Discover

SEPTEMBER 2011

JAMES COOK UNIVERSITY

In their shoes

A tribute to the victims of Christchurch's earthquake

Tigers in trouble

How malaria threatens India's endangered wildlife

Making movies

An anthropologist at work in remote Papua New Guinea

www.jcu.edu.au/discover



Once a year we invite everyone to visit James Cook University during Open Day. Perhaps you have picked up a copy of this magazine during that visit. I hope you enjoyed your visit and that you will also discover a little bit more about us from the following pages.

We see Open Day as an opportunity not only to show off what we have to offer to prospective students from far and wide but also to showcase the University to our local community in northern Queensland.

A visitor will see growing campuses with new buildings, widespread research facilities and, most importantly, meet people who are dedicated to creating a brighter future for life in the tropics, worldwide, by teaching our students and achieving discoveries that together will make a difference.

It is the fulfilment of the vision espoused 50 years ago when tertiary education was first established in northern Queensland with the

opening of University College Townsville in 1961. We are celebrating those first years by inviting back our original students and staff to various functions in the next few months.

From being an outpost of The University of Queensland, James Cook University has, since gaining autonomy in 1970, established itself as a world-ranking institution of learning and research.

In 1987, a Cairns campus was added with 117 students and early in August this year the number of students actually studying on that campus hit 4000 for the first time. In 2003, JCU Singapore was established and a few months ago we achieved sole ownership of the campus making us truly an international university of the tropics.

We are proud of the fact that our presence makes Cairns and Townsville university cities and that the JCU community extends far beyond our campus boundaries.

lande Maroli Sandra Harding

Vice-Chancellor

Cover: Creative Industries student Jay Feather. Photographer: Sue Wellwood



















In their shoes

Creative Industries student Jay Feather used 182 pairs of shoes to create a work dedicated to those who lost their lives in the Christchurch earthquake.

Civil concerns

6

7

8

4

A study of 32 communities aims to assess the civil and family law needs of Indigenous Australians in areas including credit, debt and child protection.

Tiger trouble

-	
o healthcare for staff in India's wildlife	

Limited access t reserves means less protection against poaching for tigers and other endangered animals.



Outstanding

In this year's Alumni Awards JCU has acknowledged the achievements of eight Outstanding Alumni as well as four Outstanding Early Career Alumni.

Coral map

9

10

Sequencing the genome of the staghorn coral will help scientists understand how corals build reefs, and why they fail to do so when they are under stress.

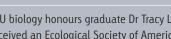
Making movies

An award-winning film made in Papua New Guinea's remote Manus Province examines how people need a vision of the past in order to imagine a future.

Sweet history

The sugar industry strike of 1911 ran for four months, extended from Mossman to Childers, and saw arrests, riots and unlawful burning of cane crops.

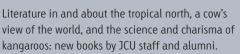
Alumnus honoured





JCU biology honours graduate Dr Tracy Langkilde has received an Ecological Society of America award for her work investigating fire ants and lizards.

In print



Volume 5 No 2

Discover James Cook University Editor: Linden Woodward Contributors: Robin Beaman, Paul Dymond, Amber Hill, Liz Inglis, Caroline Kaurila, Cameron Laird, Jim O'Brien, Rob Parsons, Narelle Reece, Kristof Schrader, 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 CRICOS: 00117J

17

18



Major General Mick Slater watches as Senior Engineer Ulrich Frye and Queensland Premier Anna Bligh fire the Cyclone Testing Station's air cannon.

Building better

Queensland Premier and Minister for Reconstruction, Anna Bligh, recently visited JCU's Cyclone Testing Station to launch new building guidelines, following northern Queensland's summer of natural disasters.

Rebuilding in storm tide prone areas: Tully Heads and Hull Heads is designed to help those who choose to rebuild their homes in areas impacted by Cyclone Yasi.

"We have said we want to build it back better in Queensland and we mean it," the Premier said.

"These guidelines will give people rebuilding their homes or building new homes some directions on how to limit the damage should a storm surge hit their region again." With the Chair of the Queensland Reconstruction Authority, Major General Mick Slater, the Premier saw a demonstration of the effects of cyclonic winds on houses at the Cyclone Testing Station.

Major General Mick Slater said the summer disasters also reminded us that cyclones do not only affect the Queensland coast.

"Cyclone Yasi crossed the Queensland coast causing millions in damage, but its sheer size meant its effects were felt 1500 kilometres west in Mount Isa," General Slater said.

"Therefore, guidelines like these have benefits for communities not only around Australia, but anywhere in the world where serious storms like typhoons and hurricanes are prevalent.

🔘 Yasi lessons, p 14

Treasurer and Minister for State Development Andrew Fraser launched the Queensland Tropical Health Alliance (QTHA) and its new medical research laboratory at JCU Cairns in July.

A healthy alliance

Mr Fraser said the Queensland Tropical Health Alliance would become one of Queensland's great scientific assets.

"Cairns is uniquely placed to lead game-changing research in tropical health," Mr Fraser said.

6 This collaboration among Queensland universities and research institutes, creating a wealth of health and medical research expertise in the tropics, will set the region apart from global competition. **7**

In 2009, the Queensland Government committed \$19.45 million as an interest-free loan to establish the QTHA.

The University of Queensland recently announced it is joining the Alliance, which comprises JCU, the Queensland University of Technology, Griffith University, and the Queensland Institute of Medical Research.

This makes it a Queensland-wide alliance with all the Queenslandbased research institutes and universities conducting significant research activities in tropical health. QTHA Director Professor Louis Schofield said the Queensland Tropical Health Alliance would significantly increase Queensland's research capability in relation to tropical health, making the State one of the foremost research locations in the world.

"By working together, what these scientists do will go a long way to helping us to defeat blights like malaria, dengue fever, multi-drug resistant tuberculosis, cholera, diarrhoea, bat-borne viruses, and diseases that particularly afflict Australia's Indigenous people," he said.

"And, given that half the world's population live in the tropics, the contribution our scientists make to tackling these diseases will be significant."

🕥 www.qtha.com.au



In their shoes

A collection of 182 pairs of shoes might inspire frivolous or indulgent thoughts... Carrie Bradshaw's love affair with her Manolo Blahniks, or Imelda Marcos and her famed collection of footwear.

For creative industries student Jay Feather shoes became the raw material for an installation dedicated to those who lost their lives in Christchurch's February earthquake.

