



Ecological Society of Australia Brisbane 2005

29 November – 2 December 2005

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Australia's precious ecosystems in hot water

Bats, possums, gliders, owls and lizards still call Brisbane home, but for how much longer?

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Media Briefing
Australia's precious ecosystems in hot water
10.30-11.00am, Tuesday 29 November

Will the Great Barrier Reef last another 20 years?

Will the Kakadu wetlands become part of the sea?

Will raging cyclones, storms and fires increase in northern Australia?

How can we deal with the extreme environmental stress of global climate change in the coming decades?

These and other questions will be answered at the Ecological Society of Australia's conference, happening this week at the University of Queensland.

Media are invited to attend a media conference at 10.30am on Tuesday 29 November at the UQ Centre, The University of Queensland. See map at - [http://www.uq.edu.au/maps/index.html?menu=1&x=k.82&y=5.0&z=0&xc\[\]=k.90&yc\[\]=5.38&id=254&facilityType=&backURL=](http://www.uq.edu.au/maps/index.html?menu=1&x=k.82&y=5.0&z=0&xc[]=k.90&yc[]=5.38&id=254&facilityType=&backURL=)

Speaking at the media conference will be:

Prof Ove Hoegh-Guldberg, the University of Queensland talking about the future of Australia's coral reefs. oveh@uq.edu.au; 07 3365 1156; 0401 106 604

Dr Anthony Richardson, CSIRO talking about how Australian coastal ecosystems cope with changes in sea level, temperature, winds, and pH. anthony.richardson@csiro.au; 07 38267183/ 07 33658506.

Prof Stuart Bunn, Griffith University (Qld) talking about climate change and Australia's freshwater biodiversity. S.Bunn@griffith.edu.au; 07-37357407; 0417300018

Dr Mark Howden, CSIRO Sustainable Ecosystems (ACT) talking about the evidence for contemporary climate change. mark.howden@csiro.au; 02 6242 1679; 042 902 6050

For media assistance:

Michelle Riedlinger on 0400 577 843, michelle@econnect.com.au; Sarah Bartlett on 0404 504 258, sarah@econnect.com.au; or Jenni Metcalfe on 0408 551 866, jenni@econnect.com.au

Media Briefing
Bats, possums, gliders, owls and lizards still call Brisbane home, but for how much longer?

10.00-10.30am, Wednesday 30 November

Can vet records tell us how many possums are living in the suburbs?

What sort of patches of native vegetation do lizards need to survive and thrive?

How many mature or dead eucalypts are still available amongst our houses for the white-striped freetail bat to roost in?

What's important for keeping sugar gliders, squirrel gliders, possums and owls still living with us?

These and other questions will be answered at the Ecological Society of Australia's conference, happening this week at the University of Queensland.

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Speaking at the media conference will be:

Anna Greig from the University of Queensland talking about her Honours project on vet records and possum density in Brisbane's suburbs. s336517@student.uq.edu.au; 07 3365 2494;

Jenni Garden from the University of Queensland talking about the survival needs of reptiles and mammals still living in Brisbane's suburbs; j.garden@uq.edu.au; 07 3365 6838; 0403 778 963

Monika Rhodes from Griffith University talking specifically about the white-striped freetail bat's Brisbane needs. M.Rhodes@griffith.edu.au; 0405 126 368.

Gillian Benson from the University of Queensland talking about the needs of sugar and squirrel gliders, ringtail and brushtail possums, and tawny frogmouths and southern boobook owls. s4010351@student.uq.edu.au; 07 3365 2494

For media assistance:

Michelle Riedlinger on 0400 577 843, michelle@econnect.com.au; Sarah Bartlett on 0404 504 258, sarah@econnect.com.au; or Jenni Metcalfe on 0408 551 866, jenni@econnect.com.au

Media Briefing

Lantana sleeping in the garden? Global ecology gets powerful. The evolution of ageing. Who's the coolest ecologist of them all?

10.00-10.30am, Thursday, 1 December

Is that a weed sleeping in your garden?

Did you know that seeds are 320 times bigger at the equator than at 60 degrees north or south?

How do we age – genes or environment? What can we tell by studying flies?

Why are marine ecologists cooler than those that work on land?

These and other questions will be answered at the Ecological Society of Australia's conference, happening this week at the University of Queensland.

Media are invited to attend a media conference at 10am on Thursday 1 December at the UQ Centre, The University of Queensland. See map at - [http://www.uq.edu.au/maps/index.html?menu=1&x=k.82&y=5.0&z=0&xc\[\]=k.90&yc\[\]=5.38&id=254&facilityType=&backURL=](http://www.uq.edu.au/maps/index.html?menu=1&x=k.82&y=5.0&z=0&xc[]=k.90&yc[]=5.38&id=254&facilityType=&backURL=)

Speaking at the media briefing will be:

Yvonne Buckley from CSIRO in Brisbane speaking about factors that affect weed invasion. Yvonne.Buckley@csiro.au; 07 3214 2643; 0432 621 669

Angela Moles from Macquarie University in Sydney talking about the power of big ecology applied on a global scale. amoles@bio.mq.edu.au; +64-4-5636906

Russell Bondurianski from the University of NSW in Sydney talking about the evolution of ageing – the rate at which aging happens and the impacts of this on fitness. r.bonduriansky@unsw.edu.au; 02 9385 3439; 0425 375 795

Dustin Marshall from the University of Queensland talking about life cycles and if marine mothers help by giving their babies a good start in life. d.marshall1@uq.edu.au; 07 3365 7959; 0418 867 242

These speakers are four of six young ecologists chosen to present at a special session on Ecology: The Future happening on Friday, 2 December at the ESA conference from 10.30am

For media assistance:

Please contact: Jenni Metcalfe on 0408 551 866, jenni@econnect.com.au or Michelle Riedlinger on 0400 577 843, michelle@econnect.com.au

I'll raise you a bilby for your cassowary

Biodiversity trading: environmental saviour or disaster?

Can we trade in biodiversity the way we trade in commodities or - more recently - carbon and pollution?

Trading is already happening in the US but everyone has a different take on it. Some people argue that biodiversity trading is essential for wise development of coastal Australia while others believe it is morally obnoxious.

Could biodiversity trading be open to exploitation?

Are we ready to decide that some habitats are more important than others?

These and other questions will be answered over a beer at the Pub Ecology event at the Red Room, the University of Queensland.

Media are invited to attend the event held at 7pm on Tuesday, 29 November – see map at <http://www.uq.edu.au/maps/index.html?menu=1> for directions.

Speaking at Pub Ecology will be:

Hugh Possingham is a Professor of Ecology and Chair of Australia's Biological Biodiversity Advisory Committee. 07 3365 9766, h.possingham@uq.edu.au

Simon Smith is Deputy Director General with the NSW Department of Environment and Conservation. 02 9995 6150, Simon.Smith@environment.nsw.gov.au

John Quiggin is a Federation Fellow in Economics and Political Science at the University of Queensland. 07 3346 9646 j.quiggin@uq.edu.au

The event is free and you can join in the pub raffle to win great prizes.

This event is sponsored by the Ecological Society of Australia, ABC Science Outreach and the Australian Science Communicators Association. If you want to check out the Ecological Society of Australia Conference website go to <http://www.ecolsoc.org.au/>

For media assistance: Michelle Riedlinger, Econnect Communication, 07 3846 7111, 0400 577 843, michelle@econnect.com.au

Koalas need more land to survive

Embargoed to 28 November 2005, 9.00am

Koalas need natural bushland habitat of at least 100 hectares in size, according to new research supported by the Australian Koala Foundation (AKF).

The wide-ranging study conducted across three Australian states: New South Wales, Queensland and Victoria found that continuing urban and rural development is set to prove the maxim "No tree, no me".

"The loss of natural habitat has a devastating effect on koala populations once it falls below a certain threshold," says Mr John Callaghan from the AKF.

Researchers estimate that koalas need landscapes with at least a 40-60 percent of retained forest cover.

The research is a collaborative effort between the Australian Koala Foundation, the University of Queensland, and the NSW Department of Environment and Conservation.

"These much-loved mammals need large patches of at least 100 hectares, free from sealed roads and roaming dogs if they are to be around in the future," Mr Callaghan says.

The research team carried out extensive koala survey work in the Noosa Shire in southeast Queensland, Port Stephens on the NSW coast and Ballarat in Victoria to obtain results.

