

JUNE - JULY 2011

MES COOK NIVERSITY

AUSTRALIA

O Art and anatomy

The illustrated body rises from the slab

Yasi and La Niña

The science of a devastating wet season

Water and winning The remarkable history

of our dry continent

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Our university's Strategic Intent states that our purpose is to produce graduates and discoveries that make a difference. We recently honoured some of those graduates who have lived up to our aims.

Eight were named as Outstanding Alumni of James Cook University and a further four were recognised as Outstanding Early Career Alumni. We inaugurated these awards as part of last year's 40th birthday celebrations and they are now an annual opportunity to highlight the achievements of our graduates.

The 2011 recipients - three from each Faculty - cover a wide variety of fields, some seemingly far removed from their original degrees. They come from Sydney, Melbourne and Brisbane, from Alice Springs, Newcastle and Townsville, and as far away as Vanuatu.

They include two very senior public servants - Mr Glenn Poole, Queensland's Auditor-General, and Dr John Glaister, Deputy Director General of Queensland Health. Both were at JCU in its earliest days in the 1970s.

While the tropics may be a large part of our DNA, Dr Jan Strugnell - our first Rhodes Scholar to Oxford and now a Lecturer at LaTrobe University - has moved far from the torrid zone with her major research centred on the Antarctic.

There were two with education qualifications: Dr Cathy Day, Director of Catholic Education for the Diocese of Townsville, and Mr Matthew Salmon who is based in Alice Springs as Assistant Director Northern Territory Policy and Programs with the Federal Department of Sustainability, Environment, Water, Population and Environment.

Two more have dual alumni hats having worked at JCU as well as being graduates. Professor David Durrheim, now Director of Health Protection in the Hunter area of NSW and a Professor at Newcastle University, has two degrees from JCU and was for two years head of the School of Public Health, Tropical Medicine and Rehabilitation Sciences. Ms Tricia Brand has been at the University since 1982 and is now Executive Director, Finance and Resource Planning.

The Outstanding Early Career Alumni are Natalie Davis. Dean of Students at the Senior School of The Cathedral School; Angela Lowe, a solicitor and President of the Townsville District Law Association; Dr Liang Joo Leow, Lecturer at St Vincent's Clinical School of UNSW and an internationally-accredited translator; and Dr Christopher Bartlett, who is based in Vanuatu as director of an international project on climate change.

Finally there was Dr Glen Richards who is founding director of Australia's leading veterinary company Greencross Vets. He was not only one of the Outstanding Alumni from the Faculty of Medicine, Health and Molecular Science but also the Chancellor's choice for his special award as this year's Outstanding Alumnus

While the spotlight was on these 12 accomplished leaders, JCU is proud of the many thousands of graduates we have sent out to the state, the nation and the world. They are making a difference.

Ade Mardin

Sandra Harding Vice-Chancellor

Cover:Alexander Gjerde, also known as Anatomical Man. Photographer: Kristof Schrader











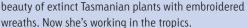








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Art and extinction

In print

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Debating restorative justice, the history of tropical veterinary science at JCU, and Human Resources and holidays: new books by JCU staff and alumni.

Textile artist Dr Robyn Glade-Wright has recorded the

Volume 5 No 1 Discover James Cook University Editor: Linden Woodward Contributors: Paul Dymond, Liz Inglis, Kerri Jenkins, Caroline Kaurila, Craig McDonald, Jim O'Brien, Narelle Reece, Pinky Sibal, Kristof Schrader, Romy Siegmann, Sue Wellwood. Design: Twocan Multimedia Advertising enquiries: linden.woodward@jcu.edu.au Online: www.jcu.edu.au/discover ISSN: 1835-2456

Body in motion

Anatomy lessons have become so alive, the body has risen from the slab and walked out for lunch. Meet Anatomical Man and his friends and creators.

Falling down

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Exercise physiologist Rose Newman and her fourthyear students are investigating whether practising multi-tasking will reduce falls for the elderly.

Deception Bay could be the first to benefit.

Data for less

Information Technology researchers at JCU aim to make environmental monitoring cheaper - and the dugongs of

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Opinion

Abortion in Queensland is subject to the state's

Criminal Code of 1899. Caroline De Costa, Professor of Obstetrics and Gynaecology, calls for reform.

Yasi and more

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The summer of 2011 was a torrid time for many, including researchers concerned with the safety of our homes and towns, reefs and rivers.

Orange crew

In a disastrous summer many JCU students and staff were ready to lend a hand, first in central and southern Queensland and then closer to home.

Thanks Mum

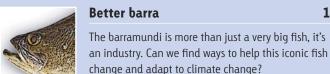
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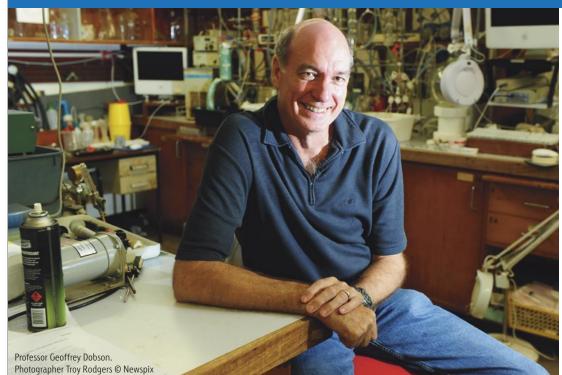
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This year's graduation celebrations included recognition for an inspiring mother whose seven children have gained 14 degrees, all of them from JCU.





Life-saving research



Professor Geoffrey Dobson has presented his research to the top medical advisors of the North Atlantic Treaty Organisation (NATO), outlining findings that could revolutionise battlefield trauma care.

Torres teaching

Torres Strait Islanders who want to become primary school teachers can now study much closer to home – the Bachelor of Education (Primary) is now offered from JCU's Thursday Island campus.

"This new program is a giant leap forward for those keen to study in the region," said senior lecturer in education Helen McDonald.

"It was initiated by the Torres Strait Regional Education Council to encourage young Torres Strait Islanders to become confident teaching professionals and future leaders," she said.

Thursday Island students will study the same subjects with the same lecturers as education students in "On the battlefield, catastrophic haemorrhage is the leading cause of preventable death," he said.

"In combat situations, up to 50 per cent of deaths occur from blood loss, and 25 per cent of these may be treatable.

"The critical period is in the first five to ten minutes of care under fire, when colleagues and medics are often working in extraordinarily difficult circumstances. It's in that

Townsville and Cairns. They will also have the support of Education Queensland teacher coordinators on Thursday Island and JCU School of Education staff including lecturers, technical co-ordinators and the Indigenous student support officer.

"Students will have access to online study materials and will be able to study with other students based on Thursday Island, as well as students in Townsville and Cairns," Ms McDonald said.

Students who have completed Year 12 with an OP score can apply to enter the Bachelor of Education directly through QTAC.

However, Torres Strait Islanders who do not have an OP score can apply to enrol in both a Tertiary Access Course and the Bachelor of Education concurrently.

"This will give them the opportunity to develop the skills and competencies to successfully critical period that we believe we can help."

