Not so retiring
Baby boom career women are doing it their way

Antarctic survey
Looking for life where it’s cold, dark and deep
Welcome to a new edition of our University’s Discover magazine and a new year at James Cook University.

While our campuses have come alive again with the addition of more than 3000 students embarking on the next stage of their educational journey for a brighter future, a number of very important changes have come to fruition over the long break.

The Strategic Intent of the University has been refreshed to reflect who we are, where we are, and where we are going. After a long period of consultation the document was approved by JCU’s Council at the end of February. I believe it accurately reflects Our Intent – A brighter future for life in the tropics, world wide; Our Purpose – Graduates and discoveries that make a difference; and, Our Values and Beliefs – Shared values and beliefs that underpin our action. The full document is at www.jcu.edu.au/visitor/our_organisation.

The four Pro-Vice-Chancellors are responsible for each of the Faculties – Medicine, Health and Molecular Sciences; Law, Business, and Creative Arts; Science, Engineering and IF; and, Arts, Education and Social Sciences. The Deputy Vice-Chancellors and Executive Director Finance and Resource Planning will head the four Divisions of Research and Innovation, International and Engagement, University Services, and Finance and Resource Planning.

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Even as each new year has the feel of a new beginning, the community that is James Cook University is a continuing entity, contemporary, dynamic and constantly developing. We are Queensland’s second oldest university and offer one of the most comprehensive suites of studies of any Australian university, some of which are highlighted within this magazine.

I hope you enjoy discovering more about JCU. To our new staff and students, welcome to our community.
The $9.66 million Institute is a hub for Australian and international research and commercial development, based on the biodiversity of tropical forests. “This is what the Smart State is all about, building on local strengths and achieving excellence through collaboration,” the Premier said.

ATFI conducts a high-profile research program together with the CSIRO in the Tropical Landscapes Joint Venture, focussing on research supporting the sustainable management of tropical landscapes, including the Wet Tropics World Heritage Area.

“Where better to place an institute devoted to tropical forests?” the Premier asked. “This is a chance for this community to keep some of its best and brightest minds right here, researching the challenges of the tropical and subtropical environment.”

The official opening was the culmination of almost ten year’s work, bringing together the expertise and strengths in research that existed across the region, said JCU’s Vice-Chancellor, Professor Sandra Harding. “It is an idea that has been nurtured and nourished by many to create the right environment for co-operative and collaborative alignments between these various agencies,” she said.

“Importantly, none of this could have happened without our partnership with the Queensland Government through the Smart State initiative and a commitment by the Government to encouraging scientific and economic development.”

The new Australian Tropical Herbarium, also located in the building, consolidates more than 150,000 plant specimens from the major CSIRO Atherton Herbarium, Queensland Environmental Protection Agency’s Mareeba collection and James Cook University’s tropical plant collection.

“It’s an outstanding collection, backed up by an expert research team and state-of-the-art equipment,” said tropical biologist Professor Paul Gadek. “That combination will make this a knowledge bank of tropical Australian plant and fungal diversity, with the potential to guide biodiversity research in South-East Asia and the South Pacific regions.”

JCU will welcome its first dentistry students in 2009, when 60 students will begin the five-year course.

Dentistry will be based at JCU Cairns, with students undertaking clinical practice across northern Queensland, as do the University’s medical students.

Professor Ian Wronski, Pro Vice-Chancellor for the Faculty of Medicine, Health and Molecular Sciences, said the course would follow the successful model the University had developed for training doctors.

“The dental students will be spread out across the region during their clinical training, giving them a real idea of what it is like to work in rural and remote areas.

“We hope that, like our medical graduates, many will choose to practise in those areas when they complete their studies,” he said.

While the initial intake of students will be catered for in existing laboratories and lecture theatres, new $30 million facilities are planned for the growing School of Medicine and Dentistry, due for completion in 2010.

Professor Wronski said work was underway on recruiting staff, curriculum development, and gaining accreditation for the new course.

He said there was a real need for dentists in northern Australia, with problems in dental hygiene reaching shocking proportions, particularly in more remote areas.

“We are committed to systematically creating health professional programs that provide opportunities for students who want to work and train in tropical, rural and Indigenous areas,” he said.

“In the past ten years we have progressively introduced 11 health professional courses and dentistry was an obvious gap in our offerings. “Previously we have introduced nursing and sports science at JCU Cairns and each new course widens the base for research and the need for complementary health services and professionals.”

Professor Wronski said that nationally there was a very high demand for places in dentistry courses.

Dentistry, opening wide at JCU Cairns from 2009.
Since the Discover Nature team began work there has been very little privacy for wildlife on the Townsville and Cairns campuses. Families have been photographed, habits described and scats measured.

Discover Nature (www.jcu.edu.au/discovernature) is an online guide to the animals and plants of northern Queensland’s wet and dry tropics, as found on the JCU campuses — from acacias to the zigzag velvet gecko.

“We have a wonderful range of wildlife, because the campuses offer a diversity of habitats,” said Adjunct Associate Professor Betsy Jackes, a key member of the Discover Nature team.

“We have woodlands, rainforest, riverine and gallery forests, urban and disturbed areas. Most large campuses are completely surrounded by urban development, but ours are backed by wooded hills, which are an excellent teaching resource.”

The initial impetus to develop the website came from then Student Exchange Manager Cheryl Robertson, who noted how much the campus wildlife fascinated international visitors.

A self-confessed bird nut, Cheryl has contributed many photographs featured on the site. “Birds are my real obsession, so I’ve spent a lot of my free time on the Townsville campus, photographing the amazing range of birds there.”