"This research provides us with proven threshold limits regarding habitat size and forest cover. It provides us with statistically meaningful data showing what conditions need to be for koalas to survive." Mr Callaghan says.

The AKF have worked with local governments on strategic planning for koala conservation and, until now, have needed to rely on focussing habitat protection on large areas of high quality, minimally fragmented koala habitat, without the support of quantitative data.

Mr Callaghan will be presenting the research findings at the Ecological Society of Australia's annual conference which begins on the 29th of November 2005.

Contact: Mr John Callaghan, Australian Koala Foundation, Brisbane.
07 3229 7233; 0419 778 601; science@savethekoala.com

For media assistance: Jenni Metcalfe, Econnect Communication, 07 3846 7111;
0408 551 866; jenni@econnect.com.au, Michelle Riedlinger, 0400 577 843;
michelle@econnect.com.au

Why are ecologists obsessed with ants?

Embargoed to 28 November 2005, 9.00am

If we weighed all the land animals in the world, ants would make up about 30 percent of that weight - so it's not surprising that ecologists are fascinated with them, according to one of their biggest fans, CSIRO researcher Dr Alan Andersen, also from the Bushfire CRC.

"Ants are so successful because of their social lifestyle – the colony. It's just good taste to work with ants," he said. "I was originally working with seeds of plants and found that the ants were eating my seeds, and thought here's something interesting to work on."

Alan then became interested in where the ants occurred and the types of species that occur in certain areas, right across the world. He has been working with ants for about 25 years and can't get enough of them.

Kate Parr, also from the Bushfire CRC believes ecologists are hooked on ants for many of the reasons that other people are.

"Ants are quite beautiful and diverse," she said. "We are all fascinated by worker ants, we've been bitten by ants, and we have them in the house. Ants surround us all the time."

Kate started working on ants in South Africa where she was looking at the effect of fire regimes in conserving biodiversity. She wanted to use birds as an indicator of animal diversity but they were too mobile so she started looking at ants. She has been fascinated with them ever since.

"For my research, I'm interested in using ants as a tool to answer ecological questions: Why does the body size in different animal species vary with latitudes? Why are there more species at the equator? These are big questions and ants are useful for testing some of these ideas."

Shae Callan from Curtin University shares Kate's enthusiasm for ants.

"Ants are great to work on. In urban bushland remnants, things such as ants, worms and spiders are the driving forces behind the ecosystems: more so than many of the furry animals that people associate with conservation," he said.

"Ants are easy to sample and there has been a lot of research done on them that you can draw from. You can work on them easily in the laboratory".

In south-west Western Australia where Shae is working, ants are crucial to the bushland ecosystems. They help with decomposition and are major seed collectors and distributors.



Ecological Society of Australia
Brisbane 2005

MEDIA RELEASE

.....Why are ecologists obsessed with ants?

“It is easy to dismiss or squash ants before taking a look at what they are – they do more for ecosystems than people think and when you get them under the microscope they are pretty fascinating.”

Valerie Debusse from the Department of Primary Industries in Queensland finds ants fascinating because they are a good indicator of the health of the environment.

“We’ve been using ants to investigate the impact of mining, logging and fire for quite a while now. Ants are becoming more important for understanding climate change and vegetation loss.”

Valerie wasn’t always interested in ants but she was struck by how common they were when she arrived in Australia in 2001 from the UK.

“There were so many different kinds of ants. They caught my attention immediately”.

Alan Andersen, Kate Parr, Shae Callan and Valerie Debusse are just four of the ten ant researchers speaking at the Ecological Society of Australia Conference, held at the University of Queensland from 29 November to 2 December 2005.

Contacts:

Alan Andersen from CSIRO and the Bushfire CRC. Alan.Andersen@csiro.au; 08 8944 8431 or 0414 466 487

Kate Parr from CSIRO and the Bushfire CRC. kate.parr@csiro.au; 08 8944 8412 or 0424 108897

Shae Callan from Curtin University. shaecallan@iinet.net.au; 08 92667458 or 0418917179

Valerie Debusse from the Department of Primary Industries. valerie.debusse@dpi.qld.gov.au; 0754 820 880 or 0428 283 469

For media assistance:

Michelle Riedlinger on 0400 577 843, michelle@econnect.com.au or Jenni Metcalfe on 0408 551 866, jenni@econnect.com.au



Amazon rainforests to burn as climate changes

Embargoed to 28 November 2005, 9.00am

Changes in climate will expose large expanses of the Amazon to destructive wildfires, according to William Laurance, a senior scientist at the Smithsonian Tropical Research Institute in Panama and president of the Association for Tropical Biology and Conservation.

“Climate change and escalating human land-uses such as logging, forest fragmentation and fires are a killer combination for the Amazon,” Dr Laurance said.

“Huge expanses of the Amazon rainforest are already so dry that they’re on the verge of burning”, said Laurance. “It just takes a little disturbance and a match, and you’ve got a massive wildfire.”

Chris Stokes, also presenting at the conference, believes Australian savannas will also be affected by climate change.

“Under the influence of rising carbon dioxide levels, plants, such as savanna grasses can grow using less water for the same amount of growth,” he said.

“Although this will be a positive benefit for growth of grasses, making them moderately drought resistant, it has the side effect of reducing their protein content”.

“Reduced forage quality in savanna rangelands will be bad for cattle production, and will also affect native herbivores”.

Prof Ove Hoegh-Guldberg, and Director of Marine Studies at the University of Queensland, says climate change has been responsible for the loss of over 15 percent of the world’s coral since 1998.

According to the Professor’s research, the fact that carbon dioxide levels are higher than they have been for several million years is reducing the ability of coral to regenerate.

“We face the prospect of an earth without coral reefs and the loss of the many thousands of species that depend on these reefs. This has major implications for Australia’s future – especially in the light of the economic importance of our currently booming tourism industry.” Prof Hoegh-Guldberg warns.

The Ecological Society of Australia Conference will be held at the University of Queensland from 29 November to 2 December 2005.

Contacts:

Ove Hoegh-Guldberg (reefs) 07 3365 1156, 0401 106 604 oveh@uq.edu.au

Chris Stokes (savannas) 0417 774 687 chris.stokes@csiro.au

William Laurance (forests) +507 212 8252 laurancew@si.edu

For media assistance: Michelle Riedlinger on 0400 577 843, michelle@econnect.com.au or Jenni Metcalfe on 0408 551 866, jenni@econnect.com.au.



Ecological Society of Australia Brisbane 2005

29 November – 2 December 2005

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Queensland

Possums locate the tasty trees (Qld/Quirky)

Possums are fussy eaters, choosing some eucalypts over others, and this may play a key role in their reproductive success. Using radio-tracking and surveillance, researcher Jane DeGabriel from the Australian National University is uncovering the link between plant chemistry, foraging behaviour and habitat selection of possums in Townsville. Jane has found clear gender-based differences in the possums in terms of home range, foraging and susceptibility to predators. Future experiments will seek to uncover the role of leaf chemistry in possums' choice of diet.

Dr Jane DeGabriel is speaking on Thursday 1 December, 2005 at 9.15am in the Forgan Smith Building (E215).

Contact: Jane DeGabriel, Australian National University, ACT.

Ph: (07) 4781 5715 Mob: 0438 424478 Email:

Jane.DeGabriel@jcu.edu.au

Assessing nocturnal wildlife in urban areas (Qld/Urban)

As urban development continues to replace natural habitat around Brisbane, the need to understand how to sustain wildlife in built-up areas grows. Gillian Benson, a researcher from the University of Queensland, has studied the urban habitat characteristics of most importance to nocturnal birds and arboreal marsupials such as sugar gliders. Ms Benson has used aerial photographs of greater Brisbane to class 30 sites on their ability to sustain and attract nocturnal animals.

Gillian Benson is speaking on Tuesday 29 November, 2005 at 5.00pm in the Forgan Smith Building (E215).

Contact: Gillian Benson, University of Queensland, St Lucia, Queensland

Ph: (07) 3365 2494 Mob: 0408 336993 Email:

g.benson@sib.uq.edu.au

Macadamia and longan crops improved by tropical rainforest (Qld/Rural)

Tropical rainforests act as a reservoir of pollinating insects that benefit crops, according to Dr Rosalind Blanche, CSIRO Entomology. A study, conducted on the Atherton Tableland in north Queensland, aimed to determine the capability of rainforest insects in pollinating macadamia and longan trees. Dr Blanche found that honeybees may be assisting farmers by pollinating macadamia flowers, and stingless bees appear to transfer pollen in longan crops. This emphasises the importance of maintaining tropical rainforest in the area, and could lead to crop management practices that improve crop yields while highlighting the importance of conserving tropical rainforests.

