



PROTECTED AREAS

LEARNING & RESEARCH COLLABORATION

Fostering excellence in governance and management of protected areas in the Asia Pacific and Oceania regions

Research Capacity

The partners in the ***Protected Areas Learning and Research Collaboration*** are developing a portfolio of applied research to complement the partnership's teaching and learning activities.

To help build this research portfolio, we are:

1. Establishing contact with protected area researchers and managers throughout South East Asia, Australasia and the Pacific to identify areas of mutual research interest.
2. Visiting potential research collaborators in the region to further explore opportunities.
3. Hosting targeted workshops for researchers, research users and funders to develop research proposals.

This document outlines the research skills and experience within the Australian ***Protected Areas Learning and Research Collaboration*** partners as background to these activities.

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Areas of Expertise

Natural Values Conservation

Expertise in terrestrial, freshwater and marine ecology; conservation biology; ecosystem and species management; geo-heritage assessment and conservation; Indigenous land management

- Prof [David Bowman](#) (University of Tasmania) is an internationally renowned ecologist specialising in understanding the long term dynamics of vegetation and the role of fire in the Earth system.
- Prof [Barry Brook](#) (University of Tasmania) is globally recognised for his expertise in climate change impacts, species extinctions, energy systems analysis and synergistic modelling of human impacts on the biosphere.
- Prof [John Woinarski](#) (Charles Darwin University) has 25 years' experience studying the causes, monitoring and management of mammal decline in Australia and the development of management strategies for threatened species.
- Prof [Elissa Cameron](#) (University of Tasmania) is a wildlife ecologist specialising in the ecology, behaviour and conservation of mammals with experience in Africa, North America, Australia and New Zealand.
- Prof [Neal Enright](#) (Murdoch University) ecology and management of native plant species and communities in fire-prone ecosystems, and of climate change impacts on native vegetation of Mediterranean-climate type shrublands and woodlands.
- Dr [Joe Fontaine](#) (Murdoch University) assessing bushfire threat and impact of shortened fire intervals, examining impacts of high-severity fire and post-fire management on forest

development and wildlife, investigation of the impacts of urbanisation on Mediterranean woodlands.

- Prof [Chris Johnson](#) (University of Tasmania) is an Australian Research Council Professorial Fellow and internationally renowned conservation biologist specializing in the conservation of mammals with a particular interest in environmental history and the biology of extinction.
- Prof [Craig Johnson](#) (University of Tasmania) is a marine ecologist with expertise in the management of marine, coastal and estuarine environments, especially the management of invasive species and rewilding.
- Assoc Prof [Menna Jones](#) (University of Tasmania) is a mammalian conservation biologist and evolutionary ecologist specializing in carnivores with a particular interest in the concept of trophic rewilding.
- Prof [Jamie Kirkpatrick](#) (University of Tasmania) is a geographer with a background in research and teaching that integrates social and physical geography to solve problems in nature conservation.
- Assoc Prof [Trish Fleming](#) (Murdoch University) translational biology, where improving our understanding of the physiology and behaviour of vertebrates has conservation or welfare implications.
- Dr [Peter Spencer](#) (Murdoch University) conservation, epidemiology and disease modelling based on Australian mammals and feral animal genetics, the development of laboratory best practice for the application of DNA technology in wildlife forensics.
- Prof [Michael Douglas](#) (Charles Darwin University) is a freshwater ecologist with experience managing large research collaborations. He is on the board of Kakadu National Park and chairs that park's Research Committee.
- Prof [Mike Lawes](#) (Charles Darwin University) has expertise in the management of fire and invasive animals in protected areas.
- Prof [Giles Hardy](#) (Murdoch University) the impact of diseases on ecosystem function and health in managed (mining rehabilitation, horticultural, plantation forestry, agricultural) and natural ecosystems.
- Assoc Prof [Belinda Robson](#) (Murdoch University) rivers and wetlands, examining the sustainability of biodiversity in agricultural, urban and conservation landscapes, especially freshwater ecosystems and riparian zones; refuges from disturbance for biodiversity in landscapes especially refuges from drought and anthropogenic refuges.
- Assoc Prof [Samantha Setterfield](#) (Charles Darwin University) has extensive experience researching invasive plants particularly tropical grasses in protected areas.
- Dr [Natalie Rossiter-Rachor](#) (Charles Darwin University) has extensive experience with invasive tropical grasses especially Gamba Grass (*Andropogon gayanus*) in protected areas.
- Dr [Jane Chambers](#) (Murdoch University) wetlands, rivers and estuaries, primarily in the areas of ecosystem processes, management and restoration; the interaction between aquatic plants and their environment, at an ecosystem scale.
- Dr [Fiona Valesini](#) (Murdoch University) coastal and estuarine ecologist with a particular interest in fish and benthic invertebrate communities and their relationships with the environment.
- Prof [Lynnath Beckley](#) (Murdoch University) oceanography, fish larvae recruitment, marine reserve planning and management, spatial analyses of human use of marine environments.
- Prof [Neil Loneragan](#) (Murdoch University) Population biology and ecology of fish and invertebrates, relationships between aquatic habitats (e.g. seagrass, mangroves and coral

