head back to the Antarctic on the Shackleton-Rowett expedition on board the <i>Quest</i> . The expedition is cut short following Shackleton's sudden death in South Georgia. Another New Zealander, pilot Major Roderick Carr, accompanies the expedition. 161	

Year	New Zealand Specific	Global
1914	1914–1917: The navigation skills of a New Zealander, Frank Worsley, play a crucial role in the rescue of the main Imperial Trans-Antarctic Expedition party, while other New Zealanders, and the government, contribute to the rescue of the support party. 162	1914–1917: The Imperial Trans- Antarctic Expedition, or Endurance expedition, led by British explorer Sir Ernest Shackleton, aims to complete the first land crossing of Antarctica. It fails entirely in this aim and is instead remembered as an incredible survival story. Its two parties sail to opposite sides of the Antarctic continent, with separate tasks, but both eventually find themselves trapped in inhospitable surroundings with insufficient supplies. ¹⁶³
1912	March 1912: Norwegian explorer Roald Amundsen visits New Zealand to lecture to crowded audiences. ¹⁶⁴	November 1912–February 1913: Douglas Mawson was the sole survivor of the Far Eastern Party's journey undertaken by Mawson, Mertz and Ninnis. Ninnis died from plummeting down a crevasse, with many of the supplies. Mertz perished from physical exertion, starvation and possibly toxicity from eating dogs' livers. Mawson struggled alone for 30 days, arriving at Main Base in February 1913. 165
1911	1911–1914: The Australasian Antarctic Expedition is not financially supported by the New Zealand Government but does receive significant donations of goods from New Zealand manufacturers. New Zealanders are also directly involved: Eric Webb is chief magnetician and Dr Leslie Whetter medical officer at the expedition's main base at Cape Denison, Commonwealth Bay; Harold Hamilton is chief biologist and A.J. Sawyer chief wireless operator at its Macquarie Island station. Other New Zealanders collect specimens on cruises into the sub-Antarctic and work aboard the expedition's ship, the <i>Aurora</i> . 166	1911–1914: The Australasian Antarctic Expedition, led by Australian geologist Douglas Mawson, aims to chart the coastline of Antarctica to the south of Australia. 167
		14 December 1911: Norwegian explorer Roald Amundsen is the first to reach the South Pole. 168

Year	New Zealand Specific	Global
1910	1910–1913: Lyttelton is the New Zealand base for the British Antarctic Expedition, or Terra Nova Expedition – the <i>Terra Nova</i> officially leaves from Lyttelton port (though the last port it visits is Port Chalmers) and returns there during the expedition. The majority of expedition members also disembark at Lyttelton after the return journey tragedy. 169	1910–1913: The British Antarctic Expedition, or Terra Nova Expedition, led by British explorer Robert Falcon Scott, succeeds in reaching the Pole. Although the expedition has further objectives in scientific research and geographical exploration, the main objective is 'to reach the South Pole and to secure for the British Empire the honour of this achievement'. But Scott's polar party is beaten by Norwegian explorer Roald Amundsen, and they perish on the return journey. ¹⁷⁰
	1910: The Japanese Antarctic Expedition ship, the <i>Kainan Maru</i> , calls in to Wellington for fuel and supplies on its way to and from the Antarctic. ¹⁷¹	1910–1912: The Japanese Antarctic Expedition, led by Japanese army lieutenant Nobu Shirase, which aims to reach the Pole, is the first Japanese exploration of Antarctic territory. 172
1908	1908–1909: The British Antarctic Expedition uses Lyttelton as its New Zealand base and receives significant support from the New Zealand government and the public. A number of New Zealanders are also involved. ¹⁷³	1908–1909: British explorer Ernest Shackleton leads the British Antarctic Expedition, or Nimrod Expedition, that penetrates the farthest south yet – within 160 km of the Pole. ¹⁷⁴
1901	1901–1904: The British National Antarctic Expedition uses Lyttelton as its New Zealand base and receives great support from New Zealanders. This encourages Scott to rely on New Zealand to a greater extent in his next expedition in 1910–1913. A New Zealander, Clarence Hare, is taken on as a steward. ¹⁷⁵	1901–1904: British explorer Robert Falcon Scott leads the British National Antarctic Expedition, or Discovery Expedition – the first real land expedition in the Antarctic. It aims to carry out scientific research and geographical exploration. 176
1899	March 1899: The ship <i>Southern Cross</i> voyages to New Zealand to load stores and overhaul the vessel before returning to pick up Norwegian explorer Carstens Borchgrevink and his expedition team, including several New Zealanders, in December 1899. The ship returns to New Zealand following the completion of the expedition. ¹⁷⁷	
1898		1898: Norwegian explorer Carstens Borchgrevink led the first expedition party to winter-over in Antarctica at Cape Adare. ¹⁷⁸

Year	New Zealand Specific	Global
1885	24 January 1885: New Zealander Alexander von Tunzelmann joins six men from the Norwegian whaling and sealing ship <i>Antarcticin</i> – the first substantiated landing on the Antarctic continent proper. Von Tunzelmann becomes the first person to set foot on Antarctica, at Cape Adare. Prior to its voyage south, the ship calls in for repairs at Port Chalmers, then recruits Tunzelmann and three other New Zealanders at Stewart Island. ¹⁷⁹	
1841	1841: James Clark Ross and his men visit New Zealand after their expedition to the Ross Sea, Victoria Land, Mt Erebus, Mount Terror, the Victoria barrier (the Ross Ice Shelf) and McMurdo Sound. They remain in the Bay of Islands for three months. ¹⁸⁰	1841: James Clark Ross, a British naval officer, discovers the Ross Sea, Victoria Land, Mt Erebus, Mount Terror, the Victoria barrier (the Ross Ice Shelf) and McMurdo Sound. 181
1839	1839–1840: New Zealander Tuati, also known as John Sac, travels with Captain Charles Wilkes on his exploration expedition. Wilkes and his men subsequently visit New Zealand, travelling extensively in the Bay of Islands. 182	1839–1840: Captain Charles Wilkes, leader of the United States Exploring Expedition, provides the first evidence that a 'land of continental extent', Antarctica, exists in part of the area thought to contain the great southern land. 183
1819	1819–1820: Fabian Gottlieb von Bellingshausen and his men spend a week in Queen Charlotte Sound between voyages into Antarctic waters. ¹⁸⁴	1819–1820: Fabian Gottlieb von Bellingshausen, a Russian naval officer, becomes one of three Europeans to first sight the continent of Antarctica. ¹⁸⁵
1772	1772: Marc Joseph Marion du Fresne, a French explorer, arrives in the Bay of Islands after searching for the 'great southern continent'. About five weeks later he and a number of members of his expedition are killed by local Māori. 186	
1769	1769 – 1770: James Cook voyages to New Zealand to determine the eastern tip of the land Tasman had sighted. The voyage confirms this is not the 'great southern continent'.187	
1643	January 1643: Abel Tasman sailed away from New Zealand having only mapped a 'ragged line' and is unable to confirm whether this was the coast of the 'great southern continent'.188	
1642	December 1642: Abel Tasman sights New Zealand while searching for Terra Australis Incognita. This 'great southern continent' is believed to exist east of Australia and west of Cape Horn. 189	

Year	New Zealand Specific	Global
650AD	650 AD: Māori tradition suggests that a	
	Polynesian chief by the name of Hui Te	
	Rangiora may have been the first person to see	
	Antarctica. He is said to have encountered the	
	icebergs of Antarctica during a voyage south of	
	New Zealand. ¹⁹⁰	

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