In the Heart Research Laboratory at James Cook University, Professor Dobson has developed a small-volume, intravenous solution to rescue and stabilise the heart following massive blood loss and shock.

The work, carried out with MSc student Hayley Letson, won a highly competitive award at the 2010 Resuscitation Science Symposium of the American Heart Association in Chicago.

The potential battlefield strategy is about slowing biological time, an idea borrowed from the 'tricks' of natural hibernators, and is based on Professor Dobson's prior research innovation, Adenocaine®.

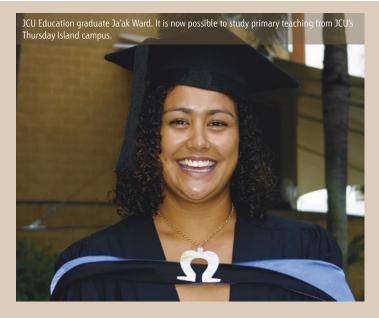
While Adenocaine was developed with cardiac surgery and organ transplants in mind, Professor Dobson hopes it might also have a role in resuscitating soldiers following massive blood loss on the battlefield.

"On the battlefield, the aim is to strengthen the heart, gently raise blood pressure, and protect the brain and other organs from inflammatory attack and blood coagulation disturbances," he said.

"Using a combination of a highsalt solution, Adenocaine and magnesium, we have achieved dramatic results in the laboratory. If we can translate our findings on to the battlefield then I believe we have an obligation to do so."

Declaration of interest: Professor Geoffrey Dobson is the founding director of Hibernation Therapeutics Global Pty Ltd.

🜔 www.adenocaine.com/



complete a university course," Ms McDonald said.

Applications to start the combined Bachelor of Education and Tertiary Access Course in July 2011 are now being accepted. For more information, contact Helen McDonald on 4781 3783 or visit JCU on Thursday Island.

Up off the slab

As an anatomy teacher Associate Professor Claudia Diaz always strives to bring her subject alive.

> Thanks to some inspired artists, many hours of painting and a Norwegian student who was "cool about getting down to a g-string", anatomy lessons have become so alive, the body has risen from the slab and walked out the door.

The Anatomical Man project is just one of Associate Professor Diaz's responses to concern at a national level over the declining amount of time devoted to gross anatomy in many university courses.

"Anatomy is a cornerstone subject for students in medicine, the allied health professions and sport and exercise science," she said.

"It's a must-have, and it's not enough for students to just memorise it to get through their Associate Professor Claudia Diaz with Anatomical Man Alexander Gierde.

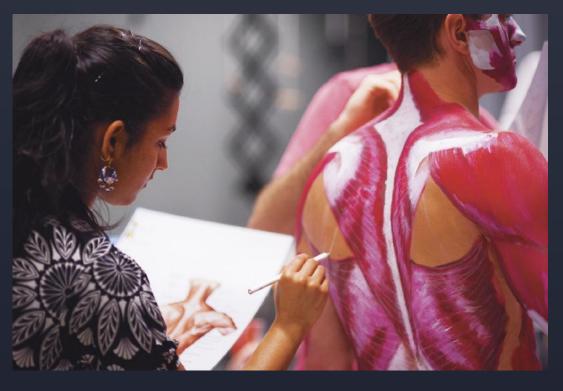


exams. Our graduates need to have a real and lasting understanding of how the body works, in a 3-D sense, and I feel we have an obligation to find innovative ways to teach that."

Body painting is one of the ways she aims to imprint anatomy on the long-term memories of her students.

"Our first Anatomical Man was Alexander Gjerde, a marine biology student who was incredibly cool and patient. I chose half a dozen students who had an interest in art, and it took nearly eight hours for them to paint him.

46It's surface anatomy – what they have done is show what he would look like if we removed all his skin and subcutaneous fat.**??**



The students who painted Alexander, with guidance from textbooks and anatomy staff, were shy in the early stages of the project.

"It's very different, working on a live person, and some of them were embarrassed to begin with," Associate Professor Diaz said. "But as the work progressed, they became more and more proud of the results, and the shyness disappeared.

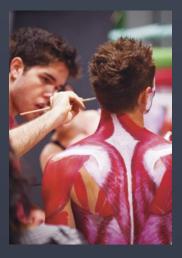
46My own jaw just kept dropping. When I was planning this I had never imagined he would look so beautiful, and that the work would be so accurate and so detailed.**99**

Once painted, Alexander (AKA Anatomical Man) was asked to move around, assuming various poses and flexing specific muscles. He was anatomy in motion.

"Working on cadavers and models and studying textbooks are all important, but in the end our students will be working with live people," Associate Professor Diaz said.

"Body painting helps them look under the skin and see the body as a whole system. It shows them how different muscle groups work together in sequence to complete everyday tasks like walking down stairs, or getting up from a chair."

The students were so proud of their work of anatomical art they took



him for a walk around the campus. Anatomical Man, who had worked up an appetite during all those hours of being painted, created a minor stir when he stopped off for a late lunch at a campus café.

"We've done more body painting since, including a session where Julia Gillard took up the paint brush, so people on campus are getting used to seeing our creations wandering about," Professor Diaz said.

The success of this pilot project has led to further plans. "Now that we know we can show the muscles well, we're doing Skeletal Man and of course Anatomical Woman. The students are also keen to have a go at illustrating the major organs."

Body painting is now one of the hotly contested events in the annual Anatomy Cup, along with play-doh modelling, top-speed assembly of anatomical models, and a song and dance competition known as Anatomy Idol.



"These are all complementary teaching methods that we use in addition to traditional dissection," said Professor Diaz, who also oversees the University's body donation program.

"Thanks to the wonderful people who donate their bodies to the University, we are able to give our students a strong foundation in what will always be core knowledge in the medical and health-related professions.

46Dissection is an essential part of that, but it's a serious business. Sometimes it's nice to teach in a light-hearted way.**?**

— Linden Woodward 🔘

For information on the donor program please contact Associate Professor Claudia Diaz, tel 07 4781 3466.

Cast and Crew

Project Directo Claudia Diaz

Student Supervisor Declan Tuttle

Artists Alexander Bowden Mikayla Finocchiaro Helena Joshi Andrea Wallace

Model Alexander Gjerde

Yulina Degens

Photographer Kristof Schrader http://photographybykristof.com



The artists took their creation for a stroll across campus.



The painting shows what Alexander would look like minus his skin and subcutaneous fat



After long hours of painting, Anatomical Man had a late lunch.

Falling for safety

Falling is a costly business, and it is a particular problem for people in the 60 to 80 age group.

With help from volunteers and a state-of-the-art support harness, researchers at the Institute of Sport and Exercise Science at JCU in Townsville are investigating ways to reduce falls.

Exercise physiologist Rose Newman and her fourth-year students are conducting falls prevention sessions for older women.

"The sessions are enjoyable and assist with strength, flexibility, balance and co-ordination," Ms Newman said.

The next stage of the program is an investigation of the impact of a multi-task training program, aimed at reducing the risk of falls.

A harness suspended by wire cables from the ceiling and walls of the Movement Analysis Laboratory will ensure safety for the participants. Sensors, force pads and cameras will capture every movement, while the researchers simulate distracting conditions.