The Discover Nature team includes JCU graduates in botany, biology, geology and zoology who have contributed their expert knowledge, as well as staff members who contributed photographic and IT skills.

The site now contains more than a thousand records, and is still growing.

“It’s very much a team effort,” Betsy said. “Our contributors list is extensive, and still growing. We’ve been able to draw on a community of people who bring expertise and passion to the task.”

“Ecologist Greg Calvert, for example, had 13 years of observations of the fauna and some plants on the Townsville campus, and also contributed spectacular photographs, especially of snakes, which are one of his specialties.”

Users can search by common names or scientific names. “We wanted to make it useful to everyone ranging from scientists to lay people,” Betsy said. “In fact in the plant section, you can also search by flower colour and plant habit, so it does work as a ‘what plant is that’ guide.”

The site includes north Queensland weeds and feral animals.

“So far we’ve found that the most searched-for creature is Rattus rattus, the black rat,” Betsy said. “I can’t explain its popularity!”

“We also have animals behaving like, well, animals. Greg has captured a spectacular image of a keelback snake making a meal of a green tree frog. It’s not for the squeamish, but it’s how nature works.”

University field sites are listed, showing the range of environments enjoyed by JCU students and researchers, from the rainforests of Borneo to the termite mounds of far north Queensland’s savannas.

Discover Nature has become a learning environment in its own right and is already being used by JCU classes as well as by schools in the region.

“Even when we had just a test site running, and had not publicized it, word had gotten out amongst local naturalists and it was being used as a reference source for local flora and fauna,” Cheryl said.

“Certainly in bird-watching circles I found people had discovered the site when it was still a work in progress.

“It’s been a two-year labour of love to get the site up and running, and it will never really be complete,” Cheryl said. “There will always be more species to document, and information to add. I think Betsy has her eye on ants next.”

Linden Woodward

www.jcu.edu.au/discovernature
Winning paramedics

A JCU postgraduate course for rural and remote paramedics has received a commendation at the 2008 National Safer Communities Awards.

The Graduate certificate of rural and remote paramedic practice, which produced its first 18 graduates in December, is a joint initiative developed by JCU, the Queensland Ambulance Service (QAS) and Queensland Health, following a survey of rural and remote community health needs.

Attorney-General Robert McClelland, presenting the awards, said they were “very relevant considering the fantastic effort by emergency services workers in responding to the Queensland and New South Wales floods”.

“The course focuses on the key issues of chronic disease management, disease and injury prevention and health promotion using a public health approach and methodology,” said Associate Professor Dennis Pashen, Director of JCU’s Mt Isa Centre for Rural and Remote Health.

“It expands the scope of the paramedics’ involvement in delivering health services and is already proving successful.

“Traditionally paramedics have been concerned primarily with emergency care and acute management of injury and illness, but this postgraduate course shifts the focus to communities and groups,” Dr Pashen said.

Export win

The Queensland Premier, Anna Bligh, presented James Cook University with the Premier of Queensland’s Export Award for Education for the second year in a row at a ceremony in Brisbane late last year.

“Our successful efforts in attracting overseas students also creates an international environment on our local campuses which better equips Australian students to enter the global economy,” the Vice-Chancellor said.

Deputy Vice-Chancellor for International and Engagement, Professor Scott Bowman, said there had been a 22 percent increase in the number of commencing international students at JCU’s Cairns and Townsville Campuses from 2005 to 2006.

“There was a 55 percent increase in international student commencements in Cairns in 2006 and this growth continued with a further 21 percent increase in 2007,” he said.

Professor Bowman said the University had increased its market share of international students coming to Australia from a number of countries and had also increased the number of students coming to Queensland to study long-term rather than as short-term students in the study abroad program.

A first for JCU Brisbane

The first student to enrol at James Cook University in Brisbane (JCUB) graduated in March with a Masters degree in Business Administration and Information Technology.

Mohamed Imran from Chennai in India said he jumped at the chance to further his studies in Australia.

“I saw studying an MBA at JCUB as a wonderful opportunity to be part of something special – a brand-new campus based in the heart of Brisbane,” he said.

“I was also attracted by the trimester study schedule which allowed me to finish my degree quicker.

“Not many students get to be part of a uni’s initial intake let alone being their first enrolled student.”

Since Mohamed Imran enrolled in March 2006 JCUB has continued to grow, with more than 600 enrolments expected by the middle of this year.
Postgraduate student Kylie Anderson’s research targets a pest that could pose a serious threat to northern Australia’s sugarcane crop.

Her research has taken her to all 17 inhabited islands in the Torres Strait, as well as five communities at the tip of Cape York Peninsula. She is checking for the presence of the island sugarcane planthopper *Eumetopina flavipes*, which spreads Ramu Stunt disease in Papua New Guinea.

Ramu Stunt greatly reduces the growth of cane, stunting the roots, stiffening the leaves and rendering the crop unharvestable.

The disease is not present in Australia and Ms Anderson hopes to keep it that way.

“The planthopper currently occurs in Papua New Guinea, on most of the Torres Strait Islands, and in two communities on the northern peninsula area of Cape York,” she said. “But so far there is no evidence to suggest Ramu Stunt disease is present in Australia.”

Research indicates that the movement and distribution of *Eumetopina flavipes* in the Torres Strait is influenced by a complicated set of mechanisms.

Ms Anderson hopes to develop a descriptive model that can be used to predict the potential pathways should Ramu Stunt disease enter the Torres Strait, and the likelihood of future incursions of the island sugarcane planthopper from PNG.

“The results of this project may be applicable for similar pests, such as disease-carrying mosquitoes and fruit flies on the Torres Strait Islands,” she said.

