

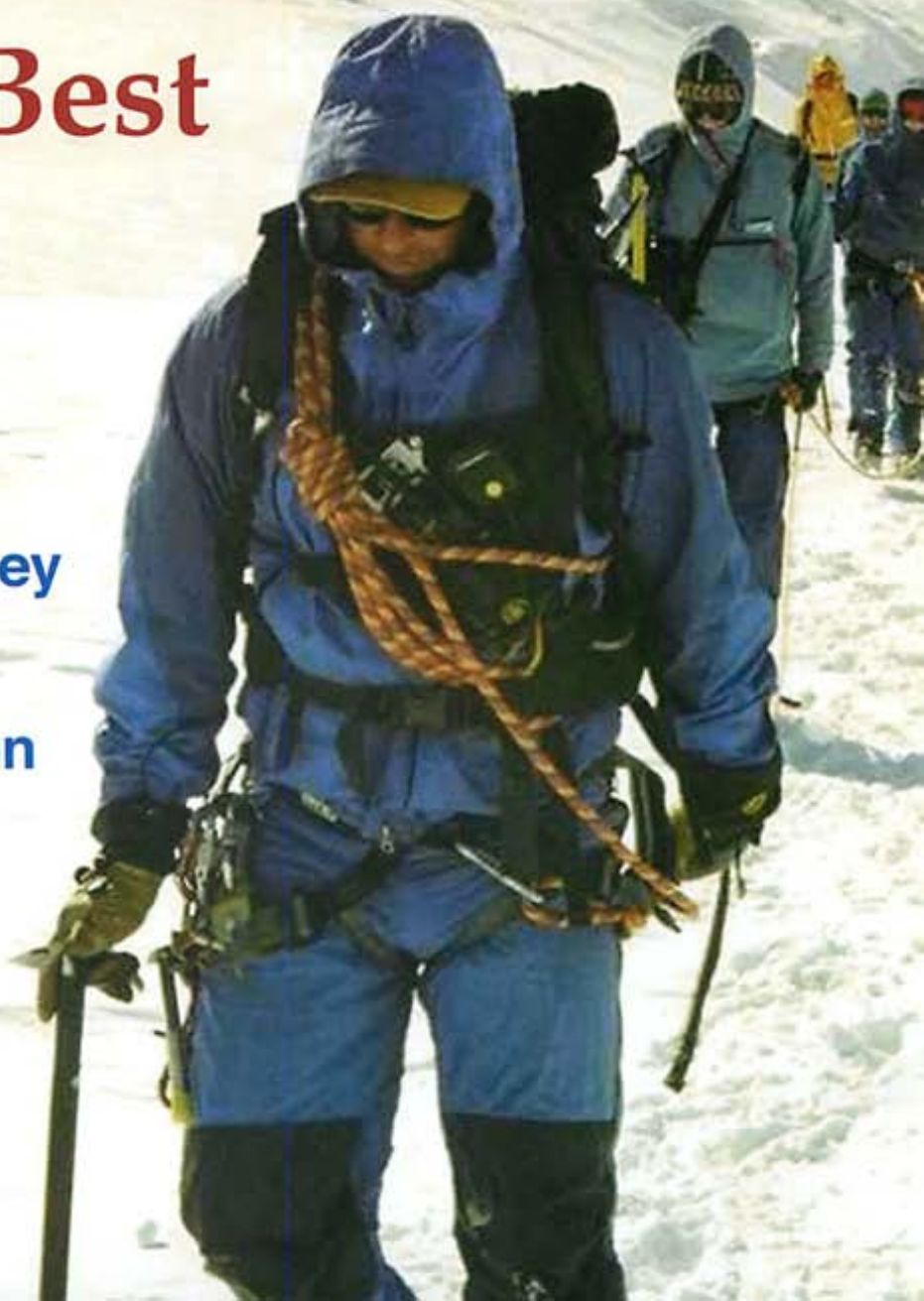
ANTARCTIC



The Journal of the New Zealand Antarctic Society Vol 22, No. 1, 2004

■ World's Best Kept Secret

- Shackleton's First Sledge Journey
- TE PAPA Antarctic Exhibition
- Dinosaur Finds



COVER PICTURE



Cover photograph: Students roped up and practicing proper techniques for travelling in Antarctica on foot as part of Antarctica New Zealand's field training. The students are from the University of Canterbury's Graduate Certificate in Antarctic Studies Course 2003/04. (See page 12) (Photo by Lesley Woudberg.)

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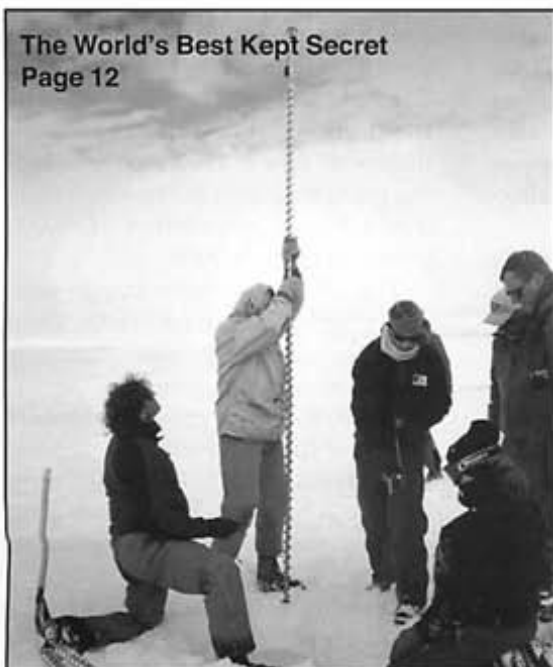
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Terra Nova Bay Station Renamed



Above : Italy's 'Mario Zucchelli' Station, Antarctica.

"Terra Nova Bay" Station has been renamed "Mario Zucchelli" Station. Dr Pier Angelo Guermani, President of the Consorzio per l'attuazione del Programma Nazionale di Ricerche in Antartide (PNRA) advised COMNAP that "Terra Nova Bay Station" had been officially renamed "Mario Zucchelli Station" in honour of the late Mario Zucchelli, head of the Italian Antarctic Programme for 16 years and chairman of COMNAP from mid-1991 to mid-1994. The Ministry for Education, Universities and Research, which is the official body responsible for the Italian programme in Antarctica, agreed to the proposal submitted shortly after Mario Zucchelli's death in October 2003.

New SCAR Executive Director Appointed

The SCAR Executive Committee announced that Dr Colin P Summerhayes has been appointed Executive Director of SCAR. He will be working with SCAR from 1 January 2004 and took up the appointment full-time at the SCAR Secretariat on 1 April 2004.

New Laboratory at Rothera Station

A new £3m laboratory was opened at the British Antarctic Survey's Rothera Research Station on 10 January 2004. The new Bonner Laboratory replaces the research facility destroyed by fire in September 2001.

International Antarctic Centre Celebrates Two Million Visitors

The Antarctic Attraction Ltd, owners of the popular International Antarctic Centre in Christchurch celebrated the arrival of its 2 millionth visitor, on 26 November 2003.

In just over 11 years of operation the International Antarctic Centre has twice been judged New Zealand's best visitor attraction, and has now become one of Christchurch's most popular tourist spots.

Established in 1992 at a cost of more than NZ\$6m, the Antarctic Attraction provides a unique insight into living and working in Antarctica and provides visitors with information on Antarctica's uniqueness from a physical, biological and political perspective.

The Antarctic Centre is located within a working Antarctic campus that houses the offices of the United States, New Zealand and Italian Antarctic programmes.

This campus is the departure point for the majority of people going to the Ross Sea Region of Antarctica, including scientists and support staff working at McMurdo Station, Scott Base and Amundsen-Scott South Pole Station.

Record attendance at the Antarctic Attraction is being achieved through the opening of the latest addition to the International Antarctic Centre – The Antarctic Storm®.

This NZ\$750,000 feature runs every 30 minutes simulating a powerful, exciting and realistic Antarctic storm, with real snow and ice, a wind chill factor of -26 C and sounds recorded in Antarctica during a real Antarctic storm!

More information on the Antarctic Centre can be found at www.iceberg.co.nz.

Rockhopper Penguin Decline

By Ann Brown

New research results announced in late 2003 by the non-governmental group Falklands Conservation shows that there are "disturbing" decreases in the populations of Rockhopper penguin and also Black-browed albatross in the Falkland Islands.

Over the past 5 years Falklands Conservation have carried out research into the Black-browed albatross, looking specifically at their foraging behaviour and their interaction at sea with fishing vessels, while also conducting a census of the species.

The census resulted in the reclassification of the species as Endangered by the International Union for the Conservation of Nature.

It appears that 4% of the population has been lost each year for the

past 5 years resulting in the loss of over 87,000 breeding pairs.

Even more dramatic appears to be the decline in Rockhopper penguin numbers, where only 30,000 breeding pairs remain in the research area, down from a population of 89,000 breeding pairs in 2000.

The albatross deaths may be connected to by-product mortality from longline fishing techniques, however more research is required.

The reduction in penguin numbers is not yet fully understood.

It appears that both species were affected by an algal poisoning around the Falklands, large-scale changes in ocean currents and food availability are also cited as contributory factors.



Above: Heritage Expedition's new vessel Spirit of Enderby.

New Cruise Vessel for Heritage Expeditions

One of the best known ice expedition cruise companies, Heritage Expeditions, is planning cruises next season targeting the Ross Sea region of Antarctica, home of the Heroic explorers and gateway to the South Pole.

