

**Table A2** Models fitted with Distance and weighted by AIC for the total survey area. # Adj params = number of cosine adjustment parameters, # params = number of parameters in the model, w = AIC weight, P = detection probability, P(w) = weighted detection probability, CV = Coefficient of variation, CV(w) = weighted coefficient of variation, GOF Chi-p = Chi-Square Goodness of Fit Test. Models that produced errors are not included.

Species	Name	Key function	# Adj params	# params	AIC	Delta AIC	w	P	P(w)	CV	CV(w)	GOF Chi-p
<b>Gray wolf</b>	hn_cos 2_10m	Half-normal	2	3	307.86	0.00	0.27	0.09		0.49		0.41
	hn_cos0_10m	Half-normal	0	1	308.07	-0.21	0.25	0.26		0.16		0.30
	hr_cos 2_10m	Hazard-rate	2	4	308.90	-1.04	0.16	0.10	0.21	0.92	0.44	0.38
	hr_cos 1_10m	Hazard-rate	1	3	309.61	-1.75	0.11	0.23		0.39		0.26
	hn_cos 1_10m	Half-normal	1	2	309.83	-1.97	0.10	0.34		0.58		0.21
	hr_cos0_10m	Hazard-rate	0	2	309.90	-2.04	0.10	0.45		0.13		0.14
<b>Red fox</b>	hr_cos0_9m	Hazard-rate	0	2	432.30	0.00	0.31	0.19		0.18		0.58
	hn_cos1_9m	Half-normal	1	2	432.31	-0.01	0.31	0.12		0.18		0.58
	hn_cos2_9m	Half-normal	2	3	433.73	-1.43	0.15	0.14	0.16	0.28	0.23	0.52
	hr_cos 1_9m	Hazard-rate	1	3	434.30	-2.00	0.12	0.19		0.23		0.44
	hn_cos0_9m	Half-normal	0	1	435.65	-3.35	0.06	0.19		0.11		0.11
	hr_cos 2_9m	Hazard-rate	2	4	435.96	-3.66	0.05	0.15		0.97		0.33
<b>European roe deer</b>	hn_cos 2_10m	Half-normal	2	3	2334.70	0.00	0.98	0.06		0.08		0.00
	hn_cos 1_10m	Half-normal	1	2	2342.80	-8.09	0.02	0.07		0.05		0.00
	hr_cos0_10m	Hazard-rate	0	2	2357.72	-23.02	0.00	0.08	0.06	0.09	0.08	0.00
	hr_cos1_10m	Hazard-rate	1	3	2359.72	-25.02	0.00	0.08		0.09		0.00
	hn_cos0_10m	Half-normal	0	1	2394.11	-59.41	0.00	0.11		0.04		0.00
<b>Wild boar</b>	hr_cos0_10m	Hazard-rate	0	2	7321.51	0.00	0.71	0.28		0.03		0.01
	hr_cos 1_10m	Hazard-rate	1	3	7323.51	-2.00	0.26	0.28		0.09		0.00
	hn_cos 2_10m	Half-normal	2	3	7328.20	-6.68	0.03	0.25	0.28	0.08	0.05	0.00
	hn_cos0_10m	Half-normal	0	1	7336.09	-14.58	0.00	0.22		0.03		0.00
	hn_cos1_10m	Half-normal	1	2	7338.09	-16.58	0.00	0.22		0.06		0.00
<b>Domestic horse</b>	hn_cos1_12m	Half-normal	1	2	11724.61	0	0.54	0.11		0.03		0.00
	hn_cos2_12m	Half-normal	2	3	11724.97	-0.36	0.46	0.11	0.11	0.04	0.03	0.00
	hr_cos2_12m	Hazard-rate	2	4	11744.82	-20.21	0.00	0.11		0.04		0.00
	hn_cos0_12m	Half-normal	0	1	12082.86	-358.25	0.00	0.20		0.02		0.00
<b>Domestic cattle</b>	hn_cos1_9m	Half-normal	1	2	3851.89	0.00	0.53	0.12		0.06		0.60
	hn_cos2_9m	Half-normal	2	3	3852.16	-0.27	0.46	0.13		0.09		0.75
	hr_cos0_9m	Hazard-rate	0	2	3860.33	-8.44	0.01	0.18	0.13	0.06	0.07	0.05
	hr_cos1_9m	Hazard-rate	1	3	3862.33	-10.44	0.00	0.18		0.08		0.03
	hn_cos0_9m	Half-normal	0	1	3879.69	-27.8	0.00	0.17		0.04		0.00