Open Day in Singapore

JCU Singapore held its annual Open Day in April, welcoming everyone to explore the campus, enjoy student performances and meet the staff.

"Open Day aims to give our community a better understanding of what the University offers and what campus life is like," CEO Dr Dale Anderson said.



"The ability of older adults to multi-task decreases as they age," Ms Newman said. "Doing several things at once, for example walking, talking and carrying groceries, can make them more prone to falls.

66 I have developed a nine-week training program in multi-tasking, and we'll be using the harness to keep participants safe while we test their reaction time, attention, balance and mobility, before and after the training.**99**

"It's also a chance to feature some of the research activities undertaken by staff and students."

IT students showcased projects including Kangaroo Robot and DotConnect, while others organised a games competition (War Craft III – Defence of The Ancients) with teams from polytechnics, international schools and other institutions in Singapore competing against the JCUS team. "The set-up will measure the way older adults walk while being distracted with both a cognitive and physical task, such as doing simple sums while carrying something and walking," Ms Newman said.

"The advantage is that we can simulate real-life fall risks, such as crossing a busy street or carrying the groceries upstairs while talking. And we can do that with no risk whatsoever to the participants." ①

Many prospective students and their parents appreciated the chance to speak to current students and alumni as well as to academic staff.

Tours of the campus facilities and the psychology clinic were popular and Sniffy the virtual lab rat gave prospective psychologists the chance to see the psychology of learning and conditioning in action.



WHO says our nurses are tops

The World Health Organisation (WHO) has designated James Cook University's School of Nursing, Midwifery and Nutrition as a WHO Collaborating Centre.

It is the first School of Nursing at a Queensland university to receive the designation and only the second in Australia.

"We become a member of the WHO global network of centres and have the opportunity to collaborate with around 35 centres world-wide," the inaugural director of the Centre Professor Kim Usher said.

"Part of our role will be to serve as one of the three core research leaders for the Asia Pacific Emergency Disaster Nursing Network along with the University of Hawaii and one of China's oldest tertiary institutions, Shandong University.

"We will be developing a research framework to support the implementation of quality emergency and disaster nursing education and competencies," Professor Usher said.

The Centre, based in Cairns, will also focus on nursing and midwifery education, forming a Western Pacific nursing and midwifery education network, and a technical review of health service work plans in the Pacific region.

Professor Ian Wronski, Pro Vice-Chancellor of the Faculty of Medicine, Health and Molecular Sciences, said the formation of the Centre under the auspices of WHO was the culmination of more than five years work by the School.

"Coming as it does in the twentieth year since the School was established, it's a huge accolade for the work of the School, the staff, their research and the graduates produced over the years." •

Data for less

Information Technology scientists at James Cook University aim to make knowledge cheaper – developing an economical, high-tech sensor network platform for environmental monitoring. Their prototype is already at work in Deception Bay in Queensland's southeast, helping to detect algal blooms that can impact on sea grasses and the dugong population

"Collecting environmental data can be a huge drain on a researcher's budget and time," JCU's eResearch Deputy Director, Dr Jarrod Trevathan said.

"For this kind of project previously you had to buy a sensor platform that could cost up to tens of thousands of dollars. And then someone had to go out by boat periodically to manually retrieve the data."

The Director of eResearch, Professor lan Atkinson, and Dr Trevathan aim to reduce that cost to around \$1,000 per unit, with data retrievable from anywhere in the world.

"We want to make the units cheap enough so that it won't matter if a boat hits the buoy on which they are mounted, or a cyclone wipes it out," Professor Atkinson said.

The first trial has involved JCU's scientists deploying five core sensor stations in Deception Bay, monitoring light, temperature and underwater pressure.

"The data is sent to a base station on land and then back to our computers via the internet," Professor Atkinson said.

66 We are able to monitor the information in real time, remotely, so theoretically you could be on the other side of the world and still observe the system.**99**

Professor Atkinson said it was hoped scientists eventually would be able to view the collected data on their mobile phones.

Although the prototype is being used in a marine environment the system can also be used on land.

"We can see terrestrial applications for it, particularly when researchers need to monitor remote or

inaccessible sites," Dr Trevathan said.

66 It has the potential to significantly reduce the cost of environmental monitoring.**99**

The JCU researchers are working on the system as part of the Smart Environmental Monitoring and Analysis Technologies (SEMAT) initiative, conducted by the University of Queensland's School of Geography, Planning and Environmental Management in conjunction with eResearch and the School of Business at JCU and Torino Wireless in Italy.

The dugong of Deception Bay are benefiting from the first trial of a new sensor network. Photographer: Russell Shakespeare © Newspix



A healthy call

Research at JCU Singapore, investigating the use of lowcost mobile phones to monitor children's health, has received a \$100,000 boost from the Bill and Melinda Gates Foundation.

The Grand Challenges Explorations Grant will enable Dr Song to pursue his innovative global health and development research project, which is based on monitoring children's breathing sounds.

"The project builds on the previous findings that the timing of the respiratory rate is the most useful sign of lower respiratory infections in all age groups," Dr Song said.

"The service could be made available to vast populations, including previously hard-to-reach communities in rural areas," he said.

"It could also provide important information on which parts of the world urgently require which types of vaccines. This can prevent potential epidemics, and enable efficient delivery of vaccines."

Grand Challenges Explorations (GCE) funds scientists and researchers worldwide to explore ideas that can break the mould regarding how we solve persistent global health and development challenges. "GCE winners are expanding the pipeline of ideas for serious global health and development challenges where creative thinking is most urgently needed," said Chris Wilson, director of Global Health Discovery at the Bill and Melinda Gates Foundation.

66 These grants are meant to spur on new discoveries that could ultimately save millions of lives. **99**

Dr Insu Song is now focusing on health informatics research after completing his PhD in computer science. **①**



Professor Caroline De Costa is the Head of JCU's Clinical School at Cairns Base Hospital. She is the author of *Never ever again... Why Australian abortion law needs reform*, published by Boolarong Press in 2010.

Abortion law reform

Applause broke out in the public gallery of the Cairns District Court on October 16th 2010, when the jury returned verdicts of not guilty. A young couple had admitted having arranged to have the drugs mifepristone and misoprostol mailed from the Ukraine. They were charged with procuring an abortion for the woman, under sections of the Queensland Criminal Code of 1899 – legislation described by the judge as 'these very old statutes'.

The charges had caused much concern to Queensland doctors – concern about our own legal position when we practise abortion, but even more concern about the legal position of our patients.

Only a small number of Queensland doctors actually practise abortion, but many hundreds refer women for abortion. They want to be able to do this to safe, legal and accessible services.

They also want to be able to offer, to women with wanted pregnancies, reliable screening tests for serious foetal abnormalities, and the option of legal abortion in those uncommon cases in which a serious abnormality is found.

Concern about the implications of the Cairns charges led doctors who are Fellows of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) to withdraw their services from public hospitals.

This was because at the time the only defence (in section 282 of the Criminal Code) for a doctor charged with abortion was if a 'surgical procedure' was performed in the interests of the woman's life or health.

In September 2009 the Queensland Parliament added 'medical' abortion to section 282 – that is, abortion performed using licensed drugs rather than surgical instruments. But the clauses about the woman's life or health remained. As a result, **abortion for major**

foetal abnormality remains unlawful in Queensland.