Despite the increasing numbers of visitors to Antarctica, the Ross Sea region remains relatively unvisited due largely to its isolation and remoteness, says Heritage Expeditions. (Last year less than 500 tourists visited the Ross Sea compared to over 19,000 to the Antarctica Peninsula.

The company's 2005 'South to Antarctica' expedition will depart Bluff on 11 January 2005 and travel south via the sub-Antarctic Auckland and Macquarie Islands.

The first landing in Antarctica will be at Cape Adare, site of the first recorded landing on the Antarctic continent and the site chosen by the first party to winter over (the British Antarctic Expedition of 1899-1900).

From there the expedition proposes to follow the Trans Antarctic Mountains south, with landings at Possession Island, Cape Hallett, the Italian base at Terra Nova Bay, Franklin Island and Cape Bird.

Once in McMurdo Sound the expedition will visit Shackleton's Hut at Cape Royds, (the hut was built for his 1907-1909 expedition) Scott's hut and the *American and New Zealand bases in McMurdo Sound*.

The expedition will spend 10 days in the Ross Sea before returning to

New Zealand via the Campbell Islands. In February-March 2005, the company will take another expedition south: the 'In the Footsteps of Scott and Shackleton expedition'.

The company has introduced a new expedition vessel, the Spirit of Enderby, a sister ship to the Shokalskiy that they operated for 10 years.

The vessel, which is under the command of Russian officers with New Zealand and Australian hotel and expedition staff, carries 48 passengers. The vessel will be refurbished in Christchurch in November 2004 prior to the start of the season. It measures 72m in length and is fully ice strengthened. Powered by two 1,156 horse power diesel engines it is capable of up to 12 knots and is fitted with stabilisers. The accommodation is provided in twin share cabins, half with private facilities and on board is a library, lounge and bar.

"This class of vessel has proved itself time and time again in this region of the world," says Rodney Russ, managing director of Heritage Expeditions. Spirit of Enderby will be equipped with a fleet of rigid inflatable boats and will carry two amphibious all terrain vehicles for use on the fast ice. To complete the equipment, the vessel has a helicopter on board to provide ice reconnaissance capability and the option of sightseeing and ferrying passengers ashore.

Antarctic Tourism Under Focus

Antarctic tourism activities were under the spotlight in two separate fora recently.

First, an Antarctic Treaty Meeting of Experts on Tourism and other Non-governmental activities was attended by 57 representatives of 21 Antarctic Treaty parties, and seven invited experts from five organisations.

The Meeting, held in Tromso, Norway from 23 -25 March was convened in accordance with Decision 5 from Antarctic Treaty *Consultative Meeting XXVI*.

The group of experts considered many tourism-related topics including safety, insurance, search and rescues, and adventure or extreme tourism.

The results from this meeting will be presented and considered at the upcoming Antarctic Treaty Consultative Meeting in South Africa in June 2004.

Second, the International Association of Antarctica Tour Operators (IAATO) held its annual general meeting in Christchurch, NZ, from 26-30 April 2004.

Amongst items discussed by IAATO members were the tourism figures just collected from the 2003/04 Antarctic tourism season.

Denise Landau, Executive Director of IAATO, in a lecture presented at the University of Canterbury in Christchurch reported that preliminary estimates of tourism numbers were in the region of 26,000 people; this number is almost double the number that visited Antarctica last year.

More information on IAATO can be found at www.iaato.org.

Protection of Southern Ocean Toughened

The Australian Government has announced that Australia will boost protection of its sovereign interests with full-time, armed patrols of the Southern Ocean. The Australian Customs Service plans on leasing an ice-strengthened ship on a full-time basis for surveillance and enforcement patrols with the primary purpose of the patrols being to detect and apprehend illegal fishing vessels targeting the valuable Patagonian toothfish.

The patrols will be conducted primarily in the region of Australia's Heard and McDonald Islands. The plight of the toothfish has been well publicised and the problem of Illegal, Unreported and Unregulated (IUU) fishing in the Southern Ocean is a growing one. The remote and hostile environment makes detection and apprehension of the IUU fishing vessels (often referred to as "pirates") difficult. But, Australia is determined to increase pressure on the IUU vessels to combat the problem. Australia is a signatory to the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), is actively involved on the CCAMLR Committee and hosts the CCAMLR Secretariat in Hobart, Tasmania.

There is concern that left unchecked IUU fishing will lead to the commercial extinction of Patagonian toothfish stocks.

Antarctic Heroes Exhibition

An exhibition entitled "Antarctic Heroes-The Race to the South Pole" is scheduled to open in the Tower Gallery at Te Papa (The Museum of New Zealand) on 29 May and runs through 26 October 2004.

The exhibition will focus on the 'Heroic Age' of Antarctic exploration, the human experiences and the cultural and political agendas behind the expeditions, and on three great 'heroes' - Amundsen, Scott and Shackleton.

The exhibition is based on the very successful 'South - the Race to the Pole' exhibition developed by the National Maritime Museum in London. The stories of the following expeditions will be presented:

- The British 'Discovery' expedition of 1901-03, led by Scott and in which Shackleton took part;
- Shackleton's 'Nimrod' Expedition of 1907-09, and his near-success in being first to the Pole;
- The near-simultaneous Scott and Amundsen expeditions of 1911-12 with their parallel stories of success and tragic failure; and
- Shackleton's attempt of 1914-16, to be the first to cross the Antarctic continent will also feature.

This expedition, known to history as the 'Endurance' expedition, failed to achieve its objective but is remembered for the astonishing survival story which followed the crushing of 'Endurance' in ice.

On display will be the 'James Caird', the boat in which Shackleton, his navigator, New Zealand-born Frank Worsley, and four others made what has been called 'the greatest small-boat voyage ever', sailing 800 miles through some of the most vicious seas in the world from Elephant Island to South Georgia to seek rescue for their marooned crewmates. The 'James Caird', on loan from Shackleton's old school, Dulwich College in London, will be the exhibition's major attraction.

Other artefacts, associated with British and Norwegian expeditions will be featured, and the exhibition will also make extensive use of photographs, audio (reminiscences of participants), and film to give visitors as comprehensive an impression as possible of the experiences of the early explorers of the hostile Antarctic environment. Te Papa is open 10am -6pm everyday and until 9pm on Thursdays. More information can be found at <http://www.tepapa.org.nz>



Left : Launching the 'James Caird' J Pontefract Album, Alexander Turnbull Library, Wellington, New Zealand. ref : 98667 1/2.

ENVIRONMENTAL PROTOCOL RATIFIED BY CANADA

Canada has become the latest state to ratify the Protocol on Environmental Protection to the Antarctic Treaty, also known as the Environmental Protocol or the Madrid Protocol. By doing so, on 1 December 2003 it became the 28th nation to sign on to this agreement which designates Antarctica as a natural reserve devoted to peace and science and bans mineral

resource exploitation. Parties to the Environmental Protocol commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems. The Environmental Protocol is part of the Antarctic Treaty System which includes other legal instruments that Canada is a party to, including the

Antarctic Treaty itself, the convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) and the Convention for the Conservation of Antarctic Seals (CCAS). Additional information on Canada's involvement in Antarctica can be obtained through Environment Canada's website at : www.ec.gc.ca.

Albatross "Death Ship" Fined

Two Falkland Islands fishing companies were fined in late February after being charged with breaching a fishing licence condition to reduce incidental seabird mortality.

Longline fishing, the method used when targeting toothfish, is extremely dangerous to seabirds which are attracted to the baited hooks deployed along the long fishing line.

Mitigation methods have been developed to reduce seabird mortality associated with this fishing method, including the use of a streamer line which is used to scare the seabirds away from the baited, hooked line.

Crew aboard the vessel "Lyn" were preparing to lay a longline when the single streamer line became entangled in the longline and snapped.

The streamer line was not replaced.

When the fishing lines were hauled up twenty-seven Black browed albatross were found caught and had died as a result.

All parties involved in the incident regretted what had happened and had cooperated fully with the investigation into the seabird deaths.

When sentencing those involved the judge recognised that the incident was a "one off" and hoped that all parties had learned from the experience.

The judge fined the owners of the vessel who were also the employers of the crew £8,500 and also the company that chartered the vessel was fined an additional £5,000.

The Master of the "Lyn" was also personally fined £1,000 and the three parties together were ordered to pay all court costs.

Endurance Lynx Helicopter Crash

The UK Ministry of Defence confirmed on 8 February 2004 that a Royal Navy Lynx helicopter from the Ice Patrol Ship Endurance crashed in Antarctica.

The five crew members aboard were injured, but were safely recovered back to the ship where they received medical attention from a Royal Navy and British Antarctic Survey (BAS) medical team.

The three most seriously injured were evacuated to the British Antarctic Survey's Halley Research Station and were subsequently transported out of Antarctica.

The helicopter came down on the coast of the Weddell Sea while Endurance and the Royal Research Ship, Sir Ernest Shackleton, were laying down fuel caches for BAS use.

The cause of the accident will be the subject of an investigation.

HMS Endurance carried a pair of Lynx M3 helicopters from the 815 Naval Air Squadron.

These aircrafts are used to support

the ship's patrol and hydrographicsurvey work in Antarctic waters. Bearing the same name as the ship in which Sir Ernest Shackleton conducted his voyage ninety years ago, Endurance spends some seven months of each year deployed in the South Atlantic where her role includes supporting BAS.

