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INTECOL e-Bulletin

International Association for Ecology

Ecology in a Changing Climate
Two Hemispheres - One Globe

The 10th International Congress of Ecology
Brisbane, Australia 16-21 August 2009

Welcome letter from the Ecological Society of Australia

On behalf of the Ecological Society of Australia, we would like to welcome you to attend the 10th International Congress of Ecology, 2009 in Brisbane, Australia.

The ecological societies of Australia and New Zealand are proud to have won the honour of hosting the first INTECOL Congress in the southern hemisphere. Ecological research and its implementation for managing environmental systems are flourishing in Australia and New Zealand and we are keen both to share our research successes and show off the intriguing plants, animals and ecosystems on offer on our landmasses.

The Scientific Program is taking shape under the guidance of an international panel of experts and promises to hold sessions of interest to all ecologists. A varied array of alternative meeting styles, meeting venues, and a relaxing series of social options will also make this is memorable event for you and accompanying guests.

We hope you will be able to join us in Brisbane in 2009 to experience the professionalism offered by our conference partners Tour Hosts and the world-class Brisbane Convention and Exhibition Centre. Apart from the Congress, come and enjoy the pleasures of Brisbane City, beaches and rainforests within a few hours drive, and the diversity of other ecosystems that are on offer through the field trip options.

Craig James
Co-Chair - Australia, INTECOL10
Vice-President, INTECOL

Carla Catterall
President, Ecological Society of Australia

Welcome letter from the New Zealand Ecological Society

Ko te pae tawhiti kimihia kia mau, ko te pae tata whakamaua kia tтna

"As you seek the distant horizon, hold fast to that which you treasure"

On behalf of the New Zealand Ecological Society, we warmly welcome you to the 10th International Congress of Ecology 2009 in Brisbane, Australia. We are proud to co-host this event with our Australian colleagues, the Ecological Society of Australia.

This year's conference theme "Ecology in a Changing Climate: Two hemispheres - One globe" will give delegates provoking thought and intriguing insights into topics of interest to a changing global environment. We encourage delegates to make the most of the opportunities offered throughout the conference, by way of the scientific programme and myriad of additional conference events.

Fieldtrips throughout Aotearoa New Zealand and Australia will offer further opportunities to explore biodiversity and natural and social histories that are unique to this part of the world. This is the first INTECOL to be held in the Southern Hemisphere and we eagerly look forward to co-hosting this wealth of international knowledge.

Bruce Burns
Co-Chair - New Zealand, INTECOL10

Shona Myers
President, New Zealand Ecological Society

Hosts

The Ecological Society of Australia is the peak group of ecologists in Australia, with over 1500 members from all states and territories. Their aim is to promote the scientific study of all organisms in relation to their environment and the application of ecological principles in the development, use and conservation of Australia's natural resources.

New Zealand Ecological Society

The New Zealand Ecological Society was formed in 1951 to promote the study of ecology and the application of ecological knowledge in all its aspects. Through its activities, the society attempts to encourage ecological research, increase awareness and understanding of ecological principles, promote sound ecological planning and management of the natural and human environment and promote high standards both within the profession of ecology by those practicing it, and by those bodies employing ecologists.

Host City, Brisbane

Visiting Brisbane is like finding yourself in an adventure wonderland. There's so much to do and see, and your every desire is catered for - from quiet strolls along the river to the adrenaline rush of skydiving. A good way to get your bearings when you first arrive is to explore the city by foot, by river cruise or by a speedy ferry. Take in the sights and discover why the river is so central to Brisbane life. More unusual tours include historic walking tours, specialist art tours with fine food and wine, adventure trike tours, ghost tours and eco tours.

Animal lovers can see Australian wildlife up close at Lone Pine or Alma Park Zoo. For the outdoors types, head out to sea on a fishing charter, or set sail on a sailing tour or cruise of Moreton Bay. And exploring nearby North Stradbroke and Moreton Island's beaches is a must.

Five important reasons why you should attend INTECOL 2009

- An exciting program featuring the latest scientific information in ecology being held in the southern hemisphere for the first time
- A multidisciplinary panel of 8 concurrent sessions and 10 high profile plenary national and international speakers that represent the 'who's who' of ecology
- Industry related workshops and satellite meetings will be an adjunct to the concurrent sessions
- A wide range of field trips arranged and led by Australian and New Zealand ecologists highlighting the high endemicity of many groups of organisms of Australia and New Zealand
- A memorable social program offering networking opportunities with the best of the industry

Program Overview

Theme: Ecology in a Changing Climate: Two Hemispheres - One Globe

The tenth INTECOL meeting in Brisbane in 2009 has a theme of "Ecology in a Changing Climate: Two Hemispheres - One Globe." Ecologists from around the world will explore how global climate change has impacted, and will further impact, ecosystems and their vital services to human communities. They will explore unique features of ecosystems in the southern and northern hemispheres but look for common elements in a search for solutions to this looming problem.

Although there will be an emphasis on ecological processes in the southern hemisphere, there will be a strong "Two Hemispheres - One Globe" theme to the congress, with speakers from around the world. A special focus will be Ecology in Asia.

Sessions will range from marine to riverine and terrestrial systems, and will cover micro-organisms, plants, invertebrate and vertebrate species, and discuss individual populations to ecosystems. The program promises a rewarding and stimulating insight into new ecological research.

While the meeting will attract an international attendance, the ecological research of the two host countries, New Zealand and Australia will be on display, and visiting delegates will have the opportunity to appreciate both the unique biotas of these two countries and the strong basic and applied research effort applied to regional ecological issues that could be translated to other regions.

Program at a glance

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Plenary Speakers

Monday

- Peter Vitousek, Stanford University, USA, "Ecology in the Anthropocene"
- Kevin Gaston, Sheffield University, UK, "Biogeography and biodiversity"

Thursday

- Richard Duncan, Lincoln University, NZ, "Invasion Ecology"
- Bob Holt, University of Florida, USA, "Theoretical aspects of ecological community organisation"
- Brian Enquist, University of Arizon, USA, "Plant function and scaling"
- Margaret Palmer, University of Maryland, USA, "Science to Support Ecological Restoration, Mitigation, and Adaptation"

Friday

- The Annual Australian Ecology Research Award for outstanding contribution to current ecology in Australia
- Dustin Marshall, University of Queensland, Australia, "Evolutionary ecology in the sea"
- Priyanga Amarasekare, University of California at Los Angeles, USA, "Mechanisms of diversity maintenance in variable environments"
- Devi Stuart-Fox, University of Melbourne, Australia, "The ecology of visual communication"

Symposia & Contributed Sessions (Chair person)

Monday 17 August 2009

08:15 - 10:15 Opening & Plenary Session

11:00 - 12:45 Concurrent Sessions

- S1: Climate change challenges for protected areas (Colin Beale)
- S5: Comparative demography of plants (Yvonne Buckley)
- S41: What do long term ecological studies tell us about climate change (Erik Wapstra)
- Forest fragmentation
- S24: Climate change effects on southern temperate coastal ecosystems (Catriona MacLeod)
- S18: Black and white or shades of grey? Adding value to mapped ecological classifications for improved science-based policy making (Ben Lawson)
- Mammal extinctions
- S40: Impacts of climate change on terrestrial insects (Nigel Andrew)
- Riparian health (Belinda Robson)

14:00 - 15:45 Concurrent Sessions

- Climate change challenges for conservation
- S39: Ecosystem resilience: how to measure it and conserve it (Martin Taylor)
- S31: International Long-Term Ecological Research Network ILTER (Tim Clancy)
- Forest ecology and management
- Marine assemblages and impacts of climate change
- S18: Black and white or shades of grey? Adding value to mapped ecological classifications for improved science-based policy making (Ben Lawson)
- S36: Microbial ecology (Peer Schenk)
- Insects and climate change
- Riparian health

