

NRSM Research *NEWS*

Newsletter of recent research outputs, outcomes and activities in the School of Natural & Rural Systems Management, NRAVS, UQ.

Issue 3, Jan 07

NRSM Research NEWS publicises NRSM staff & student research achievements and provides information on research activities relevant to the school.

Editorial

Welcome to the third NRSM Research News! We will be publishing and displaying newsletters on the web at two monthly intervals. Most of the news in this issue is from November and December 2006. The issue in March 2007 will have the first of the 2007 news.

The first newsletter took a little time to format and organise. However, Leesa Young has done a great job preparing the format and the proforma for the newsletter. Material can now be incorporated as it is provided. Of course Leesa's job is made easier by the provision of well-formatted information in a timely way.

The Research Committee appreciates the positive way that the NRSM community has responded to this initiative. We are all very busy, but it is worth taking a little time to publicise our successes in the diversity of our research.

In this issue we provide information on a new project, introduce an existing project in the school, recent post graduate completions and some recent publications. Future Newsletters will include our seminar program, enrolments of post graduate students, new post doctoral fellows, recent successful grant applications, publications and visiting scholars. In addition, future newsletters will provide a brief overview of other research groups, centres or programs of research.

This newsletter features one of our current projects – an ARC Linkage led by Grant Wardell-Johnson. Other groups may wish to send their contributions (of not more than 500 words) to Leesa (l.young1@uq.edu.au) for inclusion in the next newsletter.

Grant Wardell-Johnson
(Acting Chair) for the NRSM Research Committee

Post graduate students completed

Hearty congratulations are extended to the following postgraduate completions.

Acton, Adele PhD (20/11/06): *Creating Cross-scale Linkages between Regional and Local Levels: Toward Coordinated Natural Resource Management in Australia's Tropical Rangelands* (O Bosch, H Ross).

Firrell, Craig MPhil (13/11/06): *To Intervene or Not to Intervene?, An evaluation of strategic intervention and its usefulness in the development of a value chain alliance for the native flower industry.* (T Dunne, L Lim & R Collins).



The Research Committee is now in possession of a copy of the 2007 Australian Green Grants Guide

This guide is a comprehensive listing of environmental and heritage grants offered by Government and non-Government organisations. In the 2007 edition, you'll have access to more than 250 grants around Australia focusing on grants relating to seven themes: *Water ~ Biodiversity ~ Energy ~ Greenhouse ~ Heritage Sites ~ Land ~ Waste*. Please see Leesa if you wish to borrow the guide.

Overview of a current ARC Linkage project in NRSM

Title: LP0560809 - 'Towards a Landscape Conservation Culture: broadening the spatio-temporal scale of ecological studies to anticipate change in Australian forested ecosystems'

Team: Project Leader - Dr. **Grant Wardell-Johnson** (NRSM, UQ). The other Chief Investigators are Dr **David Pullar** (Department of Geographical Sciences and Planning, UQ) and Dr **Kimberly Van Niel** (University of Western Australia). The Partner Investigator is Dr **Neil Burrows**, Director of Science Division, Department of Environment and Conservation, WA.

The objectives of this three year project which was approved in December 2005 (copied from the original project proposal) are:

1. 'To develop an integrated framework to interpret knowledge about natural landscape processes. This can then be used to anticipate their future trajectories under a range of disturbance regimes and conservation policies.
2. To develop methodologies for the synthesis of data obtained through biological surveys (at a plot scale) and remote sensing (at a landscape scale), with spatial data handled through geographical information systems.
3. To use an explanatory modeling approach to test ecological theories and assess current and proposed conservation policies that interpret data and make model-based predictions of species and assemblage distributions under different disturbance scenarios.
4. To resample selected permanently located quadrats established and assessed 12-15 years ago to derive and test temporal models specific to particular community types.'

Three PhD projects are directly funded from this project. **Paul Smith** ('*Developing alternative models of landscape patterns of vegetation complexes in the Tingle Mosaic, south-western Australia*') is supported by an APAI, while **Carly Bishop** ('*Interactions between drivers of Ecological change: *Phytophthora cinnamomi* and Fire in the Tingle Mosaic, south-western Australia*') and **Jocelyn Fissioli** ('*Incorporating ecology into models of the distribution of three endemic forest eucalypts (*Eucalyptus brevistylis*, *E. guilfoylei*, *E. jacksonii*) to anticipate the impacts of climate change*') are supported by top-ups to their APAs. More information on the projects and students under Grant Wardell-Johnson's supervision can be found on <http://www.nrsm.uq.edu.au/staff/grantwardell/students.projects.asp>

This ARC project has led to further international collaboration in this general theme. Thus Grant was successful in achieving an International Linkage through the ARC process ('*Biodiversity in high rainfall Mediterranean-climate ecosystems: integrating fields of enquiry for improved conservation outcomes*' – LX0775868) during 2006. Collaborators in this project are Prof. **Phil Rundel** (UCLA), Prof. **David Hibbs** (OSU), Prof. **Juan Armesto** (Catholic University of Chile, Santiago) and Dr **Neil Burrows** (DEC, WA).

