





# Chronicle

University of Canterbury • Te Whare Wānanga o Waitaha

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## INSIDE YOUR Chronicle

-  Members of the European Parliament visit NCRE.
-  Young Vietnamese student takes top honours.
-  DNA test may hold key to saving frogs.
-  Canterbury University Press releases *Deep New Zealand*.

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- 7 MAR 2003

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## Warm Canterbury welcome for new VC

Canterbury's new Vice-Chancellor, Professor Roy Sharp, says the University has "an enormous reservoir of creativity, energy and talent".

"We need to pool all of that, to all work together to make this a vibrant, friendly, financially-secure institution where morale is high and the sky's the limit," Professor Sharp said.

The comments came as Professor Sharp was officially welcomed on to the campus on Monday.

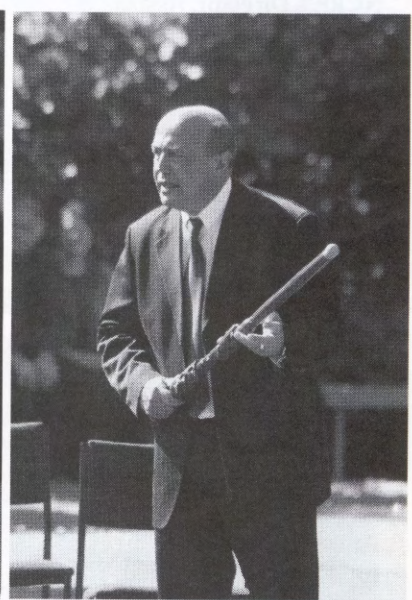
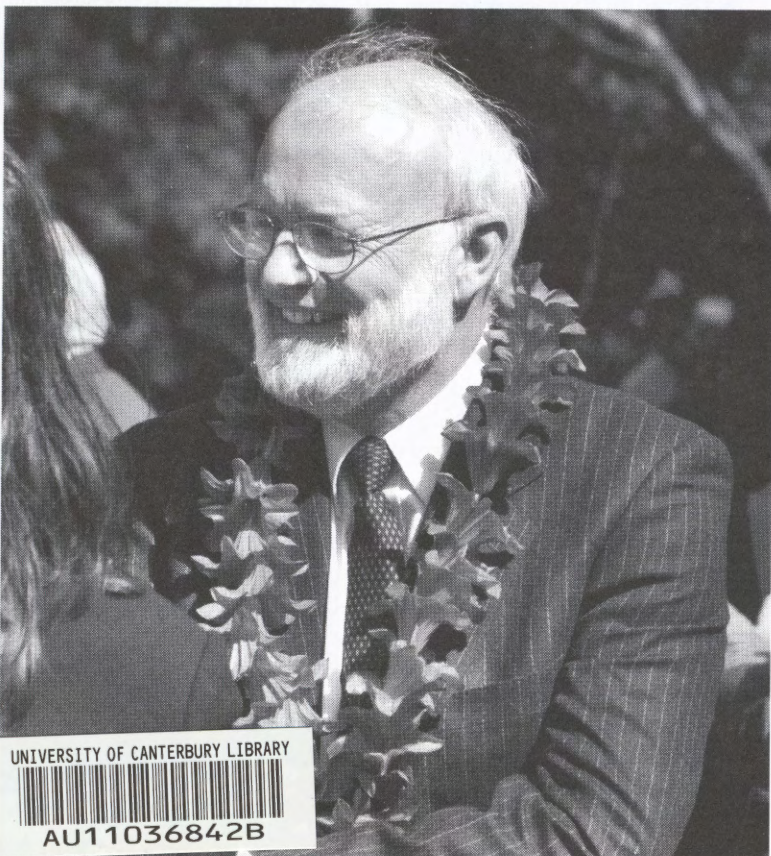
Professor Sharp was "handed over" to the University by colleagues from Victoria University including Chancellor Rosemary Barrington and Vice-Chancellor Professor Stuart McCutcheon.

The ceremony, held on the grassed area in front of the Central Lecture Theatres, attracted hundreds of staff and students. Leading the Powhiri was Bevan Tipene-Matua from Canterbury's Maori department. Responding on behalf of Victoria University was Piri Sciascia, Assistant Vice-Chancellor (Māori).

Professor Sharp had a special message for staff. "If we want to give the students what they need and deserve, if we want to serve our various communities as we ought to serve them, then we need to be united and responsive to change, clear about what matters and what doesn't."

Professor Sharp noted that while nature has a rebirth in spring, for universities rebirth was in autumn with the arrival of a fresh group of students. "It is particularly appropriate for me to arrive, therefore, on the first day of autumn.

"Being a student was a wonderful time for me and to a significant



Photos by Duncan Shaw-Brown, C&D

Canterbury's new Vice-Chancellor, Professor Roy Sharp, was welcomed on to campus by his new whanau. Victoria University's Assistant Vice-Chancellor, Piri Sciascia (top right), responded in the Powhiri.

extent, it made me what I am now. I have tried, over my career at university, never to lose sight of that. We are here for the students; we're here to make them into what they can be."

Chancellor Barrington congratulated Canterbury on its choice of Vice-Chancellor. "We know you have chosen well." She described Professor Sharp's six years as Deputy Vice-Chancellor at Victoria as a rehearsal for the leadership role he had now assumed at Canterbury.

Professor McCutcheon said Professor Sharp was "much loved"

by his colleagues such as the regard in which he was held.

"We have come down today not only to hand him to you but to also make sure you are aware of his importance to us and to ask you to take good care of Roy and (his wife) Bev. They are important members of our family and although today they join your family they remain, nonetheless, dearly loved friends and colleagues of ours. We hope you will give them every opportunity to succeed at this university."

