Supplementary material for

Environmental factors influencing the distribution of the Kangaroo Island dunnart (Sminthopsis fuliginosus aitkeni)

Rosemary Hohnen^{A,G}, Brett P. Murphy^A, Sarah M. Legge^{A,B,C}, Chris R. Dickman^D, Pat Hodgens^E, Heidi Groffen^E, Robyn Molsher^F, Jody P. Gates^F and John C.Z. Woinarski^A

^ANational Environmental Science Program Threatened Species Recovery Hub, Research Institute for the

Environment and Livelihoods, Charles Darwin University, Darwin, NT 0810, Australia.

^BNational Environmental Science Program Threatened Species Recovery Hub, Centre for Biodiversity and Conservation Science, University of Queensland, St Lucia, Qld 4075, Australia.

^cNational Environmental Science Program Threatened Species Recovery Hub, Fenner School of Environment & Society, The Australian National University, Canberra, ACT 2601, Australia.

^DNational Environmental Science Program Threatened Species Recovery Hub, Desert Ecology Research Group, School of Life and Environmental Sciences, University of Sydney, NSW 2006, Australia.

^ELand for Wildlife Kangaroo Island Association Incorporated, Kingscote, SA 5223, Australia.

^FDepartment for Environment and Water, Adelaide, SA 5000, Australia.

^GCorresponding author. Email: rosemary.hohnen@cdu.edu.au

Table S1. Survey data used in the species distribution models for the KI dunnart from the current study.

Survey	Researcher(s)	Organisation	Year	Survey methods	Nights surveyed	Survey sites	New survey sites without dunnarts ^A	Dunnart sites	New dunnart sites ^B
Kangaroo Island biodiversity survey	A. Robinson, D. Armstrong	Department for Environment, Heritage and Aboriginal Affairs, South Australia	1991	15 Elliott and 6 pitfall traps on a 50m drift fence	6	106	105	1	1
Kangaroo Island dunnart survey	T. Herbert	Nature Conservation Society of South Australia	1995	25 Elliott and 6 pitfall traps on a 60m drift fence	6	29	29	0	0
Distribution and ecology of the Kangaroo Island dunnart	J. Gates	South Australian Department of Environment and Water	2000	15 Elliott and 8 pitfall traps on 40m of drift fence	4–64	44	38	6	5
Distribution and ecology of threatened small mammals on Kangaroo Island	S. Jones, T. Mooney, J. Ross, P. Pisanu	Natural Resources Kangaroo Island	2009	14 Elliott and 6 pitfall traps on 60m of drift fence	20	6	0	2	0
Southern brown bandicoot distribution on Kangaroo Island	R. Molsher	Natural Resources Kangaroo Island	2016	Baited (peanut butter and oats) camera trap	30	16	15	1	1
Biodiversity monitoring sites examining cat control impacts	R. Molsher, P. Hodgens, D. Dowie	Natural Resources Kangaroo Island	2017	15 Elliott and 8 pitfall traps on 100m drift fence	10	10	10	0	0

KI dunnart survey 2017- 2019	R. Hohnen	Threatened Species Recovery Hub	2017	20 Elliott, 6 pitfall traps on 120m of drift fence, and six camera traps	3	42	31	5	4
Private land Kangaroo Island dunnart survey 2018- 2019	P. Hodgens, H. Groffen	Kangaroo Island Land for Wildlife	2018	2 camena traps facing one 30m drift fence	30	49	45	4	4
Incidental records	NA	NA	1967– 2017	NA	NA	7	NA	7	6
Total						309	273	26	21

^ANew survey sites without dunnarts: The number of new locations KI dunnarts were not detected at in a given survey. A figure used to produce the total number of sites surveyed for dunnarts where they were not detected

^BNumber of new survey sites: The number of new locations KI dunnarts were found at the time the survey was completed. A figure used to produce the total number of survey sites KI dunnarts were detected at.