Some of the research based around the ARC Linkage and the International Linkage is being presented at MEDECOS 2007 (<http://www.medecosxi2007.com.au>) in Perth Western Australia in Sept 2007 for which Grant is Program Chair. The new International Linkage has been successful in attracting a new APA funded PhD student - **Juliane Sander** ('*Species richness and productivity in high rainfall Mediterranean-climate ecosystems*') who will be commencing in NRSM in January 2007.

Information about Grant's other projects can be found on <http://www.nrsm.uq.edu.au/staff/grantwardell/current.projects.asp>

Three recent papers associated with this project are:

Wardell-Johnson, G., Pullar, D., Van Niel, K. & Burrows, N. (2005). Towards a Landscape Conservation Culture: anticipating change in the Tingle Mosaic, south-western Australia. *Australian Plant Conservation* **14** (2): 6-8, Proceedings of the ANPC annual conference, Adelaide Sept 2005.

Wardell-Johnson, G., Burrows, N. & Shu, L. (2006). Emergent properties in the mosaic of patch burning vary with the fire environment and landscape context in south-western Australia. In: *Life in a fire-prone Environment: Translating Science into Practice*. Proceedings of the Bushfire Conference, Brisbane, 2006

Wardell-Johnson, G.W., Williams, M.R., Mellican, A.E. & Annells, A. (IN PRESS). Floristic patterns and disturbance history in karri (*Eucalyptus diversicolor*: Myrtaceae) forest, south-western Australia: 2. Origin, growth form and fire response. *Acta Oecologica* (2007), doi:10.1016/j.actao.2006.07.006

Bibliographic details about Grant's publications can be found on <http://www.nrsm.uq.edu.au/staff/grantwardell/publications.asp>

New Projects

- We have just signed off on a contribution to a new large ACIAR project 'Improving productivity and profitability of smallholder shrimp aquaculture and related agribusinesses in Indonesia' (FIS/2005/169) led by Richard Whittington of The University of Sydney. Ilean Russell will be the collaborating scientist for UQ, with a position created within the project to support a PhD student in the School of NRSM. The project has a total budget of \$944,000 over four years.

The University of Sydney is Commissioned Organisation for this Category 1 project, the Australian collaborating agency is the University of Queensland. Directorate General Aquaculture (MMAF) will lead the project in Indonesia. The project focuses on 'traditional' smallholder farmer groups and associated supply chain enterprises. In its first two years, the project will develop and validate model programs combining enterprise-level interventions ('better management practices', BMPs) and participatory extension methodologies delivered and supported by appropriately skilled extension and health management services. In the third and fourth years, the project will support, facilitate and monitor broad dissemination and implementation of appropriately contextualised programs using existing government and non-government resources. Throughout, the Project Steering Committee will pro-actively identify and, as required, facilitate and advocate those activities, linkages, adjustments or enhancements necessary for on-going, independent program implementation.

Project duration: 4 years

Proposed start date: 1 October 2006

Proposed finish date: 30 September 2010

Date Claimers

ARC Discovery Projects for funding commencing in 2008 – Open for applications. Application Process The Discovery Projects application form is available in GAMS via the ARC website: <http://www.arc.gov.au>. A sample application form is available from: http://www.arc.gov.au/pdf/DP08_sampleapplicationform.pdf **Note** - your actual application must be completed electronically in GAMS. A Step-by-Step Guide on how to submit an application is available from the following UQ website: <http://www.uq.edu.au/research/orps/index.html?page=22649&pid=22807>. The **Funding Rules** and **Instructions to Applicants** will guide you through completing the on-line form and is available from: http://www.arc.gov.au/apply_grants/discovery_projects.htm *****Deadline to ORPS: Friday, 2 February 2007***** **Applications MUST be submitted to ORPS by this closing date.**



Winston Churchill Memorial Trust... awards about 100 Fellowships each year at an average cost of approximately \$25,000 each. The purpose of the Fellowships is to study or investigate a project overseas of a kind that is not fully available in Australia. There are no limits to most of the Fellowship topics - they literally cover every conceivable interest - however, a number of the Fellowships on offer are sponsored and these have a more specific topic for investigation. **Fellowships close on 28 February 2007.** Visit www.churchilltrust.com.au



