



Examples of new *Linkage Projects* in 2010

New South Wales

The University of Sydney (Contact: 02 9114 0748)

Surviving in a toad-colonised landscape: manipulating predator behaviour to reduce the impact of the cane toad invasion (LP100100740)

Summary: Invasive species pose a major threat to biodiversity; and within Australia, cane toads are widely viewed as one of the biggest such problems. Vigorous attempts at toad control have failed to slow the invasion front, and toads are now entering the Kimberley region. If we can't stop the toads, are there other ways to reduce the numbers of native predators killed by eating these poisonous invaders? Predators given nausea-inducing chemicals with their first toad meal rapidly learn to avoid cane toads as prey, enabling them to survive even where toads are present. The study will develop those methods for several vulnerable native species, including techniques for deployment of aversion-inducing baits in advance of the toad invasion.

Chief Investigator: Professor Richard Shine

ARC funding: \$625,000 over 5 years

University of Technology, Sydney (Contact: 02 9514 1616)

Developing Early Literacy in Informal Settings: engaging disadvantaged Aboriginal and Culturally and Linguistically Diverse (CALD) families outside formal settings (LP100100213)

Summary: The development of literacy in pre-school age children is a national priority. This research will address a major gap in the provision of support for literacy development in children and families who do not access formal pre-school programs. The outcomes of this research will benefit work in this area at both a theoretical and a practical level. It will provide a strengthened research base around reaching and involving children and families and will inform those literacy methodologies that seek to address linguistic and cultural difference.

Chief Investigator: Professor Alastair Pennycook

ARC funding: \$140,000 over 2 years

The University of New South Wales (Contact: 02 9385 2864)

Development and Modelling of Advanced Coagulation and Oxidation Processes (LP100100481)

Summary: The success of this program will help place Australia at the forefront of water quality control and management research, and address concerns with managing and treating waters of changing characteristics due to climate change. In addition to the socio benefits, project success will also impart economic benefits to the nation. The proposed research will expand the knowledge base in this area and increase Australia's international profile as a global leader in developing cutting-edge cost effective water resource technologies.

Chief Investigator: Professor Rose Amal

ARC funding: \$557,000 over 3 years



Charles Sturt University (Contact: 02 6933 4447)

Protecting Australia's pine plantations from exotic pests and climate change
(LP100100136)

Summary: This project will protect pine plantations (representing 57 per cent of Australia's \$3.3 billion per annum forestry industry) from the dual threat of exotic pests and climate change. Sirex wood wasp has been well controlled until the recent, unprecedented, increase of ips bark beetles. The feeding activity of the ips beetle is now disrupting biological control of sirex so work is required to understand and combat this effect. The work is made more urgent by looming climate change because storm-damage, drought and heat stressed trees are especially vulnerable to sirex attack. It is estimated that this novel pest management approach could save the industry at least \$188 million per annum based on a conservative estimate of reducing losses by 10 per cent

Chief Investigator: Professor Geoff Gurr

ARC funding: \$285,000 over 3 years

University of Western Sydney (Contact: 02 9678 7084)

Bridging the gap on locational disadvantage: Impact of community-identified interventions on social capital, psychosocial and socioeconomic outcomes
(LP100100369)

Summary: Interventions to combat locational disadvantage are vital given the pervasiveness and long-term consequences for youth and communities. This research will offer important educational and socio-economic benefits by enriching the psychosocial adjustment and life potential of young Australians and the capacity of schools in locationally disadvantaged communities. Effective research and community-identified social capital and psychosocial interventions will enhance pro-social behaviours, health, psychosocial adjustment, and school and community engagement. This will build capacity at community, school, and individual levels and contribute to national socioeconomic wellbeing.

Chief Investigator: Professor Rhonda Craven

ARC funding: \$665,000 over 3 years