Canterbury's Chancellor, Dr Robin Mann, said it gave him great

pleasure to accept, on the University's behalf, the taonga (treasure) of Professor Sharp. He said the Council, staff, students and the University community at large were all looking forward to working with Professor Sharp.



# European politicians impressed by research programme

**F**ive members of the European Parliament visited the University last week to learn first hand about the work being carried out by the National Centre for Research on Europe.

Robert Sturdy (UK), Giles Chichester (UK), Joke Swiebel (Netherlands), Mikko Pesala (Finland) and Mario Mauro (Italy) all serve on the parliamentary committee responsible for relations with Australia and New Zealand and were in the country on a five-day fact finding visit.

NCRE's Director, Associate Professor Martin Holland, said the visit was a tremendous success as it allowed the centre to showcase its research.

Last year the European Commission gave the NCRE a \$500,000 grant for a three year pilot study. Professor Holland said the money was being split three ways with a third going towards scholarships, a third to fund research projects and a third to fund events and conferences.



Chancellor Dr Robin Mann addresses visiting European dignitaries and staff and students of the NCRE.

The visiting MEPs heard details of the centre's three main research topics: how the EU is perceived in NZ; the impact of EU enlargement; and EU development policy in the Pacific. Post-graduate students also had the opportunity to outline their thesis abstracts and answer questions.

Mr Chichester said he was very impressed with all he heard. "One could be excused for thinking that the EU is a long way away and that it would be difficult to find things that are relevant to us both and that

people would be scratching around for subjects. This is clearly not the case. I'm impressed with the sophisticated research projects, all of which showed significant relevance and were well thought out. I look forward to hearing more."

Thanks to the EC funding, the NCRE is now able to offer an intern programme which gives two students a year the opportunity to work for three months in the office of an MEP. Scott Willis, a PhD student at the University of Otago, is currently in Brussels and in

September it will be the turn of Canterbury Masters student Lucy Cassel.

The funding has also allowed the NCRE to stage its Europa Lecture series. This year's guest lecturer is European Commissioner Chris Patten who is responsible for external relations. Mr Patten will present his lecture in Wellington on April 22 and in Christchurch on April 23.

## Key appointment

**Geoff Pearman, Director of the Centre for Continuing Education, has been appointed to the Tertiary Education Commission Adult and Community Education Reference Group for a three year term.**

The seven-member reference group will advise the commission on the development of the adult and community education sector. The reference group is one of the first established by the TEC and follows on from the Government-endorsed ACE Working Party Report.

Mr Pearman said he was delighted to be involved in such a broad sector group and looked forward to helping raise the awareness of the importance of adult and community education.

TEC Chairman, Dr Andrew West, said the reference group would act as a key advisory partner to ensure the successful implementation of the ACE Working Party Report and would help the commission develop and maintain strong relationships with the community education sector.

## Council news

### At the February 26 meeting of the University Council:

- A proposal for a Department of Modern European Languages and Cultures was referred to the Academic Board for comment. The proposal envisages a common administrative unit bringing together offerings in French, Russian, German and Spanish.
- The current flat, degree-based tuition fee paid by international students will be capped at 1.24 EFTS, with students paying on a proportional basis if they take more than that level. Thus an undergraduate international student doing a load of 1.3 EFTS would pay 1.3 times the relevant flat fee for the degree. The change was prompted by the effect the flat fee was having, encouraging some students to enrol in more courses than they could successfully handle.
- In his report to Council, Acting Vice-Chancellor Professor Bob

Kirk reported the formal establishment of the Tertiary Education Commission on January 1 and noted the Christchurch office currently has a staff of 12; outlined the new arrangements for Gender Studies, which is now administered as a unit within the American Studies Department; advised that progress had been made in planning for the appointment of an Interim Head of the new School of Biological Sciences; announced that the Christchurch City Council would be meeting at the University at the end of April as a result of talks he had held with the Mayor and Professor John Raine, Pro-Vice-Chancellor (International), had held with the Canterbury Development Corporation and commercial leaders.

- Professor Kirk also announced the appointment of Mr Des Bull as the Holcim Adjunct

Professor in concrete design in the Civil Engineering Department, co-funded by the cement firm Holcim Ltd. He welcomed the naming rights development and said it was the sort of appointment he expected to see more of in future. Professor Bull will spend one third of his time working for the University.

- Council recorded its warm appreciation of the services to the University and to Council of Professor Kirk in his role as Acting Vice-Chancellor, from September 9, 2002 to February 28, 2003, and looked forward to working with him in future in his continuing role as Deputy Vice-Chancellor. He was also thanked for his commitment to maintaining the momentum on the important issues of a new academic organisational structure, the financial recovery plan, and the TEC reforms, including the Charters and Profiles exercise.

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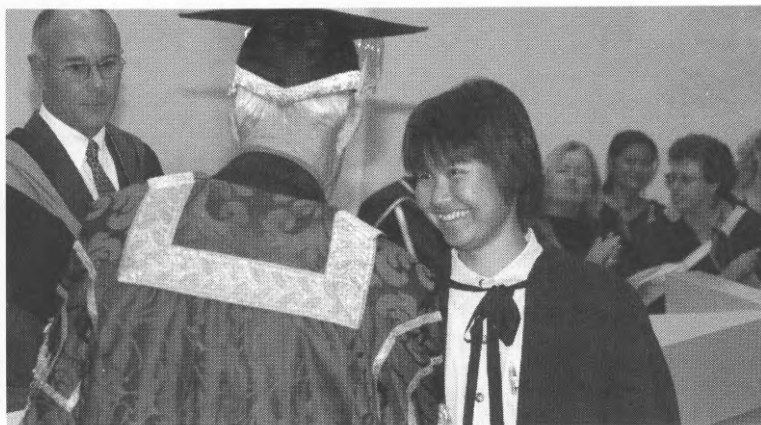
# Youngest student takes top honours

**V**ietnamese student Nguyen Phan Tu Tam has graduated top of the year in the Foundation Studies Programme.

Aged just 17 when she began in the June 2002 intake, Tam was first in physics, chemistry and English and a close second in mathematics.