The verdict in the Cairns case has implications for doctors in two quite different directions.

At the heart of the case was the question of whether mifepristone and misoprostol are 'noxious'. This word was used in 1899 to describe the many harmful substances desperate women in the 19th century tried for self-abortion. It is completely out-of-date in the 21st century, when licensed drugs are used widely and safely throughout the world for medical abortion.

Since the young woman charged under section 225 was acquitted, it appears the jury did not believe the drugs are 'noxious'. It might then be argued that a doctor prescribing these drugs for medical abortion is equally not guilty of a crime. This possibility is now being much discussed in legal circles.

The second implication is the alarming possibility that women may see this case as a green light to import abortion drugs and use them without medical supervision.

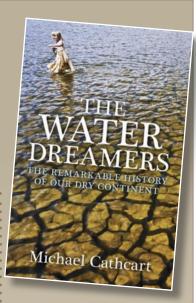
Although it is illegal under Commonwealth law for anyone apart from a licensed medical practitioner to import these drugs, this case demonstrates the potential for small amounts of drugs to enter the country undetected.

It is highly undesirable for a woman to undergo a home abortion using these drugs without proper medical consultation and supervision. There is an urgent need to make medical abortion accessible to all Australian women, so that risky home abortion does not occur.

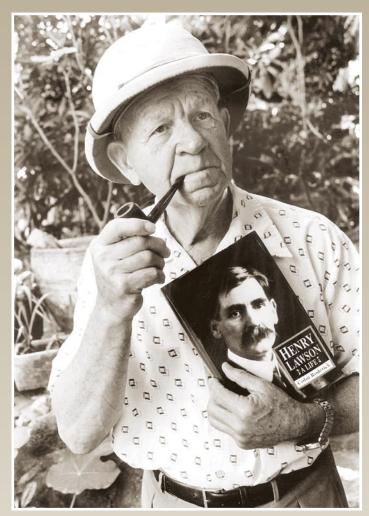
What is very clear is that Queensland abortion law is urgently in need of reform. There have been very strong public statements from RANZCOG and the Royal Australian College of General Practitioners, the Queensland Branch of the Australian Medical Association, Family Planning Queensland and individual medical practitioners.

Abortion is an important health issue for women. Queensland's Parliament must take notice of what is being said by so many medical authorities and organisations, and undertake reform of these antiquated and dysfunctional laws.

If the Premier and the Parliament feel unable to take this upon themselves, the issue should be sent to the Queensland Law Reform Commission for public inquiry and review, and recommendations returned to the Parliament, as happened very successfully in Victoria in 2008.



A winning tale of water



Professor Colin Roderick

Writer and broadcaster Dr Michael Cathcart has been awarded the Colin Roderick Award for his book The Water Dreamers: The remarkable history of our dry continent.

The \$10,000 Colin Roderick Award, which is accompanied by the H.T. Priestley Medal, is awarded for the best Australian book published on any aspect of Australian life in that year.

Like Geoffrey Blainey, Michael Cathcart sought a single, pivotal factor in our history. He chose water, and says in the early days of his work it was seen as an esoteric choice.

"People would say 'it's like saying you're writing a history of dirt'. But everyone gets it now. The history of Australia *can* be based on water. "Since Blainey wrote his book the world has grown smaller. Distance is not such a tyranny now. Water – it's the fundamental limit on how we live."

Associate Professor Stephen Torre, Executive Director of the Foundation for Australian Literary Studies at JCU, said Dr Cathcart was a deserving winner.

"The Water Dreamers is a highly innovative work that describes how water has shaped the Australian psyche, history, society and culture," Associate Professor Torre said.

"It brilliantly illuminates the often forgotten fact that Australia has been shaped by the scarcity of water and the need to find water sources.

"From the First Fleeters camped around the Tank Stream, through explorers pursuing the dream of an Inland Sea, through the dam builders and irrigators to present-day water traders, Michael Cathcart leads the reader on an exhilarating journey of discovery and understanding.

"This profound work of scholarship is everywhere enlivened with vivid anecdote, irreverent wit and penetrating insight.

66It is unputdownable, history as it should be written.**99**

Dr Cathcart, best known for his acclaimed abridgment of Manning Clark's six-volume classic, A History of Australia (1993), has also coedited Stirring Australian Speeches (2004) and written Defending the National Tuckshop (1988), a study of paramilitary responses to the Great Depression.

He has hosted *Arts Today* on ABC Radio National, where he currently presents *Bush Telegraph*.

The Foundation for Australian Literary Studies at JCU fosters the study of Australian literature within the University and in the community. The award is named after Professor Colin Roderick, author and academic, who established the Foundation during his 11 years at JCU, beginning in 1965.

Professor Roderick was a towering presence in Australian literary studies in the second half of the 20th century.

He was editor of Henry Lawson's complete works and author of meticulous biographies of Lawson, Banjo Paterson, Miles Franklin and Rosa Praed.

In the 1950s he played a key role in the establishment of the first Chair of Australian Literature at the University of Sydney before becoming the foundation Professor of English at JCU.

Judges for the Colin Roderick Award are asked to find, from among the works submitted, an original work that deals with some aspect of Australian life and is of the highest literary merit in its genre.

Previous award winners have included David Malouf, Thea Astley, Peter Carey, Ruth Park and Thomas Keneally. ①

The Water Dreamers: The remarkable history of our dry continent.

Michael Cathcart

Text Publishing

ISBN: 9781921520648

It's grim work, but researchers following Tropical Cyclone Yasi's path have come up with some good news.

Investigators from JCU's Cyclone Testing Station (CTS) found that buildings complying with current building regulations fared quite well.

"We've found a generally low incidence of structural wind damage in buildings constructed, or extensively modified, since the 1980s," Dr Geoff Boughton said.

"Those houses were designed to endure wind speeds in excess of what was experienced," Dr Boughton said. "Where they were diligently applied, the current building regulations did their job well."

However the investigators have recommended the installation of more automatic weather stations capable of withstanding, and measuring, extreme events.

"To accurately assess the impact of cyclones we need access to accurate measurements of wind speed and direction," CTS researcher Dr David Henderson said.



Masters Student Peter Kim and CTS Research Director John Ginger using a traffic sign to estimate wind speed. Photographer: Geoff Boughton

"Where that data is not available, we make estimates based on the impact on known structures, such as traffic signs. We would like to see an automatic weather station every 50km in cyclone-prone areas."

LESSONS FROM YASI

The CTS estimates the peak winds impacting buildings between Cardwell and South Mission Beach to have been consistent with a low Category 4 cyclone.

The Cyclone Testing Station, founded in response to the destruction caused by cyclones Althea and Tracy in the early 1970s, played a pivotal role in the establishment of regulations for buildings in cyclone-prone regions.

After Yasi, the investigators have recommended a review of standards relating to several exceptions to that generally good report card. These include roller doors and tile roofs.

"After Cyclone Larry we found that many roller doors, in houses and



in sheds, had failed at loads less than what they were designed for," Dr Boughton said. "We've observed the same after Yasi, and we're recommending changes there."