16:00 - 17:30 Poster Sessions

Tuesday 18 August 2009

08:30 - 10:15 Concurrent Sessions

- Agro-ecosystems
- Soils and microbial ecology
- S19: Ecosystem services in a changing climate (Dixon Landers)
- S47: The past as key to the future: Paleo-perspectives on climate change (Ana Carnaval)
- Ecophysiology of plants
- S29: Species invasions, environmental change and

the future biogeography of freshwater fishes (Julian Olden)
- S45: Ecological networks and global change (Guy Woodward)
- S25: Social networks and parasite transmission (Hamish McCallum)
- Ecological genetics in marine systems

10:45 - 12:30 Concurrent Sessions

- S10: Harnessing the benefits of biodiversity for biological control (James Harwood)
- S15: Adaptive management of protected areas for biodiversity conservation (David Keith)
- S19: Ecosystem Services in a Changing Climate (Tally Palmer)
- S47: The past as key to the future: paleo perspectives on climate change (Susan Cameron)
- S23: Plant functional diversity in human modified landscapes (Nicholas Williams)
- S42: Transitional water ecosystems: common functional properties (Alberto Basset)
- S45: Ecological networks and global change (Bo Ebenman)
- Host-parasite ecology
- Algal ecology

13:45 - 15:30 Concurrent Sessions

- S10: Harnessing the benefits of biodiversity for biological control (Bill Snyder)
- S15: Adaptive management of protected areas for biodiversity conservation (David Keith)
- Ecosystem services
- Plant distributions
- S23: Plant functional diversity in human modified landscapes (Margie Mayfield)
- S42: Transitional water ecosystems: common functional properties (Alberto Basset)
- Food webs and trophic interactions
- Avian ecology and conservation
- Marine ecology

16:00 - 17:30 Poster Sessions

Wednesday 19 August 2009

08:30 - 10:15 Concurrent Sessions

- S3: Uncertainty in ecological modeling and planning (Yakov Ben-Haim)
- S9 Bioclimatic and niche based models of species distributions (Stephen Hartley)
- Herbivory, grazing and plant competition
- S44: Protecting biodiversity: adapting to global climate change (Stephen Williams)
- Ecosystem function, fonitoring and management
- S34: Quantifying the ecological impacts of invasive species(Shon Schooler)
- Community based conservation
- S43: Plants: from genes to geosciences (Adrienne Nicotra)
- Mammal impacts, conservation and response to climate change

10:40 - 12:30 Concurrent Sessions

- Ecological modeling and planning
- Climate and species distributions
- S17: The IBISCA approach to biodiversity assessment (Chris Burwell)
- S44: Protecting biodiversity: adapting to global climate change (Luke Shoo)
- S33: Landscape ecology: its role in a changing world (Clive McAlpine)
- The ecological impacts of invasive species
- S37: Marine conservation management: challenges and solutions (Bob Pressey)
- S43: Plants: from genes to geosciences (Mark Westoby)
- Reptile ecology

13:45 - 15:30 Concurrent Sessions

- Ecological modeling and planning
- Climate and species distributions
- S17: The IBISCA approach to biodiversity assessment (Roger Kitching)
- S44: Protecting biodiversity: adapting to global climate change (Bob Pressey)
- S33: Landscape ecology: its role in a changing world (Diane Pearson)
- Aquatic and wetland invasions
- S37: Aquatic conservation management (Maria Beger)
- Plant population genetics and demography
- S14: Climate change impact on temperate zone rural areas (Andrzej Kedziora)

16:00 - 17:30 Poster Sessions

Thursday 20 August 2009

08:30 - 10:00 Plenary Session

11:00 - 12:45 Concurrent Sessions

- S6: Theoretical scaffolding for empirical fire ecologists (Don Driscoll)
- S11: Amphibian responses to climate change (Jean-Marc Hero)
- S16: Hot and salty: the challenge of increasing salinity under climate change (Ben Kefford)
- S2: Ecology and Bioprospecting (Andy Beattie)
- S26: Adaptive conservation decision-making and expert elicitation (Eve McDonald-Madden)
- S32: Maintaining biodiversity and ecosystem function in urban habitats (Kirsten Parris)
- S35: Austral Migration - a world of difference or the global model (Robert Heinsohn)
- Insect ecology
- Fresh water ecology (Angus McIntosh)

14:00 - 15:45 Concurrent Sessions

- S6: Theoretical scaffolding for empirical fire ecologists (Don Driscoll)
- S11: Amphibian responses to climate change (Jean-Marc Hero)
- S21: Ecological functions of riparian systems in managed landscapes (Richard Lowrance)
- S46: Markets for Biodiversity Conservation: lessons from theory and practice (Jenny Boshier)
- S26: Adaptive conservation decision-making and expert elicitation (Tara Martin)
- S32: Maintaining biodiversity and ecosystem function in urban habitats (Paige Warren)
- S35: Austral Migration - a world of difference or the global model (Debbie Saunders)
- Plant ecosystems
- Restoration ecology

16:00 - 17:30 Poster Sessions

Friday 21 August 2009

08:30 - 10:00 Concurrent Sessions

- S12: New approaches to restoration ecology in a changing world(Richard Hobbs)
- S8: Pollinator declines and monitoring
- Climate change and plant invasions
- S49: NZES and ESA award session (Carla Catterall & Bruce Burns)
- Avian behavioral ecology and population dynamics
- Fire ecology
- Amphibian ecology
- Plant defense
- S50: Bio-cultural diversities in Asian human impacted areas (Sun-Kee Hong)

10:30 - 12:00 Concurrent Sessions

- S12: New approaches to restoration ecology in a changing world (Viki Cramer)
- S8: Pollinator declines and monitoring
- Characteristics of invasive weeds (Carol West)
- S20: Nutrient enrichment and climate change in coastal wetlands (Cath Lovelock)
- S48: Dynamics of disturbed and undisturbed forests-new challenges and methods (Juergen Groeneveld)
- Fire ecology
- Long-term ecological studies
- Dispersal ecology
- S50: Bio-cultural diversities in Asian human impacted areas (Takakazu Yumoto)

13:00 - 14:30 Concurrent Sessions

- S7: Australian extinctions: patterns, processes and prevention (Iain Gordon)
- S38: Ecology on the Edge: ecosystems of political boundaries (Roger Suffling)
- Plants litter and soil
- S20: Nutrient enrichment and climate change in coastal wetlands (Don Cahoon)
- S48: Dynamics of disturbed and undisturbed forests-new challenges and methods (Andreas Huth)
- Fire ecology
- Restoration ecology
- Seed dispersal
- Landscape ecology

14:45-17:30 Plenary Session & Closing

Workshops

The following professional development workshops are available for registered delegates. Delegates can purchase workshop tickets when registering for the Congress. Refreshments and lunch (full-day workshops) are included in the fee. Workshops are non-refundable as of 16 June 2009. Minimum number for each workshop is 15 people. If a workshop is cancelled then delegates can transfer to another workshop (with payment adjustment) or take a refund.

W1: Trends in journal publishing

Date: 15 August, half day
Cost: A$40

Rose Williams
rose.williams@asia.blackwellpublishing.com

The proposed workshop aims to provide an opportunity for delegates (including students) to learn more about the way in which the process of scholarly publication is developing, and likely future trends.

Potential topics for discussion include open-access publishing, the shift to shorter papers with longer online supplements, and to short and non-comprehensive reviews as in Trends journals; the role of online databases; and how to deal as an author or referee with the new world of electronic-based publishing.