Foundation Studies Programme Manager Ian Masters described Tam, the youngest on the course, as a "whiz kid" who achieved an average grade of A+ across her five subjects.

"On the basis of her outstanding results she has been admitted directly to 200 level papers in physics, chemistry, astronomy and mathematics. She has also been awarded one of the University of Canterbury's international undergraduate scholarships."



Nguyen Phan Tu Tam receiving her certificate from Chancellor Dr Robin Mann.

Tam used the internet to research universities in the US, UK, Canada, Australia and New Zealand and settled on Canterbury because of its astronomy department. She heard Mr Masters speak at a seminar in Ho Chi Minh City in 2002 and was impressed with the programme.

The June intake allowed Tam to begin the course just 10 days after finishing her high school exams.

One hundred and twelve students passed the Certificate in Foundation Studies with 80 attending the graduation ceremony on February 20. Taking part in his first graduation ceremony as Chancellor, Dr Robin Mann presented the certificates.

The Foundation Studies programme is designed to prepare international students for degree study and focuses on degree entry qualifications and educational skills. To pass the course students have to meet English language entry requirements. Most of the graduates this year were Chinese, although the class also included students from Vietnam, Afghanistan, Japan, Korea, Somalia and Singapore. The majority of graduates will continue degree study at Canterbury this year.

## Third award of Wakefield Scholarship

Anthony Smith, a Timaru Boys' High School old boy and member of the National Youth Brass Band, is the third recipient of the Jim Wakefield Scholarship to the University of Canterbury.

Established by Timaru Boys' old boy Jim Wakefield, the scholarships are open to students at Timaru Boys' and provide \$3000 per annum for three years.

Anthony, who will study for a Bachelor of Commerce degree in accountancy, was delighted to have been awarded the scholarship.

"It's going to make a massive difference; I won't be burdened as much with a student loan," he said.

## New appointment



Dr Simon Clarke has returned to Canterbury as a lecturer in Philosophy and Religious Studies. Dr Clarke was here on a fixed term lectureship in Political Science from July 2001 to February 2002 and lectured in philosophy in the second semester of 2002. After graduating from Auckland University, Dr Clarke gained his PhD (politics) from the University of Oxford. His thesis title was: *State Paternalism and the Neutrality-Perfectionism Debate*.

## Cycle security stepped up



Sean McKeogh, a third year commerce student, checks out the new secure bike area behind C Block.

The finishing touches are being made to two new secure bike parks on campus.

Cyclists will be able to lock their bikes behind electronic gates using their Canterbury Card for access. Closed-circuit cameras will also monitor the area, adding to the secure environment.

Director of Facilities Management, Peter Molony, said the secure parks were part of the University's overall transport strategy, with revenue from the parking permit system being redirected into new initiatives such as the secure bike parks.

"The feedback, previously gained from the consultation process with the University community prior to the strategy being adopted, showed that more people would cycle to the University if cycle parking was more secure," Mr Molony added.

The secure parks are located to the west of the law building and directly behind the central lecture theatres. A third secure park will be opened next term by the science lecture theatres. A fourth, by the School of Engineering, is planned for next summer.

## Roll up on 2002

Enrolments had reached 11,184 by the end of February, nearly 500 students up on the same time last year.

Enrolment increases in Summer programme courses, Foundation Studies and in international students have all contributed, along with some growth in domestic student numbers. First-year enrolments are also up.

Enrolment closes on 7 March. Definitive EFTS figures and tuition fee income will be available at the end of March.

# A world first for Canterbury's environmental standards

**T**he University has achieved awarded a Green Globe 21 Benchmarked Certificate for developing as a convention facility at the highest environmental standard.

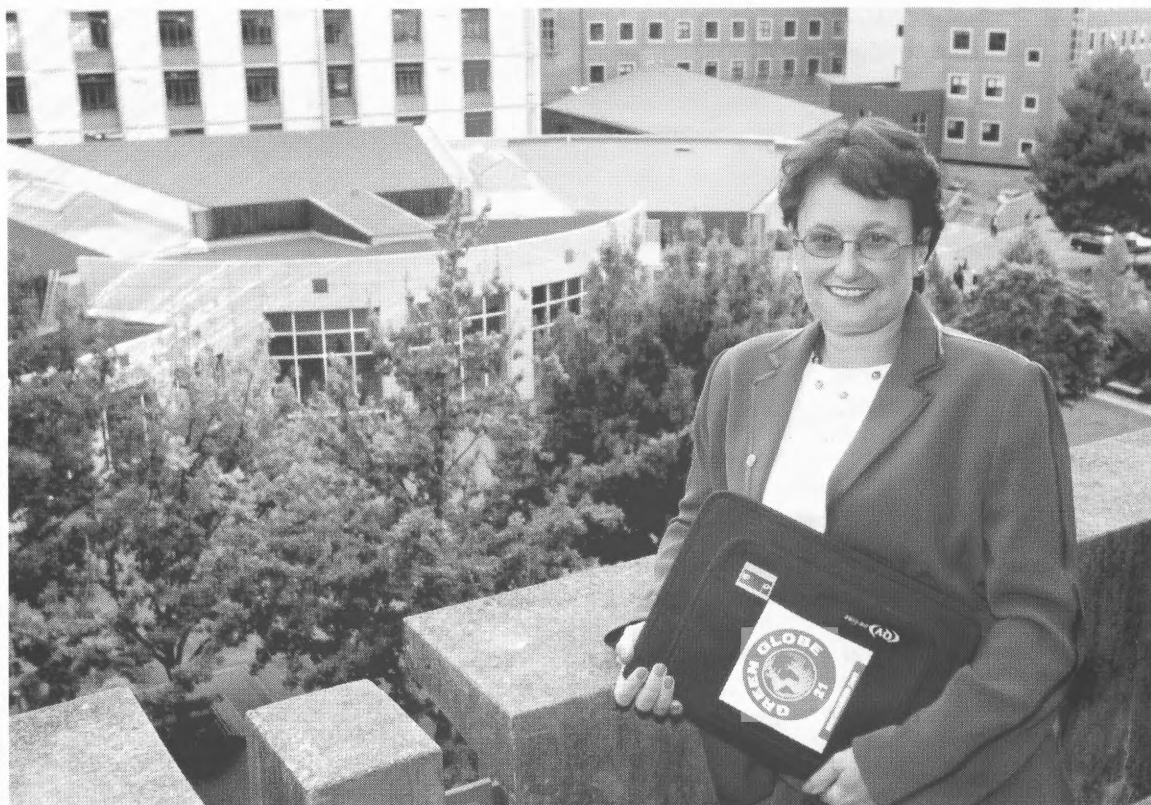
The University is the first operation worldwide to achieve Benchmarked status in the Convention Centre sector under the Green Globe 21 Certification programme, which recognises an organisation's commitment to operating at the world's highest environmental standard.

