

Access Antarctica



Issue 39

Gateway Antarctica: Centre for Antarctic Studies and Research

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Directors Report

Although we are reaching the end of a calendar year, and have just enjoyed a wonderful Gateway Antarctica end of year reception at the *Heart of the Great Alone* the Scott, Shackleton and Antarctic Photography exhibit at the Robert McDougall Gallery at the Canterbury Museum, it is by no means a quiet period for our Antarctic research centre. The very opposite is in fact closer to the truth. Our Post Graduate Certificate in Antarctic Studies (PCAS) is in full swing with, as usual, an amazing group of 16 dedicated participants eagerly looking forward to their 10 day Antarctic experience. We are also, for the first time delivering a fully 'on line' Antarctic summer course, ANTA 101. This initiative has exceeded our expectations with over 250 students enrolled including some

enrolling at the University of Canterbury specifically to take this course. We are working on making this course available to students around the world for next year.

Some of our researchers are already in Antarctica, others are busy preparing for their field season. This year we will have five research teams operating in Antarctica: Wolfgang Rack and his team are currently on the historic Beardmore Glacier investigating the dynamics of the major outlet glacier; we have a team in the Dry Valleys investigating the links between their biodiversity and the physical characteristics of the landscape; Ian Hawes, a new staff member at Gateway Antarctica, is also leading a team in the Dry Valleys investigating their aquatic ecosystems.

In January I will also visit the Beardmore Glacier area as part of our biocomplexity project, and Adrian McDonald and his team will deploy an environmental sensor network on the McMurdo Ice Shelf in January. We wish these teams a safe and successful field season.

Finally, I want to take this opportunity to thank all the many people who have contributed to our multidisciplinary teaching and research programme during 2010. We rely on a large number of people to deliver our unique portfolio of multidisciplinary courses and our research programmes.

With best wishes to all our readers for Christmas and 2011

Professor Bryan Storey, Director

Visitors to Gateway Antarctica



Erskine Fellow Denzil Miller

Gateway Antarctica is delighted to welcome Professor Denzil Miller as a visiting Erskine Fellow from mid November to the end of December to

assist with our Post Graduate Certificate in Antarctic Studies. Denzil has a PhD in marine biology from the University of Cape Town and is a Research Professor at the Institute for Marine and Antarctic Studies, University of Tasmania, Hobart and a Professorial Fellow at the University of Wollongong's Australian National Centre for Ocean Resources and Security (ANCORS). He was employed by the South African fisheries department (recently Marine and Coastal Management) for 23 years. Denzil served as the Executive Secretary of the 25-nation Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)

(2002-2010) and chaired the United Nations Food and Agriculture Organisation's (FAO) Regional Fisheries Bodies Secretariat Network from 2003 to 2008. Denzil was awarded the South African Antarctic Medal and BP Antarctic Award in 1995, as well as the prestigious Duke of Edinburgh Conservation Medal in 2007 for his contribution to Antarctic conservation and management.

He recently gave a very informative public lecture on the globally damaging practice of illegal, unreported and unregulated (IUU) fishing. He showed where and why IUU fishing occurs as well as its potential effects. Growing pressure on fisheries resources and the scope of IUU fishing operations pose particular challenges to bringing such fishing under control so as to mitigate its depredatory effects. Experience gained in the Southern Ocean was used to highlight the enforcement and compliance techniques which have been used to combat IUU fishing for Toothfish in the region. The potential role of new, and future, technology was discussed in this context.

Visiting Interns

Christoph Rehse has been working on environmental management from July to December this year as a visiting intern at Gateway Antarctica. Christoph acquired his Bachelor of Science degree in biological diversity and ecology at Georg-August Universität in Göttingen, Germany. He currently resides within the Double Degree Masters program "International Nature Conservation" at Lincoln University. He completed a project with Dr Daniela Liggett of Gateway Antarctica on "Impact assessment of visitors landing in the Antarctic Peninsula Region".

Tanja Dallafor is also a visiting intern at Gateway Antarctica from November 2010 to April 2011. She acquired her Bachelor in Environmental Sciences at ETH Zurich in Switzerland and is currently enrolled there as a postgraduate student of Environmental Sciences, majoring in Atmosphere and Climate Sciences. At Gateway Antarctica, Tanja is working on a project concerning surface winds in the Darwin-Hatherton glacial system under supervision of Dr Peyman Zavar-Reza. Using measurement data as well as model output from the Polar Weather Research and Forecast Model, she is investigating the processes governing the winds in that region.