A number of Editors of international journals will be attending INTECOL, and we would ask attending Editors to participate in the session. Representatives from Wiley-Blackwell would also speak on the changing world of journal publishing.

W2: Talking science with the media

Date: 16 August, half day
Cost: A$130

Jenni Metcalf
jenni@econnect.com.au

This is a half day workshop for a maximum of 30 participants, which will increase the participants' awareness of how the media operates and how best to use the media to get their stories across. It will include a panel discussion with working journalists and an opportunity for some participants to demonstrate and practice their media interview skills. It will cover the three key aspects of any media story: the story, the interviewee (talent), and the pictures. It will give tips on how to use the media to get a science story out through the media, which is attractive to the media, but also clearly conveys the scientist's messages.

W3: Environmental offsets in a changing world: opportunities and challenges

Date: 16 August, half day
Cost: A$40

Steve Turton
steve.turton@jcu.edu.au

The larger issues of human development and conservation of biodiversity, carbon stocks and environmental services needs to be debated so ecologists can be well placed for sustained engagement in research and policy agendas in environmental offsets. This workshop will bring together ecologists who have either worked in the area of environmental offsets or have an interest in developing skills and knowledge in this emerging area of research and policy implementation. We expect this workshop theme will appeal to researchers, natural resource managers and those involved with developing and implementing environmental offsets policy and practice. The workshop format is yet to be finalized but we envisage some plenary sessions and/or case studies by experts dealing with theoretical and practical applications of environmental offsets, together with small group sessions on 'hot topics' identified by the group prior to or during the workshop.

W4: Acoustic sensors for ecological studies

Date: 15 August, half day
Cost: A$80

Ian Williamson
i.williamson@qut.edu.au

Estimates of animal diversity and abundance are central to testing ecological theory, managing

populations and measuring environmental health. Technological advances have always been incorporated into methods used to make these estimates. Most recent developments in electronics and communication (e.g. smartphones) have great potential to extend our ability to monitor and measure animal diversity and abundance, and significantly reduce the cost of this monitoring. These developments allow the possibility of remote data collection in real-time, delivery of data to the desk-top, and web based systems that can be used to organise data collection and processing, and remotely control data acquisition arrangements. The goal of this workshop is to bring together current and potential users of remote sensor equipment designed to measure or monitor animal diversity and abundance. The focus will be on acoustic monitoring equipment. The workshop will cover recent developments in acoustic sensors and will include examples from on-going projects. Discussions and demonstrations will deal with elements from sensor deployment and data acquisition and delivery, to processing and management of data.

W5: Native seed research - influencing revegetation practice

Date: 15 August, full day
Cost: A$80

Penny Atkinson
patkinson@florabank.org.au

Native seeds are a vital part of revegetation and habitat restoration projects. There are many issues relating to the collection and supply of seed in Australia. These include:

- The physical quality of seed e.g. low seed viability rates because of poor storage or handling practices.
- The genetic quality of seed e.g. low seed viability rates because seed is collected from small, fragmented populations that have high levels of inbreeding.
- Biodiversity risks.

Biodiversity risks resulting from seed collection and supply practices include:

- The introduction of weedy species or sub-taxa as a result of planting seed from inappropriate taxa or provenances;
- Recreating the wrong habitats - the lack of viable seed from key species (because of difficulties collecting, storing or germinating them) often means that revegetation goes ahead with simply the species we have, rather than the species we need.
- Over-collecting from remnant bushland sites.

Florabank as Australia's Native Seed Resource, Florabank is working to address seed supply constraints and to improve the biodiversity values of revegetation through information provision, training for seed collectors and seed buyers, bringing seed buyers and sellers together, and by working with the Australian native seed industry to develop a certification and accreditation process. Our information partners include CSIRO Plant Industry, Greening Australia, and Australian Seed Conservation and Research (AuSCaR).

This workshop brings together research projects on native seeds that are making a difference to the success of revegetation and habitat restoration projects. In the morning we will hear about a range of seed-related research issues with case-studies from projects around Australia. In the afternoon, Florabank will present on our initiatives to bring native seed research into practice (including demonstrations of our webtools). This will be followed by facilitated discussions to bring together different aspects of seed research, and work towards some new collaborations to solve practical problems in Australia and beyond.

W6: Mangrove and tidal wetland ecosystem responses to climate change: do we know enough to manage them sustainably?

Date: 15 August, full day
Cost: A$80

Norm Duke
n.duke@uq.edu.au

If we are to preserve important ecological services of mangroves and tidal wetlands, there is an urgent need to develop management strategies to deal with their various responses to climate change - based on sound scientific studies and effective monitoring. There is a similar need to learn what types of changes are expected, to disseminate this information and raise awareness for effective change adaptation planning.

To date, communities label mangroves as 'bad' when they: expand; choke tidal navigational channels; block storm drainage canals; spread along coastal foreshores; smother saltmarsh and reduce habitat for migratory

waders; and, invade upland. Such one-sided views are manifest currently in several coastal communities of Australia, New Zealand and elsewhere, as they experience likely early responses to changing climate coupled with corresponding increases in landuse disturbance.

A chief difficulty is that base drivers of change are often ill-defined and arguable, while convincing evidence is lacking. Meanwhile, management responses to such changes are understandably reactive, responding to ill-informed community pressure. For example, as seawater encroaches inland threatening property, there is a cry to construct defensive seawalls without regard for tidal wetland habitat left with nowhere to go. Similarly, where rainfall levels might increase, tidal wetland vegetation responds by increasing biomass, biodiversity and changing relative abundance, to be labelled as invaders, weeds and invasive species.

Such responses may be predictable, but research is needed to identify, define and model expected ecological and geomorphological outcomes. There are problems also with confounding influences of human impacts delivered directly by conversion and physical damage, and indirectly as pollution, nutrients and turbid runoff.

This workshop will draw together knowledgeable tidal wetland researchers from various disciplines with managers to identify key issues and knowledge gaps, and contribute towards current reviews and strategy documents for regional and national climate change adaption plans.

W7: Developing a set of standard principles and guidelines for ecological impact assessment in Australia and New Zealand

Date: 15 August, full day
Cost: A$100

Simon Mustoe
simonmustoe@ecology-solutions.com.au

Ecological impact assessment uses specific methodological approaches. As a profession, ecologists have the experience to understand the principles of the science and how it can be meaningfully applied. Although Australia and New Zealand have disparate policies on impact assessment there is no industry-driven policy about how ecology fits into the overall impact assessment framework (e.g. as a driver for sustainable development).

The Institute of Ecology and Environmental Management (IEEM) have successfully standardised guidelines for the UK and these have been endorsed by all government agencies. To 'standardise' guidelines for a given country requires information about relevant species and legislation. This would not be achievable in this workshop. Nevertheless, the principles by which assessments are done or standardised procedures are developed, remain the same e.g. the need to establish objectives, conduct seasonal fieldwork, establish minimum levels of sampling effort, understand species in relation to processes and function of the ecosystem, assess impacts against natural variation and fully reference or explain assumptions made.

The aim of this workshop is to discuss and identify core principles and present these as guidance. Perhaps they may ultimately be used to develop impact assessment methods and possibly inform national or state-specific processes for standardised procedures at a later date. The final objective is to draft guidelines that could apply equally in Australia and New Zealand (or elsewhere) and assist practising professionals and governments better understand the role of ecology in practice.

W8: INTECOL student connection

Date: 15 August, full day
Cost: A$100

Kirsti Abbott
kirsti.abbbott@gmail.com

Networking is an essential part of the research process; promoting collaboration, generating new ideas and preventing duplication of effort. INTECOL10 provides a perfect platform for student ecologists to come together, learn about what research is currently being undertaken by students, make international links and form interdisciplinary collaborations, and discuss, debate and brainstorm hot ecological topics.

