Keynote Speakers

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Dr Alan Andersen is a Chief Research Scientist with CSIRO Sustainable Ecosystems based at the Tropical Ecosystems Research Centre in Darwin, where he has been since 1986. He leads CSIRO’s Tropical Savannas group, a team of 25 ecologists, social scientists and support staff whose mission is to deliver environmental, social and economic benefits to Australia’s tropical savanna region. He also leads CSIRO’s broader research on fire and carbon management in regional Australia, which is identifying the biophysical, economic and social opportunities for remote communities relating to land management for greenhouse gas abatement. Dr Andersen has a special research interest in the biogeography and global ecology of ant communities.

Tim O'Hara is currently Deputy Head of Science at Museum Victoria, has been a curator at the museum since 2001. During that time he has been interested in using accumulated museum collections to answer large-scale questions about how and why marine animals are distributed around the southern hemisphere. This research has included aspects of echinoderm biology, ecology, biogeography, phylogeny and taxonomy.

Ross Crozier’s interest in social insects began from watching ants and termites in Southeast Asia as a child; he is an evolutionary geneticist still working mainly on ants. A graduate of Melbourne (B Sc., M Sc) and Cornell (PhD) universities, he is an Australian Academy member and an ARC Australian Professorial Fellow. Dr John Woinarski is a principal scientist with the Northern Territory's Department of Natural Resources Environment The Arts and Sport, and an adjunct professorial fellow at the School for Environmental Research, Charles Darwin University. He has worked on a very wide range of biodiversity conservation issues in northern Australia for the last 20 years, with this work recognised with awards of a Eureka Prize for biodiversity research (2001), Serventy Prize for life-time contribution to ornithology (2001), Northern Territory Tropical Knowledge Research and Innovation Award (2008) and the Northern Territory's Chief Minister's Prize for Research and Innovation (2008).

Dr Ian Poiner is the Chief Executive Officer of the Australian Institute of Marine Science. Dr Poiner has significant experience in strategic development and planning of science, both as a practicing scientist and at the organisational level. This is reflected in his successful large-scale, multi-disciplinary research projects and his establishment of national and international research programs to support the sustainable use, conservation and management of marine ecosystems. Dr Poiner’s scientific background is research into tropical fisheries and ecological systems, including in Australia’s northern Great Barrier Reef, Torres Strait and the Gulf of Carpentaria. He has also worked in Jamaica, Papua New Guinea and Southeast Asia. Dr Poiner serves on a number of national and international committees. He is currently Chair of the International Scientific Steering Committee of the Census of Marine Life, a ten year international research program to assess and explain the diversity, distribution and abundance of marine organisms throughout the world’s oceans. As CEO of AIMS, he is responsible for managing the day-to-day affairs of the Institute. Mike Crisp is a plant systematist whose research concerns the macro-evolutionary origins and patterns of diversification of organisms, especially Australian plants, in time and space. His research in systematics investigates the evolutionary origins and patterns of diversification of organisms, especially plants, in time and space. Mike Crisp’s research group estimates phylogenies (evolutionary trees) as a framework for testing hypotheses in biogeography and macro-evolution, and for classifying and naming organisms. A diversity of evidence is used, including DNA sequences, morphology and secondary plant compounds.

Daniel Faith's research at the Australian Museum integrates biodiversity and systematics, including "biodiversity informatics". Much of his research is concerned with theory and applications of quantitative biodiversity assessment. This work extends from the scale of genes to whole countries. Special emphasis has been given to the best-possible use of Museum collections in regional biodiversity assessment, and to the links from biodiversity assessment to sustainability and economics. Applied biodiversity research also includes work on methods for detecting environmental impacts.

A phylogenetic component of Dan's biodiversity research arises through investigations of "phylogenetic diversity" and conservation. Other work in phylogenetics involves development and application of phylogenetic methods, philosophy of science, and editorial work for Systematic Biology.

Prof. Alan Cooper is the Director of the Australian Centre for Ancient DNA (ACAD) and specialises in using ancient DNA to record and study evolutionary processes in real time, especially those associated with environmental change. His work ranges over timescales of hundreds of years old (eg museum specimens) to material well beyond the ca. 60 kyr range of carbon-dating, such as permafrost-preserved bones of mammals and sediment dating to >300 kyr. Prof. Cooper‚s research is characterised by multi-disciplinary approaches involving the combination of information from areas such as geology, archaeology, anthropology, and even forensics to provide novel views of evolution, population genetics and palaeoecology. Recent research highlights include the use of Ice Age mammal populations to record the effects of environmental change, the first complete mitochondrial genome sequences of any extinct species (two New Zealand moas), and the study of how evolutionary rates change over time.

Current research features studies of Australian megafaunal species, permafrost preserved material from the Arctic and Antarctic, ancient human DNA (modern human, Neandertals and Flores hominids), and DNA from sedimentary deposits

(marine, terrestrial and freshwater). He is also heavily involved in developing new molecular biology techniques to both improve the ability to recover DNA from the past (eg nuclear genomes, mass sequencing approaches), and to analyse the authenticity of aDNA data. This involves recording how DNA is damaged over time, and the effects on retrieved sequence information (which is relevant for forensics work).