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Wildlife Research

Supplementary Material

Spatio-temporal trends in the abundance of grey kangaroos in Victoria, Australia

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Table S1. Summary statistics for the candidate detection functions, ranked by AIC (smaller is better). df – degrees of freedom, Δ AIC - Akaike's information criterion with the value for the best-supported model subtracted. Mean \hat{p} – estimated mean probability of detection for kangaroos located between the transect line and the maximum detection distance (150 m).

Key function	Adjustment term	Covariates	df	Δ AIC	Mean \hat{p}	Effective half-width
Hazard rate		Size + year	6	0	0.586	87.9
Hazard rate		Year	5	15.4	0.572	85.8
Hazard rate		Observer	6	21.8	0.564	84.7
Half-normal		Size + year	5	28.5	0.634	95.2
Hazard-rate		Habitat	5	57.2	0.583	87.4
Hazard-rate		Size	3	61.9	0.595	89.2
Half-normal	Cosine	-	4	63.3	0.562	84.3
Half-normal		Year	4	64.1	0.634	95.5
Uniform	Cosine	-	4	65.2	0.555	83.2
Half-normal		Habitat	4	69.8	0.637	95.5
Hazard-rate		Morning	3	70.9	0.572	85.8
Hazard-rate	Cosine	-	2	75.8	0.572	85.8
Hazard-rate	Polynomial	-	2	75.8	0.572	85.8
Hazard-rate	Hermite	-	2	75.8	0.572	85.8
Hazard-rate		-	2	75.8	0.572	85.8
Half-normal		Size	2	82.4	0.639	95.9
Half-normal	Polynomial	-	4	86.8	0.580	87.0
Half-normal		Observer	5	87.0	0.637	95.6
Uniform	Polynomial	-	4	98.3	0.603	90.4
Half-normal		Morning	2	124.7	0.640	96.0
Half-normal	Hermite	-	1	126.6	0.640	96.0
Half-normal		-	1	126.6	0.640	96.0