Medivac Flight from McMurdo

Three people were safely evacuated from the US McMurdo Station on Ross Island during the 2003 - 2004 season.

The flight to McMurdo departed Christchurch, New Zealand on 10 April 2004, less than 2 months after the Ross Island bases closed for the winter season.

The United States National Science Foundation (US NSF) did not release details of the sick evacuees.

ICY SLIPS

South Korean Scientist Dies in Boating Mishap

Errors in our recent report of a boating mishap, taken from various sources has been kindly corrected by South Korean member, Dr Soon-Keun Chang.

Twenty seven colleagues and visitors were being seen off to Seoul, not 24.

The boat returning with three people to Sejong Station (which opened 1988 and not 1982) did not capsize but was blown by strong winds onto nearby Nelson Island, south-west of King George Island.

The Russian base (Bellingshausen) was omitted from the list of possible helpers on King George Island, while the Czech base is actually on Nelson Island. The Chilean aircraft that picked up the three people from Nelson Island was a Twin-Otter and not a helicopter.

The Russian patrol boat which rescued the four survivors from the capsized boat is now believed to have been a Chinese inflatable (Zodiac) operated by a Russian crew.

- Editor

TAE Patron

The Editor apologises for an error in the tribute for Lady Eleanor Fuchs written by John Claydon and Peter Fuchs.

It was stated that the Duke of Edinburgh became the Patron of the Commonwealth Trans Antarctic Expedition, actually this position was graciously accepted by Queen Elizabeth II.

SHACKLETON'S FIRST SLEDGE JOURNEY

By David E. Yelverton FRGS



Mt Heine

Ernest Shackleton set off from Ross Island with Edward Wilson and geologist Hartley Ferrar on 19 February, 1902, with the objective of reaching the highest point on White Island, with a view to the south.

The trio's journey was crucial to one of the Discovery Expedition's primary aims: Robert Scott's southern journey the following season that would, it was hoped, set a new farthest south record and determine whether there was an Antarctic Continent.

Prospects for Scott's journey would depend on what they would see from the island. The great unknown was: did Ross's great Ice "Barrier", which they had just sailed along, extend astride the due-south course from White Island that Scott hoped to follow?

Starting about 11am from the eastern end of "The Gap", which divides the slopes of Observation Hill from those of Crater Hill, immediately east of where *Discovery* was anchored at Hut Point, the three men pulled their heavy sledge, laden with the *Pram*, southward over the sea ice. With little yet known about the distance to the edge of the Barrier proper in the

direction of the island, Scott had insisted that they carry the boat in case the sea ice broke away. During a 20-minute lunch break about 2pm in bright sunshine, a southerly blizzard engulfed them before they could pack up.

The urgent need to get off the sea ice dictated that they continue, and the ensuing nine hours of relentless effort were very much the trio's 'baptism of fire' in a world of numbing frostbites. After another half hour they were, in Wilson's words, "simply done" and decided to camp until the wind died down.

When the flapping tent was finally up and stayed to the sledge, with its edges weighed down with blocks of ice, they could attend to their frostbites.

Shackleton's ear and hands were badly blistered, as was one of Wilson's big toes. The 'defrosting' was a painful process (with soreness persisting for days afterwards). Eventually, after a warming meal, they tackled the business of getting into the "furs" that were to serve as sleeping bags.

Designed on Norwegian advice and made from wolf skins Armitage

had purchased in Norway when he collected the dogs, the furs comprised a jacket that fastened to what was effectively the bottom half of a sleeping bag. They were deemed to be adequate insulation, after Bernacchi had slept outside on Armitage's short journey over the Barrier from Balloon Bight, when no floor cloth had been taken for the tent. Sleeping on their Jaeger blouses, they found that the cold crept through wherever the fur outfits touched the icy floor.

Shackleton made no mention of this in his report to Scott afterwards, and the outfits were used twice more before being abandoned in favour of the sleeping bags made from reindeer skins also purchased in Norway by Armitage. Turning out again at 3.30am on 20 February, the wind having dropped two hours earlier, they marched on for four hours to reach a point about 2 miles from the island, now securely on barrier ice.

Pressing on from there, they found that the tide crack between barrier and shore, and abundant crevassing, made landing the sledge and boat impossible. Shackleton's report to Scott (SPRI ms366/12/4D) states that

HISTORY

they retreated to pitch camp and then "proceeded to [the] East end of the island, but pressure ridges and crevasses were much larger so we decided to pitch camp where we had it before." Wilson's diary entry on 20 February describes how they did their "little bit of exploring with care, as Shackleton had got one foot down a covered crevasse. So we roped and managed things easily then." He makes clear the camp they returned to was about a mile from the shore.

Precisely where their camp location was, should be possible to determine from the compass bearings and angles Shackleton gave in his report, but they are confusing and do not all add up to the same location. There is no mention of the group taking a theodolite, and its certain they did not carry one on the ascent of Mt. Heine, so that the angles must have been arrived at by using magnetic compass. These readings would have been subject to varying amounts of deflection from the magnetic influence of the island's volcanic rocks.

Writing that the bearing of Mt. Erebus was "N8°E True" (after applying "160°E variation"), he recorded the angles between various other summits, notably "Mt. Discovery and Crater II (Mt. Hayward) 49°" and "Pyramid Mtn to Mt. Discovery 20°12."

However, for the latter to be true, their camp would have had to be about 4 miles west of the direct route to the north end of White Island, and the angle between Mt. Discovery and Mt. Hayward would have been approximately 85°. Such a position simply does not equate to Wilson's description of their subsequent movements.

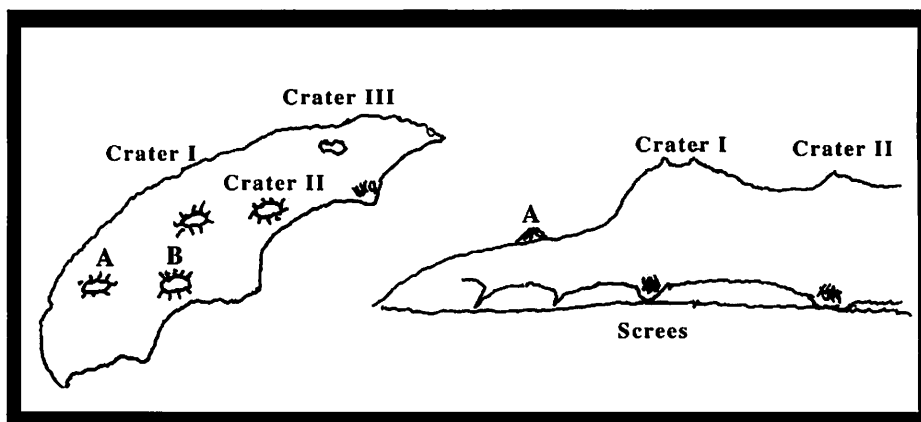
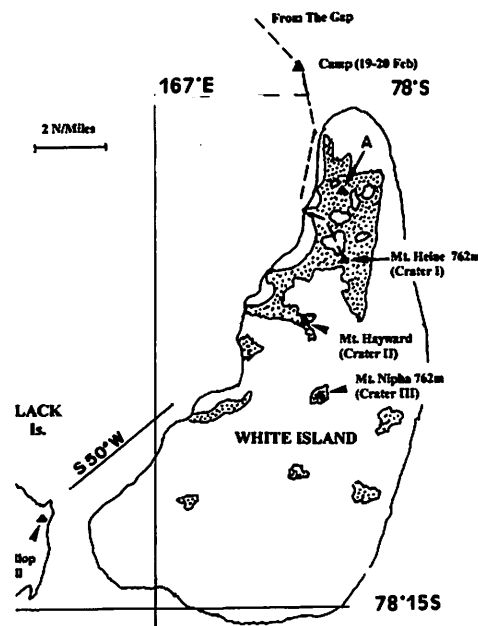
Shackleton's 49° angle between those mountains places the camp on direct course from "The Gap" to the north end of the island. From there, however, the bearing of Mt. Erebus is N6°W, some 14° different from Shackleton's observation, which would easily be accounted for by the deflecting influence of the island's magnetised volcanic rock, at this stage in the journey only about a mile away. However, the angle between Pyramid Mountain to Mt. Discovery is only some 15°.

That angle, measured from Hut

Point is just about 20°, and Shackleton would certainly have memorised that, if not measured it himself. Could it have been a 'slip of the pen' when Shackleton wrote his report? Whether so or not, we are left with Wilson's diary account to decide the camp's probable location, and his description of their start for Mt. Heine certainly supports the suggested position of the camp. Describing how they slept until 4pm, then turned out and cooked a meal before starting out on foot, he relates that they went "a mile or two along to a steep scree slope ..."

Only the camp position (shown on the accompanying map) on the direct line from "The Gap" fits that, and, at the same time Shackleton's description of their first reconnaissance as having been to "the east", as well as the angle subtended between Mt. Discovery and Mt. Hayward. Wilson continues his description of the scree slope as "of loose stones, which ran some 400ft up at an angle of 40° [after which] we had a short bit of glacier stuff to cross."

phase of the climb as "good travelling, chiefly over level or slightly ascending stony plateaus of volcanic ash, sometimes crossing a broad ice slope ... then a steep scramble up rugged volcanic ash and rock" to reach the top at midnight.



