## Research



Dr Alison Shapcott with PhD student Michael Powell.

# Priority: To increase the University's research profile and reputation by focusing on research which is relevant to the region and significant internationally.

#### **Institutes and Centres**

In 2005, the University maintained its focus on research relevant to the region mainly through the activities of its research institutes and centres:

- Sunshine Coast Research Institute for Business Enterprise (SCRIBE);
- Institute for Sustainability, Health and Regional Engagement (iSHaRE);
- Centre for Healthy Activities, Sport and Exercise (CHASE);
- Centre for Multicultural and Community Development (CMCD); and
- National Seniors Productive Ageing Centre (NSPAC).

Under the provisions of the University's policy on institutes and centres, SCRIBE was externally reviewed during Semester 2, 2005. The resultant report acknowledged the variety of projects conducted by SCRIBE with regional organisations. The recommendations of the review will be fully implemented in 2006.

During 2005, the University reorganised its internal grants schemes and internal research funding processes in preparation for the introduction of the Research Quality Framework (RQF) and the likelihood that the government would introduce 'third stream' funding relating to university research activities. The University also committed to a RQF trial being conducted in cooperation with the New Generation Universities.

Actions carried out were designed to:

- further define a small number of research concentration areas;
- record individual and collective research development;
- strengthen research collaborations within, and beyond, the University; and
- ensure the University's research effort more strongly reflects regional priorities.

#### Research Relevant to the Region

The following activities exemplify the University's commitment to research that impacts positively on the development of the Sunshine Coast, but also has relevant significance internationally.

- Dr Helen Wallace was awarded an Australian Research Council grant in 2005. Dr Wallace leads an experienced team of researchers investigating the development of the species Eucalyptus argophloia for sustainable hardwood forestry in low rainfall areas in collaboration with Department of Primary Industries and Forestry. Funding over three years will be approximately \$200,000.
- Dr Alison Shapcott was awarded an
   Australian Research Council grant to
   support the work of PhD student Michael
   Powell. Under the supervision of Dr
   Shapcott, Mr Powell is developing a
   Macadamia Conservation and Recovery
   Plan. The project is a collaborative one
   that also received funding support from
   the Sunshine Coast Environment Council,
   the Australian Macadamia Society and
   Queensland Herbarium. Funding over three
   years will be approximately \$100,000.
- PhD student Robert Lamont of the Faculty of Science, Health and Education was awarded a Smart State PhD Scholarship of \$7,000 per annum for two years from the Department of State Development, Trade and Innovation for his project, 'Now you see it, now you don't: will the Sunshine Coast's endangered Allocasuarina emuina be lost to urbanisation or hybridisation?'.
- Growing the Smart State PhD Funding Program: Wendy Spinks, of the Faculty of Business, was awarded funding from this program for her project 'Baby boomers and beyond: customers satisfaction with high involvements services'. Ms Spinks was one of 30 successful applicants from 84 applications.

 During 2005, the Communications and Social Sciences disciplines in the Faculty of Arts and Social Sciences undertook joint research projects in collaboration with the Queensland Police Service (North Coast Region). In the latter part of the year this successful collaboration led to the development of a project application for submission for funding to the Australian Research Council. The Queensland Police Service will contribute \$50,000 over three years to the project that will involve a PhD student.

# ■ Increasing research output, including the production of research higher degree graduates

#### **Research Performance**

For a summary of research performance and performance-based funding from 1998 to 2005 refer to Table 4 on page 26.

#### Research Support

To further improve individual and institutional research capacity and performance, the University appointed additional staff to the Office of Research and strengthened support for the faculties, institutes and centres particularly in relation to the preparation of grant applications. A further strengthening of the support program has been designed for implementation in 2006.

#### **Performance Indicators**

In 2005, the University adopted seven indicators to gauge its performance on research and research training:

- research income;
- research active staff;
- research higher degree enrolments;
- research higher degree completion rates and times;
- number of organisations with which the University has active research links;
- research outputs; and
- proportion of research qualified staff.

