Why is the research needed?

Biodiversity offsets are prescribed as conditions of approval for development that impact on threatened species and ecological communities listed under the Environment Protection and Biodiversity Conservation Act (1999). To properly compensate for these impacts, offsets must deliver a measurable benefit for the affected species and ecological communities. Offsets are commonly delivered via the legal protection of land, which aims to provide a measurable benefit in the area and quality of habitat protected. However, the risk that the combined impacts of many small developments may imperil the viability of a threatened species are not fully captured and adequately compensated.

Another challenge of biodiversity offsetting is that development impacts and offset benefits are calculated on a project-by-project basis. This poses the risk that the combined impacts of many small developments may collectively imperil the viability of a threatened species.

A more coordinated approach to biodiversity offsetting presents opportunities for improved outcomes through jointly targeted actions.

How will the research help?

Decision makers rely on rapid and easy access to high-quality information on the costs and benefits of management activities when prescribing offset conditions.
This project will draw upon formal expert elicitation and cost-effectiveness analyses to deliver guidance for new offset approaches and strategies for threatened species and ecological communities.

In particular the research will deliver:

- a review of current offsetting policy and practice to identify unresolved challenges and opportunities for improvement
- guidance on how to estimate the benefit of protecting land as an offset
- an expert elicitation protocol that can be used by stakeholders to inform offset priorities for a broad range of threatened species and ecological communities
- a framework to identify the range of costs incurred by the design, implementation and delivery of offset activities
- a portfolio of actions with known and quantifiable, on-ground benefits for key threatened species and communities, along with estimated costs
- a framework to help decide when innovative threat-abatement offsets are likely to be more cost-effective than a traditional habitat protection offset
- a review of strategic offsetting approaches identifying their benefits and challenges

What research activities are being undertaken?

The project team will:

- Identify which threatened species and ecological communities most commonly trigger controlled action decisions requiring offset requirements under the EPBC Act, and the type of offsets typically used for them
- Develop a framework of indicative costs for different types of offset actions that can inform offset planning
- Review the current state of knowledge of the costs of on-ground offset activities
- Investigate what offset strategies are typically employed for this subset of threatened species and ecological communities
- Undertake targeted expert elicitation with ecological experts to derive estimates of the expected benefits and costs of management actions to inform offset conditions
- Conduct cost-effectiveness analyses to compare the relative merits of traditional habitat protection and alternative threat abatement offsets.

Who is involved?

The research project is being undertaken by researchers from the University of Queensland, University of Melbourne and University of Western Australia and RMIT University, who are working collaboratively with colleagues in State and Commonwealth Government departments, non-government organisations and threatened species recovery teams.

Where is the research happening?

The research is drawing on several case studies which are distributed across Australia, including the Malleefowl, Far Eastern Curlew and Northern Quoll.

When is the research happening?

The project commenced in 2016 and will run until the end of 2019.