Her research is supported by a $129,000 grant from the Sugar Research Development Cooperation and $84,740 from ACIAR.

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**Stormwatchers, a multimedia game, is helping children prepare for cyclone season.**

The 3D interactive game presents a range of cyclone scenarios complete with video footage of real-life cyclones.

Stage one of the game will help teach children how to prepare their house and put together an emergency kit while a cyclone approaches.

Stage two of Stormwatchers, due for completion this year, will expand to include additional scenarios.

“Cyclone season can be especially frightening for children, who might not fully understand the situation and don’t have adult techniques for managing their fears,” said Associate Professor David King, Director of JCU’s Centre for Disaster Studies.

“The aim of Stormwatchers is to help children understand cyclones and understand what they can do to prepare.”

Dr King said research showed that after Tropical Cyclone Larry struck Innisfail thirteen percent of local primary school children and five percent of high school students experienced severe or very severe symptoms of post-traumatic stress disorder.

“Our aim is to present information to children in a way that speaks at their level, and is practical and appropriate,” he said.

“We also hope it will encourage families to discuss their cyclone plans with their children.”

The game allows children to create their own cyclone experience by working through a cyclone scenario with one of the game’s characters.

Along the way they learn how to help prepare their home for a cyclone, purchase supplies and identify a safe place to shelter.

Stage one of Stormwatchers is available online at www.bom.gov.au/storm_watchers_game.
“Many of the women I surveyed have great plans and are very excited about the next stage of their life,” she said. “They expressed an interest in university study, writing, learning a musical instrument, travelling overseas and volunteering in third world countries.”

Ms Courtney said she selected women (born between 1946 and 1964) as the focus of her research because their retirement patterns were expected to differ from those of baby boomer men.

“Earlier decisions about education, marriage, childbearing and work mean women are more likely to work part-time than men,” she said. “In general they earn less, so they approach retirement at a financial disadvantage.”

Ultimately Ms Courtney hopes to develop a model of successful ageing for Australian baby boom career women.

“This should lay the groundwork for better social strategies to improve their capacities, productivity, independence and sense of purpose in life in their retirement years, if indeed they do retire.”

This research was conducted in two stages.

Firstly, focus group research was carried out in 2006, involving women from Melbourne and far north Queensland.

In the second stage 1052 women completed a national online and postal survey.

This ongoing research investigates the factors the women feel are essential to successful ageing and maintaining a good quality of life in their retirement years.

Preliminary findings showed that 65% of women surveyed took a positive attitude towards retirement, 5% viewed retirement negatively and 30% were undecided.

Just over half (51%) had no retirement plans, 27% had definite retirement plans, 21% expected to continue working part-time and 2% were undecided.

The research so far has revealed significant differences between women born in the early half of the baby boom (1946 to 1955) and the later boomers (those born 1956 to 1964).

“The findings indicate that those from the later period are somewhat less satisfied with their life as a whole compared with the Australian average, whereas the earlier boomer women fall within the expected range,” Ms Courtney said. “On the other hand, the later-born women were significantly more satisfied in their working lives than the earlier-born.”

The focus group research indicated that baby boom career women in far north Queensland were slightly more satisfied with their career or vocation than women from Melbourne, although both groups were similarly satisfied with life in general.

“As I continue analysing the data from the national survey it will be interesting to see if that pattern continues, with a distinct difference between rural and urban Australia,” Ms Courtney said. The majority of participants had a high level of education. Many said they enjoyed working and were looking forward to being very active in their retirement years.

“These are women who highly value their autonomy,” Ms Courtney said. “They want to make their own decisions on issues such as how long they can hold a drivers license, what type of housing will suit them as they age and when they might make the move into different types of housing. They do not want these important life choices to be made by others.”

And as they did in their youth, baby boom career women plan to keep exploring.

“They felt retirement was a time to investigate spirituality, search for inner meaning in life or explore different religions and philosophies.”
During a six-week voyage on the Australian Antarctic Division’s Aurora Australis, Dr Beaman found those two marine extremes had much in common.

“The most obvious connection is the megafauna that depend on those two environments,” he said.

“Whales spend their winters mating and breeding in the calm, clear waters of the tropics, and then travel south in the summer to feed on the plentiful supplies of krill around Antarctica.”

But what Dr Beaman had not expected was the similar levels of colour and density of ocean floor life that he found in Antarctic waters, even in dark waters a kilometre below.

“In the tropics where the waters are warm and calm, you expect to see colour and diversity. But in Antarctica where the water is -1°C and lashed by the infamous katabatic winds, you don’t expect a lot,” he said.

“In areas that are under sea ice for three quarters of the year, we found a wealth of surprises. The colour of the seabed life and the sponge and bryozoa reefs rivalled anything I’ve seen on the Great Barrier Reef. Many of the animals we saw were the first records of life in this part of Antarctica.”

The voyage was part of the CEAMARC Expedition, a census of Antarctic marine life being undertaken by Australian, French and Japanese ships during the International Polar Year (www.ipy.org).

Using techniques honed in Australia and France, the researchers towed nets and cameras behind the Aurora Australis to survey the ocean floor.

“On the Great Barrier Reef I’ve been working on understanding the connections between the physical geography of the seabed and the types of marine life found in different topographies,” Dr Beaman said.

“We applied the same approach in Antarctica, using echo-sounders to find the ridges, valleys and basins that supported a wealth of sea life, and then trawling in those areas.”

The scientists were surprised by the sheer size of some of the creatures they filmed and netted.

“We found giant sea spiders as big as dinner plates, and worms that in the tropics might be fingernail sized, but in Antarctica were the size of a hand,” Dr Beaman said.

