

IceSked

Issue 9: December 2007

Newsletter of the Antarctic Research Centre
Victoria University of Wellington

In this newsletter we report with gratitude on the \$1m donation from Alan Eggers (VUWAE 20-1975/76) in June. Later that month, the ARC hosted a very successful VUWAE Reunion, celebrating 50 years of Victoria University of Wellington Antarctic Expeditions. We also welcome and introduce you to several new students.

\$1m donation to ARC

Victoria University geology graduate, Mr Alan Eggers, has generously donated \$1million to the Antarctic Research Centre to accelerate its research into past and future ice sheet behaviour in the face of global warming. He said he was delighted to be able to "give something back" to the University for his time on the ice as a member of the 1975 VUW Antarctic Expedition. Mr Eggers noted increasing concern from both scientists and the community regarding the response of the Antarctic to climate change, and thought more funding was required in this area to better understand the impacts and possible outcomes of continued carbon emissions on climate. He said, "The Centre is recognised as a world leader in this field of research and both the Centre and its researchers are positioned to make a major contribution to our knowledge on climate change".

The donation will be invested through the Victoria University Foundation and divided among three main areas: The Centre's Endowed Development Fund to support young Antarctic scientists; the development of Antarctic drilling technology; and to enhance the ice and climate modelling capability of the Centre.

ANZICE begins

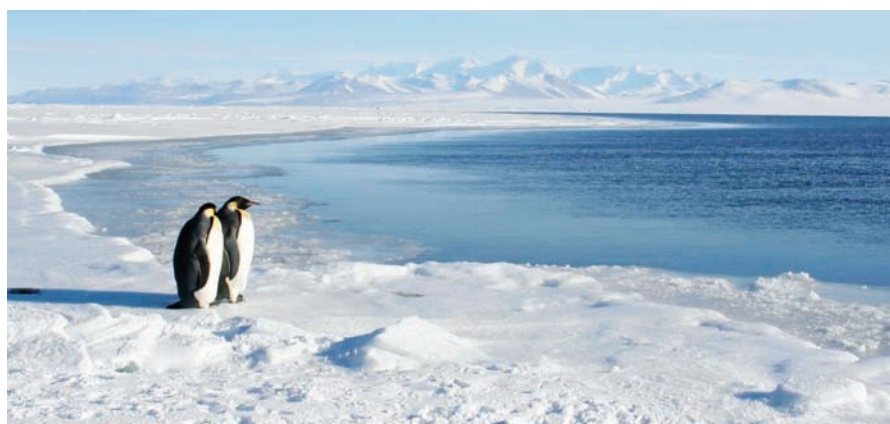
Under the present phase of warming climate, the behaviour of Antarctica and the Southern Ocean are of paramount concern to New Zealand and the rest of the world. Will ice shelves and sea ice decline and alter the global thermohaline circulation? Will the ocean's largest flow, the Antarctic Circumpolar Current, change its course and affect climate? To help provide answers to these and other basic questions, the Antarctic Research Centre was recently funded by the Foundation of Research Science and Technology to evaluate past warm periods. Named ANZICE (Antarctica-New Zealand Interglacial Climate Extremes, www.victoria.ac.nz/antarctic/research/anzice.aspx), the programme will use Antarctic ice cores, sediment cores from the Southern Ocean, and lake - glacier records from New Zealand to determine responses to past warm periods. Because the study focuses on pre-industrial times, when carbon dioxide was 36% lower than now, the research findings will need to be projected into the future via models. Using computer simulations that are verified by the observations, ANZICE will unravel potential responses of the Southern Ocean and New Zealand to rising greenhouse gas contents and temperatures. Not only will results appear in science journals but there will be an emphasis to translate the science into

understandable and available information to shape national policies and inform the public.