Rosalind Blanche is presenting a poster at the Conference

Contact: Rosalind Blanche, CSIRO Entomology, Atherton, Queensland

Ph: (07) 4095 4382 Mob: none Email: buqlady@tpg.com.au

Flying foxes prefer coastal real estate (Qld/Urban)

Flying foxes are regular visitors to many Queensland backyards but their roost site preferences were relatively unknown until B. J. Roberts, a researcher from Griffith University, studied the 40 flying fox camps spread across south-east Queensland. The studies reveal that grey-headed and black flying foxes prefer coastal lowland areas within 200 metres of a drainage line. Roost sites require a scattering of tall trees and a dense understorey, unless positioned in a swamp or mangrove. Flying foxes require at least one hectare of vegetation for their roosts; however, many sites are surrounded by urban land.

Billie Roberts is presenting a poster at the Conference

Contact: Billie J Roberts, Griffith University, Nathan, Queensland
Mob: 0409 234309 Email: billie.roberts@griffith.edu.au

Grasswrens playing with fire (Qld/Fire)

In grasslands near Mount Isa, Ms Lesie Felderhof, James Cook University, is trying to solve an ecological irony. The Kalkadoon Grasswren lives among long-unburnt spinifex, but spinifex itself is dependent on fire to maintain vigour. The survival of these fire-sensitive birds is dependent on unburnt patches of spinifex that remain within recently-burnt sites. Ms Felderhof is recommending a fire-mosaic burning regime that provides burnt and unburnt grasslands to assist Grasswren conservation.

Lesie Felderhof is speaking on Thursday the 1st December, 2005 at 4.30pm in the Forgan Smith Building (E215).

Contact: Lesie Felderhof, James Cook University, Atherton, Queensland
Ph: (07) 4091 1289 Mob: none Email: lesie@ledanet.com.au

Building landscape ecology into grain production (Qld/Rural)

Geoff Titmarsh, a researcher with the Department of Natural Resources and Mines, has developed a tool to help farmers better manage their properties by taking the wider landscape into consideration. It stimulates farmers to consider how their practices could impact on their immediate landscape and ecosystem. Many farmers fail to do this because the relationships that exist between farm management practices and the landscape are usually complex and difficult to understand. The Farming in a Landscape Action-Learning Module (ALM) is one of a suite of activities within the Eastern Farming Systems (EFS) project. The module is being introduced in the grain growing areas of northern New South Wales and southern Queensland.

Geoff Titmarsh is presenting a poster at the Conference

Contact: Geoff Titmarsh, Department Natural Resources and Mines, Queensland
Ph: (07) 4688 1304 Mob: none Email: geoff.titmarsh@nrm.qld.gov.au

Can green ringtail possums take the heat? (Qld/Climate change)

Dr Andrew Krockenberger predicts that green ringtail possums in the rainforests of northern Australia are likely to relocate or die if temperatures rise above 30 degrees for three or four hours at a time over several

consecutive days. Leaf-eating marsupials, such as the green ringtail possum, are thought to be among the most sensitive species to changing climate. Fussy eaters, they specialise on a diet of mature foliage from only a few canopy species, sometimes from just a few individual trees. Climate models for Queensland predict higher average temperatures as well as more frequent and more severe temperature events, which may limit the future of the green ringtail possum.

Dr Andrew Krockenberger is speaking on Tuesday the 29th November, 2005 at 2.05pm in the Abel Smith Building(23)

Contact: Andrew Krockenberger, School of Tropical Biology at James Cook University, Cairns, Queensland

Ph: (07) 4042 1238 Mob: 0402 917104 Email:

Andrew.Krockenberger@jcu.edu.au

Exploring new futures for the sugar-growing regions (Qld/Rural)

The traditional sugarcane regions in coastal Queensland and northern New South Wales are in demand for urban and other uses. To aid decision makers and land use planners, Dr Sarah Park of the CSIRO is looking at future options for the use of sugarcane land. Using the Maroochy sugar-growing region as a case study, Dr Park combines economic and environmental perspectives to consider the agricultural, environmental and urban value of a region in developing a design for future land use.

Dr Sarah Park is speaking on Thursday the 1st December, 2005 at 3.15pm in the Steel Theatre (206)

Contact: Sarah Park, CSIRO Toowoomba, Queensland

Ph: (07) 4688 1394 Mob: 0419 887304 Email:

sarah.park@csiro.au

Monitoring biodiversity at Callide Mine (Qld/Biodiversity management)

Anglo Coal, the owner of Queensland's Callide Mine, is assessing the biodiversity value of their region in a move towards responsible environmental management. Dave Hannah of Parsons Brinckerhoff Pty Ltd will trial a Biodiversity Action Plan (BAP) on behalf of Anglo Coal using guidelines developed by Anglo America. The BAP will consider the conservation status of species, and the current and proposed land uses. It will tailor a monitoring and evaluation framework to the site. BAP's are increasingly being used by companies globally to manage their land beyond the immediate impact of their operations.

Dave Hannah is presenting a poster at the Conference

Contact: Dave Hannah, Parsons Brinckerhoff P/L, Brisbane, Queensland

Ph: (07) 3218 2220 Mob: 0437 697035 Email: dhannah@pb.com.au

Fire won't stop the eucalypt invasion of grassy balds (Qld/Fire)

Burning every two years does not limit the spread of eucalypt seedlings taking over grassy balds, according to Dr Rod Fensham of the Queensland Herbarium. Regular burning by Aboriginal people is thought to have maintained these balds where they were surrounded by rainforest, but this new research shows that this is not the case when balds are surrounded by

eucalypt forest. Burning every two years does not prevent the seedlings establishing themselves to any great degree.

Dr Rod Fensham is speaking on Friday 2nd December, 2005 at 8.45am in the Forgan Smith Building (E215)

Contact: Rod Fensham, Queensland Herbarium, Toowong, Brisbane, Queensland

Ph: (07) 3896 9326 Mob: none Email: rod.fensham@epa.qld.gov.au

Burning and biodiversity; how species adapt (Qld/Fire)

The timing and intensity of burning affects how species adapt and needs to be better understood for better biodiversity conservation, according to Ms Lesie Felderhof, a researcher at James Cook University. Ms Felderhof is looking at the unpredictable nature of fires and species' responses to fire regimes in order to produce better management strategies for conserving biodiversity. She believes the burning objectives commonly used for biodiversity management need to be better linked with species adaptive management objectives. She explores options to mesh 'mosaic burning' with adaptive management.

Ms Lesie Felderhof is presenting a poster at the Conference

Contact: Lesie Felderhof, James Cook University, Cairns, Queensland

Ph: (07) 4091 1289 Mob: none Email: lesie@ledanet.com.au

Conservation connections (Qld/Landscape ecology)

Conservation management needs a more holistic approach, according to Dr Mark Kingston from the University of Queensland. Using terrestrial bird species as a case study, Dr Kingston discusses the relationship between riparian and adjacent habitats. In a two-year study at Griffith University, Dr Kingston found a strong connection between the different habitats, suggesting a comparison similar to that between a city's central business district and the surrounding urban area. While both areas perform different functions and occupy different proportions of the landscape, they are strongly interconnected.

