



Savanna & Arid Ecology

The Research Institute for the Environment and Livelihoods (RIEL) conducts internationally recognised research aimed at understanding the wildlife and improving the management of savanna and arid environments in Australia and globally. Indigenous partnerships are an intrinsic part of our Savanna and Arid Ecology research approach.

PROJECTS & OPPORTUNITIES

RIEL strives to make a real-world impact. We collaborate and engage with a wide range of research and industry partners to ensure that we contribute to the knowledge and sustainable management of unique savanna and arid ecosystems.

Our research strengths include:

- > Assessing the ecosystem responses to changes in fire frequency, climate and land use change;
- > Quantifying and modelling carbon and water cycles in north Australian ecosystems;
- > Researching environmental impacts and behavioural adaptations of invasive and feral animal and plant species;
- > Examining the impacts of deforestation on greenhouse gas emissions and water resources in northern Australia;
- > Investigating the restoration of ecosystems and ecosystem services following mining;
- > Studying physiological adaptations of amphibians and reptiles to savanna and arid environments;
- > Developing innovative methodologies to evaluate climate change impacts on turtle breeding in the Amazon;
- > Implementing a world first program for a savanna burning carbon industry in Northern Australia;

- > Understanding the role of biodiversity hotspots and refuge 'islands' in a 'sea' of savanna;
- > Leveraging space technology and big data analytics for mapping and monitoring essential biodiversity variables.

RESEARCH

Our research focuses on:

- > Amphibian and reptile ecology and physiology;
- > Arid zone ecology;
- > Animal movement and behaviour;
- > The use and impact of fire as a land management tool;
- > Invasive plant and animal management;
- > Native vegetation restoration;
- > Threatened species management;
- > Refugia and biodiversity.

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