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Supplementary Material

Remote camera monitoring and arboreal trapping methods used to evaluate the outcomes of a reintroduction of red-tailed phascogales (*Phascogale calura*) in Western Australia

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Table S1: Methods trialled for post-release monitoring of red-tailed phascogales (*RTP;Phascogale calura)* at Mt Gibson Wildlife Sanctuary

Monitoring Technique	Effort	Outcome	Data type
Nest boxes at release sites	2017-2019: 30 nest boxes (10 used for releases)	Checked for evidence of use (nesting material, scat, fur) on 7 occasions. No evidence that RTP used nest boxes post-release. Design and placement was based on successful nest box monitoring efforts employed at Wadderin Sanctuary and Kojonup Reserve (Ruykys *et al.* 2017).	Prior supporting data
Remote cameras at release sites, un-lured, arboreal and ground-based (forward facing)	2017: 280 trap nights 2018: 756 trap nights 2019: 280 trap nights	Undertaken for 1 month post-release. Small number of detections (n = 80).	Prior supporting data
Remote cameras at release sites, lured, ground-based (downward facing)	2017: 2,828 trap nights 2018: 5,115 trap nights 2019: 1,680 trap nights	Undertaken for up to 11 months following un-lured monitoring. Relatively consistent but small numbers of detections (n = 96), with a three-month period in 2018 with no detections.	Prior supporting data
Remote cameras across exclosure, lured, ground-based (downward facing)	Annually, 2018-2024: 2,940 trap nights per year	Effort results in modelled occupancy estimates of 0.02 in 2018, 0.04 in 2019, 0.13 in 2020, 0.25 in 2021, 0.49 in 2022, 0.52 in 2023 and 0.49 in 2024, .	Data presented in this study
Remote cameras at potential arboreal trap sites, arboreal, facing wired-open Elliott traps	2020: 688 trap nights	RTP detected on 50 out of 86 days; seen investigating traps after 1 day, entering traps after 5 days, daily detections after 36 days.	Prior supporting data
Remote cameras at arboreal trap sites, arboreal, facing wired-open Elliott traps	2021: 204 trap nights	RTP detected on 9 out of 18 days; seen investigating traps after 5 days, entering traps after 7 days, daily detections after 11 days.	Prior supporting data
Cage (Sheffield) trapping across fenced area	Annually 2017-2022: 1,440 trap nights each year	Efforts resulted in 2 RTP captures (1 in 2019, 1 in 2021). Trap saturation by other mammals, largely Woylies.	Prior supporting data
Elliott trapping, traps attached to wooden platforms mounted with brackets to posts or tree trunks at 50 cm from the ground	2017: 50 traps nights 2018: 150 trap nights	Undertaken six then 12 months post-first release. No captures of RTP. Issues with ant infestation in 2017 led to shutting traps after 1 night.	Prior supporting data
Elliott trapping inside wired-open cages with wooden excluders attached allowing only smaller species to enter, lured for 5 days prior to trapping	2020: 375 trap nights	Undertaken 35 months post-first release. No captures of RTP. Trap saturation by other mammals, largely Shark Bay Bandicoots.	Prior supporting data
Elliott trapping attached to wooden platforms mounted directly to tree branches, lured for 14-21 days prior to trapping	2021, 2022, 2024: 480 trap nights per year	Undertaken 45, 57 and 84 months post-first release, resulting in captures of 10 individuals in 2021, 47 individuals in 2022 and 28 individuals in 2024.	Data presented in this study