Jay says her work, completed as part of a creative arts subject, was inspired by other large-scale artworks and the enormity of the situation then unfolding in Christchurch. "Our brief was to produce something substantial, so I looked at the work of artists like Christo, who famously wrapped a stretch of coastline," she said.

"I love the way those huge works inspire the viewer's tactile imagination and engage you partly via the process: you find yourself thinking a lot about how they achieved that result – the work behind the scenes."

Trying to imagine herself in the shoes of the people of Christchurch took on a more literal shape – she decided to represent the victims with pairs of shoes.

"When I was completing the planning for my installation the police reported that they believed 182 people had died, so I made a list of their names to include in a plaque and I set about collecting 182 pairs of shoes.

"I wanted the work to make an impact through the repetition, scale and shape. I hoped the repetition would give a sense of the scale of the disaster. 182 victims sounds a lot, but seeing 182 pairs of shoes is a way of experiencing that more directly and more personally."

The shoes, collected from friends and charity stores, are painted white. "The colour represents another state of being," Jay said. "I hoped it would also communicate a sense of peace. It's a sad work, but I wanted to make something that people could contemplate peacefully.



Jay Feather collected 182 pairs of shoes from friends and charity stores.



"It took several coats and three months of painting to get all the shoes the right colour, but it was calm and meditative work."

Three of the victims were infants, represented by three tiny pairs of shoes. "Painting those small shoes was heartbreaking for me. As I painted I was able to reflect on the lives lost. I found myself thinking a lot about just how fragile we are as a society, and the power of natural disasters – that what lies beyond such an event is unknown."

Jay arranged the shoes in rows along intersecting paths at the entrance to JCU's Cairns campus.

"The paths form a cross, and the neat rows of white shoes bring to mind a cemetery. I set them out with enough space to allow people to wander amongst them."



Shoes in many sizes and styles help to communicate a sense of the victims as individuals.

"When they walk among the shoes some people cry or want to talk about how they felt when they saw the earthquake stories on the news. Sometimes ordinary life intervenes, and you'll hear someone say 'I really like those sandals' or 'My sister has a pair like that' and then they'll remember what the sandals represent."

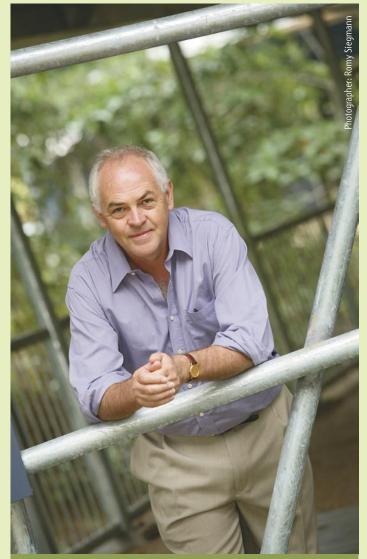
Photography: Sue Wellwood



ergency services and volunteers rescue people from the collapsed CTV building.

Civil inquiries

A study of 32 communities aims to assess the civil and family law needs of Indigenous Australians in areas such as discrimination, consumer matters, credit and debt, child protection, education, employment, health, housing and wills and estates.



Professor Chris Cunneen is a Tropical Leader at The Cairns Institute, James Cook University. He is a leading criminologist specialising in Indigenous people and the law, juvenile justice, restorative justice, policing, prison issues and human rights.

"It's an area where research is sorely needed," said Professor Chris Cunneen, a Tropical Leader at The Cairns Institute.

"There has been a great deal of discussion on access to justice issues, particularly at a federal level, but there is little understanding or information on what services Indigenous people are accessing, or what they need."

"Preliminary research so far reveals that many Indigenous people are unaware of their legal entitlements and how to pursue them. Lack of awareness means lack of access."

Professor Cunneen is conducting Australia's first large-scale investigation of this area of law with his fellow chief investigators Ms Melanie Schwartz (University of New South Wales) and Professor Larissa Behrendt (University of Technology, Sydney). Ms Fiona Allison, an experienced lawyer and researcher, is the senior research fellow on the project and is based at the Cairns Institute.

Funded by an Australian Research Council linkage grant of just over \$700,000, the researchers will conduct separate men's and women's focus groups in each of four states and territories: Queensland, Victoria, Northern Territory and Western Australia.

The study will include urban, regional, rural and remote communities and will also gather information from legal service providers.

"When combined with a pilot study Melanie Schwartz and I conducted earlier in New South Wales, this project will give us data and analysis on the five states and territories that are home to more than 85% of Indigenous Australians," Professor Cunneen said. "It will be a landmark study of Indigenous civil and family law needs which will have significant public policy impact."

The New South Wales pilot found significant unmet need for legal advice and representation in matters relating to housing, education and family law.

"Those were by no means the only areas, but they were the standout problems," Professor Cunneen said. "When we looked at tenancy disputes for example, whether they were with private landlords or public housing authorities, many people were either unable to access legal advice or were unaware of their rights.

"It was not uncommon for people in our focus groups to feel powerless against public housing authorities. They didn't know enough about the legal system and its processes to have any chance of achieving justice.

"In matters of family law, where children might be removed by government agencies, or grandparents might be caring for children in informal arrangements, having people unaware of even the possibility of legal representation can have very serious consequences."

Professor Cunneen said poor access to legal advice could sometimes cause a civil law matter to escalate and become a criminal law problem.

"Where people are attempting to resolve an issue themselves, perhaps a matter of family law or a dispute between neighbours, there's a danger that it can end badly, with criminal acts, charges, and a perpetuation of the overrepresentation of Indigenous people in our courts and prisons."

This three-year project aims to inform successful models of legal service delivery, better access to justice, enhanced human rights compliance and improved social justice outcomes for Indigenous people. **①**

Project partners

The Cairns Institute at JCU; University of New South Wales; University of Technology, Sydney; Northern Territory Legal Aid Commission; Legal Aid Queensland; Legal Aid Commission of Western Australia; Victoria Aboriginal Legal Service Cooperative Limited; North Australian Aboriginal Justice Agency Limited; North Australian Aboriginal Family Violence Legal Service; Aboriginal and Torres Strait Islanders Legal Service (Qld) Limited; Aboriginal Legal Service of Western Australia Inc; Central Australian Aboriginal Family Law Unit.

