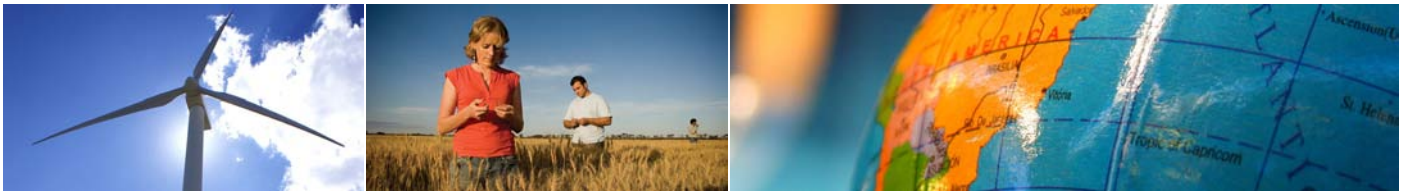


Research Institute for Climate Change and Sustainability



1 December 2008

From the Director

A major component of the RIsCCS vision is to develop collaborative teams of researchers to “think big” and tackle the challenges posed by climate change. Our aims align with State and Federal strategic plans, with the goal of reducing fragmentation of effort and building capabilities in, and real-world application of, new knowledge and innovation.

The success of RIsCCS researchers in obtaining funding from international, national and regional bodies shows that this vision is working. We are pleased to include in this newsletter just a few of our recent funding successes.

Whether these resources come through research networks hosted at other institutions or grants held locally at the University of Adelaide, they enable our members to conduct ground-breaking work and connect with colleagues from around Australia and the world. This allows us to share information and research agendas, while generating new knowledge and technologies that address current, real-world problems on a wide range of issues and geographical scales.

Developing funding proposals and research linkages is hard work, and I congratulate all our researchers for their successes past, present and future.



Barry Brook

RIsCCS researchers win funding for climate-related work

Peng Bi and **Dino Pisaniello** will lead an Australian Research Council (ARC) Linkage project looking at how well Australia’s emergency management systems respond to heatwaves. In collaboration with partner SA Health, the team will examine emergency and health related adaptation strategies that can help communities respond to heatwaves. The results of their study will inform government policy, especially in the areas of public service and resource allocation, infrastructure, disaster prevention and response, and the establishment of a national heatwaves response system. Findings will benefit relevant industries (e.g., aged-care) and disadvantaged communities (e.g., indigenous Australians).

Barry Brook will lead an ARC Linkage project entitled “Planning for a transformed future: Modelling synergistic climate change and land use impacts on biodiversity.” Partners include the Department for Environment and Heritage, Department of Water, Land and Biodiversity Conservation, City of Onkaparinga, and Adelaide and Mount Lofty Ranges NRM Board. The \$521,000 project will develop an innovative new modelling system to determine the extent to which climate change will amplify other major man-made threats to biodiversity.

Alan Cooper is the lead on a new ARC Discovery project to study the black rat, considered a major threat to Australia’s biosecurity and public health,

particularly as the climate warms. The group will identify a range of associated disease risks, providing critical data for management efforts around the world. The study establishes collaborations between researchers in fields as diverse as zoology, medicine, epidemiology, genetics and conservation.

Graeme Hugo is leading a team to explore the implications of climate change on migration in the Asia-Pacific region. Funded by the Asian Development Bank, the project includes RIsCCS members **Christopher Findlay**, **Martin Williams** and **Barry Brook**. The study aims to identify populations that are most at-risk for negative impacts of climate change, assess the effects on mobility patterns and socio-economic measures, and develop multinational strategies for coping with the changes.

Corey Bradshaw is party to two recently funded projects. One is supported by ARC Linkage to investigate cost-effective reforestation approaches to biodiversity conservation and carbon sequestration in Australia’s wet tropics. The other is an ARC-NZ Research Network looking at climate-driven changes to the distribution and diversity of marine flora.