Dr Mark Kingston is speaking on Tuesday the 29th November, 2005 at 2.05pm in the Forgan Smith Building (E215)

Contact: Mark Kingston, University of Queensland, Brisbane, Queensland

Ph: (07) 3365 3535 Mob: none Email: m.kingston@uq.edu.au

Geographical differences in Chowchilla birdsong (Qld/Quirky)

The song of the Chowchilla bird is passed from one generation to another through learning. This is helping researchers understand how the birds organise themselves socially. Dr Brad Congdon, James Cook University, believes that song is important for identifying the birds within their family and can have similar effects to genetic evolution in creating new species through choice of a mate. This cultural process of song learning often contains some error and improvisation and can therefore vary both between individuals and populations. Dr Congdon is studying the birds in the Wet Tropics rainforests of

Northern Queensland, looking at the patterns and variations in the song of the Chowchilla to clarify the causes of the geographical differences in the song.
Dr Brad Congdon is speaking on Tuesday the 29th November, 2005 at 2.50pm in the Abel Smith Building (23)

Contact: Brad Congdon, James Cook University, Cairns, Queensland
Ph: (07) 4042 1212 Mob: none Email: brad.congdon@jcu.edu.au

Biological mosquito control in Queensland's wetlands (Qld/Biological control)

Bti, a biological mosquito insecticide, is equally effective but causes less harm than S-methoprene to native worms, flies and mites in Queensland's wetlands, according to Ms Tanya Russel. Ms Russel conducted the first in-the-field study of mosquito control agents in Queensland's wetlands, recording the effect of insecticides on species other than the mosquito. Bti and S-methoprene are the two most commonly used insecticides.
Ms Tanya Russell is speaking on Wednesday the 30th November, 2005 at 8.45am in the Steel Theatre (206)

Contact: Tanya Russell, Queensland Institute of Medical Research and the University of Queensland, St Lucia, Queensland
Ph: (07) 3362 0222 Mob: 0415 646910 Email: tanya.russell@qimr.edu.au

NRM planning for Queensland's rangelands (Qld/Rural)

Dr Clive McAlpine from the University of Queensland discusses Queensland's natural resource management plans for rangelands and the criteria used for evaluating these plans. His research shows a number of differences in quality between plans. Dr McAlpine also highlights areas where there needs to be stronger input from scientists in planning, such as effective integration of natural resource, native vegetation and biodiversity conservation management action targets, and on-ground monitoring of planning outcomes.
Dr Clive McAlpine is speaking on Wednesday the 30th November, 2005 at 3.30pm in the Social Sciences Building (S304)

Contact: Dr Clive A McAlpine, University of Queensland, St Lucia, Queensland
Ph: (07) 3365 6620 Mob: none Email: c.mcalpine@uq.edu.au

What drives a landscape to change? (Qld/Landscape ecology)

Leoni Seabrook from the University of Queensland believes that population, economic and cultural values, policy, and science/technology all drive a landscape to change. Ms Seabrook has studied the Brigalow region of Queensland from 1840 to 2004 using a framework for regional landscape change. She believes future landscape managers need to address several key drivers in order to achieve ecological sustainable development.

Ms Leonie Seabrook is speaking on Thursday 1st December, 2005 at 8.45.am in the Abel Smith Building (23)

Contact: Leoni Seabrook, School of Geography Planning & Architecture, The University of Queensland

Ph: (07) 3365 6838 Mob: 0431 793055 Email: l.seabrook@uq.edu.au

Diminishing glider dens (Qld/Fire)

Fire is a major cause of tree loss in Queensland's forests, an important habitat for the great glider. Geoffrey Smith discusses the impact of tree loss on glider dens in Queensland. His research suggests there will soon be a widespread shortage of living habitual trees for the local fauna.

Geoffrey Smith is presenting a poster at the Conference

Contact: Geoffrey Smith, Environmental Protection Agency, Qld Government, Brisbane, Qld

Ph: (07) 3896 9301 Mob: 0428 747657 Email: geoffrey.smith@epa.qld.gov.au

Improved land management practices reduce soil-nutrient losses (Qld/Landscape ecology)

Dr John Ludwig from CSIRO shows how vegetation cover in Australia's savannas protects hill slopes from runoff and sediment losses. Dr Ludwig compared two hill slopes in the Burdekin Catchment, Queensland—one with relatively uniform vegetation cover, the other with patches of low vegetation and bare soil. He found that the patchy hill slope had 6-9 times more runoff and up to 60 times more sediment loss than the uniformly covered hill slope. The patchy slope also had 11 measurable runoff events over three years whereas the uniform slope only had six events. Dr Ludwig is using these results to help predict sediment and nutrient losses from hill slopes and catchments under different land management scenarios.

Dr John Ludwig is speaking on Wednesday 30th November, 2005 at 2.00pm in the Social Sciences Building (S304)

Contact: John Ludwig, Savannas CRC and CSIRO Sustainable Ecosystems, Atherton, Qld

Ph: (07) 4091 8837 Mob: none Email: john.ludwig@csiro.au

New model for ecotourism impacts holds surprises (Qld/Tourism)

Ecotourism and native vegetation protection can go together according to Dr Catherine Pickering, Griffith University. Dr Pickering shows that some areas of vegetation can tolerate reasonable levels of tourism without damage. Other disturbances such as fire also play a role in determining how many visitors can be tolerated. Dr Pickering's findings contradict current ecotourism models,

showing that any tourism use causes damage to the vegetation. Current models lead to management strategies that concentrate visitors in a small number of sites, whereas other options could be considered.

Dr Catherine Pickering is speaking on Thursday the 1st December, 2005 at 3.15pm in the Forgan Smith Building (E215)

Contact: Catherine Pickering, Griffith University, Brisbane, Queensland

Ph: (07) 5552 8059 Mob: 0429 145011 Email:

c.pickering@griffith.edu.au

Reptiles and mammals need space in suburbia (Qld/Urban)

Jenni Garden from the University of Queensland has determined how much space native reptiles and mammals need to survive in Brisbane's suburbs.

The tropical and coastal regions of south-east Queensland are increasingly being developed and these areas also provide important habitats for wildlife.

Not all species are capable of adapting to and surviving within the urban environment. Knowing what species we've got in the suburbs and how we can protect them is important for their long-term survival.

Ms Jenni Garden is speaking on Thursday the 1st December, 2005 at 3.45pm in the Steel Theatre (206)

Contact: Jenni Garden, The University of Queensland, Brisbane, Queensland

Ph: (07) 3365 6838 Mob: 0403 778963 Email: j.garden@uq.edu.au

Kangaroos on trial (Qld/Rural)

Despite the removal of domestic stock and the conversion of Australian rangeland areas to National Parks, native plants have not regenerated, particularly near water holes. Ms Yuki Fukuda of the University of Queensland is examining potential links between large macropods, such as red kangaroos, and the regeneration of previously grazed areas. These large macropods may hold the key to what is hampering regeneration.

Ms Yuki Fukuda is speaking on Thursday the 1st December, 2005 at 3.15pm in the Abel Smith Building

Contact: Yuki Fukuda, University of Queensland, Brisbane, Queensland.

Ph: (07) 3371 9665 Mob: 0421 784968 Email:

yfukuda@zen.uq.edu.au

Tropical wallaroos on the decline (Qld/Quirky)

The antilopine wallaroo, Australia's only large tropical macropod, is experiencing a concerning decline, especially in the Northern Territory. Euan Ritchie's determination to study the plight of the animal has resulted in the most extensive investigation of the species' ecology and current conservation status. To conduct this research, Mr Ritchie travelled across the animals' range, from the Kimberleys in Western Australia, across the top end of the Northern Territory to the Cape York and Einasleigh Upland bioregions of Queensland.

Euan Ritchie is speaking on Thursday the 1st December, 2005 at 8.45am in the Forgan Smith Building (E215)

Contact: Euan Ritchie, James Cook University, Townsville, QLD.
Ph: (07) 4781 5715 Mob: 0409 524168 Email:
ewan.ritchie@jcu.edu.au

Koala road kill 'blackzones' identified (Qld/Conservation)

Queensland's Koala Research Unit (KRU) is calling for local councils to increase public awareness of koala road kill hotspots. Rapid urbanisation and fast-moving highways and byways are severely affecting the habitat of koala populations. The KRU is in the process of mapping and categorising all koala road kill locations. It has discovered 77 dangerous locations, or 'blackzones', the worst of which stretch over one kilometre. On average, five koalas are killed every year in these 'blackzones'. South-east Queensland has an incredibly high koala mortality rate and the KRU is continuing its drive for better road safety procedures.

Ms Harriet Preece is speaking on Friday the 2nd December, 2005 at 9.15am in the Steel Theatre (206)

Contact: Harriet Preece, Environmental Protection Agency, Brisbane, Queensland.
Ph: (07) 3202 0204 Mob: none Email:
Harriet.Preece@epa.qld.gov.au

Rodents come to rainforests' aid (Qld/Quirky)

David Elmouttie from Queensland University of Technology is busting the myth that rodents are just pests. Mr Elmouttie's shows that rodents are not merely seed predators, as has long been thought. He has found that rodents can be significant seed dispersers, taking over the role from larger fruit-eating animals that cannot survive in remnant forests.