A home for clean and green science

Senator Kim Carr, Minister for Innovation, Industry, Science and Research, officially opened the Australian Tropical Science and Innovation Precinct (ATSIP) in July.

ATSIP, at James Cook University in Townsville, is headquarters for research underpinning the sustainable use of natural resources in the tropics.

"Our climate is changing and there has never been a more important time for governments to invest in science," Senator Carr said.

"While some choose to deny the evidence, the Labor Government is determined to fight climate change.

"That is why the Gillard Government is providing \$10 million through the CSIRO for construction of this vital research hub, which will house researchers from the CSIRO and James Cook University." The researchers will collaborate on subjects including: biodiversity and climate change; sustainable production systems; sustainable ecosystem management; hydroecological interactions; social and economic factors in sustainable communities, industries and governance systems.

The Queensland Government has provided \$14 million as a Smart State Research Facilities Fund loan, two-thirds of which must be repaid. JCU will contribute \$8.2 million to the Precinct.

Queensland Minister for Marine Infrastructure, Craig Wallace, said the investment was vital to ensure a sustainable future for unique tropical areas such as northern Queensland.

📀 www.csiro.au/places/ATSIP.html



Senator Kim Carr doing the honours at the opening of ATSIP – a new research hub for northern Queensland.

Malaria threatens tigers to

Limited access to healthcare for staff in wildlife reserves poses a threat to tigers and other endangered animals, according to a new study led by a James Cook University doctoral student.

Research conducted in India found that the incidence of diseases such as malaria and tuberculosis severely affected the management of the country's national parks and wildlife sanctuaries.

Lead author Nandini Velho, a doctoral student at JCU in Australia and a research associate at the National Centre for Biological Sciences, Bangalore, said that in one tiger reserve more than 70 per cent of the forest staff suffered from malaria over a four-year period.

"Malaria made many of the guards too sick to carry out their duties, and this likely led to an increase in wildlife poaching in the park," she said.

Another of the study's authors, JCU's Distinguished Professor William Laurance, said this was a serious and deadly problem.

"In a sense, malaria is not just sickening and killing people. It is killing wildlife as well, including endangered species such as the iger," he said.

Professor Laurance said that many Indian parks were in remote and rugged areas, where disease and access to healthcare were major issues.



dozen other tiger reserves across

Diseases such as malaria and

tuberculosis kill thousands of

Indians every year. However, simple

India.

"Malaria is a serious problem in tiger reserves such as Namdapha and Dampa. It's also prevalent in parts of eastern India, all along the foothills of the Himalayas, and in at least a

"This is surely good news," Ms Velho said. "But for these gains to continue, the institutions responsible must step up and take responsibility. It doesn't take much – just simple mosquito nets can make a huge difference." D

measures can significantly reduce

the number of people who contract

"Prevention is indeed better than cure," Ms Velho said. "Not only

families will suffer from disease or

watchers in anti-poaching camps

Malaria poses a threat to India's endangered tigers



Mr Glenn Poole, Dr Jan Strugnell, Professor David Durrheim, Professor Sandra Harding, Ms Tricia Brand, Dr John Glaister, Dr Catherine Day, Dr Glen Richards.

They come from Sydney, Melbourne and Brisbane, from Alice Springs and Newcastle, and as far away as Vanuatu to be acknowledged as Outstanding Alumni of James Cook University.

Eight were named as Outstanding Alumni and four were awarded the accolade of Outstanding Early Career Alumni.

There was also a Special Recognition Award for former JCU veterinary science lecturer and disabilities advocate Dr Max Murray.

Greencross Vets founder Dr Glen Richards, who completed his Masters degree at JCU in 1992, received the Chancellor's Outstanding Alumnus award.

JCU introduced its Outstanding Alumni Awards during its 40th birthday celebrations last year and has now made them an annual event.

Outstanding alumni

Vice-Chancellor Professor Sandra Harding said she had no doubt that each of the Outstanding Alumni had displayed the grand triumvirate of professionalism: confidence to know that there is always more to learn; commitment to serving the purpose of their profession; and courage to face immense challenges, sometimes getting it wrong and learning from that hard experience.

6 To the Early Career Alumni, I say, we are watching you. We applaud your impressive career success to date and look to your further success as your career develops, as we know it will. You are already that type of professional, with an exciting journey ahead. ??

Professor Harding said that JCU's place - northern Queensland, northern Australia, Singapore and the greater tropics - was becoming more important, not less.

"Our research is externally recognised as both excellent and relevant and our graduates are highly employable," she said.

"What's more, we know that many of our graduates become leaders in their professions and in the broader community. Today, the spotlight is on eight such accomplished leaders and four leaders who, while early in their career, have achieved greatly all the same." ①

- Photographer: Rob Parsons



A special award recognised the ievements of veterinary science lecturer and disabilities advocate Dr Max Murray.

Outstanding Alumni

Ms Tricia Brand, Executive Director of Finance and Resource Planning, JCU

Dr Catherine Day, Director of Catholic Education for the Diocese of Townsville

Professor David Durrheim, Director Health Protection, New England, NSW, Conjoint Professor of Public Health Medicine at the University of Newcastle and Adjunct Professor of Public Health and Tropical Medicine at JCU

Dr John Glaister, Deputy Director-General of Queensland Health

Mr Glenn Poole, Queensland's Auditor-General

Dr Glen Richards, founder of Greencross Vets

Mr Matthew Salmon, Assistant Director NT Policy and Programs with the Federal Department of Sustainability, Environment, Water, Population and Communities

Dr Jan Strugnell, Lecturer, Department of Genetics, LaTrobe University

Outstanding Early Career Alumni

Dr Christopher Bartlett, Country Director of the SPC-GIZ Coping with Climate Change in the Pacific Islands Region Program in Vanuatu

Mrs Natalie Davis, Dean of Students at the Senior School of the Cathedral School in Townsville

Dr Liang Joo Leow, Conjoint Lecturer at St Vincent's Clinical School of the University of NSW and internationally accredited interpreter and translator

Ms Angela Lowe, solicitor and President of both the Townsville District Law Association and the Management Committee of the Townsville Community Legal Service





A mystery mapped

Australian scientists have sequenced the genome of the staghorn coral *Acropora millepora*, a major component of the Great Barrier Reef and coral reefs worldwide.

> Professor David Miller, from the ARC Centre of Excellence for Coral Reef Studies and JCU, said the project had both practical and scientific significance.