“There were sponges a metre high and the octopus were huge. Although the above-water environment is harsh, underwater it can be very stable, and that may be what helps support the spectacular growth.”

The researchers were also able to document the regeneration of the seabed after it had been scoured by icebergs.

“Icebergs really tear up the seafloor, but if left undisturbed, eventually it’s recolonised,” Dr Beaman said.

“First the scavenger worm species move in to clear up the damaged marine life. Then the pioneers arrive, such as tall sea-squirts, to settle in the cleared area. Eventually, the longer-lived and more diverse marine life takes over.”

The findings will provide the baseline for a long-term study measuring the impact of climate change on the polar regions.

“The poles are extreme environments, where life is uniquely adapted to the surroundings. The polar regions are experiencing greater rates of climate change than elsewhere on the planet. So there is an urgent need to identify the state of the various communities in the Antarctic,” Dr Beaman said.

www.ipy.org
Where the wild things are

Are your classes disrupted by the naughty monkeys in the back row?

When the Field Studies in Tropical Biology classroom moved to Borneo, the monkeys were joined by orang-utans, elephants, and all manner of reptiles, frogs, bats, birds.

The subject was taught in Borneo’s magnificent rainforests, with most of the class time spent at the Danum Valley Field Centre on the edge of a large conservation area.

“We were often late to appointments with our lecturers, because we’d stop along the way to see so many amazing animals,” said third-year student Tamara Inkster.

“A couple of resident orang-utans at the Field Centre would become active as we were walking to breakfast. To see them wild, but so close, was incredible.”

Borneo is home to over 220 species of terrestrial mammals and more than 420 bird species. The rainforests and mountains boast 15,000 species of flowering plants and 3,000 species of trees.

“Lectures and tutorials are fine, but nothing compares with being literally immersed in your field of study,” said subject coordinator Simon Robson.

“The rainforests are the habitat of the endangered Bornean orang-utan. Other native species include the Asian elephant, Sumatran rhinoceros and Bornean clouded leopard.”

“When we first arrived at the Centre, we were fortunate enough to see wild elephants walking down the road. We saw eight of the 10 primate species found in Borneo, as well as reptiles, frogs, bats and birds,” Tamara said.

The assessment for the subject involved the students forming groups based on their interests, developing and implementing research projects and presenting their results in an open seminar.

“Simply identifying what species are present is a critical first step,” Dr Robson said. “These projects give a snapshot of plants, ants, spiders, frogs, birds and bats, and will provide a useful comparison for future studies of the area.”

The students had some significant success.

“The spider group identified more than 10 times the number of species of spider than had been found previously in the Danum Valley area,” Dr Robson said.

“The frog group managed to record a frog whose call was previously unknown ...”

insect group identified more than 150 species of ants.”

Students in the plant group compared logged and unlogged forest, detailing the dynamics of forest regeneration. Half of the world’s annual tropical timber acquisition comes from Borneo’s forests.

The bat group used two techniques to identify their species, Tamara said.

As well as trapping bats for measuring and analysis, they recorded bat calls for cross-referencing with the ones that they had captured. This will allow future surveys to be conducted without having to actually catch bats.

“To create our call library, we used a system called Anabat, which allowed us to hear noises emitted by bats that are at a frequency too high for the human ear to detect.”

Chris Corben, who is the inventor of the Anabat system, worked with us, along with Simon and two other lecturers and two PhD students. The great mix of people made the experience even more enjoyable.”

The trip was an unforgettable experience for Tamara.

“Not a lot of people get to experience the pristine rainforest, and experience the majesty of its wildlife, while being surrounded by people who are working hard to protect it,” she said.

“It was an incredible experience and something I would do again in a second.”

The School of Marine and Tropical Biology is very happy with the positive response to this new subject and plans to offer it on a yearly basis.

Jo Meehan
Kevin Rudd has made much of his proposed education revolution; it is certainly needed. There is evidence that we are slipping behind some other countries especially in maths and the hard sciences. A recent survey showed that 13 year olds in Singapore are as far ahead of Australian children as Australia children are ahead of the children of Palestine.

As a teacher of university students I know that there are many aspects of mathematics that we simply cannot teach to first-year students today. Their high school maths studies no longer equip them for subjects that 15 years ago were standard fare in the first year of university. That there has been a shocking decline is not just my opinion. It is widespread.

Those who still clutch to the idea that we are doing well should read the report of the Inquiry into Academic Standards of School Education conducted by the Senate Committee on Education, Employment and Workplace Relations [www.aph.gov.au/senate/committee/eet_ctte/academic_standards]. I particularly recommend submissions 20, 42, 6 and 48.

Last year Professor Archie Johnstone, President of the Australian Council of Engineering Deans, referring to the feeble condition of domestic students stated that “the biggest hurdle is mathematics; the demand for maths in schools has plummeted.” He commented that solid school mathematics preparation is essential for engineering students.

In 2005 the Principal of St Augustine’s College, Cairns, warned that the Queensland curriculum “has degenerated into a confused and confusing morass where students are missing out on the basics they need”, and spoke to the fact that Queensland once led the field in early and middle years but is now selling its students short.

And yet despite all this and more, the aristocrats of ‘The Educational Establishment’ in the various Boards of Study and university education faculties are in denial. They deny that there is a problem or, if they concede that there’s a problem, they claim it is not their fault, even though between them they set the subject syllabi and train the teachers. Obviously they are responsible.

Their guilt is obvious and in a revolution would be grounds for a metaphorical guillotine.

Education academics through their research have dramatically influenced teaching in the schools. Examples of this are [a] the crazy, time-consuming, opaque and inaccurate assessment schemes used in Queensland schools, [b] the fad of whole-word reading strategies, and [c] the failure to instil the basics of fractions, algebra and calculus whilst giving contrived modelling exercises to students who lack the essential mathematical tools.