David Elmouttie is speaking on Thursday the 1st December, 2005 at 10.45am in the Forgan Smith Building (E215)

Contact: David Elmouttie Queensland University of Technology, Brisbane, Queensland
Ph: (07) 3864 2186 Mob: none Email: d.elmouttie@qut.edu.au

Algal hotspots outside the mould (Qld/Quirky)

Ailsa Kerswell, James Cook University, has blown out of the water conflicting theories of species richness patterns in marine algae. In her fresh look at old data, Ms Kerswell observed that ocean currents and the availability of suitable habitat are the more likely elements needed in the regulation of algal hotspots diversity than previously suggested hypotheses.

Ms Ailsa Kerswell is speaking on Thursday the 1st December, 2005 at 1.15pm in the Forgan Smith Building (E215)

Contact: Ailsa.P. Kerswell, James Cook University, Townsville, Queensland
Ph: (07) 4781 4801 Mob: 0402 088109 Email:
ailsa.kerswell@jcu.edu.au

Young bandicoot mums shed light on life history theory (Qld/Quirky)

Researchers from James Cook University studying the breeding of the Northern Brown Bandicoot have found that, at equivalent body sizes, younger females produce more babies than their older contemporaries. They also found that reproductive ageing contributes to the bandicoot's inability to breed later in life. These unique findings have not been reported in any other small mammals. The unusual relationship discovered between maternal body size, ageing and reproductive success will also help further studies into hypotheses of life history theory.

Dr Brad Congdon is presenting a poster at the Conference

Contact: Brad Congdon, James Cook University, Cairns, Queensland
Ph: (07)4042 1212 Mob: none Email: brad.congdon@jcu.edu.au

Food requirements of the freetail bat in Brisbane (Qld/Urban)

Using radio tracking, Monika Rhodes of Griffith University has been closely monitoring the roosting and feeding habits of freetail bats in Brisbane. Ms Rhodes will discuss the foraging habits of the bats in the urban environment, and consider whether conservation of feeding habit is an important issue for this species. The ability of native wildlife to survive in an urban environment depends on whether or not their resource requirements can be met.

Ms Monika Rhodes is speaking on Tuesday 29th November, 2005 at 2.50pm in the Forgan Smith Building (E215).

Contact: Monika Rhodes, Griffith University, Australian School of Environmental Studies, Nathan, Brisbane, Queensland
Ph: (07) 3879 9908 Mob: 0405 126368 Email:
m.rhodes@griffith.edu.au

New South Wales

Managing the endangered black cypress pine (NSW/Conservation)

Providing vegetation cover that restricts access by wallabies and deer is one way to reduce the extinction of the endangered black cypress pine on the Woronora Plateau. This was discovered after an unplanned fire in the summer of 2001-2002 killed 98 per cent of the established trees. Researchers from the NSW Department of Conservation found that recovery rates depended greatly on the immediate environment in which the seedlings germinated. By

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controlling this environment, researchers gained greater success rates of seedlings and accelerated recovery of the population.

Berin MacKenzie is presenting a poster at the Conference

Contact: Berin MacKenzie, Department of Environment and Conservation, Hurstville, New South Wales

Ph: (02) 9585 6444 Mob: 0425 259609 Email:

berin.mackenzie@environment.nsw.gov.au

Bioprospecting and conservation reach common ground (NSW/Conservation)

Exploring new products from the environment for both industry and everyday use has become so popular that some trends are starting to emerge, according to Dr Andrew Beattie, Macquarie University. New methods of bioprospecting are providing new fields of exploration, highlighting the importance of conserving the world's diverse habitats. As the enormous value of preserving biodiversity becomes increasingly recognised, bioprospecting and conservation are starting to be seen as inseparable.

Dr Andrew Beattie is speaking on Wednesday the 30th November, 2005 at 3.45pm in the Forgan Smith Building (E215)

Contact: Andrew Beattie, Macquarie University, North Ryde, New South Wales

Ph: (02) 9850 8153 Mob: 0407 842069 Email:

abeattie@bio.mq.edu.au

Ranking wetlands from existing data (NSW/Conservation)

With few resources available to gain the wide-ranging data needed for a current evaluation of New South Wales' wetlands, scientists are asking whether existing data can be used to calculate their value. Dr Jennifer Taylor from the NSW Department of Environment and Conservation shows that existing data is useful for directing conservation efforts if used with care. As expanding development places increasing demands on the conservation value of wetlands, this information will become more valuable. Dr Taylor indicates that there are some shortfalls in the method, particularly in relation to the wide response of wetlands to different threats.

Ms Jennifer Taylor is speaking on Wednesday the 30th November, 2005 at 11.30am in the Forgan Smith Building (E215)

Contact: Jennifer Taylor, Biodiversity Conservation Science, Department of Environment and Conservation, Sydney, NSW

Ph: (02) 9585 6486 Mob: none Email:

jennifer.taylor@environment.nsw.gov.au

Wildlife corridors poorly understood (NSW/Conservation)

Mr Clayton Sparke from the University of Newcastle has found that wildlife corridors are sometimes misunderstood and misinterpreted. Mr Sparke's work with land managers in the Hunter Valley and his search of the literature show that the term 'corridor' is often used incorrectly to describe any habitat of a

roughly linear shape. The term has been applied without the required evidence and scientific understanding. Mr Sparke calls for greater clarity of the nature and function of wildlife corridors and better research and management frameworks. He believes a more integrated approach into their use is also required.

S.G. Pearson is speaking on behalf of Mr Clayton Sparke on Thursday the 1st December, 2005 at 11.00am in the Steel Theatre (206)

Contact: Clayton Sparke, University of Newcastle, NSW
Ph: (02) 4921 5000 Mob: none Email:
clayton.sparke@studentmail.newcastle.edu.au

Predicting large fires in Sydney (NSW/Fire)

Ms Janet Cohn has developed a way to accurately predict the probability of large fires in the Sydney region. It uses weather indices, such as Fire Danger Index, Drought Factor and Soil Dryness Index. Working for the NSW Department of Environment and Conservation and in collaboration with the Bushfire CRC, Ms Cohn examined records of fire occurrence in the Sydney region from 1960-2003. She found that most areas affected by fire were associated with all of the weather indices; however, this was not the case at every location. Changes in climate can also affect the frequency of the weather indices and, consequently, alter the occurrence of large fires. This has implications for those managing nature conservation and asset protection.

Ms Janet Cohn is presenting a poster at the Conference

Contact: Janet Cohn, NSW Department of Environment & Conservation; and Bushfire CRC, Hurstville, NSW
Ph: (02) 9585 6643 Mob: none Email:
janet.cohn@environment.nsw.gov.au

Forest versus plantation – birds not fussy (NSW/Rural)

Australian hardwood plantations are projected to reach three million hectares within the next 15 years, but what impact will this have on native birds in the area? Tina Hsu from the University of Wollongong has discovered that eucalypt plantations with natural water courses have a higher density of forest birds such as the Black-faced Monarch in comparison to plantations without waterways. Ms Hsu's research covers areas of the mid-coast of New South Wales and includes eucalypt plantations, pastures and natural forests. Interestingly, pastures with water courses support around the same number of bird species as forests. Ms Hsu's ongoing studies in comparing plantation and forest living will focus on bird foraging, territory size and breeding success.

R. Major is speaking on behalf of Ms Tina Hsu on Thursday the 1st December, 2005 at 11.30am in the Steel Theatre (206)

Contact: Tina Hsu, University of Wollongong, Wollongong, NSW 2522
Ph: (02) 9416 1693 Mob: 0408 331266 Email: ttth100@uow.edu.au

Fairy gardens (NSW/Urban)

Holly Parsons from the University of Wollongong is examining the suitability of suburban gardens for providing refuge for native birds, and, in particular the effects of urbanisation on the fairy wren. As part of her research, Ms Parsons hopes to better understand the habitat preference of the fairy wren, whose response to urbanisation is currently unclear.

Ms Holly Parsons is speaking on Wednesday the 30th November, 2005 at 9.45am in the Forgan Smith Building (E215)

Contact: Holly Parsons, University of Wollongong, Wollongong, NSW 2522
Ph: (02) 4221 3436 Mob: 0403 173060 Email: hmp04@uow.edu.au

Insects under threat from rock collectors (NSW/Quirky)

Dieter Hochuli and his team at the University of Sydney highlight the threats caused by human removal of prime insect rock habitat and the urgency for action to control this threatening process. These animal communities are poorly understood and under threat by bush rock collectors. Dr Hochuli presents results on the invertebrate fauna of rock outcrops on Hawkesbury sandstone. The group's work focuses on insect-plant interactions, community ecology and conservation biology.