ANZICE has a blend of experienced and up-and-coming scientists. Nancy Bertler leads the ice core research assisted by Peter Barrett, Julia Bull, Alex Pyne and Rachael Rhodes. A Southern Ocean project is directed by Gavin Dunbar and supported by Joel Baker, Annette Bolton, Lionel Carter, Rosie Cody, Julene Marr and Tim Naish. The modelling is guided by Andrew Mackintosh along with Brian Anderson and Jeremy Fyke, while the development of policy is led by Sean Weaver. The programme leader, Lionel Carter, is pleased to have strong collaboration with GNS Science, ANDRILL, NIWA, overseas universities and Antarctica NZ.

Lionel Carter

Two Emperor penguins ponder the fate of the Ross Ice Shelf in a warming world



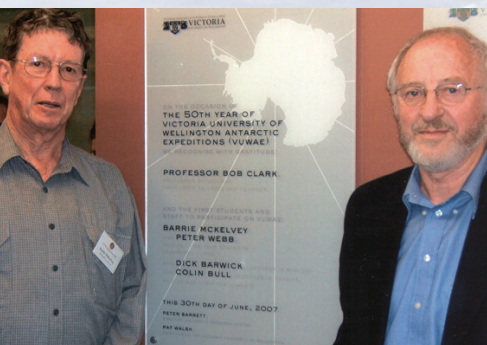


VUWAE Reunion 2007 attendees

In the Beginning

The thinking began in 1999, triggered by a post-conference slide show by Barrie McKelvey and Peter Webb in a Turkish restaurant on Dixon Street about their first trip to the ice. The Antarctic 50th anniversaries would be in 2007, so we organised a small planning group to ensure that VUWAE would have its own. Important groundwork was done through mailing lists compiled in 2004 by Dan Zwartz for the ARC Development Fund campaign and contacts made through Tamsin Falconer's work in assembling IceSked over the last 4 years. We were also encouraged by the reunion of VUWAE 8, who were last together in 1965, and the slides and memorabilia they shared with such enthusiasm 40 years on.

The organising committee met several times in the months leading up to the reunion to discuss the format of the weekend, the features and the timing. However, the serious work was done by Tamsin, handling the mailouts and responses, and then with Warren in putting together the wonderful collection of comments and photos that comprises the 48 page booklet entitled "The First 50 Years of Victoria University of Wellington Antarctic Expeditions - Recollections and Reunion Programme". This can be found in PDF format on our website at www.victoria.ac.nz/antarctic/about/news/index.aspx along with a list of expedition members from VUWAE 1-50, and photos of those who made it to the reunion.



Barrie McKelvey and Peter Webb in front of the commemorative plaque

We were especially pleased that the original four members of the first two expeditions could attend and regale us with stories of those early years. The spirited interchange between them continues as Colin Bull's forthcoming book entitled "Innocents in the Dry Valleys" takes shape. A plaque commemorating their efforts, along with the vision of Prof Bob Clark, was unveiled in the S. T. Lee Library.

I'm sure those of us able to attend found the occasion immensely enjoyable but also felt a little frustrated at the speed of its passing. On the other hand, it was long enough to be reminded of the unique quality of living on the ice, and the perspective it gives us for the rest of our lives. We would very much like to see or hear at some stage from those who were not able to come, and in the meantime we hope you can enjoy some of the occasion through the photographs on the website. We also have a lightly edited DVD of the dinner (including the

auction) that can be borrowed from the ARC office. We also sought a small number of photos from each of you for cataloguing and archiving in the University's Beaglehole collection. We have had a good response, but are keeping the offer open for those who may still want to contribute.

Peter Barrett



Colin Bull and Dick Barwick reminisce

The Weekend's Events

The Antarcitans arrived from North America, Australia and various towns across New Zealand to chinwag with those they had not seen for a while. Once a distant dream, the 50th Reunion of the VUW Antarctic Expeditions was fast approaching.

Several days before reunion weekend, Graham Gibson and Tony Allen (both of VUWAE 3) descended, unbeknownst to anyone, on the Antarctic Research Centre. Having not seen each other for at least 45 years, they accidentally met in the Bradley Library. With some difficulty, they recognized each other by process of elimination and geologic reasoning, and from then on we knew the weekend would be a success.