Above : Freehand copy of sketches in Hartley Ferrar's geological report to Cdr Scott. Top Right : Freehand copy of sketches of Shackleton's journey to White Island in February 1902 and approximate position of their camp. Both photos Courtesy of Scott Polar Research Institute.

It has been alleged that they failed to rope up on the climb, but later Shackleton, in a letter to a Captain Gordon of the Cunard Line, wrote that they "Roped together and got across a snow bridge, then climbed to the top of the island ... getting a splendid view of level barrier surface stretching away to the South."

In yet another direct contradiction of an assertion originated by Roland Huntford, Wilson described the later

The two accounts, taken with Ferrar's elevation sketch³ add up to convincing support for the route proposed here for their ascent. In a sketch of the view from the summit of Mt. Heine, reproduced in the writer's history of the expedition, *Antarctica Unveiled* (University Press of Colorado, 2000), Wilson showed a distant range of mountains on the horizon beyond and above his all too accurate depic

Continued on Page 8

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tion of the hill, today named Scallop Hill, at the SE extremity of Black Island. The true bearing of that point from the summit of Mt. Heine roughly equates to the bearing of the "new range" that Shackleton gave as "S50W" in his report. The mountains they saw are today named the Conway Range, in which, at midnight, the north face of Mt. Keltie would have presented the prominent conical form seen in Wilson's sketch. John M. Alexander, Operations Manager at Scott Base in the 1990/91 season, kindly took three panoramic photos for the writer, to correspond with the view recorded by Wilson from the summit of Mt. Heine. He had led a party to the summit, approaching from the south, having travelled most of the way on skidoos. Surprisingly, the right hand photo showed that the distant mountains, viewed from Mt. Heine, would have been obscured by Black Island. Taken with Wilson's 21

February account of how, the next day, they left camp at 2pm, "and walked towards the southwest end of the island", the writer concluded that they must have travelled via, or visited the southern slopes of Mt. Hayward ("Crater II"), the only position on that side of the island from which the distant mountains could be seen directly. However, on page 5 of Ferrar's report to Scott, he refers to "a glacier pressing down from the plateau in which the new range stands" and in the sketch map on page 3 he depicts a "snow platform" in front of the "distant range" above the SE corner of Black Island: the very point above which Wilson depicts the range.

So, all three men were unanimous in recording that they saw the distant range from Mt. Heine.

It follows that what they saw that midnight was a mirage, and Wilson's sketch, probably the first portrayal of an Antarctic mirage, a superbly accurate illustration of what they saw.

Shackleton had made the Discovery Expedition's third historic discovery-one that would reshape Scott's plans for the Southern Journey. When later viewed by Scott from the Bluff Depot and beyond, the distant mountains would reinforce in his mind the theory, prevailing in some geographical circles, that Victoria Land was a southern Greenland, and that they had sighted its southern end. Sending Barne's support party back earlier than planned to explore that, thus adding a sixth sledge to the train pulled by his dogs, certainly contributed to the travails of that journey, on which Shackleton and Wilson would play such crucial roles.

NOTES

1. SPRI ms1537/2/7/3 D: 24.9.1902
2. In Huntford's 1985 biography Shackleton: p68, and Shackleton & McKenna (2002) Shackleton: An Irishman in Antarctica: p67
3. SPRI ms366/14/1-7 page 3 of 7. The nunatak marked A on Ferrar's sketch corresponds with the small 600m contour ring marked on the USGS map almost 2.5 statute miles north of Mt. Heine, but the one marked B on his plan sketch does not obviously equate to any feature emphasised on the USGS map.
4. Op.cit p125.

ANTARCTICA NZ NEWS

New Faces at Antarctica New Zealand

Emma Reid replaces Shelly Peebles as Antarctica New Zealand's new Communications Manager. Emma has extensive media relations skills and was with Wellington public relations firm Busby Ramshaw Grice, during which time she was seconded to Tranz Rail as External Relations Manager.

Prior to that Emma held positions as Press Secretary and Senior Private Secretary for Hon Deborah Morris (Minister of Youth Affairs), Hon Nick Smith (Minister of Conservation, Education and Corrections) and Hon John Luxton (Minister of Biosecurity and Associate Minister of Trade). She has been President of the New Zealand University Students Association and has worked as an education policy analyst both here and in South Africa.

She has a strong background in education and conservation, and her interests are arts, film, tennis, architecture and Formula 1 racing.

New Corporate Services Manager **Peter Smith** brings excellent financial, HR and IT management skills to the role. A chartered accountant and former General Manager Corporate Services at Trade New Zealand, Peter has also held senior management roles with the New Zealand Association of Credit Unions in Auckland and the BOC Group in London. Peter's main leisure interests revolve around spending time with his family, in particular supporting the various sporting endeavours



EMMA REID

PETER SMITH

ANNA HOWARD

of his two children aged eight and eleven. This winter he plans to have a rest from restoring a Series 1 Landrover and take to the ski slopes after a break of nearly ten years - ouch!

Anna Howard has been appointed to the new role of Information and Communications Coordinator, which increases the Communications Team by 50%.

An experienced librarian and teacher, Anna has excellent information management skills. Previously Software Migration Librarian at Christchurch Polytechnic Institute of Technology, Anna has also worked as Support Manager for Contec Group International. Originally from the UK, Anna emigrated in 1998, and has enjoyed the New Zealand lifestyle ever since, and is looking forward to the challenges and opportunities the new role offers.

Heated Field Store at Scott Base

This season a site was prepared for Scott Base's new Warm Field Store Building, a NZ\$4.6m project undertaken by Antarctica New Zealand, with Peter Brookman as Project Co-ordinator.

Fit-out will take place during the 2005 winter and the building will be commissioned in September 2005.

The Warm Field Store facility will be 1400 square metres in size and lie immediately north of the present Scott Base garage.

The building will provide both heated and controlled cold storage for foodstuffs, heated storage for engineering, housekeeping supplies and field equipment, as well as a dedicated warm space for the preparation of science field events.

The building will also contain a cleaning and drying area for field equipment, a field waste handling facility and a fitness centre.

Design and construction of the new facility is being handled by Opus Architecture, with Colin Corsbie as the principle architect. Procurement of materials and construction of the building shell is being undertaken by Leighs Construction Ltd. Anthony Leighs, owner of Leighs Construction, is project manager.



Left: Trial erection of part of the new Warm Field Store building in Christchurch, 2003. Left Bottom : Air view of site with existing garage to left. Right : The site with completed foundations on 27 February 2004.



All Photos : Antarctica New Zealand.



Peter Brookman of Antarctica New Zealand reports completion of the following tasks during summer 2003/2004:

- Clearing the site and moving 4,000 cubic metres of frozen volcanic rock. (This involved 1,600 kg of explosives.)
- Placement and anchoring of 105 foundationpads, each weighing approximately 1 tonne.
- Delivery by sea of 125 containers and break bulk construction materials and equipment, having a total weight of approximately 1,300 tonnes.

The plan for next season will include :

- The assembly of the warm store shell by Leighs Construction Ltd. (Oct '04 - Jan '05).
- Fit-out by Antarctica New Zealand staff (Feb '05 - Oct '05).
- The installation of high efficiency lighting throughout the existing Scott Base facilities, and replacement of all major cooking appliances in the kitchen by LPG units, to free up electrical capacity for use in the field store.



Wide ranging year for Antarctica New Zealand

Lou Sanson, CEO of Antarctica New Zealand, told Antarctica New Zealand's annual conference that the 2003/04 season was a successful one with a wide range of science activities occurring.

The annual conference was held at the University of Waikato in Hamilton,

New Zealand, from 13-15 April 2004.

The annual event is an opportunity to share information and present preliminary results from the previous Antarctic season.

It was the first operational season of the Latitudinal Gradients Project (LGP) with a camp at Cape Hallett

where scientists from the New Zealand and United States research programmes collaborated on marine and terrestrial ecosystem research.

Other projects including ANDRILL (see story page 15) continued on the McMurdo Ice Shelf

Continued on Page 11

New Dinosaur finds in Antarctica

TRANSANTARCTIC MOUNTAINS

On 7 December 2003 an American party, supported by the US National Science Foundation (NSF) and led by veteran dinosaur researcher Bill Hammer of Augustana College, Rock Island, Illinois, discovered the remains of a Jurassic sauropod on Mount Kirkpatrick in the Beardmore Glacier area. Sauropods are very large four-legged, long-necked plant-eating dinosaurs. The bones collected last season included parts of a huge pelvis estimated to be a metre across.

The fossil is believed to represent one of the earliest forms of the evolving sauropod line that eventually resulted in sauropods more than 30 metres long from the nose to tail.

Bill Hammer is well known for his discovery in 1991 of the first fossil dinosaur in Antarctica when bones of a new carnivorous dinosaur species, *Cryolophosaurus ellioti*, were collected.

Braddock, a New Zealand mountaineer with the group, cast his eyes over the area looking for fossils. "I jokingly said to him, 'Keep your eyes down, look for weird things in the rock'," Hammer said.

"Peter marked four or five things he thought were odd, including some fossilised roots.

But I realised that one of these things was bone: part of a huge pelvis and ilium, and much, much bigger than the corresponding bones in *Cryolophosaurus*."

"This site is so far removed geographically from any (dinosaur) site near its age, it's clearly a new dinosaur to Antarctica," Hammer said.

"We have so few dinosaur specimens from the whole continent, compared to any other place, that almost anything we find down there is new to science."