Belinda Allen, UC's Conference and Event Marketing Manager, said the University had spent considerable time benchmarking its energy and water consumption, waste production and disposal as well as implementing an integrated environmental and social policy.

"This will deliver ongoing reduction of non-renewable resources, extensive cost savings and secure a sustainable commercial and ecological future for the business," she said.

Cathy Parsons, Executive Director of Green Globe Asia Pacific, said she was thrilled that the University had achieved Benchmarked status.

"The University is the first operation to successfully complete the Benchmarking programme in the Convention Centre sector. The



**Belinda Allen, UC's Conference and Event Marketing Manager, is helping develop the University facilities to the highest environmental standards.**

University, and in particular UC Meeting Solutions – the conference and event service of the University – have completed the Benchmarking programme, and are to be commended for their commitment in helping to minimise the environmental impact associated with this significant institution."

Green Globe 21 is a global benchmarking, certification and improvement system assisting organisations that host international research, academic, business travel and association conferences to maintain sustainable operating practices.

The programme provides a certification system that

responds directly to the major environmental problems facing the global community, including the greenhouse effect, over-use of freshwater resources, destruction of biodiversity, production of solid and biological waste, and social issues.

## Diverse group of researchers confer at Kaikoura

**What do mathematicians, biologists, an anthropologist and a physicist have in common?**

They were all key participants at *Kaikoura03* – a week-long conference devoted to bioinformatics and molecular evolution. The talks ranged from the use of computers to design a vaccine for HIV, to the question of why molecular data tends to contradict fossil data on the timing of radiations such as the Cambrian explosion.

The conference, held at the Edward Percival Marine Laboratory in Kaikoura from February 9 - 14, was organised by Professor Mike Steel and Dr Charles Semple (Biomathematics Research Centre) as part of the new Allan Wilson Centre initiative at the University of Canterbury. The 55 participants

included scientists from Germany, France, UK, Sweden, Australia, Canada, USA as well as local students and researchers.

Scholarships were provided for New Zealand students to attend, but most of the overseas participants were self-funded. "There's no problem getting good people from Europe out here in our summer," said Professor Steel. "In fact we had more people wanting to attend this meeting than there was space for."

The meeting was one of a series aiming to bring together mathematicians and biologists to develop new methods for addressing problems in molecular evolution and ecology. Other fields of expertise are also important. For example, Swedish physicist Sverker Edvardsson talked about his work

with Allan Wilson Centre members on two projects: RNA folding, and the interplay of interglacial periods with past species radiations.

Auckland anthropologist Russel Gray presented results on using techniques from computational biology to provide better dates for the evolution of the Indo-European family of languages.

Between the talks and working sessions there was also time for some excursions to see whales, conduct field work, or climb hills, with one group reaching a 2600m summit on the Seaward Kaikoura range. Several of the participants are staying on to work with researchers at University of Canterbury and Massey University. There will be a follow-up meeting near Tongariro next February.

## 2003 Fine Arts scholarships

**Rachel Brunton and Sarah Ormsby** have both been awarded Ethel Susan Jones Travelling Scholarships for 2003, valued at \$8000 each.

**Uiga Bashford, Maria Buhrkuhl, Helen Calder, James Cleary, Melinda Johnston, Joanna Langford, Michelle Moran and Miranda Parkes** have been awarded Ethel Rose Overton Scholarships.

**Hanne Johnsen and Clare Noonan** have been awarded Grant Lingard Scholarships. Clare has also been awarded the Friends of the Robert McDougall Art Gallery Scholarship valued at \$1500.

# Opportunity beckons, says new Chancellor

**The 2003 University Chancellor, Dr Robin Mann, believes this is a time of great opportunity for the University, both nationally and locally.**

"The environment for tertiary education is changing rapidly and we have a chance to take advantage of that, to make our mark in areas where we have the skills and expertise to excel," he said.

He also sees tremendous opportunities locally and the chance to forge much stronger links with the city, particularly the business community.

"We have a new leader and a university community united in its determination to move forward under that leadership. By working together, striving for success, we can achieve a great deal more collectively than we could as individuals."

Dr Mann has strong and long-standing connections with the University. He completed three degrees and worked as a part-time lecturer at Canterbury before embarking on a distinguished career in industry and management.