Tony Allen and Graham Gibson

Most of the reunionists who came from overseas checked in with the local authorities at the Stage 1 Geology lab. A last

The Dinner



minute request for auction items resulted in Colin Bull offering to put his old tent mate, Dick Barwick, on the block. The problem with this was the starting price, so we decided that Barwick should enjoy his dinner in peace or at least in the company of his devious mates.

Family, friends and Antarcticans gathered for a celebration dinner in the VUW staff club, with its impressive view of Wellington at night. Mike Hannah gave a brief introduction on the evening's events, and Peter Barrett reflected on the past 50 years of VUWAE. Then auctioneer Cliff Atkins reminded us that all proceeds from the sale of Antarctic memorabilia would go to the ARC development fund for students. Of the 8-10 items which were auctioned, Alan Cooper's winning bid of \$180 for a 1960's vintage meat bar was certainly memorable. Alan thought this price was a real bargain because, as a kid, he felt extremely guilty about eating his father's (Roger) last and coveted meat bar from VUWAE 4. The other significant item for the night was the wooden-handled ice axe from the 1950's that resulted in a

minor bidding war between Jenny Bennett and Gareth Morgan.

In anticipation of the after-dinner speakers, most of us probably can't remember what we actually ate for dinner, but we would generally agree that it was better than Antarctic field tucker. After a somewhat polite introduction by Dhires

Hansaraj, Dick Barwick and Colin Bull gave us the full story on what it was like to share a tent 49 years ago in the Dry Valleys. The banter was impressive, and Colin appeared to come out on top by virtue of leaving the microphone so high that Dick had to lower it each time Colin gave him the rare opportunity to talk. Deputy Director of the ARC, Tim Naish, finished the evening by reflecting on the evolution of Antarctic science and possibilities for the future. He then brought the evening to a close with a toast (whisky over some ancient Dry Valley glacier ice) to the next 50 years of VUWAE.



Mike Hannah introduces the night's events

The next morning about 40 Antarcticans returned to the Stage 1 Geology lab to recollect and reminisce for the day. Although many slides had been scanned, there were enough Kodachromes presented on the screen to remind us that Powerpoint

technology has only been around for a few short years. It was appropriate that presentations were given in order of seniority. This gave one the opportunity to obtain a sense of science transgression through the Dry Valleys and from this several trends were clear. Over the past 50 years, the landscape and people, bar the prominence of women scientists, had not changed. Camping techniques and transportation methods had seen minor changes, but science had seen the greatest change. Cliff Atkins showed us the modern big-science of the Cape Roberts and ANDRILL projects, and for contrast we were then taken back to VUWAE 1 and 2 by Peter Webb and Barrie McKelvey. Again the banter of yesteryear was hot and dry. There was no winner except for the audience, who, once again, was reminded that 50 years is a very brief period in the history of the Dry Valleys.

Warren Dickinson

Comments from the Crowd

“ A really memorable occasion, great to see people I haven't been in contact with for years!
Tony Allen, VUWAE 3

It was a great affair and most enjoyable - will treasure the wonderful booklet.
Graham Gibson, VUWAE 3

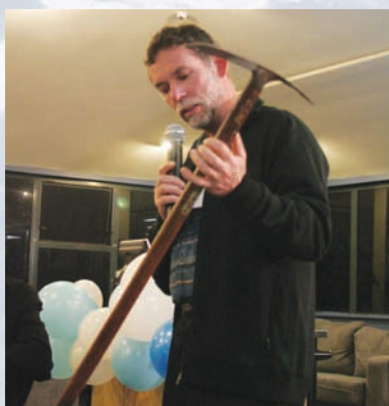
Sadly it all went too fast. However, we had time to reconnect changed faces with names and made renewed promises to stay in contact in coming years. A special thanks to the efforts put into honouring the VUWAE 1 and 2 group; we are all self centred people and love the attention!
Peter Webb, VUWAE 1, 2 & 13

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Roger and Alan Cooper with the "Meat Bar"

The Auction, hosted by Cliff Atkins, Julia Bull, Alex Pyne and Warren Dickinson



OTHER ACTIVITIES

Congratulations!