Similarly, tile roofs were found to have performed poorly, with tile clips (intended to secure the tiles) remaining in place while tiles were blown off or dislodged.

"In one case we examined a building that had lost a fair portion of its roof during Cyclone Larry and had been retiled using heaviergauge clips," Dr Boughton said. "The majority of the roof was gone again after Yasi. We're recommending a review of the means of fastening tiles."

Dr Henderson said guidelines needed to be established for houses in the storm surge zone.

"Our observations were that the only buildings faring well in that zone were those with a floor level above the surge height, with open areas below, allowing for the unimpeded flow of water and debris.

The vulnerability of older houses was also a concern, Dr Henderson said.

"Overall, there's a significant difference in the performance of pre-80s and post-80s housing," he said. "The report recommends inspecting and if necessary upgrading older houses." ①

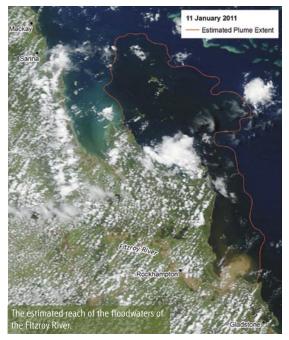
Technical Report No 57 is available at www.jcu.edu.au/cts

The Cyclone Testing Station would like to thank the people of the Cassowary Coast for their assistance and cooperation during difficult times.

dam Head © Newspix

From river to reef

"There's a flood somewhere, every year, in the Great Barrier Reef region," says Dr Michelle Devlin, leader of the flood plume monitoring team at JCU's Australian Centre for Tropical Freshwater Research.



When January's massive floods sent plumes of muddy, polluted water into the Great Barrier Reef Marine Park, Dr Devlin and her colleagues set to work on understanding the impact on the reef.

"The aim of our monitoring program is to understand the short-term impact of river plumes, as well as building an understanding of any longer-term changes," Dr Devlin said.

"This past wet season wasn't just very wet – it also started early.

"We've seen record flows in many rivers along the coast, to the extent that plume waters from the Brisbane and Mary-Burnett regions have moved north, joining up with the Fitzroy plume."

Monitoring has revealed elevated concentrations of sediment, nutrients and pesticides in areas affected by floodwaters.

"Plume water is also low in salinity, which can stress corals and sea grasses," Dr Devlin said. "Reduced salinity can lower the threshold temperature at which corals are likely to bleach, making plume-impacted areas more susceptible to the higher summer temperatures."

As to the longer-term picture, there are concerns that an oversupply of pesticides and dissolved nitrogen and sediments is changing the baseline.

"We are seeing longer periods of high turbidity in the dry season and, over the year, higher levels of chlorophyll, " Dr Devlin said.

While monitoring of riverine plumes on the Great Barrier Reef has been carried out sporadically for several decades, recent concerns have led to a reinvigorated sampling program.

"It's a multidisciplinary effort including monitoring and mapping plumes, collecting data on water quality, monitoring inshore corals and seagrasses, and herbicide detection."

🜔 www.jcu.edu.au/actfr/

Thank you, orange crew

State Emergency Service (SES) volunteers Emma Pascoe and Melanie McIntyre are just two of the many JCU students and staff who pulled on their orange overalls to lend a hand when disaster struck this summer.

Emma, now in the final year of her nursing studies, helped to evacuate people from flooded streets in Rockhampton and Brisbane, door-knocked with police to advise residents of flood risks, cleaned out mud-filled houses, and filled and lugged more sandbags than she wants to remember.

"It's hard work, but it really is rewarding. I get as much out of the SES as I put in," she said.

Emma joined her local SES after being impressed by what she had seen volunteers deliver in the aftermath of Cyclone Larry.

66 I signed up to help out, but I've found there's a lot in it for me in terms of self-development. I'm learning new skills and I'm gaining experience, working in all sorts of situations.**99** The day after Cyclone Yasi hit, Emma was back at work with her unit. "We were tasked to remove trees that had fallen onto houses. Lots of chainsaw work!"

Melanie, whose nursing studies include a major in mental health, also worked in the Brisbane and Emerald floods and then was busy closer to home after Cyclone Yasi.

"We were tarping damaged roofs, helping with mass clean-ups, removing debris, evacuating, and yes, more sandbags.

"We also spent time just talking to people. I love working with people and, for me, nothing beats that feeling of being able to help out when it's needed.

66 The SES is a wonderful organisation – it's very satisfying work and it gives you opportunities and experiences you never forget. I would really recommend it to other students and staff. **??** D

🕐 🕥 www.emergency.qld.gov.au/ses/



Value for money



Business lecturer Ben Jacobsen

Accountants could find ways to expand their business into more interesting areas thanks to a study being conducted in Cairns, Hobart and Auckland.

JCU Business lecturer Ben Jacobsen has surveyed Cairns businesses to learn how and why they use accountants and whether they are happy with their service.

"The businesses surveyed have overwhelmingly been happy with the service of their accountant and believe they are receiving good value for money," Mr Jacobsen said.

"Where there is room for improvement is in the type of work accountants are performing. Small and medium enterprises are the backbone of regional economies and have a tough time meeting government regulations, so turn to accountants for advice.

"This study could help accountants market their business better to ensure they were expanding into more professionally challenging areas, rather than just being used for compliance such as audited reports and taxation."

The study is being done in collaboration with William Maguire at the University of Tasmania and Terry Quilty at the Manukau Institute of Technology. A comparison of the Cairns, Hobart and Auckland results will be done this year.

"The comparison should be interesting as Hobart is essentially regional, despite it being a capital city, yet local businesses in Manukau might face more competition for their services from Auckland," Mr Jacobsen said.

Online toolkit

James Cook University's

AccessAbility Services has developed the Toolkit for Staff, a valuable new resource that helps staff support students with a disability, injury, illness or health condition.

The Toolkit was developed after AccessAbility Services staff searched far and wide for a resource hub that provided a comprehensive range of information and strategies.

"After investigating national and international education Institutions, workplaces and government resources and websites, and not finding what we were looking for, we decided to build our own," Student Equity and AccessAbility Services Manager Elizabeth Siataga said. "The result is the Toolkit for Staff. It's the only comprehensive and interactive, web-based resource of its kind that we know of."

For each condition the Toolkit includes information including how it might impact on study, advice on communication, teaching and assessment strategies, and details of the support and resources available.

"Although we designed it specifically for use by JCU staff, we are very happy to make it available to the general community and we hope it will be used widely."

() www.jcu.edu.au/accessability/





Thanks Mum

This year's graduation celebrations included recognition for an inspiring mother whose seven children have gained 14 degrees from JCU.

Between them Glenda Rankine's children have completed one graduate certificate, eight Bachelor degrees (four with honours), two Masters degrees (one with a University Medal and one with an Academic Medal), and four PhDs, all from JCU.

"Mrs Rankine's children wanted to publically acknowledge the importance of her support and encouragement in their individual achievements," Deputy Vice-Chancellor Dr Stephen Weller said. "At graduation we are always mindful of the importance of family and friends in supporting our students, and in this case we are acknowledging a remarkable connection between the University and one very studious family."

