PROGRESS REPORT ON PROJECT SUPPORTED BY PADDY PALLIN SCIENCE GRANT

Instructions to Project Leaders for Completing This Form

Progress reports are required to be submitted 12 months after the start of the project, and then at 18-24 months as a final report . Grants usually begin on the 15^{TH} September in the year in which the grant was awarded. Payment of the second grant installment is contingent upon the receipt of this material. Updates are to be provided during the tenure of the grant, and at the time the final report is submitted. Payment of the final grant installment is contingent upon receipt of the final summary which is to summarize the outcomes of the project during the tenure of the grant.

1. PROJECT IDENTIFICATION

1.1 PROJECT TITLE

"The Dingo Menace" – a cross-continental and comparative study of farmer behaviour and attitudes towards dingoes

1.2 ADMINISTERING ORGANISATION

The University of Sydney

1.3 PROJECT LEADER AND PARTICPANTS

Lily van Eeden, supervised by Chris Dickman, Mat Crowther, and Tom Newsome

2. PROJECT DESCRIPTION & OBJECTIVES

2.1 100- Word Project Summary

Farmers are at war with dingoes because they threaten their livestock and their livelihoods. As such, Australia spends \$60 million annually on (mostly lethal) dingo control. Concurrently, scientists are recognising increasingly the important role that large predators, like dingoes, play in both regulating ecosystems and biodiversity conservation. To resolve this impasse, it is essential we understand the social and political barriers that prevent us from coexisting with dingoes.

Australia is lagging behind other nations in adopting evidence-based predator management, but we can learn from the experiences of other nations which successfully coexist with predators. I propose to draw comparisons between wolf management in the USA and the dingo context in Australia. Furthermore, I propose to compare attitudes of Australian farmers' towards dingoes in the 1950s to that of today. Using interdisciplinary approaches, my research will address the emotional, financial, and environmental costs of dingo management facing rural communities. This cross-continental and temporal comparison will provide a unique opportunity to identify the reasons why dingo management has (or hasn't) changed, thus allowing me to develop appropriate solutions to replace ineffective dingo management practices.

2.2 Summary of original objectives (150 words max)

The research aims to:

- Compare farmers' behaviours and attitudes towards dingoes over 60 years;
- Identify farmers' attitudes towards a range of lethal and non-lethal management strategies;
- Quantify how a trade-off between the risks and benefits of retaining dingoes is perceived by farmers;
- Develop a social network map of stakeholders influencing the use of different management methods;
- Identify whether perceiving wildlife to hold intrinsic value is linked with different dingo management decisions; and
- Compare the social and political contexts that shape Australia's dingo management system with those of North American wolves.

3. PROJECT OVER DURATION OF FOUNDATION GRANT

3.1 Have there been any changes to the project? If yes give details

This could include changes to the research Project resulting from funding from the Foundation being at a lower level than requested. By indicating changes to the budget, aims and research plan in the Report, you are requesting approval from the Foundation for a revision of the Project. A 'satisfactory' assessment of the Report and the Project by the Paddy Pallin Grants Committee means that the revision has been approved.

After being awarded a Paddy Pallin Science Grant, I was also successful in obtaining a Fulbright Scholarship to spend 10 months of my PhD based at the University of Washington. The Fulbright Scholarship (among other things) allowed me to expand the US-based component of my research, and the Paddy Pallin Science Grant has been critical in allowing me to undertake field work because Fulbright does not provide funding for research or domestic travel expenses (only living and relocation costs).

One aspect of expanding my research in the USA is that I have been invited to take over a project that assesses the economic impacts of wolves and links these outcomes with public willingness-to-pay for wolf conservation. This unique project aims to identify a financial solution that satisfies both ranchers and the general public. Working on this project provides me an opportunity to learn and consider how a similar concept might be implemented to facilitate dingo conservation in Australia. It also allowed me to deepen my understanding of the social and political contexts that shape wolf management in the USA.

3.2 What were your research plans and objectives for the period covered by this report? (150 words max)

The milestones I aimed to achieve in this research period were:

- Analyse results of online and mail surveys from farmers in Australia and write up results for publication
- Complete field work and data analysis for US component of research.

These milestones are linked with all the objectives listed in 2.2

3.3 Did the research project proceed as planned? What have you achieved over this period? Outline the research findings to date (200 words max)

Yes. Two manuscripts have been written based on the results of the Australian farmer surveys, one is in press and the other under review. I also currently have one paper under review that draws comparisons between USA and Australian wildlife management and two papers under

review that focus specifically on the work I was involved in on wolf management in the USA.

3.4 Have you experienced any difficulties that have affected the progress of the research project? If yes give details (150 words max)

I had a baby in July 2019 which has slowed down my writing, but all of the field work and most of the data analysis had been collected by then.

3.5 What are your research plans and objectives, including publication plans, for the coming year? (150 words max) (Please note that in your next Report you should report progress against these plans and objectives)

Aside from finalising some writing and addressing review comments to get the work published, I am still working on my PhD thesis which I intend to submit in November. Aside from that, I'm writing applications for postdoctoral fellowship positions and intend to continue working on the human dimensions if wildlife and pest management.

4. ACADEMIC OUTPUTS

4.1 Publications and other academic outputs directly related to this project. (Please list all publications and those manuscripts accepted for publication, for the period covered by this report)

Since the last report (12 months ago), one additional paper resulting from this research has been accepted for publication:

van Eeden LM, Dickman CR, Crowther MS, Newsome TM (in press) A snapshot of changes in graziers' management and attitudes towards dingoes over 60 years. Pacific Conservation Biology

4.2 Evidence of scholarly impact and contribution. Is there evidence that this research project is having/has had and impact in the research field or the broader public domain? *Include examples of formal training (PhD /Masters) as well as other training.*

This research has been presented at various conferences and forums, including the Royal Zoological Society's Annual Forum on dingo conservation and management in September 2019.

If yes, give details (For instance, standard citation data on articles published in ISI journals, citations to books, re-publication, translations, reviews, invited keynote addresses, other invitations, newspaper/media/expert commentary).

In the short space of time since publications resulting from this research began to come out, they have received two (non-self) citations in academic literature.

4.3 End-user interaction and other project outcomes If there are examples of the impact of this research Project not covered in item 4.2 above please provide details. For example, introduction or modification of standards/protocols within an industry sector, preparation of proposals for funding from other agencies as a result of outcomes from this project.

It's too early to know if there will be changes to policy and/or practice as a result of this

research.