reefs) and fisheries production and biodiversity, interactions of fisheries with community livelihoods, protected areas, the environment and non-target species, such as dolphins.

- Dr [Naomi Gardiner](#) (James Cook University) is a marine ecologist specialising in coral reef ecology and marine conservation with a focus on communities within the coral-triangle region (tropical Indo-Pacific).
- Dr [Damien Burrows](#) (James Cook University) is a freshwater and estuarine ecologist and Director of TropWATER – large multi-disciplinary research group specialising on applied research in tropical freshwater, estuarine and marine aquatic systems and the major activities affecting their management.

Cultural Values Conservation

Expertise in Indigenous cultural heritage values and management; Indigenous land management; post-colonial cultural heritage values and management

- Dr [David Palmer](#) (Murdoch University) community development, community work with Aboriginal Australians, working in remote Australia, conservation heritage.
- Dr [Jennifer Strickland-Munro](#) (Murdoch University) Aboriginal association with protected areas, sustainable protected area tourism and community livelihoods.

Atmosphere, Fire and Water

Expertise in climate change impacts, mitigation and adaptation; fire ecology and management; catchment hydrology and management of freshwater systems; oceanography

- Prof [David Bowman](#) (University of Tasmania) is an internationally renowned ecologist specialising in understanding the long term dynamics of vegetation and the role of fire in the Earth system.
- Adj. Prof. [Jeremy Russell-Smith](#) (Charles Darwin University) has expertise in savanna fire management including payments for ecosystem services from Indigenous fire management with Prof. Bob Costanza at the Australian National University.
- Prof [Barry Brook](#) (University of Tasmania) is globally recognised for his expertise in climate change impacts, species extinctions, energy systems analysis and synergistic modelling of human impacts on the biosphere.
- Prof [Peter Davies](#) (University of Tasmania) has 30 years expertise in conservation of freshwater ecosystems including aquatic food web structure, the effects of forestry and exotic fish on stream ecology and native fish restoration.
- Assoc Prof [Leon Barmuta](#) (University of Tasmania) is a freshwater ecologist with expertise in biological monitoring and impact assessment and the influence of habitat complexity on species interactions.
- Dr [Joanna Ellison](#) (University of Tasmania) has expertise in catchment geomorphology, coastal geomorphology and processes of change.
- Prof [Tom Lyons](#) (Murdoch University) air-surface interaction, applied boundary-layer meteorology, air pollution, greening of cities and climate.
- Assoc Prof [Frank Murray](#) (Murdoch University) impacts of air pollution, climate change, the management of these impacts and the policies needed to address them; impacts of air pollutants on human health, impacts on vegetation and ecosystems, impacts of climate change, vulnerability, resilience and adaptation.
- Dr [Jon Luly](#) has expertise in fire and vegetation history, ecosystem health, carbon sequestration in arid landscapes, the ecology and conservation of tropical bats as well as World Heritage issues associated with sites listed for paleontological values.

- Prof [Neal Enright](#) (Murdoch University) ecology and management of native plant species and communities in fire-prone ecosystems and of climate change impacts on native vegetation of Mediterranean-climate type shrublands and woodlands.
- Dr [Joe Fontaine](#) (Murdoch University) assessing bushfire threat and impact of shortened fire intervals, examining impacts of high-severity fire and post-fire management on forest development and wildlife, investigation of the impacts of urbanisation on Mediterranean woodlands.
- Dr [Jane Chambers](#) (Murdoch University) wetlands, rivers and estuaries, primarily in the areas of ecosystem processes, management and restoration; the interaction between aquatic plants and their environment, at an ecosystem scale.
- Prof [Lynnath Beckley](#) (Murdoch University) oceanography, fish larvae recruitment, marine reserve planning and management, spatial analyses of human use of marine environments.
- Assoc Prof [Scott Smithers](#) (James Cook University) is a physical geographer with 25 years experience working in tropical landscapes, with a particular focus on coral reef systems and environmental changes, both natural and anthropogenically forced.
- Prof [Steve Turton](#) (James Cook University) researches climate change impacts and adaptation in natural areas and contested landscapes (esp. in the tropics), climate change effects on ecosystem services and prioritization of areas of the landscape suitable for future carbon sequestration and biodiversity benefits.