Dr Mann studied chemistry, completing BSc, MSc and PhD



**From student to Chancellor, Dr Robin Mann has a long-standing connection with the University.**

degrees, before joining the tannery G L Bowron and Co Ltd in 1961 as a research chemist. He was appointed production director in 1969 and was managing director and chief executive officer from 1984 until

his retirement from the firm in 2000.

He was also general manager of tanning for Waitaki International Ltd between 1987 and 1989 and senior director and vice president of

Maruhachi Mawata and Co Ltd from 1998 to 2000.

In recognition of his significant services he was made a Fellow of the New Zealand Institute of Chemistry, a Fellow of the New Zealand Institute of Management and a Life Member of the New Zealand Tanners' Association.

Other major appointments include roles as Deputy Chairman and Director of Christchurch International Airport Ltd, Director of the New Zealand Trade Development Board, President of the Canterbury Branch of the Royal Society of New Zealand, Vice-President of the Canterbury Employers' Association and board membership of Christchurch Polytechnic, the NZ Water and Soil Conservation Authority and St Bede's College.

His sporting interests include squash and rugby, and he was a prop for the Canterbury rugby team from 1956 to 1962.

Dr Mann was appointed by Council in 2001 and has served on the Finance and Audit Committees and as Pro Chancellor in 2002. He chaired the Vice-Chancellor Appointment Committee that appointed Professor Roy Sharp.



## Pasifika students honoured at Orientation Day

**The inaugural recipients of the Tupulaga Le Lumana'i Awards were honoured at the Pacific Island Orientation Day held on campus on Saturday February 22.**

Offered for the first time in 2003, the awards pay the enrolment costs for eight students of Pacific Island descent to study Arts or Commerce at the University of Canterbury.

The awards are part of the UC Skill Pasifika Programme which provides support for Pacific Island students, both culturally and academically, to ensure high success and completion rates. The programme aims to equip Pasifika students with the skills and knowledge required by employers, leading to more employment opportunities at higher occupational levels.

All new and returning Pacific Island students and their families were



Photo by Neil Macbeth

**The sights and sounds of the Pacific added to the flavour of the Orientation Day.**

invited to attend the orientation day which saw a marquee set up outside the Central Lecture Theatre block. Guests were treated to cultural performances from Samoan and Fijian groups. Lunch, with a Pacific Island flavour, was served by a team of hard-working volunteers, led by

Pacific Island Liaison officer, Liz Keneti.

Among those attending the celebrations were Michelle Oberg from the Ministry of Pacific Island Affairs, Moana Tamasese from the Tertiary Education Commission, Chancellor Robin Mann and Acting Vice-Chancellor Bob Kirk.

### Hot off the press

Course Readers have been on sale to students at the Shelley Common Room for just over a week but spare a thought for those people who got them to the shelf on time.

Since the second week of January the Design and Print staff have printed 3.25 million pages that have been bound into more than 18,000 books. To date there are 246 titles and print runs range from 3 to 850 books per title.

Meeting the deadlines has meant staff running the machines up to 19 hours a day, 7 days a week. This work is on top of the usual printing requirements of the University, and the substantial printing requirements of the Christchurch College of Education.

*Robin Wilde*

## Department's quality draws Speech and Language head back to Canterbury

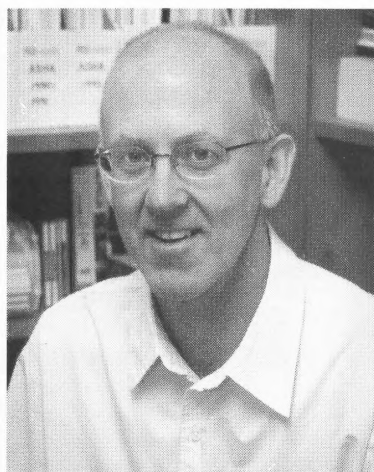
**P**rofessor Michael Robb says he came to the University of Canterbury for the same reason he left Connecticut to teach in Hawaii – the idea of being in a very special part of the world.

Newly appointed head of the Department of Speech and Language Therapy, Professor Robb first arrived at Canterbury in 2000 for an 18-month stint as a visiting lecturer. An offer to head the department tempted him back this January. He replaces Professor Ilsa Schwartz, who is the new HOD at the University of Tennessee.

Professor Robb grew up in Michigan and received his masters from Western Michigan and his PhD from Syracuse University in New York. He spent seven years at the University of Connecticut and was later an Associate Professor at the University of Hawaii.

Since returning to Christchurch with his wife, Jenne, Professor Robb has been busy with paperwork but is looking forward to teaching.

"The first time I had a student come up to me and say 'thank you' was in



**Professor Michael Robb**

New Zealand, not in the States, so I think they really are great students here."

Professor Robb values highly the research opportunities at Canterbury.

"My area of expertise is using experimental phonetics to look at a wide variety of speech disorders, though my primary interest is in speech characteristics of both normal and disordered young children," he said.

Professor Robb said Canterbury's strengths in speech and language are in the teaching model – "the premier model used worldwide" – and the good facilities for teaching.

"I feel fortunate to be able to work with a staff that has international reputations for the research that they do."

Until now the 100-student Speech and Language Therapy Department was New Zealand's only one, but Auckland and Massey universities are starting programmes this year.

"I think there's room for another programme, I don't know about two. What's going to continue to differentiate us from other programmes is our staff, our postgraduate education, and that we do research here. These other programmes aren't designed to do research. We're training clinicians at the undergraduate level, that's part of our job and the other part of our job is to actually perform research into speech disorders."

As well as a stand-alone building to replace the department's "village" of classrooms, Professor Robb would

like to develop the postgraduate programme, which has doubled its number of enrolments since 1999. "I want to continue that trend. There are just a handful of New Zealanders that have postgraduate degrees in speech and language therapy. I think there's a real need for Kiwis with PhDs in this profession."