Mrs Rankine received a certificate of appreciation in the same ceremony in which her son Rudd Rankine was awarded his Master of Business Administration and an Academic Medal.

"We have all felt that Mum could have achieved great things at university herself, because she has a real love of learning," Rudd Rankine said. "But like many parents, she put her children and our careers ahead of her own, so this is a way of recognising that our achievements are also hers, and to say 'Thanks Mum'."

Mrs Rankine met her husband John at what was then University College in Townsville, where he was studying Engineering.

After postponing her own studies and becoming a young mother, she later attended evening classes to qualify as a primary school teacher – a role she has pursued passionately for 40 years.

Names to honour heritage

They are cool spots on campus, but until this year they had no formal names.

The creeks that traverse JCU's campuses in Townsville and Cairns have been named as part of the University's 40th anniversary celebrations.

Previously known as an ephemeral creek, the stream that crosses the Cairns campus will be known from now on as Atika Creek. The name was chosen in consultation with the traditional owners.

Atika means spear in Yirray, the language of the Yirrganydji People, and was the language name of Elder and Grandfather George Dominic Singleton. Earlier in the year two creeks that cross the JCU campus in Townsville were given names that acknowledge the Indigenous heritage of the land on which the University stands.

The creeks are now the Wadda Mooli, meaning both welcome and goodbye in the Birrigubba language, and Goondaloo, meaning emu country in Wulgurukaba.

"With this name we pay tribute to the traditional owners and we remind people that this is a university for all Australians," said JCU's Chancellor, Lt Gen John Grey AC [Ret'd] at the naming of Atika Creek.



Yirrganydji dancers (from left) Bernie Singleton, Shane Singleton and Gavin Singleton celebrated the naming of Atika Creek. Photo: Sue Wellwood.

Better barra

The barramundi is more than just a big fish, it's an industry

Commercially, the barramundi fishery is estimated to be worth about \$80 million, and the recreational barra fishery is valued at about \$50 million.

With predictive climate models suggesting that environmental conditions could impact barramundi breeding and survival between 2030 and 2070, JCU researchers are working on identifying strains or features of 'superior' barramundi that may be better able to withstand the effects of climate change.

The research will also highlight new ways the various stakeholders in the barramundi industry can manage and protect this iconic Australian fish.

"Our challenge is to gather relevant data so we can clearly delineate not just the threats to this fishery but also any potential opportunities for the barramundi industry under future climate scenarios," Associate Professor Dean Jerry said.

The study will look at the ways barramundi currently adapt to different climatic conditions and how commercial fisheries and aquaculture may need to change and adapt in response to future climate change.

Associate Professor Jerry, who is the Aquaculture Genetics Research Program Leader in JCU's School of Marine and Tropical Biology, said there had been little research into the link between climate variability and inshore, estuarine or freshwater fisheries in tropical Australia.

"It might not all be bad news," he said. "One study has shown that warm sea temperatures, high rainfall leading to increased freshwater flows, and low evaporation, correlated strongly with increases in commercial barramundi catches from Princess Charlotte Bay two years after the event.

"However, simulated climate change scenarios relative to those predicted to occur by 2030 and 2070 do predict an overall decrease in barramundi catches. "It's clear that altering climate has the potential to dramatically affect tropical inshore species like barramundi, and we will be gathering biological and genetic data to track how different barramundi strains respond to changing conditions.

"We will be working on identifying barramundi that naturally exhibit higher tolerances to thermal stress and that more efficiently utilise aquaculture diets. This will allow the aquaculture industry to farm more tolerant and bio-energetically efficient strains.

"Parasites of barramundi are also expected to speed up life-cycles. We will be examining how warmer water temperatures influence important parasites and will use this information to develop risk management strategies for the industry."

The three-year project is supported by a \$400,000 grant from the Federal Government's Fisheries Research and Development Corporation (FRDC) and Department of Climate Change and Energy Efficiency (DCCEE). ①

13

ographer Jason Busch © Newspix



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Tropical regeneration

Death has been a common thread in the recent work of textile artist and academic Dr Robyn Glade-Wright who has recorded the delicate beauty of extinct Tasmanian plants with embroidered wreaths and funeral looms.

ael Gardiner, 2010, photography

A recently completed project *Memorial: The Silence of Extinction* is both beautiful and confronting, commemorating the annual extinction of 27,000 animals and plants. She has incorporated 27,000 coloured shapes of animals or



plants cut out by people around the world in a 51 metre-long banner.

elling 2010 digital

Early this year Dr Glade-Wright relocated from Tasmania to another region famous for its flora – she is now teaching at JCU in Cairns, where her subjects will include Artists and the Dr Glade-Wright's concern for the environment is a perfect fit for James Cook University's rainforest campus and she is excited by the sense of a new beginning.

"I feel a sense of completion in some of the work I've done in Tasmania. As an artist quite sure what will drive my work, although the nature of my environment has been a strong driver for some time," she says.

"I hope moving to a different place will bring new horizons, a possible sense of regeneration and being able to consider things differently."

One ongoing project is her research on how artefacts can serve to illuminate human experience and function as a means of providing a greater understanding of our existence.

"The meaning of objects is transitory and changing – a car used to be something that took you from A to B, but now it can be used as a sign of social status, just as the furniture you buy or the watch you wear shows your personality. Artefacts can assist us in the process of developing selfknowledge, in generating a positive self-image." (D)

art of a 51 metre-tong work of extinent

Building on community strengths

The secrets to sustaining research over such a wide range of areas, he says, are collaboration and empowerment. Fatherly advice was the inspiration for Professor Komla Tsey's groundbreaking research on empowerment, conducted in partnership with Indigenous and other people.

The son of peasant farmers in a small rural village in Ghana, Professor Tsey won a high school scholarship in 1970.

"On my first school holiday I was working in the field with my father and he started a conversation about what they were teaching me at school. I struggled, wondering how to explain chemistry and political science to my father who had never been to school," Professor Tsey said.

"My father said: 'If you go to boarding school and you can't make what you learn there relevant to the needs of your village, then what is the point of sending you to school?'

66 Those words motivated my interest in community development and how you make knowledge, and research in particular, relevant - in order for people to improve their own living conditions.

Professor Tsey migrated to Australia in 1995 to head the Central Australian Unit of the Menzies School of Health Research. He joined James Cook University in Cairns in 2005, after receiving a prestigious five-year National Health and Medical Research Council Fellowship.

Now a Tropical Leader and Research Professor in Education for Social Sustainability, Professor Tsey is based at The Cairns Institute, part of JCU's Cairns campus.

Current projects, in collaboration with other researchers, include: assessing the cost effectiveness of Indigenous alcohol interventions; reducing binge drinking in young people in an Indigenous community; developing strategies to engage Indigenous people to improve education outcomes; enhancing the research capabilities of emerging Indigenous researchers; palliative care in remote Indigenous communities; a longitudinal study of rural development in Ghana; adapting family wellbeing programs to the needs of Papua New Guinea; and, improving science outcomes for students at a north Queensland high school.

"The strategy I have employed in my research means that it doesn't matter what the subject matter is – I'm not necessarily the specialist on the topic.