Sustainable Use

Expertise in sustainable resource management (marine, freshwater and terrestrial); recreation and tourism management

- Prof [Reg Watson](#) (University of Tasmania) is a fisheries scientist with an international reputation in stock assessment, fisheries management and the ecological impacts of climate change.
- Prof [Neil Loneragan](#): Population biology and ecology of fish and invertebrates, relationships between aquatic habitats (e.g. seagrass, mangroves and coral reefs) and fisheries production and biodiversity, interactions of fisheries with community livelihoods, protected areas, the environment and non-target species, such as dolphins.
- Assoc Prof [Carol Warren](#): the environment, land tenure, rural development and cultural heritage policy and protected areas in Southeast Asia.
- Prof [Susan Moore](#) (Murdoch University) natural area tourism, especially visitor research and management, social and governance aspects of biodiversity conservation, protected area planning and management.
- Dr [Aggie Wegner](#) (Charles Darwin University) conducts research into ecotourism including in protected areas and is currently Associate Dean Research in the Law, Economics, Business and Arts Faculty
- Assoc Prof [David Newsome](#) (Murdoch University) environmental scientist with expertise in wildlife tourism, geotourism and biophysical impacts of natural area tourism.
- Dr [Kate Rodger](#) (Murdoch University) human-wildlife interactions, visitor impacts on the natural environment, linking science and policy, integrating ecological and social science in nature tourism research.
- Dr [Michael Hughes](#) (Murdoch University) policy and management of land for different values, nature based tourism management, especially natural area visitor experiences and behaviour.

- Dr [Diane Lee](#) (Murdoch University) sustainable tourism development, including host community attitudes, cultural tourism, nature based tourism, and resource economics.
- Dr [Joanna Pearce](#) (Murdoch University) management of visitors to protected areas, place attachment.
- Dr [Jennifer Strickland-Munro](#) (Murdoch University) Aboriginal association with protected areas, sustainable protected area tourism and community livelihoods.
- Dr [Andrew Chinmiri](#) (James Cook University) has expertise in marine fisheries research and management specialising in tropical multi-species coastal fisheries. He also has experience in sustainable tourism specialising in marine mega-fauna and coral reef ecotourism, and has extensive experience in risk and impact assessment, MPA monitoring and evaluation, and State of the Environment auditing and reporting.
- Dr [Miriam Goosem](#) (James Cook University) has 25 years of expertise in human impact assessment and mitigation, fragmentation, road ecology, recreation impacts and restoration of connectivity.

Governance and Policy

Expertise in governance design and implementation; community-based governance models; rights and stakeholder engagement

- Assoc Prof [Michael Lockwood](#) (University of Tasmania) has expertise in environmental governance assessment and design.
- Prof [Jan McDonald](#) (University of Tasmania) is an environmental lawyer with expertise in the legal and policy dimensions of climate change adaptation.
- Prof [Ben Richardson](#) (University of Tasmania) is an environmental lawyer with expertise in climate change law, socially responsible investment, corporate social responsibility and Indigenous legal issues.
- Assoc Prof [Kate Crowley](#) (University of Tasmania) has expertise in climate change policy, policy theory and analysis, and environmental politics and policy.
- Assoc Prof [Carol Warren](#) (Murdoch University) the environment, land tenure, rural development and cultural heritage policy in Southeast Asia.
- Dr [Michael Hughes](#) (Murdoch University) policy and management of land for different values, nature based tourism management, especially natural area visitor experiences and behaviour.
- Assoc Prof [Angus Morrison-Saunders](#) (Murdoch University) the effectiveness of environmental impact assessment, strategic assessment and governance, sustainable tourism, environmental education.

Protected Area Planning and Management

Expertise in reserve system planning; management planning; monitoring design and technology; tourism management, conservation management

- Assoc Prof [Michael Lockwood](#) (University of Tasmania) has expertise in protected area planning and management and is co-editor of 'Protected Area Governance and Management'.
- Dr [Sally Bryant](#) (Tasmanian Land Conservancy) has 30 years' experience in conservation management with a particular interest in threatened species and nature conservation on remote islands.
- [Stuart Cowell](#) (Tasmanian Land Conservancy) is an expert in facilitation and training in the Open Standards for the Practice of Conservation specialising in Indigenous protected area planning.