> "It will help us to understand how corals build reefs, and why they fail to do so when they are under stress," he said.

"The availability of the genome sequence for Acropora millepora will enable major advances in the understanding of many aspects of coral biology, including the responses of corals to climate change, ocean acidification, pollution and disease." This is the first animal genome project to be carried out entirely in Australia and is an important milestone in Australian biotechnology and the study of coral reefs.

"This is a first for Australian science," said project coordinator Dr Kirby Siemering from the Australian Genome Research Facility. "Here we show that Australia can unlock the genetic potential of its own unique fauna and flora for the national benefit."

Dr Sylvain Foret, from the ARC Centre of Excellence for Coral Reef Studies, said the cost of genome sequencing had decreased by several orders of magnitude in the past few years thanks to groundbreaking technological advances.

"These new technologies present us with a unique opportunity to explore the DNA of our fascinating Australian animals. However, what we need is the funding and investment in skills needed to carry out such research," said Dr Foret, who led this initial analysis.

The coral genome, comprising 28 chromosomes, is amongst the first animal genomes in the world to be sequenced entirely using Illumina sequencing technology.

Illumina is one of the nextgeneration sequencing methods and produces huge numbers of short sequence reads each of around 100 letters.

One of the main challenges in this project was to reconstruct the approximately 400 million letters of the coral genome using those very small sequences. The study shows that while corals may look like simple animals their DNA is surprisingly complex, with the high level of polymorphism of this genome posing an additional challenge.

Like most animals, coral is diploid. Each individual contains two nearidentical sets of genes – one from the father and one from the mother. However the two haplotypes (the father and the mother halves of the genome) are more different in corals than in other animal species.

Addressing these challenges required that the Australian scientists develop a number of pioneering genome assembly methods.

The first draft assembly of the *Acropora millepora* sequence is available to the scientific community under specific conditions.

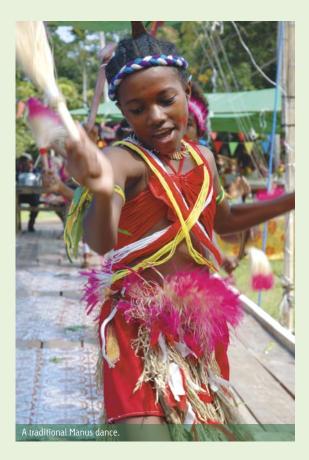
The coral genome sequence has been a national collaborative effort by: the Australian Genome Research Facility; the ARC Centre of Excellence for Coral Reef Studies based at James Cook University; the Australian National University; Monash University; the Walter and Eliza Hall Institute; University of Queensland; Illumina. **①**

James Cook University and the ARC Centre of Excellence for Coral Reef Studies will host the 12th International Coral Reef Symposium in 2012.

🕥 www.icrs2012.com/



Making movies



The camera rolls and the log drums thunder as the drama of a cultural struggle unfolds in an exotic island location.

It sounds like a Hollywood blockbuster, but this award-winning film is a valuable research and teaching tool.

Unity through Culture, a film by Cairns Institute Tropical Leader Professor Ton Otto, scooped two prizes at a prestigious London film festival in June.

It won the Intangible Culture Film Prize and the newly established Richard Werbner Award for Visual Ethnography at the 12th Royal Anthropological Institute International Festival of Ethnographic film.

This is the second film Professor Otto has made about cultural traditions on Baluan Island in Papua New Guinea. Both are collaborations with filmmaker and PhD student Christian Suhr.

Their first film, *Ngat is Dead; Studying Mortuary Traditions,* won an award at the Jean Rouch International Film Festival in Paris in 2008 and has screened at more than 26 international film festivals.

"Film is a valuable tool," Professor Otto said. "I use it to get feedback on my analysis of what is going on. My first film still screens regularly in PNG, is used in teaching around the world and has created greater understanding of ethnographic fieldwork in PNG and among a wider audience."

Both films stem from Professor Otto's 1980s doctoral work on the ethnography of Manus province in PNG, where he spent two years living on remote Baluan Island.

With a diameter of only five kilometres and a population of 1400, Baluan may be nothing more than a speck in the Pacific Ocean to many, but its unique cultural revolution makes the island very important in the world of anthropology.

Professor Otto originally planned to document Baluan's Paliau Movement, which followed a post-World War II declaration by indigenous leader Paliau Maloat of his vision to modernise the villagers to make them equal to white people.



"My initial interest was in Baluan as a place that was planning for the future, where people had declared an intention to remake their society," Professor Otto said. "But I discovered much more."

Part of Paliau's plan had been to dispose of a lot of customary ceremonies, which he thought were wasteful. But by the time Professor Otto arrived to document the movement in the 1980s he found many traditional ceremonies were being performed again.

"This became the new focus of my research – the question of why people return to their customs. Over time it has led to my current work on the theory of how people need to create a vision of the past in order to imagine a future."

As a young anthropologist Professor Otto was able to delve further into the customs and culture of the Baluan people after being adopted by a local family nine months into his stay. Becoming part of the local scene created family obligations and formed the basis of his first film, which documents his return to Baluan to help with ceremonies following the death of his adopted father.

Anthropologist and filmmaker

Professor Ton Otto.

Ngat is Dead; Studying Mortuary Traditions illustrates how an anthropologist studies cultural traditions by becoming part of them and how tradition becomes an aspect of people's awareness in negotiating social change.

"The second film, *Unity Through Culture*, is about tradition, culture and social change, including modernity and the tensions it brings," he said.

"It follows Soanin Kilangit, who is determined to unite the people and attract international tourism through the revival of culture on Baluan Island.

"He organises the largest cultural festival ever held there, but some traditional leaders argue that Unity Through Culture will be screened at the Tanks Arts Centre in Cairns on Friday 16 September as part of the Celebrating Research@JCU program and PNG Independence Day Celebrations. Admission is free, but you are asked to register at www.jcu.edu. au/cr11/register/index.htm or by calling 07 4042 1759.



Baluan never had culture, only tradition. So a struggle to define the past, present and future of Baluan culture erupts."

This struggle will be documented in a forthcoming book about temporality, historicity and social change, and how people define themselves as agents in their own history.

While publications remain an integral part of his work, it is the

films that Professor Otto hopes will continue to break new ground in anthropology.