The student day is designed for Honours, Masters and Doctorate candidates, and postdoctoral researchers within 3 years of completing their PhD undertaking research in ecology or related field. They need to be a delegate of INTECOL to attend the day.

The day will include initial introduction by organizer and possibly plenary speaker, and could involve group

discussions and networking, speed-dating talks about student research, peer review of research by students, panel discussion about student issues (supervisor-student relationships, student output, motivation, writing techniques etc) and plenty of networking and chatting opportunities.

W9: The use of modelling tools for invasive plant management

Date: 16 August, full day
Cost: A$80

Yvonne Buckley
y.buckley@uq.edu.au

In this workshop we will present a range of modelling techniques which enable the exploration of suitable management strategies for invasive plants. Participants will be introduced to both commonly used tools and some new models for dealing with demography, landscape heterogeneity, human behaviour, economics and spread. We will also discuss general findings from modelling studies which can be applied in the absence of detailed information. Participants will be provided with model code and we will work through practical examples of the use of selected models and case-studies. Participants are encouraged to bring their own laptops but a small number of additional computers may be provided so it is not essential to bring your own. Participants will take away a cd containing model code, workshop case-studies and relevant papers.

Topics covered will include some or all of the following (participants to be asked to state their preferences and topics covered will depend on demand):

- Demography: deterministic & stochastic matrix models, use of elasticities and simulations to inform management
- Dispersal: integration of matrix models and dispersal kernels to assess management to contain spread.
- Landscape context: GIS based and neutral landscape models, habitat heterogeneity, integration with dispersal & demographic models to inform surveillance & management.
- Whole of ecosystem processes: disturbance & the role of weed management as a disturbance, stochastic dynamic & analytical models.
- Economics: incorporating impact & management costs vs. commercial benefits into management decision models.
- Human behaviour: models of sub-catchment weed management.

W10: Modelling patterns and dynamics of species distributions

Date: 16 August, full day
Cost: A$100

Darryl MacKenzie
darryl@proteus.co.nz

Species distributions are a fundamental component of ecology. Delineating historic and current ranges, and identifying important biophysical features are often of interest. Questions associated with how species distributions change in response to changing environmental conditions are particularly relevant at present.

A species distribution can be defined as all those locations on the landscape where the species is present; hence to reliably identify locations that are outside it current distribution requires information on species absence, particularly when sampling effort is not consistent across the area of interest. However, many species are not detected perfectly by field surveys when present at a location, resulting in false absences and potentially misleading conclusions about species distributions and the factors affecting them. The potential for misleading conclusions is amplified when the ability to detect the species is influenced by the same biophysical features that are under consideration for affecting species distribution.

The inability to confirm a species absent from a location has long been recognized, although only relatively recently methods have been developed allowing reliable conclusions to be drawn about species distributions in the face of imperfect detection. These methods require that each location is surveyed multiple times within a relatively short timeframe in order to provide the necessary information to disentangle the real biology (species distribution) from the sampling (species detection).

In this workshop an introduction to these methods will be provided. Details of the underlying estimation procedures will be presented in a lecture-style format, along with worked examples illustrating key concepts. Applying these models to produce distributional maps

or to predict changes in the species distribution will also be covered. Participants will be encouraged to interject with questions at their leisure. Topics planned to be included are:

- Problems with presence-only data.
- Background on the effects of imperfect detection.
- Investigating species distributions at a single point in time.
- Changes in distributions through time.
- Study design considerations.

W11: A virtual tour of New Zealand and Australian ecosystems

Date: 16 August, full day
Cost: A$130

Craig James & Bruce Burns
craig.james@csiro.au

This workshop would provide international delegates with an orientation to the ecosystems of New Zealand and Australian, and involve the participants in a discussion about their characteristics (and differences) with analogous ecosystems in other countries.

W12: Integrated models and tools for generating climate change scenarios and assessing ecological impacts

Date: 16 August, full day
Cost: A$80

Richard Warrick
r.warrick@waikato.ac.nz or
rwarrick@usc.edu.au

The day workshop will divided into two parts. The morning will involve presentations and discussions involving: the development of climate change scenarios; models and tools for assessing impacts and adaptation; and examples of applications. The afternoon will involve "hands-on" exercises in which participants can use integrated models to construct scenarios and apply them to various environmental and ecological problems.

Workshop attendees will need to bring laptops with pre-installed software, which will be provided by the organisers.

W13: The potential of wireless sensor networks for advancing restoration ecology

Date: 16 August, full day
Cost: A$100

Jonathan Hodge
jonathan.hodge@epa.qld.gov.au

The workshop focuses on the integration of processes involving planning, execution and long-term monitoring of restoration of a World Heritage Area using leading-edge technologies to test or develop new scale-specific conceptual models encompassing the scientific, economic and social dimensions of ecological restoration.

The project area occurs within close proximity to four universities within two major urban centres in South-east Queensland, with on-site accommodation and conference infrastructure, providing an ideal logistical environment for scientific, educational and community participation in the project.

The project centres on the recovery of about 200 hectares or more of refugial rainforest, wet and dry sclerophyll forests and montane heaths within a World Heritage precinct in the McPherson Range of the Gold Coast hinterland of South-east Queensland, Australia.

The plateau region is a well-preserved, biogeographically isolated remnant of an extinct 23-Million year old shield volcano.

Compressed environmental gradients in altitude, rainfall, soils, geology, and geomorphology within a matrix of ecosystems at various stages of recovery from land-use change over a century provide an ideal test bed for ecological theories. Ecosystems range from lowland rainforests to montane heaths and cloud forests. Biodiversity includes exceptional levels of short-range palaeo- and neo-endemism and relict disjunctions among invertebrates, vertebrates (including frogs, reptiles and songbirds) and a wide range of plant taxa. Many lineages have had pivotal roles in radiations from Gondwanan Southern Hemisphere continents to the Northern Hemisphere. Threatening processes include the globally acknowledged grand challenges of our time-land-use change, invasive species and climate change.

The workshop will address the challenges of cost-effective, flexible, socially acceptable, adaptive restoration at ecologically meaningful and economically feasible scales, incorporating appropriate decision support systems encompassing policy, strategic

planning and on-ground management, and exploring the full potential of emerging technologies for environmental monitoring such as large scale wireless sensor networks.

W14: Plant functional traits, types and climate change

Date: 16 August, full day
Cost: A$80

Amy Zanne
aezanne@gmail.com
Adrienne Nicotra
Adrienne.nicotra@anu.edu.au

Plant traits have received considerable attention in the last decade as ecologists search for ways to classify plants according to function rather than taxonomy alone. These classifications are important to enhance our understanding of evolutionary diversification, community structure, and ecosystem function as well as to predict plant responses to climate change. This day-long workshop is presented by an international group of expert plant ecologists whose research focuses on development and application of trait-based techniques in comparative plant ecology. We will combine practical presentations, traditional seminar style talks, break-out group discussions and hands-on demonstrations to make the application of trait-based plant ecology accessible to a broad audience. We will consider what constitutes a plant trait and what traits have proven informative; specific leaf area, wood density, seed size, and plant height for example, have thus far been the most focused on axes. Leaf size and leaf size to twig size ratios have also been examined. Other axes have remained elusive e.g., root traits. We will discuss how to measure, model and analyse plant traits. And, we will hear presentations demonstrating the application of these techniques to current issues relevant to the congress theme. Participants will have the opportunity to discuss their own datasets and theoretical or analytical questions with other group participants. The workshop will be of particular interest to students and early career researchers, but will also be relevant to ecologists generally interested in learning about the latest developments in plant traits and comparative ecology.