He said prospects were excellent for graduates.

"We have students that have graduated from here that are working around the world in communications and we do a really good job training those students.

"We're members of the Council of Academic Programmes in Communication Disorders, which is the big American council that deals with 200-300 programmes that train speech and language therapists.

"It's one of these professions of the 21<sup>st</sup> century, a healthcare profession, where you're pretty much guaranteed a position."

Graduates end up teaching, working in hospitals and rehab centres, or going into private practice.

"It's very competitive but when they leave our programme they really are trained as professionals; they're their own boss."

*Matthew Appleby*



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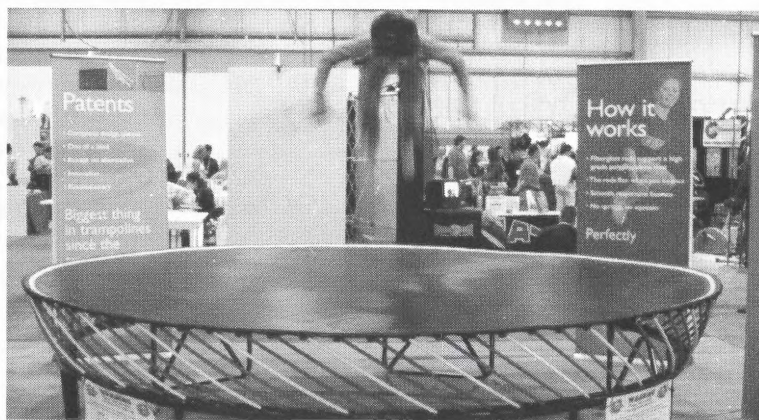
**Associate Professor Krzysztof Pawlikowski** (Computer Science) was awarded a grant from the Korean Science and Engineering Foundation (KOSEF) to give an address at the International Conference on Information Networking (ICOIN 2003). The conference, held at Jeju Island, Korea, from February 12 to 15, was organised by the Korean Academy of Science and IEEE. During the conference, 135 papers were presented by authors from 24 countries. Topics covered by conference sessions included: internet performance, mobile internet, optical networks, ad hoc networking, network management and security. The best papers will be published in the Springer-Verlag series of *Lectures in Computer Science*.

## International recognition for innovative trampoline

**The first completely new trampoline design developed in more than half a century, invented by Dr Keith Alexander (MECH), has been named a finalist in the major US Sports Edge Product of the Year '03 Award.**

The US sports industry recognition was announced at the 2003 Sporting Goods Manufacturers Association Super Show in Las Vegas, Nevada. The winner will be selected by the voting of more than 1000 US media representatives who will each be sent a video clip of the products.

Dr Alexander, with the help of students in the Engineering School, brought together new ideas and technology in the design of the trampoline. It eliminates the springs and frame from the level of the mat and replaces the traditional trampoline springs with composite fibreglass rods that flex with the jump, providing a smooth, even bounce without the annoying squeak of the rusted springs.



**The trampoline was a big hit at the Super Show in Las Vegas.**

The trampoline is just one of a number of new university-invented technologies and products which Canterprise is involved in commercialising.

Dr Terry Fullerton, Canterprise Chief Executive, said it was thrilling to receive support from the sporting goods industry buyers for what was "a highly innovative trampoline concept".

Canterprise has entered into an agreement with an international partner on the commercialisation of

the trampoline, with the aim of the international partner launching the trampoline in the US in May. The trampoline is already available in New Zealand from Levin-based Canvasland.

Dr Fullerton said that by working with international investors, Canterprise was able to get great local ideas out into the global market place. "This approach provides economic benefits for the University, the inventors, and indirectly for the Canterbury community."

# DNA test could hold key to identifying native frog affliction

**T**he number of native Archey's frogs in New Zealand has plunged in the last decade but researchers at the University of Canterbury are right on the trail of what they believe is the culprit – a fungus.

Dr Bruce Waldman and his team in the Zoology Department have developed a DNA test for the chytrid fungus which has been implicated in the deaths of frogs all over the world.

The fungus was first identified in 1998 following mass frog deaths in Panama and Northern Queensland. It has since been associated with deaths and population declines in Central and South America, western North America, Spain and Africa.

In 1998 the fungus was found in Australia and, in 1999, dead and dying frogs with the fungus were found by Dr Waldman and his team on the Port Hills.

The newly developed test looks for traces of fungal DNA and is extremely sensitive. Live frogs can be tested by taking a few skin cells and the fungus can even be detected on bodies that have started decomposing, the stage at which researchers often find frogs.

New Zealand has three species of native frog and at least one, Archey's frog, appears to be vulnerable to the fungus. Until 11 years ago, these frogs were common in the Coromandel but,

Dr Waldman says, the population has collapsed. The only other Archey's frogs in New Zealand are a small number in the King Country which also appear to be affected by the fungus.

"Archey's frog is a living fossil and to lose it would be disastrous," Dr Waldman says.

The new test will help the Canterbury team answer crucial questions about the fungus.

Research assistant, Ermin Šadić is studying how the fungus kills the frogs. Two possible mechanisms have been proposed, either the fungus interferes with a frog's breathing by infecting its skin (frogs breathe through their skin) or, alternatively, the fungus produces a toxin that kills the frog directly. Mr Šadić will also look at how the frogs defend themselves against the fungus.

Dr Waldman also wants to see whether the fungus is the main cause of the frog deaths or whether other factors are involved.

"It might just be the last straw for frog populations that are already under a whole host of environmental stresses such as UV radiation and global warming," Dr Waldman says.

The new test will allow researchers to work out which frog populations and species have the disease, whether some populations are able to survive it, and whether the fungus is harboured somewhere in the environment.