The collection of dinosaur bones, weighing a total of 1,400 kgs, has been shipped back to the US for study.

ANTARCTIC PENINSULA

A week after Hammer's find, American dinosaur researchers, Judd Case and James Martin, also supported by NSF, discovered Cretaceous bones and teeth of a new species of carnivorous dinosaur on James Ross Island in the Antarctic Peninsula.

The bones are much younger than the Beardmore Glacier specimens, with the animal living 70 million years ago.

The James Ross dinosaur was related to the giant meat-eating tyrannosaurs and the smaller, swifter, velociraptors.

It appears to represent a population of carnivores that survived longer in Antarctica than in other parts of the world where they had been replaced by other predators. Dinosaurs became globally extinct 65 million years ago.

"One of the surprising things is that animals (dinosaurs) with these more primitive characteristics generally haven't survived as long elsewhere as they have in Antarctica," said Case, a professor of biology at Saint Mary's College of California.

"But, for whatever reason, they



Above: The research team at work on James Ross Island. Getting to the locality involved a 13 km walk over ice each day. Photo: NSF.

Last season Hammer's party returned to the same site, but had to wait for specialised workers to remove the dangerous overhang above the deep excavation that had been dug over ten years ago into the cliff face. While the party waited for the overhang to be removed, Peter

As well as the pelvis the collection includes part of the animal's spine.

The bones may represent the largest dinosaur yet found in Antarctica, as well as the oldest, although Hammer describes it as "kinda whimpy" compared to the later giant sauropods.



Above: Bill Hammer excavating dinosaur bones on Mt Kirkpatrick. Photo: Bill Hammer/NSF.

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were still hanging out on the Antarctic continent." The fossil remains, collected from ancient coastal sediments in the Naze Peninsula, include fragments of an upper jaw with teeth, isolated individual teeth, and most of the bones from the animal's lower legs and feet.

Case said the shape of the teeth and features of the feet are characteristic of theropod dinosaurs, a group of meat-eating dinosaurs that walked on two legs like birds.



Artist's impression of the James Ross Island carnivore washed up on a Cretaceous beach. Credit : Trent L Schindler, NSF.

Research has shown that birds are the direct descendents of theropods.

James Martin, Curator of Vertebrate Paleontology at the South Dakota School of Mines & Technology, said the size and shape of the ends of the lower-leg and foot bones indicated that the animal had been a running dinosaur approximately 1.8 to 2.4 metres (6 to 8 feet) tall.

Cretaceous dinosaur fossils are rare in Antarctica and only six other individuals have been found.

The new discovery is only the second from a late Cretaceous Antarctic theropod.

One theory for the primitive nature of the recent find is that flowering plants were slower to colonise Antarctica than in the other continents because, although an ice cap did not exist and global temperatures were higher than today, the region still experienced total darkness during the southern winter.

The Naze field party also included scientists from Argentina's Museo de La Plata, Minot State University, University of Oklahoma, South Dakota Geological Survey and graduate students from University of California, Riverside and the South Dakota School of Mines & Technology.

Successful Season for The Ansmet Meteorite Search Team

The 2003-2004 Antarctic season was a "tremendous success" for the ANSMET (Antarctic Search for Meteorites) field team according to team leader and Principal Investigator Dr. Ralph Harvey.

For the second season in a row there were two ANSMET field parties.

- A four person team whose goal was to explore new or poorly-known icefields and recover whatever specimens they found along the way;
- An eight person team dedicated to systematic specimen recovery from a well characterized source.

Together, these two teams recovered 1358 specimens (a new record!) from about a dozen icefields scattered around the southern Transantarctic Mountains, with an estimated total mass of 350 kg.

Significantly, it's not just the overall numbers that are higher.

The proportions of achondrites, carbonaceous chondrites and unusual ordinary chondrites is higher than the team leader had seen in a long time.

This, according to Dr. Harvey, was a very welcome change.



Photo from Antarctic Meteorite Newsletter, Vol 27, No 1.

More information on Antarctic meteorites can be found at www-curator.jsc.gov and information on the work of ANSMET can be found at <http://geology.cwru.edu/~ansmet/>.

Continued from page 9

with other science events working on glaciology, atmospheric physics, biology and geology.

The conference also included a media and communications session which consisted of reports on visitor experience in the Ross Sea Region.

Delegates heard more about the Antarctic Geographic Information System (GIS) project.

The Antarctic Heritage Trust up-

dated participants on their Hut Restoration project.

Lou Sanson also took the opportunity to announce that the new warm field store currently under construction at Scott Base (see story 'Heated Field Store at Scott Base' page 9) would be named after Sir Edmund Hillary.

The World's Best Kept Secret

By Rob Curtin



Students conducting snow profiles on upper layers of the ice. Photo by Lesley Woudberg.

Rob Curtin was a student at the University of Canterbury, Christchurch, he took leave from the Australian Army to study on the Graduate Certificate in Antarctic Studies course during the austral summer of 2003/04.

It is not uncommon to see the phrase, "The world's best kept secret" used to describe various parts of a country like New Zealand.

As the Lonely Planet Guide aptly states, "New Zealand is a country of rare seismic beauty: glacial mountains, fast-flowing rivers, deep, clear lakes, hissing geysers and boiling mud." For twenty students that have travelled to Christchurch for summer however, New Zealand's best kept secret is of a different kind, a summer semester at the University of Canterbury completing a Graduate Certificate in Antarctic Studies.

For many, the thought of fourteen weeks in the classroom over summer would cause the instant breakout of a rare form of rash.

But for the twenty students at the University of Canterbury, the chance of studying over the holiday season brings with it a unique reward, a trip to the Ice.

Many of the students had heard of the Canterbury Antarctic Studies course via word of mouth. Some had even seen photos from previous

years of the group in their field camp around the Christmas table carved out of ice, while others came across the course on the Internet and submitted applications at the eleventh hour. Regardless of the means of discovering this secret, it is immediately apparent on day one that every individual is thrilled to be one of the twenty selected.

Motivations for attending vary greatly. Australian marine-biologist graduate, Lloyd Godson, was working in the Bahamas as a commercial diver when he discovered the course on the Internet. Although fulfilling a lifelong dream to travel to Antarctica was his primary reason for attending, he had also been giving considerable thought to commencing a Masters degree in Marine Science and wished to use the course as a fact-finding mission for further study.

For British geologist, Peter Fuchs, coming to Christchurch and then travelling to the ice was a matter of family history and a quest to gain an intimate understanding of what his explorer father, Sir Vivian Fuchs, had achieved nearly 50 years ago during the Commonwealth Trans-Antarctic Expedition.

Having similar motivations to both Lloyd and Peter, was Auckland property valuer, Elise Grange. She heard about the course from a close friend,

and having had a lifelong dream to travel south, sparked by family links to the continent, Elise saw the course as way to fulfil a long held ambition and as an opportunity to mix with a group of like-minded individuals on a similar journey.

The University's Antarctic Research Centre, Gateway Antarctica, in partnership with Antarctica New Zealand, has designed the Graduate Certificate Course for students who already have a degree and wish to broaden their understanding of Antarctic-related matters.

The University also targets the course to professionals who are working or plan to work in positions or organisations where their contribution would be enhanced by completing this programme.

For the first five weeks of the course we are immersed in all things Antarctic via a series of lectures in Christchurch.

A timetable detailing class attendance from 9am-5pm, forces us to come to grips with the size of our austral summer commitment.

It is not unusual for students to find themselves listening to lectures by members of the close-knit Antarctic community who have completed the course in previous years.

Past students have since taken up positions within New Zealand's various organisations that are responsible for the operation of New Zealand's Scott Base or for protecting the significant heritage sites that exist within the Ross Dependency Region.

Most students soon realise that 14 weeks is not a lot of time to complete the workload required to attain the Certificate.

The group of 20 comes from a range of backgrounds and experiences.

For several students, this is the first foray back to study since graduating from university over twenty years ago. Coming to grips with online databases and various other electronic resources are only the first of many challenges that the mixed

group encounters, and is expected to overcome.

Others have significant academic experience including PhDs. Although some individuals have backgrounds in geology or glaciology, no one has covered the complete range of disciplines touched on during the multidisciplinary course and so, in this sense, the group are all on the same level playing field. Gateway Antarctica engages university lecturers from ten different departments to allow the course to critically examine the major scientific and environmental themes and the social, political and legal issues facing Antarctica and the Southern Ocean. On any given day, students may be taught by a terrestrial biologist, participate in a video link with a guest lecturer such as New Zealand's Poet Laureate Bill Manhire, or receive instruction on the use of meteorology measuring instruments for future fieldwork. Such is the intensity of the first five weeks, that the two-day field trip to Cass Camp near Arthur's Pass, South Island, New Zealand, is seen as a break despite the fact that it is designed to be a test of fitness prior to travelling south.

The group pass their test with flying colours, and although a day's tramp in the hills may not be a significant challenge to many of the students, it does provide peace of mind to their instructors, all Antarctic veterans, who understand that a short walk on the Ice can often become an epic struggle when conditions deteriorate. The suspense of the impending trip builds as the group juggles a first aid course, a trip to the US ice-breaker docked at the local port of Lyttelton, and an afternoon at the Antarctic clothing store being issued with a complete set of clothes designed to provide protection from the elements in the harshest of environments.