Dr Dieter Hochuli is speaking on Tuesday the 29th November, 2005 at 4.30pm in the Steel Theatre (206)

Contact: Dr Dieter Hochuli, The University of Sydney, NSW
Ph: (02) 9351 3992 Mob: none Email: dieter@bio.usyd.edu.au

Victoria

Beekeepers' value as record keepers (Vic/Quirky)

Scientists have tapped into beekeepers' reliable and long-term records to better understand the flowering patterns of eucalypts. Highly experienced beekeepers rely on the nectar produced by eucalypt flowers for their livelihood, and therefore keep good records of flowering patterns ranging back over 30 years. Most ecological research is based on data collected in the last five years, which does not allow for the long-ranging effects of temperature and rainfall. This previously untapped data source provides a wealth of information on the impacts of climate variability on flowering patterns.

Ms Melanie Birtchnell is speaking on Wednesday the 30th November, 2005 at 4.30pm in the Steel Theatre (206)

Contact: Melanie Birtchnell, Deakin University, Melbourne, Victoria
Mob: 0412 119949 Email: melanie5@optusnet.co.au

Birds crank up the volume (Vic/Urban)

Birds with higher-pitched calls or songs are heard in traffic better than those with lower-pitched signals, according to Dr Kirsten Parris from Deakin University. Dr Parris is studying the effect of traffic noise on bird calls, looking at the distance over which bird signals can be detected in their everyday communication. Field studies in Europe have already shown that some birds

avoid roads in order to be heard. In other species, bird songs appear to be changing in urban areas to compensate for human noise.

Dr Kirsten Parris is speaking on Wednesday the 30th November, 2005 at 10.45am in the Abel Smith Building (23)

Contact: Kirsten M Parris, Deakin University, Victoria
Ph: (03) 9381 4873 Mob: 0425 729489 Email:
Kirsten@deakin.edu.au

A return to natural flows prompts major fish study (Vic/Water)

One of the first large-scale flow regime restoration projects to occur in Australia will provide a team from Melbourne's Monash University with important results on the effects of changed flow on fish species. As part of an agreement to increase water-use efficiency in the Casey's Weir and Major Creeks Waterworks District of North East Victoria, a major water-saving pipeline project has been proposed. The return to a more natural intermittent flow from a regulated all-year river flow will provide useful data on how fish adapt to these changing regimes. This research may have wide-ranging implications, given the growing recognition of the impacts of heavily-modified irrigation flows, through dams and weirs, on physical habitat and biota in stream ecosystems.

Dr Damien McMaster is speaking on Thursday the 1st December, 2005 at 2.00pm in the Abel Smith Building (23)

Contact: Damien McMaster, Monash University, Melbourne, Victoria
Ph: (03) 9905 5658 Mob: 0402 917104 Email:
Damien.McMaster@sci.monash.edu.au

Weeds invading alpine zones (Vic/Climate change)

Climate change may be causing an increase in environmental weeds in the Australian Alps, according to Ms Wendy Hill and Dr Catherine Pickering from Griffith University. In an 18-year study, covering 499 sites in the Snowy Mountains, the researchers have recorded an increase in exotic plants growing at lower altitudes. These plant invaders are mainly restricted to sites that have been disturbed by humans. Researchers have recorded 143 exotic taxa in the sub-alpine zone compared to 11 exotic taxa in the alpine zone. Climate change models predict exotic plant numbers in the alpine region will increase to 83 by 2070.

Dr Catherine Pickering is speaking on Thursday the 1st December, 2005 in the Forgan Smith Building (E215)

Contact: Catherine Pickering, Griffith University, Gold Coast, Queensland
Ph: (07) 5552 8059 Mob: 0429 145011 Email:
c.pickering@griffith.edu.au

Foxy dining in inner Melbourne (Vic/Urban)

Lauren Keim and the Australian Research Centre for Urban Ecology in Melbourne want to know why grey-headed flying fox populations in metropolitan Melbourne have increased from 10-15 foxes in 1986 to 20,000-30,000 in 2005. In their study of the food resources of this flying fox, they show that urbanisation has influenced its distribution, abundance and ecology

through a dramatic increase in the quality and availability of food resources. Grey-headed flying foxes, formerly considered to be an inhabitant of northern Australia, can be spotted on the streets of Melbourne thanks to the 315,500 trees that offer food for them on urban streets. Flying fox food is traditionally scarce between May and August but has been compensated for by street trees providing nectar and a previously absent fruit resource, leading to their movement south.

Ms Lauren Keim is speaking on Wednesday the 30th November, 2005 at 9.15am in the Social Sciences Building (S304)

Contact: Lauren Keim, Australian Research Centre for Urban Ecology,
Melbourne, Victoria

Ph: (03) 8344 9981 Mob: 0438 122063 Email: lkeim@unimelb.edu.au

Male marsupials are doin' it for many reasons (Vic/Quirky)

Researchers at Victoria's Strathbogie Ranges have found that marsupial males enter enduring pair-bonds for many reasons, including the age of the female. The study of two close populations of marsupial bobucks found that one group of males entered faithful bonds while the other roamed through the territories of two or three females, creating multiple families as they went. Researchers have found that although 'single' and 'married' males had similar numbers of babies, curiously some paired males managed to father extra young on the side!

Ms Jenny Martin is speaking on Thursday 1st December, 2005 at 8.30am in the Forgan Smith Building (E215)

Contact: Jenny Martin, Department of Zoology, University of Melbourne,
Victoria

Ph: (03) 9882 3280 Mob: 0409 524168 Email:
j.martin@zoology.unimelb.edu.au

Western Australia

Auction for landscape recovery (WA/Rural)

Operating in the Avon River Basin of Western Australia, the Auction for Landscape Recovery (ALR) is a mechanism for landholders to tender for repairs to their properties. The program aims to reduce salinity and increase biodiversity in the area. Repairs are funded and supported by state and federal governments and a range of non-government organisations. The project, managed by WWF Australia, awards tenders based on an integrative approach to restoration. This is the first time such an approach has been used to successfully protect a range of biodiversity assets for the wheat-growing region.

Ms Kristen Williams is presenting a poster at the Conference

Contact: Kristen Williams, CSIRO Sustainable Ecosystems, Brisbane,
Queensland, Australia.

Ph: (07) 3214 2909 Mob: none Email: Kristen.Williams@csiro.au

Birds in the wheatbelt (WA/Rural)

Agricultural ecologist Dr Patrick Smith is studying the effects of 30 years of revegetation work by farmers in the Western Australian wheatbelt. The conservation of wildlife, particularly birds, is a key consideration for farmers in this area, and part of Dr Smith's current research is to examine the effect that revegetation of woody perennials has had on the local bird populations.

Dr Patrick Smith is speaking on Thursday the 1st December, 2005 at 9.00am in the Abel Smith Building (23)

Contact: Patrick Smith CSIRO Sustainable Ecosystems, Floreat, WA
Ph. (08) 9333 6467 Mob: 0409 131737 Email:
Patrick.Smith@csiro.au

South Australia

Exotic buffel grass and the decline of the burrowing skink (SA/Rural)

Ms Katie Payne from Flinders University is looking at the spread of introduced buffel grass and the decline in Slater's skink numbers, including local extinctions in the Northern Territory. Along with changes in the fire regime, the buffel grass appears to be impacting the habits of the skink. Understanding this effect is vital to the conservation of the skink.

Ms Katie Payne is speaking on Thursday the 1st December, 2005 at 2.00pm in the Steel Theatre (206)

Contact: Katie Payne, Flinders University, Adelaide, SA
Ph: (08) 8201 3911 Mob: 0405 565948 Email:
payn0061@flinders.edu.au

Reptile ticks help predict the effects of climate change (SA/Climate change)

Using data gathered from reptile ticks, Michael Bull from Flinders University has discovered a novel way of predicting the impact of climate change on the geographical distribution of species. Mr Bull examined 23 years of data (1982-2004) on reptile ticks and climate from the mid-north of South Australia. During this period, the reptile ticks experienced two severe droughts and a sequence of the wettest years ever recorded. Mr Bull believes that understanding how geographical boundaries have already shifted with climate change can help with predictions.