Tim Naish

Prof Tim Naish will be appointed as the new Director of the Antarctic Research Centre, taking over from Prof Peter Barrett who has been instrumental in building the ARC into the renowned research facility it is today. Tim will start the position in January 2008 and we look forward to working under his command. Peter will continue to work within the ARC and will also help the University develop a stronger focus on teaching and research on climate change issues. Peter's enormous contribution to both the Centre and the University's Antarctic research profile will be acknowledged in a "hand-over" ceremony in early 2008.

ARC researcher Gavin Dunbar has been awarded a Marsden Fast-Start grant for his work on the "Collapse of the Ross Ice Shelf in a Warmer World". This project will analyse the elemental composition of microscopic shells from the ANDRILL sediment core, recently recovered from beneath the McMurdo Ice Shelf (MIS) to reconstruct past temperatures in the Ross Ice Shelf during periods of stability as well as when the ice shelf collapsed.

MSc student Julia Bull won the New Zealand Post Antarctic Scholarship awarded by Antarctica New Zealand. This \$10,000 scholarship is for one season of logistics support for research in Antarctica. Julia's MSc research was highlighted in the previous issue of IceSked.

Antarctica: 50 Years on the Ice - "Just the Tip of the Iceberg"

This special 50 year anniversary conference hosted by Antarctica New Zealand and the Royal Society of New Zealand was held in Wellington on 2nd-6th July. The conference was opened by Minister of Science, Research and Technology, Steve Maharey, and had an average of 160 people turning up each day. Highlights included talks by Dr David Carlson, the UK-based director of the International Programme Office for International Polar Year (IPY); Professor Peter Webb's overview of Antarctic Earth Science History; and Dr Susan Solomon's presentation on Antarctic Atmospheric Research. The social highlights included a cocktail function held at the Duxton Hotel, while the conference dinner was held at Icon restaurant at Te Papa.

The ARC Welcomes New Students

Annette Bolton, PhD: Using Quaternary interglacial periods as an analogue for understanding the Holocene and future climate change.

Supervisors: Joel Baker (SGEES) and Gavin Dunbar (ARC)

www.victoria.ac.nz/geo/people/grads/annette-bolton/index.html



Jeremy Fyke, PhD: Modelling the sensitivity of the Antarctic ice/ocean system to climate change.

Supervisors: Lionel Carter (ARC) and Andrew Weaver (U Victoria, Canada)

www.victoria.ac.nz/antarctic/people/jeremy-fyke/index.aspx



Rachael Rhodes, PhD: Using ice trace element variability, to reconstruct the interactions of different atmospheric circulation regimes.

Supervisors: Nancy Bertler (ARC) and Joel Baker (SGEES)

www.victoria.ac.nz/antarctic/people/rachael-rhodes/index.aspx

Julene Marr, MSc: Changes in NZ sea-surface temperatures during the last deglaciation from laser ablation ICP-MS analysis of foraminifera.

Supervisors: Joel Baker (SGEES) and Lionel Carter (ARC)

Rory Mearns, MSc: Marine palynology of the McMurdo Ice Shelf Late Cenozoic drillcore.

Supervisors: Mike Hannah (SGEES) and Tim Naish (ARC)



Rosie Cody, PhD: An integrated study of paleoenvironmental evolution of major ocean/climate systems in the southwestern Pacific.

Supervisors: Tim Naish (ARC) and James Crampton (GNS Science)

www.victoria.ac.nz/antarctic/people/rosemary-cody/index.aspx



Heather Purdie, PhD: Relationships between glacier accumulation, climate, and atmospheric circulation, Southern Alps, New Zealand.

Supervisors: Andrew Mackintosh (ARC/SGEES) and Brian Anderson (ARC)

www.victoria.ac.nz/antarctic/people/heather-purdie/index.aspx

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