The Carrick Fellowship Scheme 2007 will again offer two programs: Senior Fellowships (four available) max funding \$330,000 and Associate Fellowships (ten available) max funding \$90,000. PLEASE VISIT <http://www.carrickinstitute.edu.au/carrick/go/home/fellowships> for guidelines and nominations instructions, report on 2006 Fellowship outcomes and processes (containing a list of areas considered as high priority for the Fellowships scheme) and Carrick Institute Dissemination Framework. To be successful Fellows must: develop a program that explores and addresses a significant educational issue; develop their personal skills and profile; be an advocate for excellence in learning and teaching. Both the Senior and Associate Fellowships are for a period of 1 year. It is expected that Senior Fellows will be committed to their project for 12 months full time whereas, Associate Fellows require a commitment of 3 months over the 12 months period. Those nominated must be able to undertake their fellowship between May 2007 and 2009. **NOMINATIONS FOR THE 2007 CARRICK FELLOWSHIP SCHEME ARE DUE ON FRIDAY 9 FEBRUARY 2007.** As in 2006, UQ will conduct an internal nomination procedure prior to the approval and finalisation of the nominee applications. Each Faculty can nominate one Senior Fellow and up to three Associate Fellows for consideration. **IF YOU ARE INTERESTED IN THESE FELLOWSHIPS (with an INTERNAL CLOSING DATE OF 29 JANUARY 2007 with the Office of the Deputy Vice-Chancellor (Academic)) please see Lyndell asap.** Please note that the Executive Dean is required to provide written support for the nomination detailing the institutional and disciplinary benefits of the proposal outcomes. Therefore, there will be a Faculty deadline to also consider.

Publications from Natural and Rural Systems Management

Anne Hardy, Bill Carter, Bob Beeton, Mark Olsen & Louise Horneman (2006) Regional Touring Route Travellers: Users' motivations, attitudes and behaviours in Queensland and Tasmania. *Gold Coast: CRC for Sustainable Tourism Pty Ltd.* pp 45.

Beeton RSJ (2006) 'Societies Capitals: A Framework for Renewing our Thinking' *paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra.*

Beeton RJS (Bob), Buckley Kristal I, Jones Gary J, Morgan Denise, Reichelt Russell E, Trewin Denis (2006), Australia State of the Environment 2006, *Independent report to the Commonwealth Minister for the Environment and Heritage, Department of Environment and Heritage Canberra.*

Beeton RJS (Bob), Buckley Kristal I, Jones Gary J, Morgan Denise, Reichelt Russell E, Trewin Denis (2006), *Australia State of the Environment 2006*, Website prepared by DEH under direction of Committee at:
<http://www.deh.gov.au/soe/2006/index.html>

Hockings, M, Leverington, F and James, R (2006), Evaluating Management Effectiveness. In *Lockwood, M., Worboys, G. and Kothari, A. (eds). Managing Protected Areas: a global guide. Earthscan, London* pp.635-655.

Kariuki, M. Kooyman, R. M., Smith R. G. B., Wardell-Johnson G. and Vanclay J. K. (2006). Regeneration changes in tree species abundance, diversity and structure in logged and unlogged subtropical rainforest over a 36-year period, *Forest Ecology & Management* **236**: 162-176.

Meier, E.A., Thorburn, P.J., Wegener, M.K. and Basford, K.E. (2006) The availability of nitrogen from sugarcane trash on contrasting soils in the wet tropics of North Queensland, *Nutrient Cycling In Agroecosystems*.

Meier, E.A., Thorburn, P.J. and Probert, M.E. (2006) Occurrence and simulation of nitrification in two contrasting sugarcane soils from the Australian wet tropics, *Australian Journal of Soil Research* **44**: 1-9.

Nguyen, N., Wegener, M. and Russell, I. (2006), Risk management tools for dryland farmers in southwest Queensland: An action research approach. *Proceedings of the Australasia Pacific Extension Network International Conference, 3rd-6th March 2006, Beechworth, Victoria, Australia.*

Nguyen, N., Wegener, M. and Russell, I. (2006). Decision support systems in Australian agriculture: state of the art and future development. *Proceedings of the 26th Conference of the International Association of Agricultural Economists, 12-18th August 2006, Gold Coast, Queensland, Australia.*

Robinson, C.J., Ross, H. and Hockings, M. 2006. Development of cooperative management arrangements in the Great Barrier Reef. *CRC Reef Research Centre Technical Report no 55 CRC Reef Research Centre Ltd. Townsville*, 118pp.

Romanach, L M, M K Wegener, J Grice, and S Morris. 2006. (Poster) Public understanding of genetically engineered crops: the views of sugar industry stakeholders. *Proc. Aust. Soc. Sugar Cane Technolol.* 28. Mackay.

Romanach, L M, M K Wegener, J Grice, and S Morris. 2006. The importance of effective communication between scientists and the public: Addressing public concern about GM crops in the Australian sugarcane industry. *Tropical Crop Biotechnology Conference.* Cairns.



THE BIBLIOGRAPHIC DATA COLLECTION IS NOW UNDERWAY
FOR

ALL 2006 PUBLICATIONS

CLOSING DATE FOR ELECTRONIC SUBMISSION

Friday, 20th April 2007

REFER TO THE WEBSITE FOR PROFORMAS AND OTHER INFORMATION
AND SEND ALL YOUR PAPERWORK TO LEESA

<http://www.uq.edu.au/research/orps/index.html?page=4614>