66 I work with a range of professionals and community leaders, and I aim to help each community work from their strengths, to improve their circumstances. **9**

Professor Tsey cites communitycontrolled health services as an example of a success story. "Indigenous Australia is a global leader in building these. In 2000 there were about 130 across the country. They are a great employer of Aboriginal people – and the people themselves built these organisations."

Professor Tsey has collaborated with several such services, at times employing a family wellbeing program from Adelaide that provided particularly valuable direction for staff and clients.

"Participants in this program acknowledged past history and its impact on their lives, but they then moved on to new conversations demonstrating personal and organisational resilience, strength and competency.

"I saw the need to help people develop the skills to negotiate life's challenges better. So I worked with Indigenous programs such as this, aiming to provide opportunities for any group of people, whether it was a family, a couple, men's group or organisation.

"I wanted to give them a framework for a conversation about issues important to them. It needed to be a structured, respectful and very informed, critical conversation about difficult-to-speak-about issues.

"From there, you can start finding solutions that will work for that community.

66 The same strategy can be used on issues as far ranging as mental health, sexual health or education. It is about offering people relevant social research frameworks and tools to enhance their own capabilities to achieve health and wellbeing. **99 •**

— Liz Inglis

🔘 www.jcu.edu.au/cairnsinstitute/



Foreign Minister Kevin Rudd led a group of international ambassadors on a tour of JCU's Cairns campus in April

An artful education

After completing her Diploma of Visual Arts in 2007 and then a Bachelor of Creative Industries, Chrissy Dwyer celebrated with her first solo exhibition, eScapism.

Working mostly in acrylics, Chrissy's bold and colourful style celebrates the beauty, and sometimes the kitsch appeal, of life in the tropics.

Her exhibition at Cell Art Space was supported by the Cairns Regional Council's Art and Cultural Fund.

Chrissy's next goal is to complete a Graduate Diploma in Education and share her love of art with high school students.

🜔 www.chrissydwyer.com.au



Roadside fruit stall by Chrissy Dwyer

Mr Rudd said his visit was planned with two key messages in mind.

"Message number one is to say that Queensland is open for business after Cyclone Yasi," he said.

"Message number two is to showcase far north Queensland in terms of its agricultural and research potential." An international media contingent and 60 heads of mission and their spouses joined Mr Rudd for his visit to Cairns and the far north.

The Minister and delegates attended presentations about JCU's research strengths, visited the School of Dentistry and chatted to students and staff. **①**

JCUB comes of age



When more than 100 students from the Faculty of Law, Business and the Creative Arts received their degrees at the Queensland Performing Arts Centre they were celebrating more than the rewards of their years of hard work.

The students were part of an historic occasion – JCU Brisbane's first graduation ceremony.

Chancellor Lt General John Grey AC welcomed the graduates and JCU Foundation Professor of Tourism Professor Philip Pearce delivered the occasional address, focusing on the crucial personal attributes of optimism and stewardship.

Four graduates received University Medals, with medal recipient Pia Ellendt delivering the address on behalf of the graduating students.

Pia spoke of the commitment of students, the support of family and friends and the important part an Australian university education has played in her life. **①**

🕥 www.jcub.edu.au/

Releasing our research

ResearchOnline@JCU is the University's institutional repository, a resource hosted by the library to make JCU research available online.

Publications such as journal articles, conference papers, book chapters, reports and creative works are available through ResearchOnline@JCU.



JCU postgraduate research theses are also available.

If your thesis was completed prior to 2003, and you have a digital copy, it can be loaded on to the repository. Just contact Jackie at the address below.

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www.jcu.edu.au/researchonline jackie.wolstenholme@jcu.edu.au



COORDINATOR – MT ISA SAFE COMMUNITY PROGRAM AT THE MT ISA CENTRE FOR RURAL AND REMOTE HEALTH (MICRRH)

When I was a kid it was hard seeing the effects that chronic disease had on my family. Both my grandma and uncles had health problems and from seeing this I knew that health was an area into which I wanted to find pathways.

Honora Serie Annual Provide Serie Annual Provi

Thanks included

Each year the Inclusive Practice Acknowledgement Awards are presented to JCU staff members who have shown exceptional commitment to helping students with disabilities.

The awards recognise the efforts made by staff to be flexible, consultative, proactive and innovative in assisting those studying with a disability.

Students registered with JCU's AccessAbility Services are encouraged to nominate staff members they believe have provided additional support. In 2010, 28 staff members were nominated.

Award winners receive a certificate of appreciation, a gift voucher funded by STEPS Disability Queensland, and a big vote of thanks from AccessAbility Services and students. **①**

I wanted to see how I could make changes both in my family and in the community and what things we could do.

Our health system at the time didn't have the capability to deal with the

2010 Award Winners

Dr Irmgard Bauer Mr Anthony Blood Mrs Robyn Boucher Ms Maureen Bourke Dr Taha Chaiechi Dr Lisa Chilton Dr Nichola Corbett-Jarvis Dr Jim Coughlan Dr Abraham Francis Ms Kate Galloway Ms Vera Girgenti Ass. Prof. Deborah Graham Dr Joseph Holtum Ass. Prof. Doug Hunt Mr Alf Kuilboer Mr Barry Mitchell Ms Samantha Morgan Ms Susan Morrison Dr Tom Mylne Ms Martina Mylrea Dr Aimee Norton Dr Teresa O'Connor Ms Theresa Petray Mrs Heather Robson Dr Janelle Rose Mrs Janine Sheaves Dr Reesa Sorin Ms Beth Tinning Mr Matthew Wilkie

health problems and didn't provide the type of care that we have now.

I started with MICRRH in August 2006 as a Student Placement Officer and studied part-time to obtain an Associate Degree in Indigenous Community Management and Development.

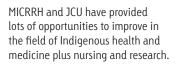
I was interested in making the community more aware of the importance of healthier choices and the preventative measures that you can put in place to keep you healthy and safe.

In 2009 I was appointed the Mt Isa Safe Community Coordinator. The Safe Community team focuses on making Mt Isa a safer community where injury prevention measures help raise awareness about health and safety, reducing serious health concerns and injuries.

There are many great local community projects in Mt Isa that are making a difference and that are making a positive impact.

Working at MICRRH is like working with your family. They are great bunch of people - so many talented, skilled and knowledgeable people.

Riders are in training for this year's 780km fundraiser.



This year I'm looking forwarded to completing my Bachelor of Applied Sciences – Indigenous Community Management and Development.

I'm proud of attending the Oxfam International Youth Program (OIYP) in New Delhi, last November 2010. I'm an Action Partner – just one of 299 young people selected from around the world.

The Australian Action Partners are working on developing an action plan to improve the health and education of young people in our communities. We will be working together to bring about this change during the next three years.

JCU is very supportive of programs for young people and this program gives me a chance to work with people to play a small part to make Mt Isa a healthier and better place for everybody.

Stephanie King spoke to Narelle
Reece ①



Riding from Cairns to Karumba

Registrations are now open for the Cairns to Karumba bike ride.

JCU is a proud sponsor of this ride, which began as a fundraiser for the Cairns School of Distance Education and now focuses on projects that benefit children in remote communities.