W15: How do we record and measure ecological change in a changing climate?

Date: 22 August, full day
Cost: A$80

Elvira S, Poloczanska
elvira.poloczanska@csiro.au

Premise: Ecosystems around the globe are under increasing stress from anthropogenic influences such as pollution, over-exploitation and climate change. The challenge to ecologists is to define appropriate criteria by which to record, measure and so interpret impacts on biodiversity (Visser & Both 2005, Richardson & Poloczanska 2008). While we can measure the actual stressors imposed on systems (see Halpern et al. 2008) measuring impacts on biodiversity is more challenging. Key stressors will vary between regions (e.g. tropics vs poles, northern vs southern hemisphere) and between systems (e.g. marine vs terrestrial). Understanding climate change impacts on biodiversity may thus require a global database (Poloczanska et al 2008).

Structure: The workshop will commence with 3 key presentations on measuring ecological change in terrestrial, marine and freshwater systems. Emphasis will be on subsequent discussion and working time and we will encourage active participation.

- Do terrestrial, marine and freshwater ecologists report climate change impacts differently? If so, why, and are there common methodologies that could be employed to enable comparison? Should we be reporting species, functional groups, community changes, and how do we want these to be reported by the IPCC?
- How do we measure distribution changes in different habitats? For example, from range edges or from the centre of a distribution? Should we use distribution models to calculate 95% confidence limits of species distributions?
- How do we measure phenological changes in different systems? Is this a reasonable measure for global comparison if there is little seasonality over the tropical regions of the world?
- Can we develop a global database for biological impacts of climate change?

What would this look like? As an output of the workshop, we will produce a document that will seek to answer these questions, with the aim of a subsequent publication in the primary literature.

W16: Talking science with the media

Date: 22 August, full day
Cost: A$430

Jenni Metcalf
jenni@econnect.com.au

This is an intensive one-day workshop for a maximum of 16 scientists who want to develop media stories and practice their interview skills with TV, print and radio journalists. This workshop will help scientists feel comfortable with the media and have more control over their media appearances through:

- knowing what to expect when the media does a story.
- practicing their interview techniques with working journalists.
- getting their message out as accurately as possible.

The workshop will cover:

- what makes a good TV, radio or print story.
- how to take control of the media agenda.
- making the big announcement.
- what to do when a journalist calls.
- handling difficult questions.
- organising a good media release.
- in the hot seat-interview practice with working journalists.

W17: Workshop on conservation planning/marxan

Date: 22 August, full day
Cost: A$80

Lindsay Kircher
l.kircher@uq.edu.au

We propose a one day workshop to discuss and demonstrate new developments and novel applications of Marxan software. Marxan is now the most widely used conservation planning software in the world and is available for free from http://www.uq.edu.au/marxan/index.html?page=77654. It was used to rezone the Great Barrier Reef, the single biggest implemented systematic conservation plan in the world and has users in 93 countries from hundreds of agencies.

Our workshop will be split into two major parts: developments and applications. First, we will discuss the technical aspects of new developments in the software, including Marxan with Zones, an extension of Marxan software that has the ability to identify multiple zones (i.e. marine protected areas of various protection levels) and incorporate multiple costs into a systematic design framework. During the second portion of the workshop, we will feature innovative applications of Marxan and Marxan with Zones by inviting various people to present portions of the projects. The purpose of these presentations is to teach the students ways to apply the new developments of Marxan and Marxan with Zones.

W19: Queensland regional ecosystem classification and mapping programme

Date: 22 August, full day
Cost: A$90

John Neldner
john.neldner@epa.qld.gov.au

The regional ecosystem classification and mapping framework has been developed to assist the Queensland Environmental Protection Agency plan for biodiversity both on and off reserve. The framework has been incorporated into several management and planning initiatives including tree clearing regulations under the Vegetation Management Act 1999, the development of local government planning schemes, the assessment of the comprehensiveness, adequacy and representativeness of the conservation reserve network and as a guide for proactive conservation actions by government and non-government organisations. The programme classifies and maps the landscape of Queensland into vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. Mapping has been completed for 85% of Queensland and work in currently underway to complete the remainder of the state and develop comprehensive descriptions and other supporting information. The workshop is intended to explain the classification and mapping system and methodology to participants and to engage with other vegetation classification practitioners. There will be two components: a half-day session with presentations and discussion on the classification system, mapping methods and information delivery followed by an afternoon field trip of the Brisbane valley showing a range of eucalypt forests and woodlands types and demonstrating how they are classified and mapped.

W20: Global phenological changes and the effects on ecological interactions across space and time

Date: 22 August, full day
Cost: A$80

Rebecca Stirnemann
rstirnemann@gmail.com

No system operates alone and yet species are often grouped for study without looking at the larger interactions. Studying how global warming will affect species is no exception. This workshop aims to bring together people working on various systems/species/trophic groups in order to develop a better understanding of how the timing (phenology) of ecological events is changing interactions between species and how adaptive species are to these changes. This will in turn allow us to build a better understanding of how global warming is affecting these events and to build better models for predicting future changes.

We aim to build a group of experts in various fields for this workshop is enabling us to clarify the interactions between species.

- Pedologists
- Botanists - Trees and flowers and Forest ecologists
- Ichthyologists - Marine and fresh water fish
- Ornithologists- Marine, Waders, Passarines
- Mammologists
- Entomologists
- Herpetologists
- GIS specialists and climatologists
- Marine and freshwater ecologists and Limnologists

We expect this workshop to break new ground for collaboration among the various participants. A few of the questions we will be exploring are:

- What are the current gaps in knowledge of the phenology-related interactions between the systems?
- Which techniques used in different areas could be useful to study these interactions?
- What are the major challenges for future research in this field?

W21: An introduction to bayesian methods for ecology

Date: 15 - 16 August, two days
Cost: A$190

Michael McCarthy
mamcca@unimelb.edu.au

Bayesian analysis of data is becoming more common in ecology, but most of the books on the topic are challenging for many ecologists. This two-day workshop will introduce ecologists to Bayesian methods, providing background information and hands-on experience. The course covers: analysis of means, linear regression, ANOVA, generalized linear models, detectability and false absences, Bayesian assessment of model fit, and synthesis of prior information. The course is suitable for ecologists with a solid foundation in statistical methods (e.g. estimation, null hypothesis significance testing) but with little or no experience with Bayesian methods.

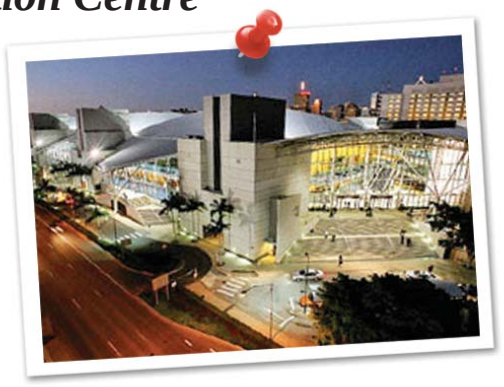
Workshop attendees are encouraged to bring laptops.A number of Editors of international journals will be attending INTECOL, and we would ask attending Editors to participate in the session. Representatives from Wiley-Blackwell would also speak on the changing world of journal publishing.

Venue, Brisbane Convention & Exhibition Centre

The Brisbane Convention & Exhibition Centre is officially ranked among the top three convention centres world-wide by the International Association of Congress Centres.

Located in the riverside South Bank precinct, heart of Brisbane's cultural and entertainment activities, the Centre accommodates events for eight or 8,000 and all serviced to the same high standards of excellence.

With all its facilities under the one roof the Centre



offers a fully integrated range of in-house services from its award winning catering, world class communications technology including Australia's first dedicated Speakers' Presentation Centre, and its own in-house Graphics and Signage Department.

