Matthew Rees

Applied Ecologist

Curriculum Vitae

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♀ School of Biosciences, University of Melbourne

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Profile

I am a conservation biologist using quantitative methods to tackle real-world management problems. I specialise in modelling population dynamics and species interactions, primarily through the lens of predator ecology and invasive species management. More broadly, I'm interested in transparent science which considers the needs & knowledge of Indigenous people, incorporates uncertainty, multiple data sources and socio-economic constraints to improve decision-making. You can usually find me either in the field or building spatial capture-recapture, occupancy and generalised additive models in R. I am currently finishing up my PhD with the Quantitative and Applied Ecology group while tackling the occasional, related contracting job.

Education

2017-present	PhD (Conservation Biology)	University of Melbourne	
	Interactions between invasive predators and native prey		
2013-2016	Bachelor of Environmental Science (1st class Honours)	Queensland University of Technology	
	Prioritising invasive animal management in the Lake Eyre Basin, Australia		

Professional Experience

2019-2020	Ecologist	Winda-mara Aboriginal Corporation
	Training Indigenous rangers in fauna monitoring protocols	
2020-2020	Research assistant Designing fox density field surveys	University of Melbourne
2018-2020	Demonstrator	University of Melbourne
	Conservation Biology, Environmental Risk Assessment subjects	

Publications

Peer-reviewed

- 1. MW Rees, J Carwardine, A Reeson and J Firn (2020). Rapidly assessing cobenefits to advance threat-management alliances. *Conservation Biology*. https://doi.org/10.1111/cobi.13490
- 2. **MW Rees**, JH Pascoe, BA Wintle, M Le Pla, EK Birnbaum and BA Hradsky (2019). Unexpectedly high densities of feral cats in a rugged temperate forest. *Biological Conservation*, 239, 108287. https://doi.org/10.1016/j.biocon.2019. 108287

In peer-review

- 1. H Davies, Tiwi Land Rangers, **MW Rees**, D Stokeld, A Miller, G Gillespie and B Murphy. Variation in feral cat density between two large adjacent islands in Australia's monsoon tropics. *Biological Invasions*.
- 2. M Le Pla, EK Birnbaum, **MW Rees**, BA Hradsky, AR Weeks, A Van Rooyen and JH Pascoe. Genetic sampling and an activity index indicate contrasting lethal control outcomes. *Journal of Wildlife Management*.

Reports

1. **MW Rees** (2020). Monitoring and managing critical weight range mammals in the indigenous protected areas of the world heritage Budj Bim cultural landscape. A report prepared for the Victorian Government, Department of Environment, Land, Water and Planning.

Awards

2017	Victorian Government, Department of Land, Environment, Land, Water and Planning, PhD top-up scholarship	\$15K
2017	Australian federal government, RTP PhD scholarship	\$98K
2016	Commonwealth Scientific and Industrial Research Organisation, honours top-up scholarship	\$10K
2015	University of Wollongong, undergraduate research scholarship	\$7.2K

Grants

2020	University of Melbourne, School of Biosciences, Jasper Loftus-Hills award	\$2.25K
2020	University of Melbourne, School of Biosciences, travel grant	\$2K
2020	Ecological Society of Australia, Hoslworth research endowment	\$7.5K
2019	Ecological Society of Australia, Hoslworth research endowment	\$6.75K
2018	Conservation Ecology Centre student scholarship	\$5K
2017	Victorian Environmental Assesment Council, Bill Borthwick scholarship	\$2K
2017	Victorian Government, Parks Victoria research partners program (co-investigator)	\$20K
2017	Victorian Government, Department of Land, Environment, Land, Water and Planning research grant	\$15K

Presentations

- ➤ International Statistical Ecology Conference (virtual), June 2020. Using spatial mark-resight and GAMs to infer predator interactions.
- ➤ Guest lecture, University of Melbourne, Australian Wildlife Biology, May 2020, Invasive mammals in Australia.
- ➤ Ecological Society of Australia, Launceston, November 2019, Does fox control increase feral cat population density?
- ➤ Wimmera Biodiversity Seminar, Rupanyup, September 2019, *Interactions between invasive predators and threat-* ened native mammals in south-west VIC.
- ➤ Otway Threatened Species Forum, Geelong, August 2019, Interactions between invasive predators and threatened native mammals in the Otway Ranges.
- ➤ Victorian Biodiversity Conference, Melbourne, February 2019, Prioritising invasive animal management in the Lake Eyre Basin to benefit both threatened species and agriculture.
- ➤ Ecological Society of Australia, Brisbane, November 2018, Modelling invasive predator density in mesic forests.
- ➤ Otway Threatened Species Forum, Geelong, August 2018, How many feral cats are there in the Western Otway Ranges?
- ➤ Mathematics of Biological Systems Symposium, Melbourne, April 2018, *Integrating co-benefits into the cost-effective prioritisation of conservation strategies*.
- ➤ Victorian Biodiversity Conference, Melbourne, February 2018, How many feral cats are there in the Western Otway Ranges?
- ➤ Environmental Institute of Australia & New Zealand conference, Brisbane, August 2017, Building alliances between the agriculture and conservation sectors.

Media

09/12/2019	Radio interview	ABC Melbourne	Invasive predators interactions
08/08/2019	Radio interview	3AW	Invasive predators in south-west VIC
08/08/2019	Newspaper article (front page)	Geelong Advertiser	Invasive predators in south-west VIC
07/08/2019	Radio interview	ABC South West Victoria	Invasive predators in south-west VIC
13/03/2019	Newspaper article	Colac Herald	Feral cat density in the Otway Ranges
11/03/2019	Radio interview	ABC Melbourne	Feral cat density in the Otway Ranges
11/03/2019	Live TV interview	ABC news	Feral cat density in the Otway Ranges
10/03/2019	Online news article	ABC news	Feral cat density in the Otway Ranges
10/03/2019	Radio interview	ABC Ballarat	Feral cat density in the Otway Ranges

Service

- ➤ Treasurer, Biosciences Postgraduate Society (2019-2020).
- ➤ **Peer-reviewer**, Wildlife Research and Conservation Biology journals.
- ➤ Award judging panel member, Ecological Society of Australia (2020).
- ➤ Social media manager, QAECO lab twitter account (2019-present).

Referees

- ➤ Prof. Brendan Wintle, PhD supervisor, b.wintle@unimelb.edu.au
- ➤ Dr Bronwyn Hradsky, PhD supervisor, bronwyn.hradsky@unimelb.edu.au
- ➤ Dr Alan Robley, PhD supervisor, alan.robley@delwp.vic.gov.au
- ➤ Dr Jack Pascoe, Collaborator, jack@conservationecologycentre.org