- Prof [Stephen Garnett](#) (Charles Darwin University) works at the intersection of natural and cultural resource management including protected area planning and strategy in Northern Australia, Wallacea and the Galapagos; the intersection of protected area policy and threatened and migratory species and the measuring the effectiveness of Indigenous land management.
- [Daniel Sprod](#) (Tasmanian Land Conservancy) has 25 years' experience in conservation planning including training in and implementation of the Open Standards framework for conservation planning.
- Dr [Natasha Stacey](#) (Charles Darwin University) evaluation of protected area joint management, Indigenous livelihoods, protected area planning and strategy in Northern Australia and Wallacea
- Prof [Susan Moore](#) (Murdoch University) natural area tourism, especially visitor research and management, social and governance aspects of biodiversity conservation, protected area planning and management.
- Assoc Prof [David Newsome](#) (Murdoch University) environmental scientist with expertise in wildlife tourism, geotourism and biophysical impacts of natural area tourism.
- Dr [Kate Rodger](#) (Murdoch University) human-wildlife interactions, visitor impacts on the natural environment, linking science and policy, integrating ecological and social science in nature tourism research
- Dr [Michael Hughes](#) (Murdoch University) policy and management of land for different values, nature based tourism management, especially natural area visitor experiences and behaviour.
- Prof [Lynnath Beckley](#) (Murdoch University) oceanography, fish larvae recruitment, marine reserve planning and management, spatial analyses of human use of marine environments.
- Em. Prof [Paul Eagles](#) (Murdoch University) best practice guidelines for outsourcing of tourism services in parks and practices, park tourism finance, park tourism governance, tourism management in ecolodges.

Spatial Analysis

Expertise in remote sensing technologies and applications; geographic information systems software and applications

- Prof [Matt King](#) (University of Tasmania) is a spatial scientist whose expertise includes measuring sea level change and researching ice sheet dynamics.
- Dr [Arko Lucieer](#) (University of Tasmania) is an expert in environmental remote sensing focusing on the analysis of satellite and airborne imagery
- Dr [Christopher Watson](#) (University of Tasmania) is a spatial scientist whose expertise includes analyses of data from the Global Positioning System, ocean altimetry and high precision surveying.
- Dr [Halina Kobryn](#) (Murdoch University) spatial data analysis, remote sensing and their applications in natural resource monitoring and management.
- Dr [Margaret Andrew](#): the application of geospatial methods to conservation planning and assessment, landscape ecology, and biodiversity research.
- Dr [April Reside](#) (James Cook University) is a vertebrate ecologist with expertise in spatial modelling for climate change impacts and systematic conservation planning.
- Prof [Bob Pressey](#) (James Cook University) specialises in conservation planning, measuring conservation impacts, decision-support systems.

Social and Economic Dimensions of Conservation

Expertise in social values assessment, communication and education; citizen science; economic evaluation; sustainable finance

- Prof [Andrew Campbell](#) (Charles Darwin University) has expertise in the social determinants of natural resource management and was Australia's inaugural National Landcare Facilitator.
- Dr [Amy Diedrich](#) (James Cook University) has expertise in the social-ecological dimensions of environmental conservation and management, with an emphasis on coastal communities and small islands.
- [Julian Gorman](#) (Charles Darwin University) has experience researching Indigenous enterprise development, within and outside protected areas.
- Prof [John Tisdell](#) (University of Tasmania) is a resource economist with expertise in fisheries and water management and the use of experimental economics in conservation and natural resource management.
- Prof [Ted Lefroy](#) (University of Tasmania) has a background in rural development and extension in Australia and the South Pacific and expertise in research management and science communication.
- Assoc Prof. [Michael Lockwood](#) (University of Tasmania) has expertise in protected area values and social survey design and implementation.
- Dr [Kerstin Zander](#) (Charles Darwin University) economic modelling of PA values, including contingent valuation methodologies
- Dr [Catherine Baudains](#) (Murdoch University) the importance of citizen science and social research for effective environmental management, novel community engagement strategies to improve understanding of climate change.
- Assoc Prof [Angus Morrison-Saunders](#) (Murdoch University) the effectiveness of environmental impact assessment, strategic assessment and governance, sustainable tourism, environmental education.
- Prof [Jeff Sayer](#) (James Cook University) has expertise in broad natural resource issues with a special focus on landscape approaches and forests. His recent work has addressed the need for evidence to assess trade-offs between conservation and poverty alleviation and includes several studies around protected areas in Indonesia and the Congo Basin.
- Dr [Intu Boedhihartono](#) has expertise in dealing with indigenous peoples' and minority issues in and around protected areas in the Congo Basin and Indonesia and she makes extensive use of visual techniques to explore conservation scenarios in a landscape context.