Within days, we are all sitting at the Antarctic Departure Lounge at Christchurch Airport completing departure cards before being taken out to the waiting Royal New Zealand Air Force Hercules aircraft. The trip south is uneventful, except for the final hour when the ice looms into view. The twenty are now transfixed to the small porthole windows, identifying

the various ice and land formations they have been studying.

With little time to contemplate their first moments after arrival on Ross Island, the group and the other passengers are quickly marshalled onto 'Ivan the Terra Bus', the main form of transport between the sea-ice runway, and the bases.

Most of the passengers are dropped off at the US McMurdo Base, whilst the 20 students and their 4 instructors continue their journey for another 5 km arriving at New Zealand's Scott Base just in time for dinner.

Any thoughts that living at one of the world's remotest places means a sacrifice in meal standards are quickly dispelled, as the new arrivals tuck into a variety of meat and vegetables, followed by dessert. The only hint that the base doesn't receive fresh food every day is noticed after



Students on the Graduate Certificate in Antarctic Studies Course investigating ice shelf thickness using an ice drill. Photo by Lesley Woudberg.

dinner when some of the group make cappuccinos with long shelf-life milk.

Dinner is followed by the start of induction training, with various briefings and a walk around the sea-ice in front of Scott Base. It is then that the group begin to notice the fact that it doesn't get dark in summer and that there is no physical reason why training can not go on past 10 pm. The instructors quickly highlight the fact

that the bar would be closing by 11 pm, so with that in mind, the group return to the base.

Over the next eighteen days, the 20 students encounter a range of Antarctic experiences. The first two days are spent completing Antarctic Field Training. Crampons, ropes, harnesses and ice-axes soon became familiar equipment; Hagglands and ski-doos familiar transport.

Most of the remaining time on the Ice is spent at a field camp in Windless Bight. This is clearly the highlight of the trip with students living and working in polar tents, the design largely unchanged since the Antarctic Heroic Age. Also unchanged are the Primus stoves, which seem to evoke a range of emotions from the students. Some marvel at their simplicity and reliability, while others tremble with fear as flare-ups and flames threaten to burn down their cosy world.

From the camp, the students conduct fieldtrips to undertake a seal census, geological and meteorological observations, as well as a study of the iceshelf - an enormous amount to cover in two short weeks taking into account compulsory Christmas and New Years celebrations.

The rate of activity only seems to make the time go faster, and shortly after recovering from New Year celebrations, the group are boarding a US C-141 Starlifter aircraft and returning to Christchurch.

With only a days break, the group is back in the classroom on the Monday morning for debriefing before resuming classes.

The 20 students are quickly reminded of why they are here as assessment after assessment falls due, and within weeks, they are sitting down to a farewell dinner at the University staff club where tales are told, and friends are toasted. It has been an incredible journey for the 20 students, who can now count themselves part of a rare community who have camped out on the Ice.

All are now avid advocates of Antarctica, and of the Certificate course and are likely to tell anyone who's prepared to listen about what they consider "The world's best kept secret."

Mrs Chippy's 'Last Expedition'



The loss of his cat was something for which McNeish never forgave Shackleton and mourned for the rest of his life.

Baden Norris, noted Antarctic historian, remembers being introduced as a young child to Harry McNeish, and being told "Shackleton shot my cat".

During the Trans-Antarctic Expedition, McNeish was chosen by Shackleton to be one of six members of the crew who sailed the whaleboat 'James Caird'

on the epic journey from Elephant Island to South Georgia during April 1916.

McNeish came to New Zealand in 1925 and worked on the Wellington waterfront for the New Zealand Shipping Company. Chris Elliott of Haumoana, Hawkes Bay, NZ, has been commissioned to create a bronze sculpture of Mrs Chippy which we hope will be installed in early June.

"I would like people to come upon the grave and be surprised to find a cat resting, its face alert, its body relaxed as if he was lying on McNeish's bunk", Chris says.

He died in Wellington in 1930 at the age of 56 and is buried at the Karori Cemetery (see to Andrew Leachman's article in Vol 21, No 3 & 4, 2003).

In 1959 the New Zealand Antarctic Society provided a headstone for the grave of Harry McNeish.

Now, inspired by an idea conceived by Baden Norris (Emeritus Curator-Antarctic) and Caroline Alexander (author of 'Endurance' and 'Mrs Chippy's Last Expedition'), the Society has undertaken to put a commemorative statue of Mrs Chippy on his grave.

Caroline Alexander says, "From an early stage in my research I was struck by the number of amused and affectionate references to this characterful

explorer - Mrs Chippy". She found it powerfully haunting that McNeish always mourned the loss of Mrs Chippy. "I believe it is most appropriate to create a commemorative statue of Mrs Chippy".

The Society invites you to contribute to this project to ensure its success. The project cost is NZ\$6000. This includes the statue, mounting it, carrying out remedial work on the grave and restorative work on the headstone. The project has the full support of the Society's Council and Wellington City Council. Over NZ\$3000 has been raised to date.

We are delighted to honour McNeish in this way and to unite him with his mate from the Endurance.

The New Zealand Antarctic Society seeks your financial support to place a life-sized statue of 'Mrs Chippy' on the grave of Harry McNeish at the Karori Cemetery in Wellington, New Zealand. Mrs Chippy was the cat taken aboard the Endurance by Shackleton's carpenter Harry McNeish - a tabby described as "full of character" by several members of the expedition. However, Mrs Chippy was actually a gentleman and not a lady. The Endurance, one of two vessels used by Shackleton's 1914-1916 Trans-Antarctic Expedition, was beset in the worst ever recorded ice in the Weddell Sea.

She was subsequently crushed and sank, marooning 28 men, dogs and Mrs Chippy on the sea ice.

Their epic story of survival is well known (and features in the major Antarctic exhibition at Te Papa Museum - see story on page 4).

After the loss of the ship it was clear that Mrs Chippy would not survive and Shackleton ordered him shot along with the pups, and later the rest of the dogs. Mrs Chippy's death impacted heavily on McNeish and most of those who had been aboard the Endurance where he had become a well-loved and most popular shipmate.

DONATION FORM

Please enclose a cheque made to :
"New Zealand Antarctic Society"
and mail to :
P.O. Box 2110
Wellington
New Zealand

Or

Charge \$ _____ to

Visa Mastercard Amex

Card No

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Expiry _____

Cardholder Name _____

Signature _____

Your postal or email address :

Or

By Electronic Banking to :
Westpac Bank Account Number
03-0502-0116812
Remark "Mrs Chippy"

If you wish to be kept up-to-date with this project, please send your name and email to :
mrschippy@antarctic.org.nz

Scientists seek optimum ANDRILL targets

Preparatory studies continued this year for ANDRILL, a multi-million dollar international drilling project that is being managed by Antarctica New Zealand on behalf of Italy, USA, Germany and New Zealand. ANDRILL will offer clues to the changing global environment over the past ~30 million years.

This may help us to understand the impact of future climate change.

The scientific part of the project is being organised by an international science committee of which New Zealanders Dr Gary Wilson of Otago University and Dr Tim Naish of the Institute of Geological and Nuclear Sciences are members.

This year a team of scientists, led by Dr Wilson, gathered data from geophysical site surveys of the sea floor below the McMurdo Ice Shelf to help target the best sites for drilling during the 2005/2006 season.

Drilling will provide important information about the sediments that have accumulated in the McMurdo Basin and the development of the Transantarctic Mountains and the associated West Antarctic Rift, as well as the development of the Antarctic ice sheet.

Dr Wilson reported that work went to plan this season, although a fierce storm kept the team indoors for five days and snow threatened to bury their living quarters.

"Home" was a group of modified shipping containers sited 60 km south of Scott Base.

The containers were cramped, with living and sleeping space but no shower.

Water was precious, and was used only for cooking and dish washing. Personal hygiene was taken care of with wet-wipes.

The small community, which fluctuated between six and 15 individuals, included a trained chef, staff and students from Otago, Canterbury and Massachusetts Universities, the Institute of Geological and Nuclear Sciences and Antarctica New Zealand.



Researchers relaxing the combined mess and work room inside one of the shipping containers after a 15 hour day on the ice.

All team members were carefully chosen, "Though it does get a bit difficult when there's a storm for five days and you are stuck inside" Wilson admitted.

Between November and January, the researchers collected important seismic information on the earth's structure below the ice and sea in preparation for drilling into these sediment layers beneath the sea floor.

To obtain the information, the team had to set off small explosions within the ice shelf, which sent sound waves down through the sea and into the sedimentary layers below.

Recording devices were able to image the layers based on the amount of time it took for the sound waves to bounce back.



A group of mobile containers on the McMurdo Ice Shelf at the ANDRILL township.



Matthew Hill (Otago University) and Verne Pere (University of Canterbury) laying out cable for an ANDRILL seismic survey.

GUY WARREN

1933 – 2003

Guyon, well-known in both Antarctic and geological circles, died in a traffic accident in Nelson on 29 October, 2003, aged 70 years.

He was educated at Christ's College and Canterbury University College, Christchurch, graduating M.Sc. in geology in 1955. He was then employed by the NZ Geological Survey, first in its Christchurch Office until 1981, then to its head office in Lower Hutt, where he was based until his retirement in 1993.

Shortly after he joined the Geological Survey, he learned of the proposed Commonwealth Trans-Antarctic Expedition, and of its New Zealand component, which was to operate in New Zealand's Ross Dependency.