Registrations

Registration Fee (per delegate)

Category	Early Bird Rates Before 16 May 2009	Standard Rates On or Before 13 August 2009	Onsite Rates From 13 August 2009
Member*	A$785.00	A$900.00	A$1,100.00
Non member	A$995.00	A$1,145.00	A$1,295.00
Student Registration**	A$475.00	A$625.00	A$775.00
Day Registration	A$375.00	A$460.00	A$545.00

- To view the current foreign exchange rates, please visit www.x-rates.com

* Members: a reduced rate has been secured for members ESA (Australia), NZES (New Zealand) and INTECOL individual member. If you are not a member of these associations please register at the non member rate. If registering at the membership rate, please indicate which association you are a member of and include your membership details if applicable. You must be a member at the time of registering.

** Student: A student is defined as a holder of a student identification card from a recognised tertiary or secondary educational institution or international student card. Students must be currently studying full time to qualify for the discounted rate. A copy of your student identification card is required when you submit your registration form. Without this copy, the full registration fee will be charged.

Exhibitors and Sponsors should refer to the Exhibition Manual for their registration details and entitlements.

Entitlements

Full Delegates

The registration fee entitles all full delegates to the following:

- Access to all Sessions
- All official documentation including program booklet, electronic copy of abstracts and list of participants
- Welcome Reception
- Morning and Afternoon Teas
- Congress Satchel
- Entrance to Trade Exhibition

Day Delegates

The registration fee entitles all day delegates to the following:

- Access to all Sessions on nominated day
- All official documentation including program booklet, electronic copy of abstracts and list of participants
- Morning and Afternoon Teas on nominated day
- Congress Satchel
- Entrance to Trade Exhibition on nominated day

Lunches

Lunches will not be included in the registration fees. Alternatively delegates have the choice to pre-purchase their lunch on a day-by-day basis during the Congress. You can purchase your lunch tickets when you register for the Congress. You will not be able to purchase Congress lunch tickets onsite at the Congress. Eateries and restaurants can be found within walking distance of the Congress Venue.

- The lunch includes the following:
  - Sandwiches / Bagels / Wraps or Rolls
  - Seasonal Salad
  - Cold Quiche / Frittata
  - Sliced Tropical Fruit
  - Fruit juice

Minimising INTECOL's Ecological Footprint

Provision for contributing to a voluntary Carbon Offset fee of $5.00 per delegate is available at the time of registering.

The INTECOL Organising Committee will measure the ecological footprint of the Congress. Should you wish to opt-out of paying this fee, please select your reason at time of registering, this will allow us to collect the data we require for reporting purposes.

Social Events

An exciting social program has been developed to give delegates and their companions an opportunity to take advantage of the unique and varied attractions available in this beautiful city.

We suggest that international delegates plan to stay a few extra days in Australia before or after the Congress to enable them to get to know this magnificent country.

Welcome Reception

Date: Sunday 16 August 2009
Venue: Brisbane Exhibition and Convention Centre's Exhibition Halls
Time: 1700 - 1830
Cost: A$75.00 per person
Dress: Smart Casual

An invitation is extended to all delegates and registered accompanying persons to attend the Welcome Reception to be held within the Exhibition Halls. View the exhibitions, renew old friendships and make new acquaintances as we welcome you to Brisbane. Canapés and fine wine will be on offer and quiet background music will be played, allowing for easy conversation and networking.

Opening Ceremony

Date: Monday 17 August 2009
Venue: Brisbane Exhibition and Convention Centre's Auditorium
Time: 0830 - 1000

Held in the Great Hall of the Brisbane Convention & Exhibition Centre, the Opening Ceremony will feature a traditional Indigenous performance and welcome.

Congress Dinner

Date: Wednesday 19 August 2009
Venue: Plaza Terrace Room, Brisbane Exhibition and Convention Centre
Time: 1900 - 2330
Cost: A$132.00 per person
Dress: Smart Casual

Undoubtedly, the highlight of the social program is the official Congress Dinner, taking place in the Brisbane Convention & Exhibition Centre's Plaza Terrace Room. A deliciously tempting menu will be on offer along with some superb wines.

Public Events

At the 10th INTECOL Congress we'll be taking ecology to the public by incorporating some exciting events with INTECOL. Public scientific events held in

conjunction with National Science Week will provide an opportunity for delegates and their families to get involved in the scientific culture of Brisbane.

Events include*:

- **The science of sustaining our urban landscapes**
  - public lecture & panel debate hosted by INTECOL and BrisScience, and focused on urban ecology issues, sustainable urban planning and development, and the responsibility of ecologists in securing our future.
- **BYO Science (in the Pub)**
  - a wonderful chance to unwind while immersing yourself in science and opinion. Held at a famous Brisbane pub, delegates can speak their mind on current global issues relating to climate change; hosted by the ABC's Bernie Hobbs.
- **Ecology film and literature showcase**
  - finish your INTECOL conference with authors, film-makers and delegates at the Queensland Museum, Southbank, with a film and ecological literature to read, buy and discuss.
- **Public posters**
  - INTECOL delegates have the opportunity to communicate their work to the public at one of Queensland's outstanding public science venues, the Queensland Museum.

*Events are subject to change
*A small admission fee may be charged for entry to some public events

One-Day Tour Program

A range of tour opportunities have been arranged for delegates attending the Congress.

Tickets can be purchased for the following tours when registering for the Congress. Please note that payments for tours are non-refundable as of 16 June 2009.

Brisbane Highlights including Lone Pine

Time: 1300 - 1630
Cost: A$69.00 per person

Spend the afternoon exploring Brisbane. Learn a little history of the city before witnessing the spectacular views from Mt Coot-tha Lookout, visit Lone Pine, Australia's oldest Koala sanctuary and have the opportunity to 'cuddle a koala'. Lone Pine is also home to other unique Australian Fauna such as kangaroos, wallabies and wombats.

- **Tour Includes:**
  - Entry to Lone Pine Koala Sanctuary
  - Opportunity to Cuddle a Koala
  - Panoramic Views from Mt Coot-tha Lookout.

Australia Zoo - Crocodile Experience

Time: 0745 - 1800
Cost: A$115.00 per person

The Sunshine Coast, home of the Crocodile Hunter and Australia Zoo, has been a popular holiday playground for Australian and visitors alike. This tour goes directly to and from Australia Zoo, made famous by the antics of Steve and Terri Irwin and their global documentaries, now a living legacy to Steve.

Experience the best of Australia Zoo and spend almost 6 hours seeing the many shows and demonstrations including crocodile feeding and snake handling. The handlers even walk some animals through the park so you can get "up close and personal."

The Zoo has a team of over 500 who believe in "conservation through exciting education," and will ensure you have a wildlife experience you'll never forget.

- **Tour Includes:**
  - Entry to Australia's Wildlife Theme Park
  - Crocodile Feeding viewing
  - Spend 6 hours experiencing the best of Australia Zoo
  - Please note: Tour does not include lunch

Whale Watching

Time: 0745 - 1800
Cost: A$157.00 per person

Each year the magnificent humpback whales jouney some 16,000 km from Antarctica to mate and calf in the warm waters off the Barrier Reef. After mating the

whales return to Antarctica before making the whole journey again 12 months later to give birth to their calves. It is during this time we have the opportunity to view these magnificent mammals in their own environment. The Whale watch crew will explain the habits and characteristics of these amazingly gentle and knowing giants. A light lunch is served during the cruise and you will also have free time to explore Tangalooma resort.