His next goal is to take the subject to an even wider audience via television. ①

—Liz Inglis



HOT FISH

Climate change threatens not only the corals that build reefs, but also the fish that live there.

"This is an important step in demonstrating the potential economic ramifications of climate change," he said.

JCU is working with Queensland's Department of Employment, Economic Development and Innovation (DEEDI) to assess if climate change's impact on the Great Barrier Reef would improve or cause a decline in wild stocks of coral trout.

The project, funded by the

Associate Professor Claudia Diaz has received a national award for innovative

Dr Pratchett and DEEDI fisheries biologist Adam Reynolds will be working closely with colleagues during the two-year project.

Fisheries Research and Development Corporation through the National Climate Change directly testing environmental development.

approaches to teaching anatomy. **Top teachers** Six JCU staff have been cited

by the Australian Learning and Teaching Council (ALTC) in their 2011 awards for Outstanding **Contributions to Student** Learning.

Two of the awards are for early career achievers – the first time the Council has singled out this group.

JCU's Senior Deputy Vice-Chancellor Professor Andrew Vann said he was delighted the teaching skills of the University's academics were nationally recognised.

"Our research rightly receives national and world-wide recognition and equally it is very pleasing that our staff are recognised for their excellence in teaching," he said.

The early career recipients at JCU are Dr Rabin Tuladhar from the School of Engineering and Physical Sciences, and Associate Professor Shashidhar Venkatesh Murthy from the School of Medicine and Dentistry.

The other JCU winners are: Associate Professor Claudia Diaz, School of Medicine and Dentistry; Dr Rebecca Sealey, Institute of Sport and Exercise Science; John Smithson, School of Pharmacy and Molecular Sciences; Ms Beth Tinning, School of Arts and Social Sciences.

The \$10,000 awards were presented at the 2011 Australian Awards for University Teaching ceremony at the Sydney Opera House on August 16.

Scientists are concerned that the impact of climate change on reef fishes might be greater than first thought.

Behavioural changes found in small fishes such as damselfish, which larger fish feed on, has highlighted concern that valuable fishery species such as coral trout could be under long-term threat.

Professor Philip Munday, a QEII Research Fellow at James Cook University, recently found that ocean acidification, caused by the addition of carbon dioxide, led to significant behavioural changes in damselfish and anemone fish, leaving them open to predation.

Research Council Centre of and JCU had already found that many coral reef fishes would be

"Coral reefs are extremely vulnerable to sustained and ongoing climate change, mainly because of the temperature sensitivities of reef-building corals," the project's chief investigator Dr Morgan Pratchett said.

"But climate change threatens not only the corals that build reefs, but also the animals that live on coral reefs, including many different fishes."

Professor Munday said increased ocean acidification interfered with the ability of small prey fishes to distinguish potential predators through smell.

"The effects of ocean acidification on the behaviour of reef fishes are much more striking than any of us had thought possible," he said.

showed it was high time for greater

Distinguished service

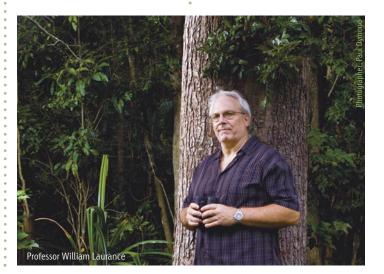
William Laurance, a Distinguished Professor and Australian Laureate at James Cook University in Cairns, is to be awarded one of the top prizes in the field of conservation biology.

Professor Laurance will receive a Distinguished Service Award from the Society for Conservation Biology, 'in recognition of [his] outstanding contributions to tropical conservation science and policy'.

The Society for Conservation Biology is the world's largest scientific organisation focusing on the maintenance and loss of biological diversity, with more than 10,000 members worldwide.

Professor Laurance will receive the award in December at a ceremony in Auckland, where the Society will hold its annual conference.

He will present a special lecture at the conference about his research, which spans much of the tropical world.





Sweet history

This year marks the 100th anniversary of a significant but little-known part of Australia's industrial history – the sugar industry strike of 1911.

JCU geographer Dr Peter Griggs says the strike extended to almost all the sugar-producing districts from Mossman to Childers and saw arrests, riots and unlawful burning of cane crops.

"It went on for four months, with police cordons guarding sugar mills, and union marches through towns along the Queensland coast," he said. "It became regarded as a general strike in the Australian sugar industry."

Dr Griggs said the story of the strike revealed a great deal about the times

"The strike had its roots in the time just after federation, when the new Parliament of the Commonwealth of Australia legislated to prohibit the recruitment of Pacific islanders to work in the cane fields.

"As Europeans entered the sugar industry to take the place of the departing Pacific Islanders, the unions, industry and government all saw a need to improve the working conditions and accommodation."

Union frustration at the rate of progress came to a head in the Lower Burdekin in late May 1911 when the district's canegrowers ignored the union's demands and the canecutters refused to harvest the crops.

"Unrest soon spread to other sugarproducing regions as local farmers' organisations rejected the union's demands," Dr Griggs said.

In each district, well-disciplined strike camps were set up to provide accommodation and food to hundreds of men.

"The sympathies of the protagonists in the strike were not clear cut," Dr Griggs said.

"Some canegrowers were supportive of the demands by the workers. Henry Cattermull, a Bundaberg canegrower, led a deputation to the local mill-owners trying to secure better prices for cane so that growers could pay the wages demanded."

Although the unions were only partially successful in their demands, the strike revealed the need for reform to ensure that canegrowers, field and mill workers could receive a better share of the industry's profits.

Labor Prime Minister Andrew Fisher appointed a Royal Commission in October 1911 to investigate all aspects of the Australian sugar industry.

O Global Industry, Local Innovation: The History of Cane Sugar Production in Australia, 1820-1995 by Peter Griggs. www.peterlang.com

A model disaster

How did you prepare for Cyclone Yasi, and how do you feel now?

By answering these questions in an online survey you can help disaster management services improve our preparedness for disasters.

The survey is part of Preparedness, loss and distress: the Cyclone Yasi *experience*, a research project managed by Professor Kim Usher from the School of Nursing, Midwifery and Nutrition at JCU in Cairns.

The study will be used as a prototype for similar work with victims of the Japanese tsunami and southeast Queensland's floods.

"Our aim is to find out what preparation residents undertook prior to Cyclone Yasi and how these preparations impacted on loss of

property and possessions, as well as emotional distress levels," Professor Usher said.