This was the first time that New Zealand had operated its own expedition to the Antarctic, and the response to the call for applications to join the New Zealand party was overwhelming. Guyon was selected as one of the two geologists to join the expedition. The party sailed south in 1956, and after establishing Scott Base at Pram Point, Ross Island, spent the winter of 1957 there. Guyon and the other field party members put the autumn of 1957 to good use by carrying out a man-hauling geological expedition in the area at the head of the Skelton Glacier. During this time the party claimed a "first ascent" by climbing the 2770 m Mt Harmsworth.

The Northern Survey Party, of which Guyon was a member, was able to spend the spring and summer of 1957-58 engaged in a geological/topographic survey in the Victoria Land Mountains. By the end of this survey, Guyon had spent 15 weeks sledging in this largely unexplored portion of the Transantarctic Mountains, mapping the geology of an area covering almost 40,000 sq kms. This still ranks as one of the great Antarctic sledge journeys. The geological results of the expedition were published in a landmark Bulletin of the NZ



Bottom photo of Guy, taken in Antarctica during the Trans-Antarctic Expedition.

Geological Survey in 1962, and the definition of the stratigraphy and geological history of the region is still serving as the basic template used to describe the geology of the Transantarctic Mountains.

The lure of the Antarctic was ever present, and in November 1964 Guyon organised a further, and final, expedition to Victoria Land with 3 fellow geologists with the aim of studying some possible ancient glacial deposits discovered at Carapace Nunatak on his first trip.

He seemed doomed from the start. The day after the group was put in by DC3 and helicopter, Guyon slipped, slid down an ice slope, and broke a leg badly when he hit a rock. Unfortunately, radio reception was poor, and Guyon, the only member who knew the morse code, found himself in the position of organising his own rescue over the emergency radio with Scott Base, while grappling with the pain.

Whilst being attended to at McMurdo Station, Guyon picked up a leg infection which together with the serious compound fracture, caused him to spend an extended period in Christchurch Hospital.

During Guyon's time with the Christchurch office of the NZ Geological Survey, he carried out studies based mainly in Canterbury and south Marlborough.

In 1981 he shifted to Head Office in Lower Hutt to direct the new computer section.

He was a strong supporter of the Geological Society of New Zealand, and was the Society's President for 1977-78.

After his retirement from the Geological Survey in 1993 he shifted to Nelson, where he and his wife Sally became involved in a number of activities involving the arts and sciences, in particular volunteer work with the Department of Conservation, tracking and feeding endangered kakapos on island reserves around New Zealand.

Their friends and colleagues remember Guyon and Sally as leaders and keen participants in any social activity that was going.

Of special memory were the "500" card evenings, alternated between colleagues, many of them being held in the Warren household. There was, however, a much more serious side to Guyon. He was very concerned by injustice, and I can recall how upset he was when he returned from his trip to South Africa in 1964, having seen at first hand the suffering of non-whites under apartheid.

He was very caring and considerate, a good person to turn to at times of stress or adversity, as he had the rare ability to listen to a tale of woe with sympathy and patience. It was rare to hear him say an unkind word about anybody (some politicians excluded!).

He will be sadly missed by all fortunate enough to have known him.

By Malcolm Laird

VIRGINIA FIENNES

9 July 1947 -
20 February 2004

Virginia "Ginny" Fiennes died of cancer, aged 56, on 20 February 2004.

Ginny's husband, the polar explorer Sir Ranulph "Ran" Fiennes led many expeditions through both hot and cold deserts, but Ginny was highly respected in the world of polar exploration in her own right.

Ginny was born Virginia Frances Pepper near Lodsworth, West Sussex, the third of four children of Tom and Janet Pepper, whose family had, for 300 years, owned and worked the Amberley chalk quarries on the South Downs. She was only nine when she met Ran. They married in 1970.

In 1972 she suggested an attempt to circumnavigate the world along its polar axis.

She was Britain's most experienced polar radio operator, trained by expert Jack Willis at the Royal Aircraft Establishment, and she was also a member of the WRAC Territorials.

In 1985 she became the first woman to be invited to join the ranks of the Antarctic Club, and, two years later, the first to receive the Polar Medal from the Queen in recognition of her work for the British Antarctic Survey and Sheffield University. Lady Virginia Twisleton-Wykeham-Fiennes, explorer. Born 9 July 1947; died 20 February 2004.

Extract from obituary published in *The Guardian*, March 4 2004.

Tribute to Worsley unveiled

Writer and Society member John Thomson stands before the bust of famed New Zealand seaman and navigator, Frank Worsley. The impressive work, shaped by Christchurch sculptor, Stephen Gleeson and commissioned by the Friends of Akaroa Museum, was unveiled in Akaroa, NZ, on 6 March 2004.

Worsley, captain of Sir Ernest Shackleton's ship *Endurance* for the Imperial Trans-Antarctic Expedition of 1914-17, was born in Akaroa in 1872. When *Endurance* was trapped and

later demolished by ice in the Weddell Sea in 1915, Worsley displayed his outstanding knowledge of small boat sailing-honed first on Akaroa Harbour-and his gifted navigation. Worsley guided Shackleton and the crew in three lifeboats to Elephant Island and then in the *James Caird*, a boat which Worsley had designed, he navigated a small party of six men many hundreds of miles across Drake Passage to the island of South Georgia, leading to the ultimate rescue of the entire Weddell Sea party of 28 men. Worsley died in England in 1943. In order to pay tribute to Worsley and preserve his memory, a fund was set up in Akaroa to raise money to commission some appropriate work. The result is the bust of Worsley which now sits on a plinth made up of Antarctic rocks which were once part of the ballast of a government vessel engaged in Antarctic work. The rocks were preserved by Society veteran, the late Arthur Helm, in his garden in Wellington. John Thomson learned of the rocks and contacted Akaroa Committee member John Clarke, whose Wellington family dug them from the Helm garden and shipped them to Akaroa.

They were later shaped by a Timaru stonemason into the plinth on which the bust is cemented. The day of the unveiling was a blustery day with a cold southerly keening along the waterfront. The sort of day, speakers noted, that Worsley would probably have thought ideal for a



John Thomson unveils Frank Worsley bust in Akaroa, New Zealand.

harbour sail! As invited guest of honour John Thomson lifted the flag to unveil the bust he congratulated the people of Akaroa for "bringing Frank Worsley home." Indoors the writer talked more about the remarkable work of Worsley. Other speakers at the Akaroa unveiling were historian and Emeritus Curator, Baden Norris, former Akaroa Museum Curator, Steve Lowndes and the Banks Peninsula Mayor, Bob Parker.



Frank Worsley bust by Christchurch sculptor Stephen Gleeson.

By John Thomson

"Year Away"

"Year Away" : By Graham Turbott.
 DOC Science Publishing (Department of Conservation) 2002.
 PRICE NZ \$35.
 Reviewed by Aaron Russ.

Aaron Russ has made many visits to Antarctica & New Zealand's Sub-Antarctic Islands working for Heritage Expeditions on their Sub-Antarctic and Ross Sea Region cruises. He also recently completed a BSc Honours degree in Zoology, and is planning to continue in research.

This book was remarkably easy reading, something which is not always the case with personal historical narratives. While it is about the World War II coast-watching activities on the Auckland Islands, and as such, does not deal specifically with the Antarctic Continent, it is still very relevant for all those interested in things Antarctic.

The sub-Antarctic Islands have always played an important role in the history of Antarctica, this is also true of the "Coast-watching Era" with many of the men and experiences later contributing in New Zealand's early Antarctic work especially through the guidance and leadership of the local scientific community.

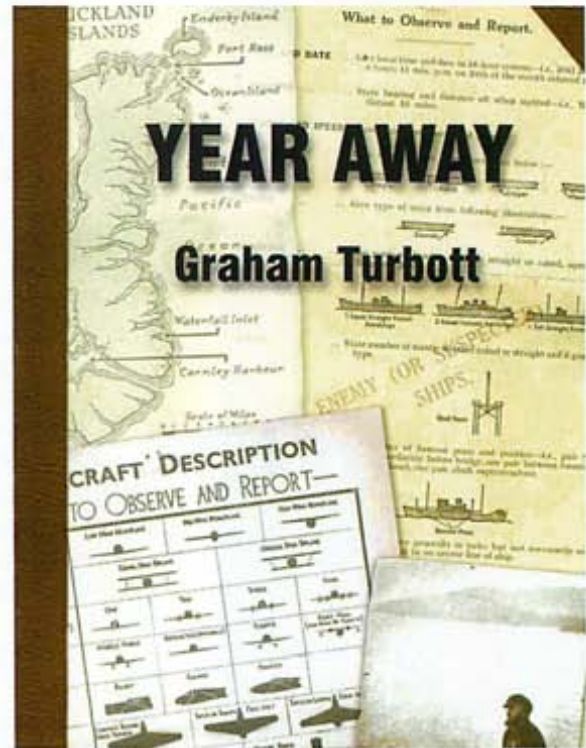
Graham Turbott spent a year based at the Auckland Islands in 1943-44, as a meteorological observer and surveyor's assistant as part of the 'Cape Expedition' which monitored the harbours of Auckland and Campbell Islands from 1941-45 for the presence of enemy shipping. The book naturally divides into three sections dealing with the authors very different experiences, the first essentially station bound while working as a meteorological observer at the Ranui Cove station in Port Ross. I found this section perhaps the most informative as it dealt with the daily routine of life on a sub-Antarctic coast-watching station.