These indicators were designed to assess:

- the University's supervisory capabilities;
- infrastructure requirements in relation to student numbers;
- appropriate staff levels required to sustain external linkages, and;
- measure the University's outcomes against national averages.

The Research Management Committee is responsible for monitoring results.

#### **Completion Rates**

The University has adopted a benchmark for the completion of higher degree by research programs of at least 65 percent in no greater than 3.5 years (full-time equivalent) for Doctoral research degrees and two years for Masters research degrees. To date, 14 students have completed higher degree by research programs.

#### Staff Engaged in Research

The growth of the University has been matched by an increase in the number of staff who are active researchers. The University identified 1.0 of a publication DEST point per academic staff member per year as the desired research output. The publications are required to be refereed journal articles, books, book chapters, published conference proceedings or appropriate creative works. To achieve this aim, the University provides researchers with assistance and training in the management and preparation of publications.

In 2005, 60 percent of academic staff had a doctoral qualification, which is above the national average. The University aims to further enhance the proportion of its research-qualified staff.

■ Engaging in significant research partnerships, regionally, nationally and internationally, to maximise outcomes

#### Research Partnerships

During 2005, existing research partnerships strengthened, particularly with organisations such as the Department of Primary Industry and Fisheries, the local councils and shires, and the National Seniors Association. In addition, new connections were established with organisations such as CSIRO, Australia Zoo, Underwater World and a range of organisations seeking to work cooperatively with the University and the Innovation Centre.

In 2005, the University continued to invest in its research partnerships involving Fraser Island, and commenced some international research projects in conjunction with the University of Wyoming (which has strong connections with Yellowstone National Park), and the University of Witwatersrand (which







The University continued to invest in its research partnership involving Fraser Island.

Table 4: Summary of Research Performance and Performance-based Funding 1998-2005

	Research Performance				Performance-based Funding		
	Research Income \$	HDR Enrolments (EFTSU)	HDR Completion	Research Publications (Weighted)	Institutional Grants Scheme \$	Research Training Scheme \$	Research Infrastruc-ture Block Grant \$
1998	100,857	13.25	0	37.64			
1999	184,504	18	1	40.63	_		
2000	319,289	22.5	2	50.04	_		
2001	415,885	27	3	38.39	111,080	192,000	481
2002	582,020	34.75	1	63.64	119,186	305,954	3,997
2003	699,056	44.25	3	62.1	128,019	434,959	5,092
2004	757,969	45.5	4	60.76	137,834	566,925	41,880
2005					185,415	695,971	72,389

The data above demonstrates steady development, but also shows the need for accelerated improvement. This is expected to flow in the next triennium as a result of the initiatives listed above and the appointment of new senior research staff in selected areas.

has access to Kruger National Park). From 2006 the University expects to increase the number of research projects involving these three prestigious world-heritage areas.

As a further expression of the development of research partnerships, the University led the preparation of Smart State research submissions with partner organisations. They were:

- Research-Industry Partnerships Program.
   Automated Player Analysis System (APAS):
   A project to develop tracking systems for sports coaching enhancement.
- Partnerships-Alliances Facilitation
   Program. Subtropical Plant and Animal
   Biotechnology Facility: Funding sought to
   formulate a collaborative funding proposal
   to develop a biotechnology centre at the
   University of the Sunshine Coast.

- Applied Nanotechnology Research Centre (ANRC): Funding sought for purchase of specialist equipment for a new ANRC to be established by the University in conjunction with key industry partners.
- University Internships Program:
   Application for funding to support development of Work Integrated Learning activities for science and technology students.

#### **Indicators of Success**

#### **■** DEST research indicators

See Table 4 above entitled Summary of Research Performance and Performance-based Funding 1998–2005.

### ■ Number of projects with a regional partner or client

There were five major projects with a regional partner or client.