The 780km ride travels west across the base of Cape York Peninsula, from the rainforest to the savanna and on to the Gulf of Carpentaria.

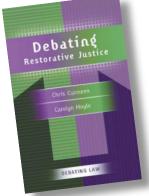
It will depart Cairns on Sunday 26 June and arrive in Karumba on Saturday 2 July. A parallel Dirt Ride caters for experienced mountain bikers who want to get even further off the beaten track.

Whichever way you do it, this is a great chance to go for a pedal, see some amazing country and raise money for bush kids.

Riders of all levels of fitness are welcome, and there are also roles for non-cycling volunteers.

To find out more about the seven-day ride, go to: www.ridefnq.com ①

www.jcu.edu.au/discover



A restorative debate

Debating Restorative Justice is part of the revived series Debating Law, in which prominent scholars offer contrasting views on significant legal topics. In this first volume the protagonists are Chris Cunneen, Professor of Criminology at the Cairns Institute, JCU, and Carolyn Hoyle, Reader in Criminology and a Fellow of Green Templeton College, Oxford.

Their topic is restorative justice, an approach to criminal justice that is based on reconciliation, restoration, healing and rehabilitation, and is seen as a cost-effective alternative to incarceration.

Dr Hoyle argues that communities and the state should be more restorative in responding to harm caused by crimes, antisocial behaviour and other incivilities.

She supports the exclusive use of restorative justice for many non-serious offences, and favours approaches that, by integrating

Seasonal workers are integral to tourism. HR and holidays

Tourism staff play such a vital role in service-based industries that they become part of the product and are responsible for its success, according to a new book by two Cairns academics.

James Cook University School of Business lecturers Associate Professor Darren Lee-Ross and Dr Josephine Pryce have written a textbook to better prepare graduates for the demanding task of human resource management in an industry that can involve everyone from part-time snake handlers to career executives.

Professor Darren Lee-Ross said Human Resources and Tourism: Skills, Culture and Industry recognised the diversity of the tourism industry and the unique part seasonal workers played within it.

"Seasonal work is integral to tourism. The role of these workers is frequently downplayed, but these people are often at the coalface, being ambassadors for the business," he said.

Dr Pryce said the very nature of the tourism workforce made human resource management in the sector a complex task.

"As educators we have to acknowledge the idiosyncratic nature of the industry, so there's no sense in spelling out the rules in a narrow sense.

"For this reason this is not a prescriptive textbook – it asks a lot of questions rather than just giving answers and has a very generous reference section."

Human Resources and Tourism: Skills, Culture and Industry

Darren Lee-Ross and Josephine Pryce

Channel View Publications

ISBN 9781845411398

restorative and retributive philosophies, take restorative practices into the 'deep end' of criminal justice.

While acknowledging that restorative justice appears to have much to offer in terms of criminal justice reform, Chris Cunneen offers a different account, contending that the theoretical cogency of restorative ideas is limited by their lack of a coherent analysis of social and political power.

He goes on to argue that, after several decades of experimentation, restorative justice has not produced significant change in the criminal justice system and that the attempt to establish it as a feasible alternative to dominant practices of criminal justice has failed.



Buffalo tales

Emeritus Professor Rod Campbell has recorded four decades of memories and achievements in *Veterinary Science in the Tropics 1969–* 2009.

The book recounts the history of JCU's School of Veterinary and Biomedical Sciences, (as it is now known) which has operated in five continents and trained students from nearly 100 countries.

At the book's launch Professor Campbell and fellow contributors shared stories of long-standing collaborations in Asia, world breakthroughs in disease identification and diagnosis, along with yarns like the one about the buffalo that escaped to wallow in a neighbouring backyard pool.

"This historical account is unusual in that it is written by some of those who made the history," Professor Campbell said. Debating Restorative Justice Chris Cunneen and Carolyn Hoyle Series Editor Peter Cane Hart Publishing

ISBN: 9781849460224



Topics covered range from the diagnosis and control of foot and mouth disease in Indonesia, to recognition of the global epidemic in frogs and current responsibilities for national biosecurity.

"Professor Campbell was instrumental in the establishment and evolution of the JCU Graduate School of Tropical Veterinary Science, as it was then known," Vice-Chancellor Professor Sandra Harding said.

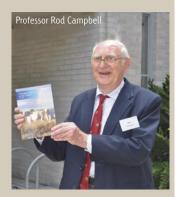
"There is no one better versed in the activities of the School, especially in those early years, than its innovative and influential founding Professor."

Veterinary Science in the Tropics 1969–2009

Roderick Campbell (Ed)

Veterinary and Biomedical Sciences, JCU

ISBN 9780980818307







Details: A one-day program introducing Aboriginal and Torres Strait Islander culture, important issues and historical events. Date: Friday 3 June Location: JCU Cairns Admission: \$65, registration

JCU Mariners V Barron Trinity

Contact: 4042 1046

required

Details: Cheer on the reigning premiers as they take on the 2011 season. Date: Saturday 4 June Time: from 5.30pm Location: JCU Cairns Oval **Contact:** jcumariners@gmail.com

Cultural awareness workshop

Details: A one-day program introducing Aboriginal and Torres Strait Islander culture, important issues and historical events. Date: Friday 15 July Location: JCU Townsville Admission: \$65, registration required Contact: toni.wright@jcu.edu.au Location: JCU Cairns Oval Contact: 0405 245 608

Plant ID workshop

Details: A short course on identifying Australian tropical rainforest plants. Date: 21-23 June Admission: \$495 Location: JCU Cairns Contact: 4042 1837

Criminology symposium

Details: A symposium on Indigenous sentencing, punishment and healing, presented by the Australian Prisons Project and The Cairns Institute. Date: 5-7 July Location: Rydges Esplanade, Cairns

Contact: 4042 1892

Criminology conference

Details: The 5th annual Australian and New Zealand critical criminology conference. Date: 7-8 July **Location:** Rydges Esplanade, Cairns Contact: 4781 5307

Time: 4.00 - 5.00pm Location: A21.002, JCU Cairns. Video linked to the Padua Theatre, JCU Townsville. Admission: free Contact: 4042 1207

Indigenous research protocols

workshop

Details: A half-day program for researchers and others wishing to engage effectively with Aboriginal and Torres Strait Islander people. Date: Friday 5 August Location: JCU Townsville Admission: \$50, registration required Contact: 4781 4676

Jocelyn Wale psychology seminar

Details: Professor Kenneth Pakenham on young people whose parent has an illness or disability. Date: Friday 12 August Time: 4.00 - 5.00pm Location: A21.002, JCU Cairns. Video linked to the Padua Theatre, **ICU** Townsville. Admission: free Contact: 4042 1207

Time: 4.00 - 5.00pm Location: A21.002, JCU Cairns. Video linked to the Padua Theatre, JCU Townsville. Admission: free Contact: 4042 1207

Open day, Cairns

Details: Explore your local university. Date: Sunday 21 August Time: 10.00am - 3.00pm Location: JCU Cairns Admission: free Contact: 4781 4771

Open day, Townsville

Details: Explore your local university. Date: Sunday 28 August Time: 10.00am - 3.00pm Location: JCU Townsville Admission: free Contact: 4781 4771



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