If you are a RIsCCS member with funding news you would like to share with our readers, please send details to alayne.moody@adelaide.edu.au

Equinox Flagship Projects

Representatives from RIsCCS, government and the nonprofit and business sectors have joined together as the Equinox Group to develop programs that conserve and manage local wildlife.

Flagship programs under development aim to develop biodiversity credits, carbon credits and other mechanisms to attribute value to biodiversity and to establish a Childrens' Forest in the West Parklands as part of a Green Trail within the City of Adelaide.

Led by **Andy Lowe**, the Equinox Group includes RIsCCS colleagues **Barry Brook**, **David Paton** and **Jackie Venning** and representatives from the Department for Environment and Heritage; the Canopy Project; Trees for Life; the Nature Foundation; the Department of Premier and Cabinet; the Department of Further Education, Employment, Science and Technology; WWF-Australia; ElectraNet; Colliers International; Carbon Planet; Onkaparinga City Council; Norman Waterhouse Lawyers; Primary Industries and Resources SA; and the Adelaide Mt Lofty Ranges NRM Board.

Partnering for Public Health

Also in RIsCCS partnership news, a networking session sponsored by Constellation SA was held on 7 October. Led by RIsCCS Research Director for Population Health and Social Impacts **Peng Bi**, the session engaged researchers, government officials and health professionals in a conversation about climate change impacts on public health and emergency management. A number of key areas in need of development were identified, and a workshop is planned early in the new year.

Adaptation Research Networks

The following RIsCCS members will be part of the Adaption Research Networks to be administered by the National Climate Change Adaptation Research Facility: **Barry Brook** and **Andrew Lowe** (Terrestrial Biodiversity); **Graeme Hugo** (Settlements and Infrastructure); **Justin Brookes** (Settlements and Infrastructure, Water Resources and Freshwater Biodiversity); and **Peng Bi** (Human Health).

Member News

Mike Young was named South Australian of the Year in the environment category by SA Great on 20 November.

In September, **Stephen Lincoln** co-authored papers published in *The New Journal of Chemistry* and *Chemical Communications*. His popular science article "A quiet American," about the peaceful use of americium-241, ran in the 11 October edition of the *Advertiser Review*. On 4 November, he gave the plenary lecture "Climate Change and Energy" at the East China University of Science and Technology in Shanghai.

Holger Maier co-authored "Water distribution system optimisation accounting for a range of future possible carbon prices," winner of 2nd best paper honors at the 10th Water Distribution Systems Analysis Conference of the American Society of Civil Engineers, 17-20 August.

Graeme Hugo presented "Water for Adelaide: A Population Perspective" at the University of Adelaide's Open Day on 17 August and "Climate Change and South Australia's Population Dilemma" at the 9th TREENET Symposium on 4 September.

Barry Brook spoke at these two events and at the Make Poverty History "Climate change and the global poverty crisis" forum on 12 November. He and **Bob Hill** gave presentations at the Australian Systematic Botany Society (ASBS) National Conference, 28 September - 3 October.

Andrew Lowe helped organise the Annual Meeting of Council Heads of Australasian Herbaria, 25-26 September, and the aforementioned ASBS conference, at which he gave two presentations. He spoke at the 1st SA Weeds Conference, 2-3 October, and the Conservation Breeding Specialist Group Annual Meeting, 16-19 October. In September, he was co-author on a paper published in *Diversity and Distributions*.

Martin Williams presented "Human Responses to Climate Change" to the Australian Organic Geochemistry Conference on 10 September and co-authored a paper published 26 August in *Molecular Ecology*. In October, he received the Farouk El Baz Award for Desearch Research and gave the associated keynote lecture at the Geological Society of America annual meeting.

In September, **Corey Bradshaw** was lead author on a paper published in the *Journal of Ecology*. Since then, he has been co-author on six other papers—two with **Barry Brook**—in a variety of scientific journals.

On 14 October, Richard Muhlack received a 2008 Young Innovators and Scientists Award to work with RIsCCS member **Peter Ashman** to investigate the production of renewable energy from winery biowaste.