It is easy to point to ten major advances that changed the world for the better and have arisen from research and application in sciences such as physics, chemistry, geology and biology.

The same cannot be said of education research in universities and application by the Boards of Study.

On the contrary they have made things worse.

What demonstrable educational improvements have arisen from the Queensland Studies Authority, their syllabi and assessment systems?

The world-champion Singaporeans, whose mathematics results are far superior to ours, have a system where academics who teach maths and science education are not in a separate education faculty.

For example, the maths curriculum academics will be in the maths department, and their research will not necessarily even be in the area of education.

However, in the West education academics are separated from the disciplines in which they specialise. Consequently teacher training is deficient in the provision of subject area disciplines.

Instead education students endure years of theory that has little or no connection with the realities of the school classroom.

It would be better to adopt an apprenticeship system where putative teachers drastically improve their subject area knowledge, if necessary, but learn ‘the trade’ mainly on the job, over several years, being paid more each year as they develop their skills and take on a heavier workload.

Come on Mr Rudd! Vive la revolution!

Dr Peter Ridd’s views are his own. They do not necessarily represent the views of James Cook University. Nor should they be confused with the opinions of his brother Michael Ridd, Associate Professor in Chemistry at JCU.
Let’s stay put

BEING THE NEW KID AT SCHOOL CAN BE TOUGH, AS STUDENTS TRY TO FIT IN ACADEMICALLY AND SOCIALLY IN THEIR NEW ENVIRONMENT.

Let’s Stay Put – One Child, One School, One Year was funded by The Telstra Foundation and involved three North Queensland schools whose students were identified as having a higher than average mobility rate.

Angela Hill and Andrea Lynch, from JCU’s School of Education, say they now have a greater understanding of the nature of mobility, and its impact on schools, teachers and students.

One outcome has been a community awareness campaign. With the help of posters, fliers, newsletters and a website, the message ‘Let’s Stay Put – One Child, One School, One Year’ was disseminated throughout the community.

The researchers also collaborated with Education Queensland and the Department of Housing’s Community Renewal program to reduce student mobility and its impact on students and the school community.

Funding has been provided through the Community Renewal program for the introduction of a Mobility Support Officer (MSO) at each of the schools for two years.

“The MSO is the frontline for the student’s transition,” Dr Hill said.

“They are responsible for gathering all the information required for the student’s exit or entry and, in case of a new arrival, will welcome the student and their family to the school.”

The officer meets with the family before the student begins classes, and their role is to ease the transition by introducing the student and the parents to the school’s facilities, procedures, expectations and services.

When a student is leaving the school, the MSO conducts exit interviews with the child and the family to see if the move can be avoided.

When the change is unavoidable, for example when a family is moving away, the exit process involves getting all the relevant information to the new school as soon as possible.

“Student mobility is an important issue and we are thrilled to have this project operating in close cooperation with Education Queensland,” Dr Hill said.

“Whilst the MSO project is still only in the trial stage, the data indicates that this has been a highly successful intervention.”

“The profile of student mobility as an education issue has been increased across the community and within government departments,” Dr Hill said.

“The data analysis has revealed a number of issues that warrant further research. These include the over-representation of Indigenous students in the mobile cohort, housing issues experienced by mobile students and the relationship between family health and mobility. We hope to further explore these issues in future projects.”

“Although the procedures are still in the trial stage, we would like to see some policy changes that result in schools being adequately funded to meet the challenges of high student mobility.”

Vicki Baylis, Regional Executive Director for Education Queensland’s North Queensland Region, said the project would provide tangible benefits for highly mobile students and their families.

“The goal is to retain the students, which will then improve attendance and academic performance,” Ms Baylis said.

Jo Meehan
A 

Meet our newest professors

Professor Geoff Dobson

wants to use the skills of natural hibernators to protect the human heart. His research is ‘breathtakingly daring’, said Sir Gustav Nossal. His most recent achievement has been to arrest a heart for 24 hours without losing any capacity of the heart – and that’s a first.

Professor David Blair

started his academic career in Scotland’s chilly Glasgow but his interests are now squarely planted in tropical Australian fauna and flora. His research interests include the parasites that affect Australian wildlife and the genes and genomes of those parasites.

Professor Gianna Moscardo

began her career as a psychologist. After attending a tourism conference she decided this area was ‘more interesting’. She is currently investigating ways tourism can contribute to sustainable regional development, both in Australia and overseas.

JCU Singapore is moving to a new home

JCU Singapore will be moving to new, expanded quarters later this year following successful negotiations with the Singapore Land Authority.

“We have outgrown our original premises,” Vice-Chancellor and President Professor Sandra Harding said. “We needed more space and green space to allow our increasing number of students to enjoy a traditional campus.”

Professor Harding said she was delighted that the Singapore Land Authority had accepted the University’s tender to lease the new site at 600 Upper Thomson Road.

“While there are classrooms and green space at the site, we intend to significantly refurbish the buildings to meet student and staff needs.

“Our Singapore Campus is a crucial element in JCU’s strategy to serve the peoples of the tropics and our investment in creating a new and bigger campus is proof of our solid commitment to the University’s future in Singapore, and our aim to add to the nation’s talent pool,” Professor Harding said.

“We look forward to welcoming Singaporean students to the new campus as well as those from other countries including JCU’s Australian students.”

Dr Dale Anderson, Chief Executive Officer of JCU Singapore, said the new campus would have state of the art classrooms.

“There will be sports facilities, eateries and an on-line e-library as well as traditional libraries,” he said.

