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Supplementary material

Improving mesocarnivore detectability with lures in camera-trapping studies

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Table S1: final models selected and employed to estimate species- and treatment-specific probabilities of detection and species-specific probability of site occupancy in each experimental survey. Habitat covariates: Agr = agroforestry systems, For = forests, Her = herbaceous vegetation, Hum = humanised areas, Nov = non-vegetated areas, Scr = scrubland, Wat = water bodies. Attractants: LU = lynx urine, Val = valerian extract, Val-LU = valerian extract + lynx urine, Chi = chicken. Cam = camera model (includes one or two dummy covariates, depending on the survey).

Survey 1, Red fox

Models	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(Nov+Cam+LU+Val+ Val-LU)	202	0	0.9994	1	7	188
psi(.),p(Nov+Cam)	216.92	14.92	0.0006	0.0006	4	208.92

Survey 1, Stone marten

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(Her),p(.)	161.28	0	0.6341	1	3	155.28
psi(Her),p(LU+Val+Val-LU)	162.38	1.1	0.3659	0.5769	6	150.38

Survey 1, Genet

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(.)	95.89	0	0.8618	1	2	91.89
psi(.),p(LU+Val+Val-LU)	99.55	3.66	0.1382	0.1604	5	89.55

Survey 2, Red fox

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(Cam+Val-LU+Chi)	322.14	0	1	1	5	312.14

psi(.),p(Cam)	346.35	24.21	0	0	3	340.35

Survey 2, Stone marten

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(Her),p(Cam+Val-LU+Chi)	166.45	0	1	1	6	154.45
psi(Her),p(Cam)	192.45	26	0	0	4	184.45

Survey 2, Genet

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(Her+Scr),p(For+Cam+Val-LU+Chi)	98.81	0	0.9896	1	8	82.81
psi(Her+Scr),p(For+Cam)	107.92	9.11	0.0104	0.0105	6	95.92

Survey 2, badger

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(For+Her+Scr),p(For+Val-LU+Chi)	78.77	0	0.6213	1	8	62.77
psi(For+Her+Scr),p(For)	79.76	0.99	0.3787	0.6096	6	67.76

Survey 3, Red fox

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(Wat+Cam)	168.01	0	0.6376	1	5	158.01
psi(.),p(Wat+Cam+Chi)	169.14	1.13	0.3624	0.5684	6	157.14

Survey 3, Stone marten

Model	AIC	ΔAIC	AIC	Model	k	-2Log

			wgt	Likelihood		Likelihood
psi(.),p(Agr+Chi)	173.77	0	0.9352	1	4	165.77
psi(.),p(Agr)	179.11	5.34	0.0648	0.0693	3	173.11

Survey 3, Genet

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(Wat),p(For)	137.76	0	0.6835	1	4	129.76
psi(Wat),p(For+Chi)	139.3	1.54	0.3165	0.463	5	129.3

Survey 3, Badger

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(.)	37.43	0	0.6626	1	2	33.43
psi(.),p(Chi)	38.78	1.35	0.3374	0.5092	3	32.78

Survey 3, Egyptian mongoose

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(.)	91.8	0	0.5708	1	2	87.8
psi(.),p(Chi)	92.37	0.57	0.4292	0.752	3	86.37

Survey 4, Red fox

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(Cam)	190.41	0	0.6118	1	4	182.41
psi(.),p(Cam+Chi)	191.32	0.91	0.3882	0.6344	5	181.32

Survey 3, Stone marten

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(Her),p(For+Chi)	169.48	0	0.5349	1	5	159.48
psi(Her),p(For)	169.76	0.28	0.4651	0.8694	4	161.76

Survey 4, Genet

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(For+Her+Scr),p(For)	109.78	0	0.5212	1	6	97.78
psi(For+Her+Scr),p(For+Chi)	109.95	0.17	0.4788	0.9185	7	95.95

Survey 4, Badger

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(Agr),p(.)	86.56	0	0.7099	1	3	80.56
psi(Agr),p(Chi)	88.35	1.79	0.2901	0.4086	4	80.35

Survey 4, Egyptian mongoose

Model	AIC	ΔAIC	AIC wgt	Model Likelihood	k	-2Log Likelihood
psi(.),p(For)	54.94	0	0.7281	1	3	48.94
psi(.),p(For+Chi)	56.91	1.97	0.2719	0.3734	4	48.91