

Rice, C. G. 2015. Development of a system for remotely monitoring vaginal implant transmitters and fawn survival. – Wildlife Biology doi: 10.2981/wlb.00177

## Appendix 1

### Model comparisons for recurrence analysis

Table A1. Model comparison for recurrence analysis of 65 premature No contact messages for VITs in eight female black-tailed deer in western Washington, 2012–2014.  $\Theta$  and  $\beta$  are fitted parameters modified by covariates as indicated by X. k is the number of estimated parameters.

Covariates	$\Theta$	$\beta$	k	Converged	AIC <sub>c</sub>	$\Delta$ AIC <sub>c</sub>
Female deer and p Deploy time		X	10	yes	-292.603	0.000
Female deer		X	9	yes	-272.297	20.306
Female deer and p Deploy time	X	X	18	yes	-270.913	21.690
Female deer	X		9	yes	-269.974	22.629
Female deer and p Deploy time	X		10	yes	-267.597	25.005
Female deer	X	X	16	yes	-256.496	36.106
p Deploy time		X	3	yes	-185.100	107.502
p Deploy time	X	X	4	yes	-182.833	109.769
p Deploy time	X		3	yes	-168.481	124.121
Intercepts only			2	yes	-138.236	154.366

Table A2. Model comparison for recurrence analysis of 414 premature Expelled messages for VITs in 13 female black-tailed deer in western Washington, 2012–2014.  $\Theta$  and  $\beta$  are fitted parameters modified by covariates as indicated by X. k is the number of estimated parameters.

Covariates	$\Theta$	$\beta$	k	Converged	AIC <sub>c</sub>	$\Delta$ AIC <sub>c</sub>
Female deer and p Deploy time	X	X	28	yes	–3340.744	0.000
Female deer and p Deploy time		X	15	yes	–3204.547	136.198
Female deer and p Deploy time	X		15	yes	–3178.355	162.390
Female deer	X		14	yes	–3000.684	340.060
Female deer		X	14	yes	–2952.222	388.522
p Deploy time		X	3	yes	–2923.801	416.944
p Deploy time	X	X	4	yes	–2921.823	418.922
p Deploy time	X		3	yes	–2865.848	474.897
Intercepts only			2	yes	–2314.241	1026.503
Female deer	X	X	27	no		

Table A3. Model comparison for recurrence analysis of 54 premature Separation messages for 20 black-tailed deer fawns in western Washington, 2012–2014.  $\Theta$  and  $\beta$  are fitted parameters modified by covariates as indicated by X. k is the number of estimated parameters. Model weight is given for all models and for only those in the 95% model confidence set.

Covariates	$\Theta$	$\beta$	k	Converged	AIC <sub>c</sub>	$\Delta$ AIC <sub>c</sub>	Model weight	
							All	95% confidence set
Age	X		3	yes	179.478	0.000	0.241	0.270
Intercepts only			2	yes	180.007	0.529	0.185	0.207
Age		X	3	yes	180.339	0.861	0.157	0.175
1st week	X		3	yes	181.675	2.197	0.080	0.090
Age	X	X	4	yes	181.749	2.271	0.078	0.087
1st week and Age	X		4	yes	181.754	2.276	0.077	0.086
1st week and Age		X	4	yes	181.797	2.319	0.076	0.085
1st week		X	3	yes	182.084	2.606	0.066	
1st week	X	X	4	yes	183.841	4.363	0.027	
Month	X		11	yes	187.281	7.803	0.005	
Month		X	11	yes	187.707	8.230	0.004	
Month and 1st week		X	12	yes	189.659	10.181	0.001	
Month and 1st week	X		12	yes	190.444	10.966	0.001	
Female deer		X	14	yes	190.486	11.008	0.001	
Fawn		X	21	yes	192.274	12.796	0.000	
Female deer and Age		X	15	yes	193.455	13.977	0.000	
Female deer and Age	X		15	yes	204.837	25.359	0.000	
Female deer and 1st week	X		15	yes	219.812	40.334	0.000	
Female deer and Month	X		23	yes	224.649	45.171	0.000	
Female deer	X		14	yes	231.998	52.520	0.000	
Fawn	X		21	yes	246.561	67.083	0.000	
Female deer and Fawn	X		33	yes	294.623	115.145	0.000	
Female deer and Fawn		X	33	yes	337.461	157.983	0.000	
1st week and Age	X	X	6	no				
Female deer and 1st week		X	15	no				
Month	X	X	20	no				
Month and 1st week	X	X	22	no				
Fawn and 1st week	X		22	no				
Fawn and 1st week		X	22	no				
Fawn and Age	X		22	no				
Fawn and Age		X	22	no				
Female deer and Month		X	23	no				
Female deer	X	X	26	no				
Female deer and 1st week	X	X	28	no				
Female deer and Age	X	X	28	no				
Fawn and Month	X		30	no				
Fawn and Month		X	30	no				
Fawn	X	X	40	no				
Fawn and 1st week	X	X	42	no				
Fawn and Age	X	X	42	no				
Female deer and Month	X	X	44	no				
Fawn and Month	X	X	44	no				
Female deer and Fawn	X	X	64	no				