Dr Anderson said the site had a lot of potential for students with accommodation and eating places nearby.

“It provides a pleasant study environment with large trees, cool shady areas and the opportunity to build a really student-friendly environment.”

JCU Singapore was established in 2003 as JCU’s first international campus. It has grown from an enrolment of just 50 students in that first year to more than 1100 this year.

At present JCU offers psychology, business, and IT courses at both graduate and undergraduate levels.

Literary legend honoured

James Cook University will honour a pioneer scholar of Australian literature by appointing a Colin and Margaret Roderick Chair of English.

Professor Colin Roderick was a towering presence in Australian literary studies in the second half of the twentieth 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.

Professor Roderick established the Foundation for Australian Literary Studies, which presents the Colin Roderick Award for the best book published in Australia, dealing with an aspect of Australian life.

The Chair is funded by the Roderick Trust.
Farmers at Cattle Creek, between Mareeba and Dimbulah, have long puzzled over a local groundwater problem, and sought help from researchers at James Cook University in Cairns.

“Over about ten years they’ve seen the water table rising, bringing salty water close to the surface,” said Earth and Environmental Sciences lecturer Dr Paul Nelson. “They’ve looked at their land management and use of irrigation, but there seemed to be more to the problem.”

Dr Nelson asked JCU volcanologist Peter Whitehead to help. With a $5000 grant from the Mitchell River Watershed Management Group and further help from local farmers, they set about solving the puzzle.

“We walked the area, but there were no obvious clues,” Mr Whitehead said. “But when we conducted magnetic surveys on the ground, and obtained results of a previous survey from the air, there were signs of underground barriers that could be preventing ground water from draining off.”

Test drilling confirmed the presence of a series of basalt lava flows, buried under seven to ten metres of soil.

“These probably slow down drainage of groundwater into the Walsh River, hence the salinity problem,” Dr Nelson said.

“It might also explain the amount of water present. The lava flows may be channelling ground water in from across the Great Divide, whereas previously it had all been thought to be coming from irrigation in the immediate area.”

Mr Whitehead has determined that the lava flows came from Bones Knob, a now-extinct volcano 25 kilometres away.

“Cattle Creek is a very flat area, so volcanic activity is not the most obvious explanation,” Mr Whitehead said. “But in its day Bones Knob was a significant volcano, and certainly large enough to produce these lava flows.”

The buried lava flows are up to ten metres deep and more than 100 metres across, with some following an ancient riverbed.

Bones Knob is just one of 16 extinct, shield volcanoes on the Tableland, and one of 65 eruptive centres.

“In general volcanic origins are good news for farmers because of the rich soil generated,” Mr Whitehead said. “But in this case it also caused some difficulties.”

Further research is planned, with the aim of clarifying whether water is entering the Cattle Creek area from the nearby Granite Creek catchment.

“If we can get a clear picture of where the water’s coming from, and the effect of the lava flows, we will be able to recommend to farmers how they can best deal with their water problem,” Dr Nelson said. 

**Lava farming**

If you’re a farmer on the Atherton Tableland it pays to keep an eye on the weather, the markets and ... your local volcanoes.
Mark Fenlon, a litigation lawyer with Townsville firm Boulton Cleary and Kern, has been awarded The President’s Award for Young Lawyer of the Year for 2007 by the Queensland Law Society.

A former first-year representative for the James Cook University Law Students’ Society and a representative to the Australian Law Students’ Association, Mr Fenlon graduated from JCU’s School of Law in 2002.

The award recognises outstanding contributions to both the community and the legal profession.

Mr Fenlon is a National Director for Junior Chamber International (JCI) Australia, an organization comprised of young leaders, entrepreneurs and community members.

His involvement with JCI has seen him involved in local and international community, fundraising and humanitarian efforts.

He also spends one night a month working at the Townsville Community Legal Service, assisting people who are unable to afford a solicitor.

“JCU was an exceptional time for me,” Silma said. “I lived in a share house with a number of students and I have very fond memories of a life typical of the out-going student – plenty of socialising, scuba diving, bike riding and the beautiful relaxed atmosphere of tropical, sunny north Queensland.”

Silma began studying marine biology at JCU but her education soon took a different turn, far from scuba diving and studying pickled fish.

After a 14-month stint in Indonesia she felt she had found her niche and switched to a Bachelor of Arts in Asian Studies.

A change in textbooks wasn’t all that Silma gained from her time in Indonesia. The self-confessed “born-again” Christian embraced a new religion – Islam.

“I had been a committed Christian since I was 15, and had spent a lot of time praying for guidance,” she said. “I found a strong link between intellectual reasoning and spirituality in Islam, but ultimately I decided to convert when I received what I believed was guidance in response to prayer.”

Silma’s husband soon followed her into Islam and they raised their six children in the religion. When the school that Silma’s daughter was to attend refused to let her withdraw from Christian religious rituals, Silma decided to start an Islamic school.

“There was no Islamic school in Australia at that time, but there was a growing community of Muslims who were seeking a school catering for the needs of their kids,” Silma said.

After many legal battles revolving around a site for her schools, Silma has established two Islamic schools: Al Noori Muslim Primary School and Noor Al Houda Islamic College.

“Being a private school, we can add in other subjects, specifically the study of the Quran, Islamic Studies and Arabic,” she said.

“The behaviour management system, as well as pastoral care, draws heavily on Islamic ethics and understanding.”

In addition to being a pioneer of Islamic education in Australia, Silma stood in the 2007 federal election as a candidate for the Democrats, an interest she plans to pursue further.

She is also an education consultant, is studying for her Masters and is planning a venture into writing both fiction and non-fiction.