This is a something which must have represented the reality of most coast-watchers sub-Antarctic experience and yet is a subject on which relatively little has been written. Despite the fact that the coast-watching stations are not as old or internationally significant as the huts from the heroic period in Antarctica, they are now over 50 years old and until only a few years ago it was possible to see the huts much as they were when abandoned.

As the huts slowly decay along with their coast-watchers, and artifacts are removed for preservation elsewhere, this readable first-hand account by Graham Turbott is very timely indeed.

The second section describes the author's work in the latter part of his year as a surveyor's assistant working with Allan Eden to complete the mapping and triangulation for the southern part of the Auckland Islands centred on Carnley Harbour.

The work of surveying the Auckland Islands has been described previously in "Islands of Despair" by Allan Eden, and Turbott's account serves to emphasize the many



difficulties originally described by Eden of attempting to survey under the type of weather conditions which are prevalent in the Southern Ocean, but also shares the enjoyment of the rare good days when the weather cleared and new discoveries were made.

The final section concentrates on the natural history of the Auckland Islands, with a paragraph or two on most of the vertebrates found in the area as well as the geology and flora of the Islands. The information in this section comes from observations made during the Cape Expedition as well as more recent observations. This section presented a lot of valuable information which has not previously been presented in a format which is easy to access. I felt that this section could have been built into a book in itself.

I would recommend "Year Away" for those who are already well read in sub-Antarctic literature as it presents a new angle along with much previously unpublished material. If however you aren't well-versed in the history of the Auckland Islands and the "Cape Expedition" in particular, this book represents as good a starting place as any for an exploration of this fascinating area and period. I should also mention the many historical photographs which are liberally interspersed throughout the book and which I found very interesting.

Ross Dependency Stamp Issue

Strange and beautiful animals from the floor of the Ross Sea region of the Southern Ocean, seen only by divers who have to penetrate a layer of thick sea ice, feature on New Zealand Post's latest issue of Ross Dependency Stamps released 1 October 2003. The five stamps were designed by Chrome Toaster of Wellington, New Zealand and printed by Caror Security Printing, France.

Red Seastar - 40c

The Red Seastar, or *Odontaster validus*, is the most abundant of the seastar species. It grows up to seven centimetres from centre to arm tips and is easily identified by the way it rests with the arm tips slightly raised – a warning to its prey, which include sea urchins, McMurdo sponges and other seastars.

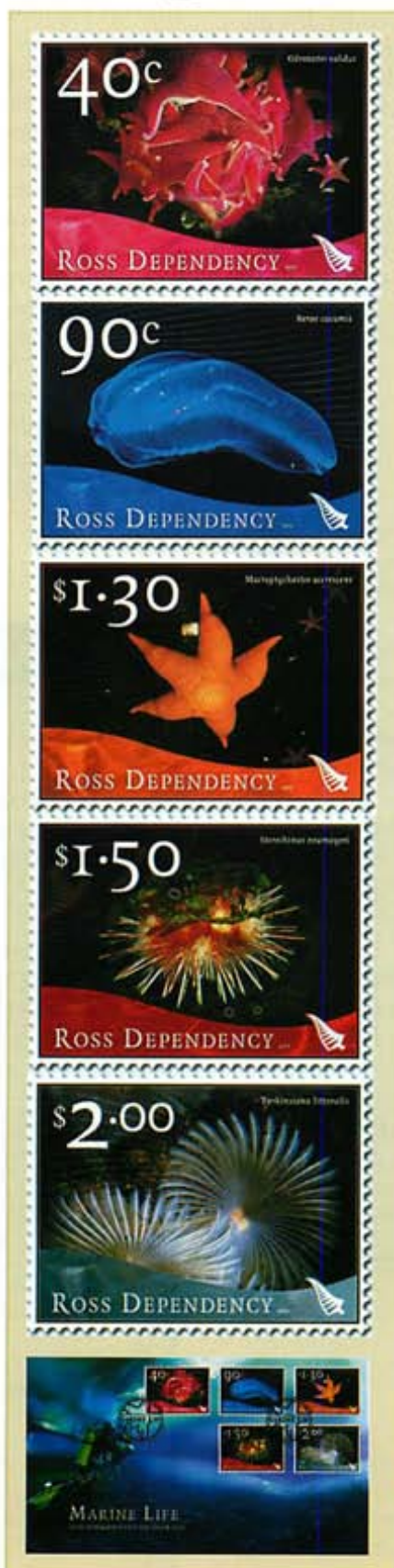
Sea Gooseberry or Comb Jelly - 90c

The Comb Jelly, or *Beroe cucumis*, related to the group that contains the corals and sea anemones, is sometimes mistaken for a jellyfish because it floats freely through the ocean.

Made up of more than 95 percent water, these oval-shaped creatures have no bones or shells to weigh them down – they simply beat the tiny comb-like plates along their bodies to propel themselves along, and use their tentacles to capture food.

Giant Seastar - \$1.30

The Giant Seastar, or *Macroptychaster accrescens*, lives deep beneath Antarctic sea ice and grows up to 26 centimetres in radius (from centre to arm tip). In this low-food environment, the seastar produces non-feeding larvae – which develop on stored yolk to ensure their survival. The growing larvae have an orange hue, with darker brown bands across the arms and brown markings on the central disc.



Sea Urchin - \$1.50

With its spiky exterior, the Antarctic Sea Urchin, *Sterechinus neumayeri*, makes a spectacular sight on McMurdo's sea floor, moving along using its spines and sucker-tipped tube feet.

The pointed spines also play a role in the sea urchin's personal defence system, for it uses them to attach camouflage to itself (bits of shell and debris) – to escape its predators.

Fan Worm - \$2.00

Sometimes called the 'featherduster worm', the Fan Worm, or *Perkinsiana littoralis*, grows up to 20 centimetres long and can be found at depths of up to 800 metres.

The spectacular radiating feathery crown is a food-gathering net for the worm's suspension feeding habit – the outspread radioles carry small food particles down to its central mouth.

First Day Cover

A hardy diver ventures into the depths of McMurdo Sound below a layer of sea ice.

The temperature of this watery environment averages an icy -1.8 degrees Celsius.

For the past eight years, New Zealand Post has sponsored postgraduate scientific research in Antarctica with an annual Science Scholarship. Research has covered topics as diverse as glaciers, beach development and sea ice formation to penguin antibodies and the thermal properties of Antarctic enzymes.

22 March 2004

Dear Sir

When reading in the recent "Antarctic" journal, of the proposed cat memorial to Mrs Chippy (Vol 21, page 62) I was very surprised, that no mention was made of Baden Norris who instigated the whole idea.

Baden wrote to his friend Caroline Alexander, the author of "Mrs Chippy's last Expedition" with the idea that a cat should be incorporated in Harry McNish's tomb stone. She thought it was a great idea and so the plans went ahead.

From the item in Vol 21, it would appear that the Antarctic Society and in particular the Wellington Branch have taken on the idea as their own. I hope that in the next journal Baden Norris will receive acknowledgement of the part that he played and that any news material connected with the unveiling etc. will give him the full credit that he deserves.

Yours sincerely,
Robyn Gosset

Editor's reply:

Thank you for the letter which acknowledges the suggestion made by Baden Norris regarding a statue of Mrs Chippy, a copy of your letter was sent to the Wellington Branch for consideration.

The idea to improve McNeish's grave and to highlight the high regard held for Mrs Chippy has been discussed for many years.

It is only through renewed, dedicated efforts, by the Wellington Branch in particular, that the project looks as if it will successfully come to fruition.

However, even as recently as 2003 Baden Norris was prompting the Society to take action. Below is a letter from him to the then President of the Society regarding Mrs. Chippy.

Just two additional points:

1. The new Editor is a woman (as was the past Editor) so while "Dear Sir" letters will be responded to, "Dear Editor" is far better from my perspective! Letters to the editor can be sent via email to: editor@antarctic.org.nz

2. Some of you may have noticed two different spellings for McNeish, as the article in Vol 21 omits the "e" (McNish). This is not an error, however the Society long ago accepted the-then-unchallenged 'McNeish' version.

19 February 2003

Dr. Margaret Bradshaw
President NZ Antarctic Society

Dear Margaret

Further to our conversation recently re a project, which I am keen to pursue. Some time ago Caroline Alexander (of the Endurance book) sought my opinion re the placing somewhere in the UK of a larger than life sized statue of "Mrs Chippy".

You will recall that she wrote Mrs Chippy's Last Expedition. We have corresponded for some years since she learned that I had met James McNeish when I was a very young boy. Early last year I wrote to her to learn how her plans were progressing only to hear that she had not moved on the project being now involved with the making of a film on the mutiny on the Bounty. I had suggested that I felt if it did not cut across her plans a life-sized cat on the grave of McNeish in the Karori Cemetery in Wellington would be a great idea. I know she wrote to the Wellington Branch in support of this. I also wrote to Wellington to outline my idea but received no reply. Late last year I went to Wellington to examine the grave etc.

There is no obvious reason why we could not place Mrs Chippy in concrete or bronze on the grave. Permission from the Wellington City Council is needed but I am sure that will not be a problem. I spoke to Anthony Wright re this matter and he is in support.

Will the NZ Antarctic Society also give me the blessing I need to carry out this task? Better still, will it join me to achieve a result? The grave by the way needs a tidy up as the headstone has not weathered well. I look forward to hearing from you in due course.

With respect,
Baden Norris

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