Mr Michael Bull is speaking on Wednesday the 29th November, 2005 at 8.45am in the Social Sciences Building (S304)

Contact: Michael Bull, Flinders University, Adelaide, SA
Ph: (08) 8201 2263 Mob: none Email: bull@flinders.edu.au

Seeking management options for wool growers that meet conservation goals (SA/Rural)

Professor Jann Williams from La Trobe University has a long-term goal of bringing together scientists and wool growers to meet production and conservation goals in south-eastern Australia. Sheep graze millions of hectares of native pastures and bushland in the area, and wool growing

properties provide homes for native plants and animals, including species that are threatened and/or declining. Professor Williams believes that while ecology plays a key role in identifying management options, the social, cultural and economic goals of land managers must be considered more seriously if production and conservation managers are to find common ground.

Professor Jann Williams is speaking on Tuesday the 29th November, 2005 at 4.30pm in the Social Sciences Building (S304)

Contact: Ms Jann Williams, La Trobe University, Bendigo, Victoria
Ph: (03) 5444 7859 Mob: none Email: jann.williams@latrobe.edu.au

Frankenias help restore degraded landscapes (SA/Rural)

Researchers from Flinders University see many useful applications for the little-known frankenias in the rehabilitation of degraded landscapes. Frankenias are small shrubs and herbs that love soil that has high concentrations of salt and gypsum. They are prolific in the Mediterranean region, and in Australia which has the largest number of species from the frankenia family. With further knowledge, these plants may be used effectively to revegetate areas suffering from salinisation and in the rehabilitation of mine sites. They may even come alive in local nurseries.

Ms Lyndlee Easton is presenting a poster at the Conference

Contact: Lyndlee Easton/A. Craigie, Flinders University of South Australia, Adelaide, SA

Ph: (08) 8201 2267 Mob: none Email:
lyndlee.Easton@flinders.edu.au

Australian Capital Territory

Landscape ecology contributing to Landcare (ACT/Landscape ecology)

Landscape ecologists can help the Landcare movement by talking to other scientists, according to Ms Coral Love of the Department of Agriculture, Fisheries and Forestry. Ms Love believes the good work of ecologists could be more easily applied if they took other factors of the landscape into account. When farmers make land management decisions, they look at a whole range of things such as business management, stock management practices, and soil management. Ms Love has found that results gathered from landscape ecology studies that incorporate more of the disciplines, provide more effective support for farmers than the traditional ecology alone. Although ecological science provides the essential scientific knowledge of plants and animals in the landscape, it could be more relevant if it took the broader dimensions into account. These aspects help to engage primary producers in adopting changed management practices which are vital when this sector manages approximately 62 per cent of the land mass across Australia.

Ms Coral Love is speaking on Wednesday the 30th November, 2005 at 1.45pm in the Social Sciences Building (S304)

Contact: Coral Love, Department of Agriculture Fisheries and Forestry, ACT

Ph: (03) 5753 4557 Mob: 0428 296050 Email:
national@landcarefacilitator.com.au

Quolls engage through social latrines (ACT/Quirky)

The toilet habits of the spotted quoll are yielding surprises for researcher Monica Ruibal from the Australian National University. Ms Ruibal has found that the link between latrine habits, communication and reproduction may be surprisingly close in these otherwise solitary creatures. Using powerful, non-invasive DNA techniques to track faeces back to its owner, she has mapped the movements of these elusive creatures. Ms Ruibal will present data from a pilot study and offer suggestions for using these powerful techniques in future studies.

Ms Monica Ruibal is speaking on Wednesday the 30th November, 2005 at 9.15am in the Forgan Smith Building (E215).

Contact: Monica P Ruibal, Australian National University, Canberra, ACT
Ph: (02) 6125 8161 Mob: 0433 791145 Email:
u4017289@anu.edu.au

Northern Territory

Patchy landscapes due to competition (NT/Landscape ecology)

The mosaic effects often seen in shrub-grass habitats throughout central Australia are due to physical competition between species and the survival needs of the plants. Ms Catherine Nano from Northern Territory Parks and Wildlife transplanted seedlings from the mulga and spinifex families between their native habitats to understand the abrupt boundaries often seen between the species. Her results will add to the global model for forest-grassland dynamics.

Ms Catherine Nano is speaking on Tuesday the 29th November, 2005 at 3.05pm in the Forgan Smith Building (E215)

Contact: Catherine Nano, Northern Territory Parks & Wildlife, Alice Springs, NT
Ph: (08) 8951 8222 Mob: none Email: Catherine.nano@nt.gov.au

Changing fire patterns in the outback (NT/Fire)

The past 20 years has seen a changing pattern of the outback fire season, resulting in a small proportion of the land remaining unburnt for years at a time. Ms Caroline Lehmann discusses the effect that changing fire regimes have on the composition of flowering plants and the structure of the savanna woodlands. She reports that the variability within the landscape can be altered through management decisions.

Ms Caroline Lehmann is speaking on Wednesday the 30th November, 2005 at 4.30pm in the Forgan Smith Building (E215)

Contact: Caroline Lehmann, Charles Darwin University, Darwin, NT
Ph: (08) 8946 6502 Mob: 0412 543353 Email:
caroline.lehmann@cdu.edu.au

Ant role in seed dispersal after fire (NT/Fire)

Ants play a significant role in seed dispersal in the tropical savannas, according to Dr Kate Parr, CSIRO. Dr Parr discusses the impact that natural disturbances such as fire can have on the process of seed dispersal by ants. She focuses on the effect of burning on the rate of seed removal, the composition of the ant removing the seed, and the impact on the distance of seed dispersal.

Dr Kate Parr is speaking on Thursday the 1st December, 2005 at 11.30am in the Forgan Smith Building (E215)

Contact: Kate Parr, CSIRO/Bushfire CRC, Winnellie, NT

Ph: (08) 8944 8412 Mob: 0424 108897 Email: kate.parr@csiro.au

Quality information the key to conserving biodiversity (NT/Conservation)

Quality information resources are the key to effective biodiversity conservation in Australia's tropical savannas, according to Gabriel Crowley from Charles Darwin University. Mr Crowley discusses the important information issues related to conservation including the appropriate methods of information delivery and exchange; the quality assurance of information resources and their interpretation and application; and developing ownership of biodiversity conservation.

Mr Gabriel Crowley is speaking on Tuesday the 29th November, 2005 at 4.00pm in the Social Sciences Building (S304)

Contact: Gabriel Crowley, Charles Darwin University, Darwin, NT

Ph: (08) 8944 8479 Mob: 0438 531120 Email:

gabriel.crowley@cdu.edu.au

African grass invader stresses native trees (NT/Invasive species)

Dr Lindsay Hutley from Charles Darwin University believes an invasive grass may be responsible for many tree deaths in the Australian tropical savanna lands. The invader, an African grass known as 'Gamba' grass, competes with native trees for water during the dry season, causes moisture stress for overstorey trees, and the large amount of grass results in extreme fire events.

Dr Lindsay Hutley is speaking on Friday the 2nd December, 2005 at 9.45am in the Forgan Smith Building (E215)

Contact: Lindsay Hutley, Charles Darwin University, Darwin, NT

Ph: (08) 9846 7103 Mob: 0437 266023 Email:

lindsay.hutley@cdu.edu.au

Bush burning encourages kangaroos to put down new roots (NT/Fire)

Inventive testing of the quality of kangaroo poo by Brett Murphy at the Charles Darwin University reveals that roos are finding a good source of high quality food in recently-burnt lands. Landscape burning provides kangaroos with new grass and helps to relieve the foraging bottle-neck during the dry season, supporting the view that Aboriginal landscape-burning results in regular use by kangaroos.

Mr Brett Murphy is speaking on Tuesday the 29th November, 2005 at 2.35pm in the Forgan Smith Building (E215)

Contact: Brett Murphy, Charles Darwin University, Darwin, NT.

Ph: (08) 8946 6760 Mob: none Email: brett.murphy@cdu.edu.au

Ant resilience under the microscope (NT/Quirky)

Dr Alan Anderson of CSIRO shows that dominant ant species that are geographically distributed in arid and open areas have greater resilience in fire-prone regions of the Northern Territory. Dr Anderson presents the results of the Kapalga fire experiment showing that ant species are more resilient when they have had to survive in sparsely vegetated areas resulting from frequent incidences of fire.