Jo Meehan
**Robert Eddie**  
MANAGER OF ORPHEUS ISLAND  
JCU RESEARCH STATION

“I’ve spent most of my working life on or around the water. I’ve been a commercial fisherman and a dive master, partnered in an aquarium fish business, worked as a shipwright, delivered yachts and I’m a certified electrical linesman. Orpheus is the first research station but the third island I have managed, though I don’t do it on my own. I keep the station ticking over on the operation and maintenance side and Kylie, my wife deals with the administration side.

Kylie is a former fisheries biologist with the Department of Primary Industries. We have two other boating and maintenance staff. I would liken my role on the island to that of running a boat. It’s very involved.

We aim to constantly upgrade and maintain the facility and its equipment, including eight research vessels, wet and dry laboratories, temperature control rooms, dive facilities, accommodation and kitchen facilities.

People can be complacent when they come to an island so we have to have a few housekeeping rules. Minimal use of our potable water is imperative as we rely on rainwater. Good quality seawater for our research experiments is also important and we’ve worked hard to achieve that.

The barge visits every 4 months to supply fuel and remove rubbish so we have to maintain a stringent rubbish disposal system.

The island is mainly self-funding and we achieve that with 4,500 user days a year.

We have a group of photographers here at the moment, 50 of them from all over Australia. They love the island of course but they also love the facilities. Our two daughters live with us on the island. Leilani’s five and Kauri’s six.

We’re all comfortable with island life. Kylie and I share the role of teacher with the support of the Cairns Distance Education Centre.

We all love diving, fishing and exploring. So when we get the chance we pack up our boat and head out to a neighbouring island. We’ll snorkel, gather a few oysters, catch a fish or cray and cook up a feast in the coals.

We’ve been on Orpheus for over two years now and we plan to stay for at least another three.

It’s an ongoing challenge and a 24 hour a day job, but it’s the lifestyle we enjoy.”

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**Graduate Update: Nicholas Shirley**

**Nick Shirley graduated from JCU in 2003 with a Bachelor of Education in Early Childhood Education.**

Nick told Discover about life in Dingo, 150km west of Rockhampton, where he is school principal in his new-found community of 250 people.

I never thought I’d be a principal! In the last year of my degree I heard about funded internships in Indigenous schools and I knew that was what I wanted to do and had to do.

I chose Cherbourg State School mainly because of Chris Sarra, the then principal, who had won national acclaim for his Strong and Smart philosophy.

Before my month’s internship was up Chris had offered me a full-time job and I jumped at it.

I’m now in my fifth year of teaching and I’m principal of Dingo State School and I believe it’s all thanks to the internship program. It was definitely the best thing I’ve ever done.

In a town the size of Dingo with no services – no police, no ambulance – it’s hard not to become too involved in the town. You have to work hard on the work-life balance. But I love it.

I love watching kids do something better than they thought they could do.

As principal I still get to teach but I have the opportunity to do so much more.

I’m also lucky to work with great staff, and the resources in the school are fantastic, better than in most larger schools.

As a student at uni I always appreciated how the staff were always willing to offer help and guidance.

Now as a teacher and a principal I know I have to be enthusiastic and engaging for my students to come to school.

What we offer has to be relevant to their needs and culture. If we can do that they will turn up.

I did start to do my Masters through JCU but I’ve put that on hold for the moment. I’m just too busy.

I’d probably like to work in a bigger school down the track – I want to get out and see what else is out there. But for now I’m very happy doing what I am, where I am. 😊

For more news about graduates visit www.jcu.edu.au/alumni

www.jcu.edu.au/discover
In print

The story of RU-486

Sue Brown is a Doctor of Nursing who has lived and worked all over the world. She lectures in nursing science at JCU.

An author of many research papers with a particular interest in the older adult, Dr Brown has now published her first book Health and Illness in Older Adults.

“After living in Australia for ten years and observing the way we work as a social entity and how well we care for our older adults, I wanted to write about that,” she said.

“The book is for nurses and particularly undergraduate nurses emphasising care in an Australian context, rather than the American tomes available.”

“In far north Queensland we are very driven by ‘down south’ decision makers when the environment we live in, our great outdoor lifestyle that promotes healthy successful ageing, along with our eclectic mix of cultures, is quite unique.

“What we are already doing we are doing well,” Dr Brown said.

Health and Illness in Older Adults is a textbook that encourages and supports healthy, successful ageing from 65 to 105.

“Throughout Australia and particularly in far north Queensland we have fantastic support services with a high rate of volunteers and excellent job opportunities, but we need to be prepared to meet the needs of the burgeoning influx of retirees,” Dr Brown said.

Dr Sue Brown is now working on her second book, concerning the care ethic.

Health and Illness in Older Adults by Sue Brown

Pearson Education Australia
ISBN: 9780733978722

Feeding China’s livestock

Increasing disposable income in China has, in the past two decades, led to growing consumer demand for animal products. The resulting rapid expansion of livestock production in China has sparked much interest in the question of whether China will soon need to import feedgrains to support its growing animal husbandry industry.

The strong demand for cereal globally, and in the Asian region in particular, is seen as an enormous opportunity for Australian cereal producers.

Among the many factors that affect the quantity of feedgrain that China will import are two important ones: China’s own capacity to produce and its feedgrain marketing arrangements.

China’s Feed Grain Market: Supply, Demand and Trade Prospects, edited by ZhangYue Zhou and Wei-Ming Tian, sheds light on these two factors, providing some important facts and updating information.

Associate Professor ZhangYue Zhou is an applied economist, specialising primarily in food demand and supply issues.

He is the Director of the Centre for AusAsia Business Studies at JCU.