The results of the study will be shared with local disaster management services to help northern Oueenslanders prepare for future cyclones.

"Queensland's Disaster Management Services want to use the survey for flood victims in southeast Oueensland and it will also be used for the tsunami victims in Japan," she said.

"I have close links with a professor in the School of Nursing, Tokyo, who is the head of the World Health Organisation Collaborating Centre for Disaster Nursing.

"The survey will be translated and it will also need changes to adapt it to the Japanese situation.

"We will then have a survey that can be used to determine preparedness and losses related to cyclones, floods and

tsunamis."

The survey can be completed anonymously by anyone who is aged 18 or over and lives in a coastal area between Cairns and Townsville.

www.surveymonkey.com/s/ MT9V2LF





Singapore: part of a brighter future

James Cook University has moved to sole ownership of its Singapore Campus by buying out its minority shareholder. Vice-Chancellor Professor Sandra Harding said the full ownership of JCU Singapore fitted perfectly with the University's strategic intent to deliver a brighter future for life in the tropics worldwide.

"This is the first step on the road to fully embrace Singapore, city and campus, and eventually move to one totally integrated University with three tropical city campuses – Cairns, Townsville and Singapore," Professor Harding said. "It means we now have the potential to become more authentically global in scope and ambition through three tropical campuses.

"The prospect of our greater engagement in Singapore promises to enliven and add a new dimension to our strategic intent, broadening our tropical agenda and making the tropics more fully our place."

JCU was a minority partner when JCU Singapore was established

educate the building industry on

relevant topics and conduct testing

the effects of extreme winds,

on products and materials.

in 2003 and moved to major shareholder the following year.

JCUS began with 50 students and occupied several floors in the SPRING Singapore Building.

"We have since acquired our own campus in Upper Thomson Road, but with 2500 students in 2011 we have now acquired a second campus," Singapore-based Deputy Vice-Chancellor Dr Dale Anderson said.

The new Ang Mo Kio campus can cater for around 1000 students and also offers a range of sporting facilities. It is currently used by students undertaking pre-university programs, who will be joined from October by students in universitylevel programs, particularly from the Faculty of Business.

A new initiative, the English Club, has been introduced at the Ang Mo Kio campus to give students some fun ways to improve their English, outside the classroom. Club activities include karaoke and video nights, on-line learning resources and conversation corners.

Dr Anderson said JCU was planning for further growth in Singapore. "The university continues to see the need for its own campus in Singapore and will over the next few years be seeking a single, purposebuilt facility designed to support teaching, learning and research."

community after the devastation of events such as Cyclone Tracy in Darwin.

🕥 www.jcu.edu.au/cts

Lessons from Yasi

James Cook University's Cyclone Testing Station has taken the lessons of Cyclone Yasi to Brisbane in a workshop for government and industry representatives.

Manager Cam Leitch said the station's research was not limited to the effects of cyclones but also focused on ensuring buildings across Australia were able to withstand anticipated wind loadings.

"While the Cassowary Coast experienced Cyclone Yasi in February this year, Brisbane for example experienced devastating storms in November 2008," Mr Leitch said.

"We are focused on ensuring that buildings across Australia are able to resist their anticipated wind loading. "What we learn from examining the effects of cyclones such as Yasi is applicable to other areas that experience high winds and storms."

The workshop reviewed the recommendations of *Technical Report No. 57* on Cyclone Yasi, a joint initiative of the Cyclone Testing Station and the Australian Building Codes Board.

The workshop brought together key stakeholders from government and industry who may have a role to play in ensuring action is taken based on what has been learnt from Cyclone Yasi.

The Cyclone Testing Station is an independent business unit within JCU's School of Engineering and Physical Sciences, and receives support from government and industry to conduct research into It was founded in 1977 to minimise loss and suffering in the





On straight streets

Do neighbours really become good friends in cul-de-sacs like the fictional Ramsay Street?

A James Cook University town planning graduate has won the State Town Planning Award for his honours thesis, in which he found that people were happier living on the straight and narrow of traditional grid-pattern streets.

"There is currently a lot of debate between developers and planners as to the best street pattern for residential subdivisions," said Matt Ingram, who now works as a Planning Officer at Mackay Regional Council.

"Planners are presently arguing for a return to grid street patterns as they encourage pedestrian connectivity and public transport use," he said. "In most cases they are a more sustainable outcome and foster a sense of community." Developers, however, preferred cul-de-sacs as they were cheaper to build, offered more flexibility, and lots in cul-de-sacs tended to sell first, he said.

"My research focussed on which pattern was preferred by the people actually living on the different street patterns."

Mr Ingram surveyed 154 residents from three different subdivisions in the Cairns area – one with a grid, one with loops (a mix of grid and cul-de-sac) and one with a cul-desac street pattern.

"I found that people living on grid street patterns were more satisfied with their street pattern and tended to exercise more, catch more public transport and use their cars less," he said.

"They also interacted with their neighbours more than those in cul-de-sacs.



"Additionally, I found the so-called preference for cul-de-sacs, that developers say exists, is more of a perceived preference than anything.

"Many people living in cul-de-sacs were living on such a street pattern for the first time as they too had expected them to be better in terms of safety and noise, for example.

"However, since moving to a culde-sac they were the least satisfied with their street pattern." Mr Ingram said many of the people in the grid street patterns mentioned they had specially chosen such a pattern after previously living in cul-de-sacs.

Deadly traditions

Female infanticide and foeticide are the focus of an award-winning Bollywoodstyle film co-written by JCU's Professor Ajay Rane.

Riwayat: When traditions kill confronts the cultural pressures and attitudes that lead to the killing of many millions of baby girls. It was written with West Australian neonatologist Sanjay Patole.

It was a 2006 article in *The Lancet* that inspired Professor Rane, Head of Obstetrics and Gynaecology at JCU, to tackle the issue of female infanticide – a tragic practice in India, China and other countries.

"The Lancet reported that 100 million baby girls had died since 1984 due to foeticide and infanticide of the female, purely due to tradition," he said.

"The numbers were shocking. As an obstetrician and gynaecologist,



delivering babies and trying to save lives, this was not something I could just sit down and accept.

"In an attempt to highlight this issue and save lives I made this movie, telling the story of three women facing these issues in the city and in the village life of India."

Professor Rane's film has received 17 awards to date.