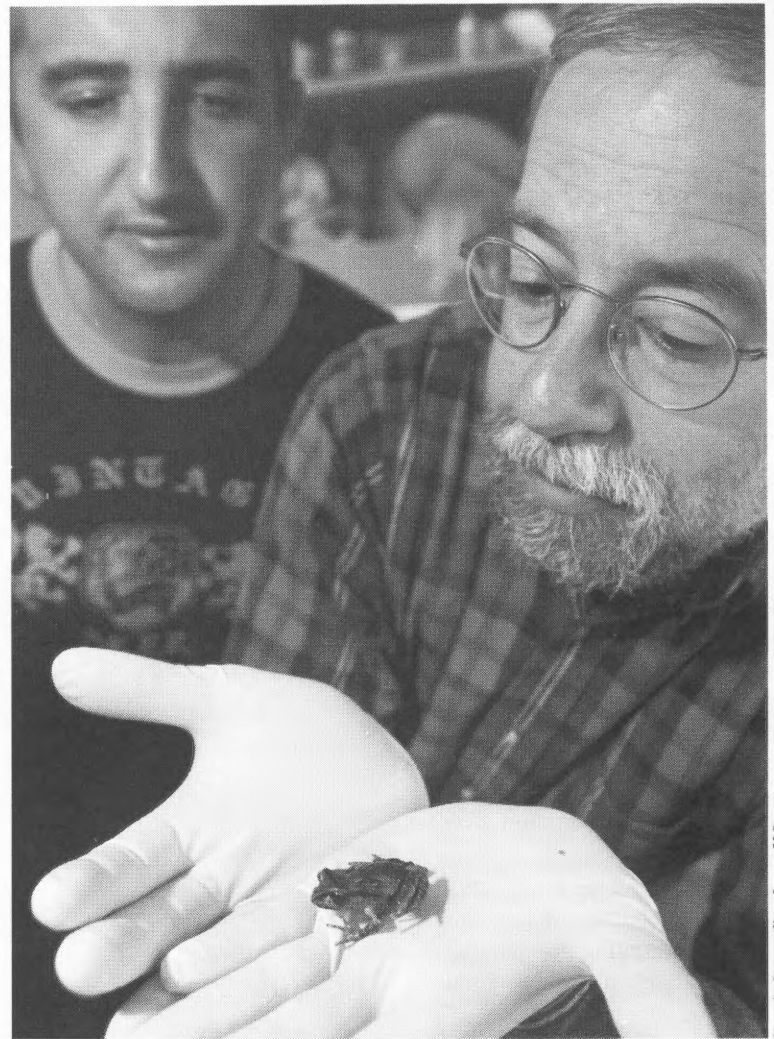


Photo by Duncan Shaw-Brown, C&D

**Ermin Šadić (left) and Dr Bruce Waldman hope their work will save New Zealand's native frogs from a deadly fungus.**

A better understanding of the disease will, in the long term, help protect Archey's frog and help researchers identify safe environments for re-establishing populations.

Mr Šadić has already used the new test to identify the chytrid fungus in a population of whistling tree frogs, an introduced species, in Okarito, South Westland.

*Lynette Hartley*



## Professor Park to chair national peer review panel



**Emeritus Professor Bob Park**

**Emeritus Professor Bob Park (Civil Engineering) is to chair the Performance-Based Research Fund Peer Review Panel for engineering, technology and architecture.**

The panel is one of 12 being established nationally to support the implementation of the Performance-Based Research Fund, the new mechanism for funding research in the tertiary education system. Chairman of the Tertiary Education Commission, Dr Andrew West, said the panels would evaluate the quality of the research contributions of those involved in teaching degree-level

programmes and/or undertaking research in tertiary education organisations.

"The peer review process will assess quality based on a variety of measures including research outputs, peer esteem factors and contribution to the development of new researchers and a vital high-quality research environment," Dr West said.

The PBRF will be introduced progressively from 2004. Its overall aim is to promote the development of lively and productive research cultures producing high quality research, and attractive and

effective learning environments for students.

Full membership of the 12 panels will be announced in mid-March.

Professor Park's appointment comes just weeks after he was honoured by the Structural Engineering Society of New Zealand. At the Pacific Conference on Earthquake Engineering held in Christchurch in mid-February, the society presented Professor Park with the 2003 Award for Structural Engineering Excellence in recognition of "an outstanding application of the science of structural engineering and for leadership, research and teaching in structural engineering".

# Exploring the depths of New Zealand

If Mt Everest were plucked from the Himalayas and dropped into the deepest part of the ocean off New Zealand's coast its peak would not even break the surface. It would instead be engulfed in a dark, mysterious realm that is home to some of the world's strangest creatures.

For the first time, these deep offshore waters are examined in a book. It is *Deep New Zealand: Blue water, black abyss*, written by Dunedin marine scientist Peter Batson, and the latest publication from Canterbury University Press.

Batson says the average depth of the Pacific Ocean is more than four kilometres - deep enough to comfortably swallow Mt. Cook and leave room to spare. New Zealand's deepest point lies at the bottom of the Kermadec Trench, ten kilometres below the waves, and well able to swallow Everest.

And yet the deep sea is closer to us than we might think. The continental shelf - the shallow rim surrounding the main islands - is relatively narrow, and truly oceanic waters are not far offshore. "It's probably true to say that as people in New Zealand read this article, most will be nearer to a 10-metre-long squid than they are to a wild kiwi."

The deep sea is certainly home to some strange animals . . . enormous ropes of jelly festooned with glowing lights, elegant swimming sea cucumbers, and gargoyle-like fishes bristling with dagger teeth. Batson describes the deep ocean as the planet's last true biological frontier. "With biologists reporting that only one two-millionth of New Zealand's seabed area has been systematically explored it is no exaggeration to say that we really have no idea of what else is out there waiting to be discovered. It's a thrilling thought really."