Dr Alan Andersen is speaking on Friday the 2nd December, 2005 at 8.30am in the Steel Theatre (206)

Contact: Alan Andersen, CSIRO Sustainable Ecosystems' Tropical Savannas Group/ Officer-in-Charge, CSIRO Laboratories, Darwin, NT

Ph: (08) 8944 8431 Mob: none Email: alan.andersen@csiro.au

Tasmania

Possoms choose to avoid toxins (Tas/Quirky)

Possoms know what's good for them, if University of Tasmania research is any indication. By mixing their diet, possums obtain a variety of nutrients and avoid a build-up of toxins found in each species of eucalypt. And when a variety of foods is available to them, possums choose to mix their diet. The researchers found that, in times of plenty, possums were four times more successful in their search for the required nutrients and were able to avoid toxin build-up.

Dr Natasha Wiggins is speaking on Tuesday the 29th November, 2005 at 1.50pm in the Steel Theatre (206)

Contact: Natasha Wiggins, University of Tasmania, Hobart, TAS

Ph: (03) 6226 1740 Mob: none Email: wigginsn@utas.edu.au

Detecting ballast stowaways using DNA (Tas/Invasive species)

Dr Nicholas Bax from CSIRO Marine and Atmospheric Research demonstrates how genetic testing can identify marine invaders entering Australia through ballast water. More than 130 invasive marine species have been identified in Australian waters and, at any one time, approximately 10,000 marine species are being transported around the world in ballast

water. Most of these species are transported at sizes that are too small to see and at developmental stages that make them indistinguishable from their native counterparts, even under the microscope. Genetic testing is making their identification much easier.

Dr Nicholas Bax is speaking on Thursday the 1st December, 2005 at 8.45am in the Social Sciences Building (S206)

Contact: Nicholas Bax, CSIRO, Hobart, TAS

Ph: (03) 6232 5341

Mob: 0409 020545

Email: nic.bax@csiro.au

National

Prehistoric 'big game' hunters go for the youngsters (Nat/Quirky)

Chris Johnson and Barry Brook from James Cook University are considering the possibility that prehistoric Aboriginal people selectively killed the young of the largest known marsupial, *Diprotodon optatum*. *Diprotodon optatum* looks like an enormous cross between the koala and the wombat—its closest living relatives. Unlike the theory that the mass extinctions of megafauna in prehistoric Australasia were caused by human over-hunting, these researchers show that even low levels of kills of young (the equivalent of one or two kills per ten people per year) would have been enough to drive the species to extinction within centuries.

Dr Chris Johnson is speaking on Wednesday the 30th November, 2005 at 4.15pm in the Forgan Smith Building (E215)

Contact: Chris Johnson, James Cook University, Townsville, Queensland

Ph: (07) 4781 4141

Mob: none

Email:

Christopher.johnson@jcu.edu.au

Separating threatened species listing decisions from conservation response (Nat/Policy)

Professor David Farrier is calling for a better system to assign priorities to threatened species, given the limited conservation resources available. Professor Farrier believes there is a broader range of considerations to take into account including the strength of evidence supporting the various listings of species. He argues that decisions on whether to list species as threatened should be separated from decisions about how to allocate resources to them, because listing decisions are limited to too few considerations.

Professor David Farrier is speaking on Thursday the 1st December at 3.45pm in the Social Sciences Building (S304)

Contact: David Farrier, Institute for Conservation Biology and Law, University of Wollongong,

Wollongong, NSW

Ph: (02) 4221 3456

Mob: 0408 960755

Email: dfarrier@uow.edu.au

Climate change means wetter, not drier (Nat/Climate change)

Dr Michael Roderick from the Australian National University suggests that recent warming of the Earth's surface has meant a wetter environment rather than a drier one. Dr Roderick shows that more carbon dioxide in the air traps more long-wave irradiance, raising surface temperatures. Surface warming would imply higher evaporation rates and less water. However, measurements of evaporation in the northern hemisphere, Australia and New Zealand show that loss of water by evaporation has decreased over the past 30 to 50 years.

Dr Michael Roderick is speaking on Tuesday the 29th November, 2005 at 3.45pm in the Abel Smith Building (23)

Contact: Michael Roderick, Australian National University, Canberra, ACT
Ph: (02) 6125 5589 Mob: 0427 440360 Email:
Michael.Roderick@anu.edu.au

Exotic invaders spend Christmas under the mistletoe (Nat/Invasive species)

Researchers believe Australia's most common mistletoe may be encouraging exotic plant growth to occur over our native species. Mistletoe has received little thought past how you can entice your beau under it for a smooch at Christmas, but recent studies suggest that the Box Mistletoe transfers nutrients from hosting trees and deposits them via litter to the woodland floor, thereby changing the nutrient makeup in woodlands.

Ms Wendy March is speaking on Thursday the 1st December, 2005 at 1.15pm in the Steel Theatre (206)

Contact: Wendy March, Charles Sturt University, NSW
Ph: (08) 8341 6956 Mob: 0413 974 015 Email: wmarch@csu.edu.au

Endangered species ignore state lines at peril (Nat/Policy)

How do we tell if a species is truly at risk from extinction or just struggling in red tape? Using two case studies, researcher Dr J Sumner from the University of Wollongong presents the problems associated with classifying animals as endangered based on state and territory distribution. For example, the hairy-nosed wombat is listed as endangered in New South Wales, but not elsewhere. The little tern is listed as a species found in four states, and as endangered in only two. Are these classifications due to arbitrary political boundaries, or are they really cases of animals on the brink? Dr Sumner discusses the implications of state versus federal listings, and what it means for preserving biodiversity in Australia.

Dr Sumner is speaking on Friday 2nd December, 2005 at 9.15am in the Social Sciences Building (S304).

Contact: J Sumner, University of Wollongong, Wollongong, NSW
Ph: (02) 4221 4117 Mob: none Email: sumner@uow.edu.au

Long-term conservation on private land could become a reality (Nat/Policy)

Long-term conservation of wildlife on the highly developed eastern seaboard is critical for Australia's future, especially in areas earmarked for future development, according to Dr Carla Mooney from the University of Wollongong. Dr Mooney discusses the policies required for securing a future for biodiversity in the region, while at the same time sustaining development of these areas. Relieving the impact of development by buying 'environmental credits' to offset the damage is a system used in SA and NSW, but are they adequate to protect areas, and how will the scientists and lawyers ensure that the system is carried out fairly? Dr Mooney presents some of the pros and cons of offsetting, and clarifies some of the legal debate associated with it. *Dr Carla Mooney is speaking on Friday 2nd December, 2005 at 9.30am in the Social Sciences Building (S304).*

Contact: Carla Mooney, University of Wollongong, Wollongong, NSW
Ph: (02) 42214192 Mob: none Email: cmooney@uow.edu.au

International

Global climate change in the Amazon (Internat/Climate change)

Dr William Laurance, a senior scientist at the Smithsonian Tropical Research Institute, Panama, discusses the possible causes of recent changes in carbon storage and species composition of Amazonian rainforests. Global warming and rapid deforestation could have major impacts on forest ecosystems. Deforestation and habitat fragmentation have already altered local rainfall patterns. Global warming may cause more frequent and severe El Niño droughts, making large expanses of the Amazon more vulnerable to wildfires. Dr Laurance believes these changes are likely to have carry-over effects on dependent herbivores, pollinators and seed dispersers. *Dr William Laurance is speaking on Tuesday the 29th November, 2005 at 2.20pm in the Abel Smith Building (23)*

Contact: William Laurance, Smithsonian Tropical Research Institute, Balboa, Panama
Ph: +507 212 8252 Mob: none Email: laurancew@si.edu

Changes in the freezer (Internat/Climate change)

Dr Dana Bergstrom from the Australian Antarctic Division looks at responses of life in Antarctica to changing climate, finding that extreme events may be having the greatest impact. Life in Antarctica and surrounds has been evolving under changing climate and isolation. Changes observed include some of the most rapid warming ever in the world. Dr Bergstrom discusses these changes in relation to biodiversity. *Dr Dana Bergstrom is speaking on Tuesday the 29th November, 2005 at 11.40am in the UQ Centre Great Hall*

Contact: Dana Bergstrom, Senior Research Scientist, Australian Antarctic
Division, Department of Environment and Heritage, Hobart, TAS
Ph: (03) 6232 3442 Mob: none Email: dana.bergstrom@aad.gov.au