New Staff

Gateway Antarctica is delighted to welcome Dr Ian Hawes to a part time position in conjunction with the Waterways Centre at the University of Canterbury. Ian brings considerable limnological expertise to Gateway Antarctica and will lead the field project on Antarctic Inland Aquatic Ecosystems with NIWA (K081) during November and December 2010. Ian has many years of experience in Antarctic research with the British Antarctic Survey and NIWA.

Adjunct Appointment



Dr Neil Gilbert

Gateway Antarctica is pleased to announce the appointment of Dr Neil Gilbert as an Adjunct Senior Fellow to Gateway Antarctica to assist in the development of environmental research at the centre. Neil has

worked on polar matters for the last 25 years and been involved with Gateway Antarctica for several years.

In 1985 Neil joined the British Antarctic Survey as a research scientist completing his PhD on near-shore marine ecology in 1991. For the field component of his research, Neil spent 2.5 years living and working at the British Antarctic Survey's Signy Island research station. Between 1991 and 1994 Neil continued his association with Signy as permanent Base Commander for the station.

After a period working for the UK's Ministry of Agriculture, Fisheries and Foods on marine impact studies, Neil was appointed to the position of Deputy Head of the Polar Regions Unit in the Foreign and Commonwealth Office in 1997. In that capacity Neil represented the UK at meetings of the Antarctic Treaty and its Committee on Environmental Protection (CEP). He also represented the UK at several Arctic Council Senior Arctic Official and Ministerial meetings.

In 2003 Neil immigrated to New Zealand joining Antarctica New Zealand as Environmental Manager. In this capacity he has continued to attend meetings of the CEP as New Zealand's representative. In 2006 Neil was elected to the Chair of the Committee and has just completed his four year term in that capacity.

Antarctic Scholarships

The following Antarctic scholarships are now available for University of Canterbury students as follows:

MFAT Ross Dependency Scholarship (\$5,000) is tenable for up to one year by a candidate who, during the tenure of the scholarship, is studying for a PhD or is in the thesis year of a Master's degree at the University of Canterbury in an Antarctic-related topic. Application deadline has been extended to 31st December 2010.

Christchurch City Council Antarctic Scholarship (\$10,000) is a one year scholarship for a University of Canterbury student to carry out postgraduate study at Masters or PhD level in Antarctic Research with one season of logistical support provided by Antarctica New Zealand. Application deadline is 1st March 2011.

Scott Polar Centenary Scholarship.

The Rutherford Foundation, Antarctica New Zealand and the Cambridge Commonwealth Trust are supporting a PhD scholarship to study at the University of Cambridge in the United Kingdom. The scholarship is to commemorate 100 years since Captain Scott's scientific and exploratory expedition to the South Pole. The Scholarship will be hosted by the Scott Polar Research Institute, Cambridge and will enable an outstanding scholar to study polar sciences with potential for on-ice activities supported logistically by Antarctica NZ.

Marsden success for Antarctic researchers

Congratulations to Dr Adrian McDonald (Physics and Astronomy) who is a co investigator on a successful Marsden funded project with Dr Craig Rodger from the University of Otago. Craig is leading a Marsden Funded team (\$805,000 over 3 years) to study the impact of energetic electrons from space striking the polar atmosphere, in a project entitled: *Evaluating the Impact of Excess Ionization on the Atmosphere*. Well done Adrian. Professor Bryan Storey is also a named contributor to the successful FastStart Marsden of Dr Charles Lee from the University of Waikato who has been granted a total of \$300,000 over three years for a programme titled: *Microbial diversity in the extreme: abiotically driven biocomplexity in the Antarctic Dry Valleys*.

Research Grant

Congratulations to Dr Wolfgang Rack for having obtained funding of \$3,000 from the Royal Society of New Zealand International Mobility Fund. The funds are to travel to China in 2011 to develop a combined research project on precise ice flow measurements on Antarctic outlet glaciers using a GPS network. Professor Bryan Storey also visited the Chinese Antarctic Centre of Surveying and Mapping at Wuhan University and the Polar Research Institute of China in August to develop collaborative research links with Gateway Antarctica.

Postgraduate Certificate in Antarctic studies

This years' Postgraduate Certificate in Antarctic studies got off to a great start with 16 students successfully completing an outdoor first aid course and a two day field training camp at Cass near Arthur's Pass. Students are now well into the programme and will be travelling to Antarctica on the 17th December. Once in Antarctica they will be involved in a range of

scientific studies and environmental monitoring projects as well as celebrating Christmas Day at their field camp. In mid January the students will be giving public presentations on Tourism in Antarctica including topics such as; should the Ross Sea be a marine protected area, imposing values on Antarctica and climate change and ecosystem management in Antarctica.



PCAS students

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