The film, which combines its tragic subject with some classic Bollywood music, is just one chapter in a story that began in 1999 when Professor Rane visited a hospital in the slums of Chennai, India.

"The conditions were very primitive and my wife and I decided to adopt this hospital and develop it," he said. "Fourteen years later Gosha Hospital is the only recognised training unit for urogynaecology in India and services thousands of unfortunate patients with fistulas and pelvic floor dysfunction. A dream has come true." ()

O www.riwayatmovie.com/

From the bush to Budapest



Ambassador John Griffir

Australia's new ambassador to Hungary graduated from JCU with a Bachelor of Arts degree with first class honours and a university medal. John Griffin is a senior career officer with the Department of Foreign Affairs and Trade and was most recently Assistant Secretary, European Union and Western Europe Branch. Originally from Mackay, Mr Griffin attended JCU in Townsville from 1970 to 1973.

"Mackay had a population of about 25,000 at that time, and for a north Queensland boy with zero experience of the wider world, JCU in Townsville was a lot closer and a less scary prospect than Brisbane," he said.

"Plus the low student-to-lecturer ratio was attractive, and this was borne out by experience."

Mr Griffin said his time studying at JCU and living at St Paul's College was a very positive, happy and formative period.

"University was place of maturing, both personally and intellectually," he said.

Law legend retires

Justice Kerry Cullinane has retired as the Northern Judge after decades of service in law but will continue to contribute to the north Queensland community.

Head of JCU's School of Law, Professor Stephen Graw, said Justice Cullinane had a long and distinguished association with the University.

"Justice Cullinane has had an exceptionally close association with our School of Law, having served on the Steering Committee that was formed to seek its establishment," Professor Graw said.

"He was a member of University Council from 1993 to 2005, during which time he also served as a member of both the Strategy Committee and the Ceremonial and Honorary Degrees Committee."

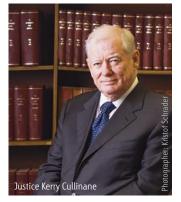
Justice Cullinane was awarded an Honorary Doctorate of Laws in 2007 in recognition of his long and distinguished service to the law, the University and the North Queensland community. Professor Graw said Justice Cullinane's support also included an energetic personal involvement in the Law School's teaching, research and other activities.

He also personally established the Northern Judge's Prize, awarded annually to the student who achieves the highest pass in administrative law.

Professor Graw said Justice Cullinane's work in legal advocacy in North Queensland was legendary.

"In 1982 his superior advocacy skills were recognised by his commission as Senior Counsel. He was the first North Queenslander to take silk."

In 2009, Justice Cullinane was appointed a Member of the Order of Australia.





With alumni from across the region, JCU Singapore is going the distance to reach out to graduates located outside Singapore.

The first JCUS regional alumni event was held in Yangon, Myanmar.

Guests say they had a great evening, while enjoying the panoramic view of Yangon city at Thiripyitsaya Sky Bistro.

Alumni events in Vietnam and India were to follow.

A crowd of 1100 parents, students and friends saw 450 graduands receive their testamurs at JCU Singapore's graduation ceremony. Professor Sandra Harding, Vice-Chancellor and President of the University, congratulated all graduates. "This is an extraordinary moment. You have done something special. Now you need to think of what your contribution will be to the world."

Mr. Inderjit Singh , MP for the Ang Mo Kio GRC, gave the occasional address followed by a graduate address by graduate and academic medallist, Mr Jean Bernard Sampson. Jean encouraged all the graduates to thank their parents and family members who contributed so much to their achievement. ①



Graduate update: Kacey Johnson

Kacey Johnson completed her Bachelor of Creative Industries in Cairns in 2009 and is now the Studio Coordinator at Djumbunji Press.

Established by KickArts Contemporary Arts, Djumbunji

Honoured among lizards

Dr Tracy Langkilde, who completed her honours degree in biology at JCU in 1999, has received an award from one of the United States' most prestigious environmental organisations.

Now an assistant professor at Penn State University, she has been awarded a 2011 Mercer Award from the Ecological Society of America.

The society has honoured Dr Langkilde for, in particular, her paper titled *Invasive fire ants alter behaviour and morphology of native lizards*, published in the journal *Ecology*.

Dr Langkilde studies the processes that determine how individual species interact with one another and with their environments, and how responses to environmental changes can shape biological communities.

She recently discovered that native fence lizards in the southern region

Press provides fine art printmaking facilities to northern Queensland artists.

"We have etching and linocut presses and studio space where artists can work," Kacey said. "We

run workshops, from beginners to

of the United States rapidly acquired new behavioural strategies and altered morphologies to avoid lethal attack by invasive fire ants.

Her work provides insight into how native populations are able to persist in the face of increasing environmental change, guiding the conservation of global biodiversity.

Dr Langkilde has been awarded grants from the National Geographic Society, the Eppley Foundation for Research, the American Museum of Natural History, and the National Science Foundation.

She fondly remembers studying at JCU with Associate Professor Lin Schwarzkopf, Professor Ross Alford and Professor John Endler.

"On-campus life at JCU in Townsville also offered many chances to observe native fauna," she said.

"As a biologist, there's a lot to be said for having wallabies in your backyard and frill-necked lizards running around in front of the library."

master classes, for people who want to extend their printmaking skills. The printmakers also run workshops in remote communities on Cape York and in the Torres Strait, and have recently begun a series of workshops for high school students at Yarrabah." "There's an open access studio for artists to print their own work, and we also offer custom printing for artists who prefer not to do their own printing.

"My role is to coordinate the studio resources, liaise with the artists, organise contracts, plan workshops, prepare prints for sale, health and safety compliance, administration – I do a bit of everything!

"Printmaking is a real strength of the far northern art scene, especially amongst artists from the Torres Strait Islands. It's exciting to work in a creative place with such a wide range of really impressive artists."

Kacey continues to work on her own art, using a combination of printmaking, drawing, sewing, and photography, but she also wants to advance her career in the business side of creativity.

66This was exactly the type of role I had in mind when I was studying," she said. "The degree prepares you for business and management careers in the creative sector. At university I enjoyed the mix of practical and theoretical subjects. That's what my job's like, and it's a good combination.**99**

🜔 kickarts.org.au/djumbunji-press/



www.jcu.edu.au/discover

In <u>print</u>



An iconic hopper

While sharing office space in Chris Johnson's mammal ecology lab at JCU, postgraduate students Karl Vernes and Stephen Jackson hatched many plans for publication.