- **Tour Includes:**
  - Cruise en route to Moreton Bay, followed by a cruise to the Whale Watch Area
  - Commentary by a qualified Marine Education Centre staff member
  - Light lunch served onboard

O'Reilly's and Mt Tamborine

Time: 0745 - 1730
Cost: A$84.00 per person

O'Reilly's is situated in the centre of the cool, quiet rainforest of World Heritage listed Lamington National Park, with spectacular panoramic views. Enroute to O'Reilly's, enjoy morning tea and a stroll along the 'Gallery Walk,' Mt Tamborine's unique local art and crafts shops.

Upon arrival at O'Reilly's, enjoy the calls of an amazing array of native birds, not to mention the friendliness and hospitality of this renowned family-owned Guesthouse. Feed the birds with specially prepared wild bird seed, and take a stroll along the 'Tree Top Walk' 16 metres above the rainforest floor. Lunch (at your own expense) is available overlooking the lush valleys below. Visit Canungra Valley Vineyards and enjoy wine tasting with these knowledgeable and friendly vintners in an historic 'Queenslande' homestead.

- **Tour Includes:**
  - Morning Tea at Mt Tamborine and Gallery Walk
  - World Heritage Lamington National Park
  - Wine Tasting at Canungra Valley Vineyards
  - Please note: Tour does not include lunch

Glow Worm Night Tour

Date: Tuesday 18 August 2009
Time: 1700 - 2330
Cost: A$120.00 per person

This tour operates with a minimum of 10 participants. Join the only Advanced Eco Accredited Glow Worm Tour visiting the World Heritage Listed rainforests of the Natural Bridge section of the Springbrook National Park. Enjoy a guided rainforest walk, glow worm viewing, stargazing, and supper in the forest.

Marvel at the wonders of the southern sky by night, as your expert guide points out stars, planets and constellations unique to Australia. Visit the unique and wondrous World Heritage listed National Parks of south east Queensland. Much of the region has been added to the World Heritage list for its universal significance and is now protected forever.

Join an eco-guide for an evening bush walk through sub-tropical rainforest, where glow worms light up the night. Learn about plants and animals unique to the area. Visit the Natural Bridge cave and it's colony of glow worms and cascading waterfall and finish the evening with supper in the forest.

- **Tour Includes:**
  - Aussie style dinner
  - World Heritage listed National Parks admission fees.
  - Guided night time rainforest eco-walk & glow worm viewing
  - Star-gazing and Surfers Paradise City lights (weather permitting)
  - Full guided commentary by experienced eco-guide
  - Torches, lamps and equipment as required.
  - Supper in the forest

Winery Visit, Wine Tasting & Picnic Lunch

Date: Thursday 20 August 2009
Time: 0900 - 1700
Cost: A$120.00 per person

This tour operates with a minimum of 10 participants. Travel in luxury coach to Canungra Valley Vineyard, where is nestled in the peaceful Canungra Valley in the Gold Coast Hinterland. Eight of the fifteen acres of land belonging to the Vineyard are 'under vine', consisting of 4,000 vines of primarily Chambourcin and Semillon grape. Enjoy wine tasting and an opportunity to purchase from a selection of local wines.

Behind the homestead runs the peaceful Canungra Creek, the perfect place to relax and enjoy a gourmet picnic baskets and a bottle of wine for lunch. After lunch try your luck at spotting the resident family of platypus in the creek, before returning to Brisbane.

Australian Outback Spectacular

Date: Thursday 20 August 2009
Time: 1730 - 2115
Cost: $155.00 per person

This tour operates with a minimum of 10 participants. Discover the Outback Spirit with Australian Outback Spectacular, an evening dinner show presented by R.M.Williams, filled with outback music, drama and action! The permanent attraction on the Gold Coast is set in a giant 1,000 seat arena with a cast of larger than life characters and amazing animals.

You will become truly immersed in the spirit and grandeur of the Australian Outback from the moment you step through the arena doors. You can pull up a stool at the Aussie pub and wet your whistle before you head into the show.

Tour Includes:
- Entry to Australian Outback Spectacular
- Aussie BBQ dinner
- Return transfers from Brisbane
- Sydney Day Tour Ideas

Field Trips

Australia and New Zealand are well known to ecologists for their ecologically diverse landscapes. Accordingly we have assembled a potential program of field trips that will visit many of these spectacular landscapes. There are pre- and post-congress trips available. The organising committee of INTECOL have negotiated a special rate for INTECOL delegates who wish to visit any of these locations. We have initially offered a considerable number of trips and urge interested participants to contact the relevant commercial operators as early as possible to avoid disappointment. The commercial operators chosen have agreed to take your bookings via their own website. ALL BOOKINGS must be arranged via the websites listed*.

For a detailed summary of each field trip please visit the website. Please note airfares and transfers are not included in the cost of field trips.

South East Queensland's Wildlife and Nature Araucaria Ecotours

Get the 'big picture' of Australia and its wildlife while seeking examples in a variety of habitats in Australia's third-highest biodiversity region, plus a wildlife park devoted to conservation breeding.

Dates: 22 - 24 August 2009
Trip begins: Brisbane, Qld, Australia
Trip concludes: Brisbane, Qld, Australia
Maximum number: 16
Cost (per person): From $418-$616 per person
Includes: meals & a range of accommodation
Enquiries to: Ronda Green
platypuscorner@bigpond.com
Bookings via Araucaria website only

Great Barrier Reef: Snorkel & Dive - Quicksilver Connections

Bookings via:
http://www.quicksilvergroup.com.au/charters.html

When booking your Great Barrier Reef experience, be sure to mention that you're an INTECOL 10 delegate, to receive 10% off any tour. This discount applies to accompanying family members or friends. Please note: August is peak tourist season in North Queensland, so be sure to get in early!

Dates: Discounted rates available between 9 - 28 August 2009
Trip begins: Cairns and Port Douglas
Trip concludes: Cairns and Port Douglas
Maximum number: varied
Cost (per person): various depending on tour choice
Includes: lunch provided on most tours
Enquiries to: centralres@greatadventures.com.au
Bookings via website only

Kakadu Highlights - Willis's Walkabouts

Willis's Walkabouts is a renowned Australian bushwalking ecotour provider. You are guaranteed a fabulous bushwalking experience with Russell Willis's crew, exploring the magic of Kakadu National Park in the Northern Territory. Please be sure to assess this tour against your physical fitness levels.

Visit the website for an overview of the 2008 Kakadu Highlights tour. You can expect the 2009 experience to be just as spectacular.

Dates: 23 August - 5 September 2009
Trip begins: Darwin, Northern Territory, Australia

Trip concludes: Darwin, Northern Territory, Australia
Minimum number: 4
Maximum number: 12
Cost (per person): From $2095 per person (before discount)
Includes: Meals and camping accommodation, pick up/drop off from Darwin, accommodation can be arranged
Enquiries to: Russell Willis
rrwillis@internode.on.net
Bookings via website only

Fraser Island, Kingfisher Bay Resort EcoTours

World Heritage-listed Fraser Island is a rare and beautiful holiday destination, on the southern tip of the Great Barrier Reef. The world's largest sand island is famous for its untamed wilderness and rugged, natural charm.

The beautiful, eco-friendly Kingfisher Bay Resort has provided INTECOL delegates with a range of options and discounts if you book your trip to Fraser Island before 5 August 2009. Visit the website to view and accommodation packages available. All bookings must be made directly through Kingfisher Bay Resort.

Dates: 5 August - 5 September 2009
Minimum number: varied depending on tour
Maximum number: varied depending on tour
Cost (per person): varied depending on accommodation and tour choices
Enquiries to: (0011 61) 1800 072 555
Bookings via website only

Attempts will be made during this period of 5 Aug - 5 Sept 2009, for delegates to be involved in current ecological research or activities on Fraser Island.