The deep sea is a "pretty inhospitable place" by everyday standards. It is colder than most fridges, pitch black, and under water pressure as much as a

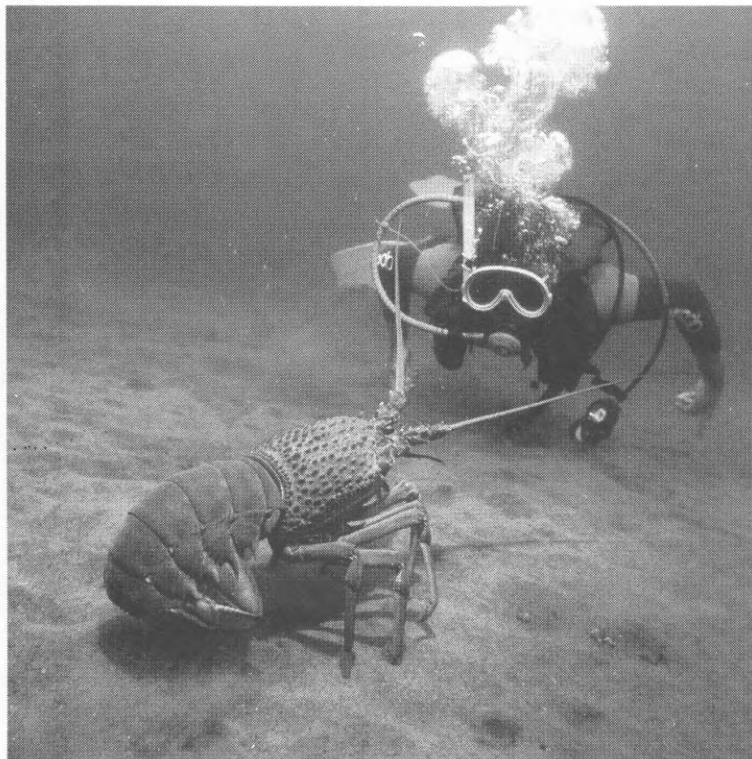


Photo by Kim Westerskov

**Packhorse lobster *Jasus verreauxi* and diver. Although adult lobsters are coastal, their phyllosoma larvae spend many months in the open ocean, far from land.**

thousand times higher than that at the surface.

For Batson there are several reasons why he is fascinated with "the deep".

Its size, for a start: About 97 % of the volume of living space on the planet is deep sea, yet it is the least known of all ecosystems.

He is also fascinated by the strange ways that deep-sea animals have adapted to their environment.

For example, most of them can make their own light (bioluminescence), and they use this ability in an enormous variety of ways - to attract prey, to escape from predators, to communicate, to find each other. "I'd love to be able to see the world through their eyes."

And he says there is an undeniable 'freak-show' aspect of deep-sea animals that many people find very appealing.

"The black swallower for instance . . . a small, innocent-looking fish that will swim up to a fish two or three times its size, open its mouth, and swallow it whole."

Batson did his undergraduate degree at Massey University,

followed by an MSc in marine science at Otago University, where he studied the ecology of bryozoan (lace coral) thickets on the continental shelf off Otago Peninsula. The Welsh-born New Zealander is now a doctoral student at Otago, researching life in the deep-sea canyons that cut into the continental slope off Dunedin.

He decided to write *Deep New Zealand* after discovering that there were no popular books concentrating on New Zealand's deep sea, despite a century and a half of oceanography in the region.

"It seemed like a huge hole in our natural history literature just begging to be filled."

*Deep New Zealand* is packed with stunning photographs, and getting those created a headache in itself.

"I was lucky to receive an enormous amount of support from New Zealand's marine science community, as well as many people and agencies overseas. Without this help, the book simply couldn't have happened."

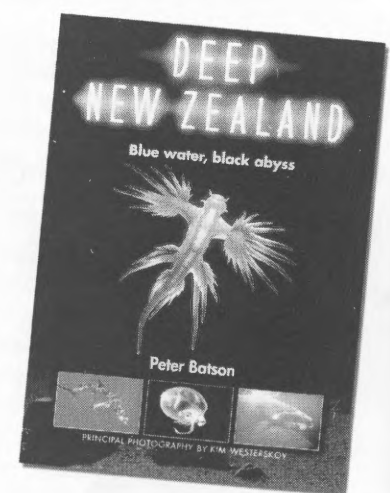
Many of the book's photographs are taken by acclaimed marine

photographer Kim Westerskov, the only photographer ever to win five grand prizes in the internationally prestigious Wildlife Photographer of the Year contest. He acquired many of the illustrations during 'blue-water' dives in oceanic waters and from stints aboard deep-sea trawlers.

Other photographs in the book were taken at great depths, from deep-diving submersibles and remotely operated vehicles equipped with onboard cameras.

At 240 pages *Deep New Zealand* not only looks at deep sea animals, but also explores 'blue-water' and 'twilight zone' habitats - the ocean layers overlying the abyss - and has several chapters dealing with deep seascapes and the harvesting of its resources.

According to Batson, modern-day discoveries in the deep are roughly equivalent to the period in history when the first explorers returned to Europe from Africa "with unlikely-sounding tales of cats the size of horses and colossal beasts that picked food up with their noses". "In a lot of ways, the deep still inspires the kind of untempered awe that more familiar parts of the world have long since lost."



- *Deep New Zealand: Blue water, black abyss*, by Peter Batson, illustrated by Kim Westerskov, Canterbury University Press; paperback, 270 x 200 mm, 240 pp, colour throughout, \$49.95.