Professor Wei-Ming Tian is the Director of the Institute of Agricultural Economics at China’s Agricultural University in Beijing.

China’s Feed Grain Market: Supply, Demand and Trade Prospects is a Chinese language publication aimed at researchers, postgraduate students, traders and government officials.

Grains in China: Foodgrain, Feedgrain and World Trade, an English language publication by Ashgate addressing both China’s foodgrain and feedgrain issues, was published in 2005.

China’s Feed Grain Market: Supply, Demand and Trade Prospects by ZhangYue Zhou and Wei-Ming Tian
China Agricultural Press, Beijing
ISBN: 978-7-109-12231-4

The book recounts the politics and controversy that followed, culminating in 2006 with a private members’ bill brought to the Senate by four women senators and passed with a large majority.

Convinced that medical abortion, as opposed to surgical terminations, could benefit women in regional areas with limited access to hospitals, Professor de Costa first argued for its use in Australia in 2005.

The book recounts the politics and controversy that followed, culminating in 2006 with a private members’ bill brought to the Senate by four women senators and passed with a large majority.

In April 2006, following a complex and protracted application to the Therapeutic Goods Administration, Professor de Costa was given permission to use the drug under strict conditions.

Access to the drug is restricted to Cairns residents with a serious pre-existing health condition that would be worsened by continuing their pregnancy.

Patients so far have included women with severe blood pressure, kidney disease and blood-clotting disorders. Others have had histories of depression and previous birth complications.

At the time of writing the book she and a Cairns colleague were the only medical practitioners permitted to use RU486 for purposes of abortion in Australia; three further approvals have since been granted to hospitals in capital cities.

The story of RU-486

RU486: The Abortion Pill is Professor Caroline de Costa’s account of her successful campaign to make medical abortion available to her patients.

RU-486, or mifepristone, is used in combination with another drug, misoprostol, to induce abortion.

Although available and widely used in New Zealand (and many other countries including the United Kingdom and the United States) its use was prohibited in Australia until recently.

Convinced that medical abortion, as opposed to surgical terminations, could benefit women in regional areas with limited access to hospitals, Professor de Costa first argued for its use in Australia in 2005.

The book also discusses the drug’s possible future uses – for contraception and for the treatment of endometriosis, fibroids and cancers of the breast and brain.

RU486: The Abortion Pill by Caroline de Costa
Boolarong Press
ISBN: 9781921054334

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Support for students
On Track
Date: Week beginning Monday 31 March
Details: Student Equity contacts those students identified by academic staff as possibly needing support to keep their studies on track.
Contact: Tamara Crawford, tel 4781 4933, e-mail tamara.crawford1@jcu.edu.au

Graduation, Cairns
Date: Saturday 5 April
Time: 11.00am
Location: Crowther Lecture Theatre, JCU Cairns
Details: Professor Ron Rutowski studies visual signals and visual ecology in butterflies.
Admission: free
Contact: Susan Kelly, tel 4042 1456, e-mail susan.kelly@jcu.edu.au

Course Information
Mid-year Information Evening, Cairns
Date: Wednesday 7 May
Time: 6.30pm
Location: JCU Cairns, McGregor Road, Smithfield
Details: For those interested in starting their studies mid-year.
Contact: Rima Ismail-Jones, tel 4042 1008, e-mail rima.ismailjones@jcu.edu.au

Mid-year Information Evening, Mackay
Date: Wednesday 28 May
Time: To be announced
Location: JCU Mackay, Townsville
Details: For those interested in starting their studies mid-year.
Contact: Nancy Edwards, tel 4957 6048, e-mail nancy.edwards@jcu.edu.au

Public lecture
Butterflies
Date: Wednesday 16 April
Time: 5.30pm
Location: Crowther Lecture Theatre, JCU Cairns
Details: Professor David Gillieson discusses advances in satellite imaging of tropical environments.
Admission: free
Contact: Susan Kelly, tel 4042 1456, e-mail susan.kelly@jcu.edu.au

Public lecture
Satellite imaging
Date: Wednesday 14 May
Time: 5.30pm
Location: Crowther Lecture Theatre, JCU Cairns
Details: Dr Nicky Moore discusses the future of coastal cassowary populations.
Admission: free
Contact: Susan Kelly, tel 4042 1456, e-mail susan.kelly@jcu.edu.au

Conference
30 years of economic reforms in China
Date: Thursday 10 and Friday 11 July
Location: Jupiters Hotel, Townsville
Details: The 20th Annual Conference of the Association for Chinese Economic Studies, Australia
Contact: www.jcu.edu.au/cabs/acesa

Public lecture
Herbarium
Date: Wednesday 16 July
Time: 5.30pm
Location: Crowther Lecture Theatre, JCU Cairns
Details: Dr Darren Crayn discusses the Australian Tropical Herbarium at JCU.
Admission: free
Contact: Susan Kelly, tel 4042 1456, e-mail susan.kelly@jcu.edu.au

Flamenco is in good company at this year’s Australian Festival of Chamber Music. French composer Olivier Messiaen is celebrated with a play by Jessica Duchen. Other highlights include music by Bach, Beethoven, Puccini, Mozart and Schubert. And the Sunset Series of Concerts showcase world class music right here in Townsville, tropical North Queensland.
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- Professional Accounting
- Psychology
- Public Health & Tropical Medicine
- Social Work & Human Services
- Tourism & Hospitality

*The Academic Ranking of World Universities, Shanghai Jiao Tong University, 2007.
**Melbourne University survey, Reef Encounter, May 07.
Photo credit: Sandra Nordstroem.

For further information call 1800 246 446 or visit: www.jcu.edu.au