Island Conservation in New Zealand

Invasive mammals are the biggest threat to much of New Zealand's wildlife that evolved in the virtual absence of mammals. The use of mammal pest-free islands and 'mainland islands' is a major conservation strategy for many of the most vulnerable New Zealand endemics. Visit two cutting-edge conservation projects - Tiritiri Matangi Island and the Maungatautari Ecological Island - with local ecologists to meet some of New Zealand's most endangered wildlife and to discuss their ecological challenges and opportunities.

Dates: 22 - 24 August 2009
Trip begins: Auckland, New Zealand
Trip concludes: Auckland, New Zealand
Minimum number: 10
Maximum number: 30
Cost (per person): NZ$390
Includes: Most meals and backpacker style accommodation
Enquiries to: Bruce Burns, b.burns@auckland.ac.nz

New Zealand Volcanic Ecosystems

New Zealand sits astride the Pacific 'Ring of Fire' and vulcanism has shaped both the landforms and the biota. Take a tour through three indigenous ecosystems determined by past and present volcanic activity with local ecologists. In Auckland, visit the island of Rangitoto where Metrosideros dominant forest invades relatively recent a'a lava; in Rotorua visit ecosystems shaped by continuing geothermal activity; and at Tongariro visit ecological successions occurring on an active volcano.

Dates: 22 - 24 August 2009
Trip begins: Auckland, New Zealand
Trip concludes: Auckland, New Zealand
Minimum number: 10
Maximum number: 30
Cost (per person): NZ$390
Includes: Most meals and backpacker style accommodation
Enquiries to: Bruce Burns, b.burns@auckland.ac.nz

Forest Ecosystems and Conservation in New Zealand

New Zealand indigenous forests are dominated by endemic species of Gondwanan ancestry. Take a tour through the three major old-growth forest formations in New Zealand with a leading forest ecologist, and discuss the composition, dynamics, history, and conservation of these forests full of ancient conifers, southern beech, and subtropical angiosperms.

Dates: 22 - 25 August 2009
Trip begins: Auckland, New Zealand
Trip concludes: Auckland, New Zealand
Minimum number: 10
Maximum number: 30
Cost (per person): $450
Includes: Most meals and accommodation

Enquiries to: Bruce Burns, b.burns@auckland.ac.nz
Bookings via website only

Kaikoura Marine Mammals

Requires travel to Christchurch on the weekend following INTECOL. Spend either Saturday or Sunday on a whale-watching day trip to Kaikoura, renowned for its variety of marine mammals. You'll enjoy a scenic drive through the rolling hill country of North Canterbury, go on a whale-watching boat tour from Kaikoura, visit a seal colony and complete the day with a wine tasting at a local vineyard. Does not include accommodation costs in Christchurch.

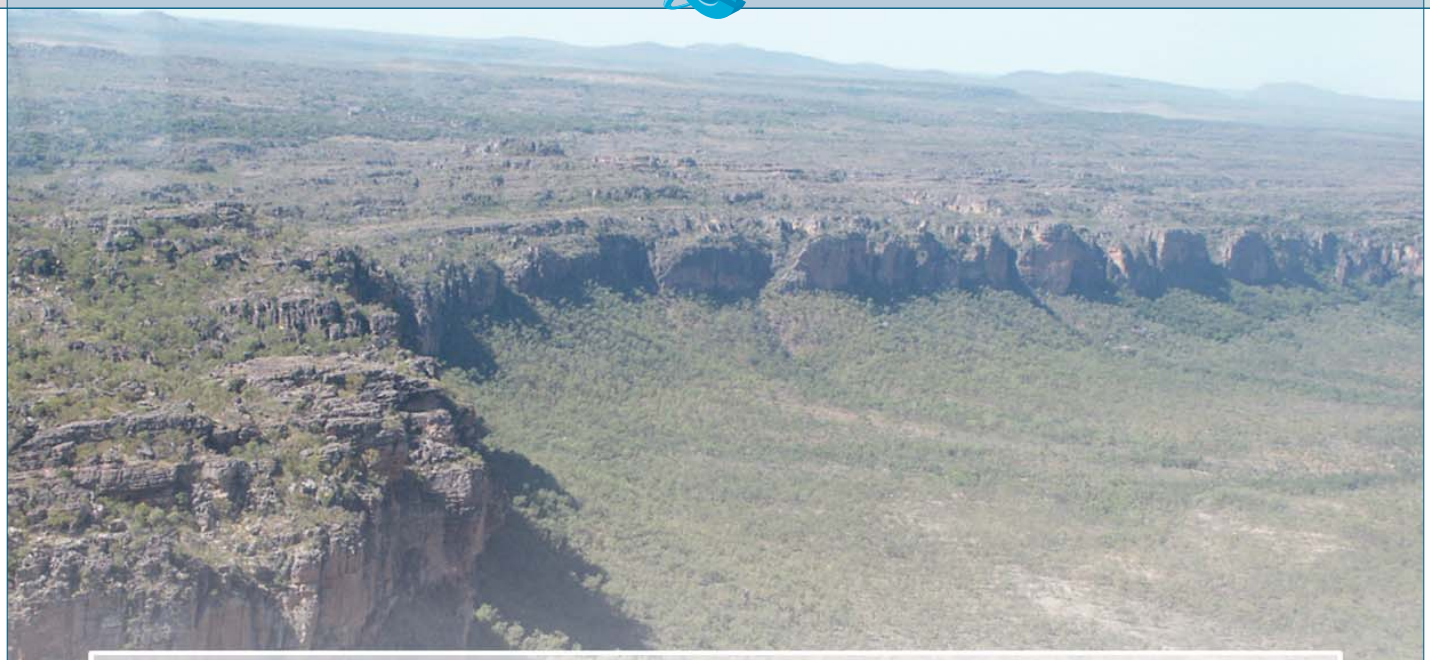
Dates: 22 or 23 August 2009
Trip begins: Christchurch, New Zealand
Trip concludes: Christchurch, New Zealand
Minimum number: no minimum
Maximum number: no maximum
Cost (per person): Approx. NZ$250
Includes: Transport and whale-watching cruise
Enquiries and bookings to: http://www.nz.com/new-zealand/activities/christchurch/kaikoura-whale-watch-day-tour-from-christchurch.aspx

Visit www.intecol10.org to register or receive further information about the Congress.

We look forward to welcoming you down under!

Address for Communications
INTECOL 2009 Congress Managers
C/- Tour Hosts Pty Ltd
GPO Box 128
Sydney, NSW, 2001 AUSTRALIA
Tel: +61 2 9265 0700
Fax: +61 2 9267 5443
Email: intecol10@tourhosts.com.au
Website: http://www.intecol10.org/

Kakadu Park, Australia (Photo by Sun-Kee Hong)



INTECOL, International Association for Ecology

INTECOL is affiliated with the ICSU family of scientific organizations as the section responsible for general ecology within the International Union of Biological Sciences (IUBS). The association will assist and/or support the development of the science of ecology and the application of ecological principles to global problems, especially by assisting international cooperation; the collection, evaluation and distribution of information about ecology; national, regional and international actions which will serve ecological research, training of personal, coordination of general publications of ecological principles and the recognition of the importance of ecology for economy and society; the organization of conferences, meetings, symposia, programs and projects, conduct of speaking-series, publication of manuscripts, and measures which are deemed necessary to reach the goals of the association.

Website: *http://www.intecol.org*
Bulletin Editor: *Sun-Kee Hong (landhong@yahoo.co.kr;intecol.bulletin@gmail.com)*

Deadline for sending information for next e-Bulletin

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Kakadu Park, Australia (Photo by Sun-Kee Hong)