Two PhDs and many research papers later, the two marsupial experts have co-written Kangaroo: Portrait of an extraordinary marsupial.

Dr Vernes, now a senior lecturer at the University of New England, says their plan was to write a lively and informative book, informed by science and accessible to anyone interested in kangaroos.

"We wanted to touch on the many reasons, both biological and

cultural, why we find kangaroos so fascinating," he said.

Kangaroo tells the story of our most famous marsupial, including its ancient origins, its importance to Aboriginal people, and current-day management and conservation.

The amazing diversity of this group of animals is revealed, ranging from tiny forest dwellers and tree kangaroos, to majestic animals living on the open plains of central Australia, and the giant kangaroos that once roamed the Pleistocene landscape.

The authors also investigate the natural history of kangaroos - their unique reproduction methods, intriguing behaviour, varied diet and trademark hopping - all of which make them such fascinating animals.

Dr Jackson, now working with the New South Wales Department of Primary Industries, has also published Koala.

Kangaroo: Portrait of an extraordinary marsupial

- By Stephen Jackson and Karl Vernes
- Allen & Unwin

ISBN: 9781741759037

Island adventures

Islands provide the theme for the latest volume of *LiNQ* (Literature in North Queensland).

Jordan's presentation at the Tropics of the Imagination conference, where she discussed two of Australia's best known literary figures, Vance and Nettie Palmer, who spent some time on Green Island in the 1930s.

LiNQ Volume 37 includes a focus colony Fantome Island, Nicole Crowe recollects her Magnetic Island childhood and Vance and Nettie Palmer tell of their time on Green Island.

In the *LiNQ* tradition, contributions range from poetry and prose to of colonialism and climate change. LiNQ was founded in 1969 by Dr Elizabeth Perkins, a lecturer in English at the then University College of Townsville, along with interested undergraduates in the

From its first issue *LiNQ* has themes for scholarly and general readers in the arts community.

LiNQ is edited by Dr Lindsay Simpson and Dr Victoria Kuttainen from JCU's School of Humanities.

LiNQ 37

Guest editors: Deborah Jordan, Fiona McKean

ISSN 0817-458X

www.linq.org.a

A wordy cow Poet and publisher Dr Susan

Hawthorne's latest book is all about cows. It's about the world according to one cow, whose name is Queenie.

Queenie might be a woman, or she might be a cow. Either way, her history takes in the creation of the universe and she encourages readers to see the world in new ways.

I am nothing special just a cow who wants to change the world a cow whose eyes are on the sky.

Through her company Spinifex Press Dr Hawthorne publishes feminist writings, both in print and as eBooks. She teaches creative writing at JCU and has been writing poetry for almost 40 years. Her previous book was a collection of poems

focused around life in the tropics before and after Cyclone Larry.

The inspiration for *Cow* came during an Asialink Literature Residency in Chennai. India.

"Having grown up on a farm I was struck by the cultural importance of cows in India, as well as their place in mythology and the economy," she said.

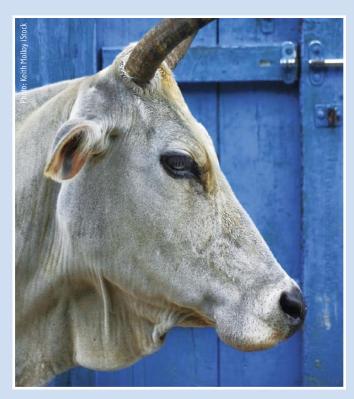
Through Queenie this collection draws on ancient languages and philosophies, as well as the Sangam poetry tradition of South India.

Cow

By Susan Hawthorne

Spinifex Press

ISBN: 9781876756888





Samuel Batt, 2010, Girl on a Rock, digital image





The calendar

Open day, Cairns

Details: Explore your local university Date: Sunday 21 August Time: 10.00am – 3.00pm Location: JCU Cairns Admission: free Contact: 07 4781 4771

50th Anniversary, Townsville

Details: 50 years since teaching began at University College, Townsville Date: 27 – 28 August Location: TAFE and JCU Townsville Contact: 07 4781 4707

Open day, Townsville

Details: Explore your local university Date: Sunday 28 August Time: 10.00am – 3.00pm Location: JCU Townsville Admission: free Contact: 07 4781 4771

JCU FC V Close the Gap mini conference

Details: Showcasing research in Indigenous health Date: Friday 2 September Time: 9.00am – 1.00pm Location: Cairns A1.103; Townsville 3:002 Admission: free Contact: 07 4781 5307

Ethnographic film festival, Cairns

Details: PNG Independence Day celebrations Date: Friday 16 September Time: 6.00pm – 8.30pm Admission: free Location: Tanks Arts Centre Contact: 07 4042 1759

Jocelyn Wale psychology seminar

Details: Professor Tracey Wade on Risk Factors for Adolescent Weight and Shape Concern Date: Friday 16 September Time: 4.00 – 5.50pm Location: A21.002, JCU Cairns. Video linked to the Padua Theatre, JCU Townsville. Admission: free Contact: 07 4042 1207

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Plant ID workshop, Paluma

Details: A short course on identifying weeds Date: 22–25 September Admission: \$495 Location: JCU Research Station, Paluma Contact: 07 4042 1837

Research seminar, Cairns

Details: What a linguist does in the field Date: Friday 23 September Time: 2.00pm – 4.00pm Admission: registration required Location: B1:031, JCU Cairns Contact: mark.post@jcu.edu.au

Jocelyn Wale psychology seminar

Details: Professor Philip Taylor asks: What is the Workability of the Australian Workforce? Date: Friday 23 September Time: 4.00 – 5.50pm Location: A21.002, JCU Cairns. Video linked to the Padua Theatre, JCU Townsville. Admission: free Contact: 07 4042 1207

Ornithological Conference, Cairns

Details: Australasian Ornithological Conference Date: 28 September – 1 October Admission: free Location: JCU Cairns Contact: aoc@jcu.edu.au

Festival of Life Sciences, Townsville

Details: Celebrates the work of North Queensland research institutions Date: Thursday 29 September Time: 1.00pm – 5.00pm Admission: free Location: JCU Townsville Contact: nqfls@jcu.edu.au

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



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Stamaonity, jeu edu au

Excellence in Research for Australia, ARC, 2011 Initial science indicators, Thomson Reuters, 2011