

Supplementary Material from:

The influence of forest structure and composition on wildlife summer habitat use in an oak dominated forest

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Table S1. Model-averaged estimates of covariate coefficients (β), standard errors (SE), and 95% confidence intervals from detection probability (p) models for white-tailed deer, raccoons, and eastern gray squirrels during May-August 2015-2016 in Trail of Tears State Forest, Union County, Illinois, USA.

Species Covariate	$\hat{\beta}$	\widehat{SE}	95% Confidence Interval	
			Lower	Upper
<i>White-tailed deer</i>				
Year [†]	-0.36	0.20	-0.76	0.04
Month	-0.04	0.20	-0.43	0.35
Slope	-0.18	0.20	-0.57	0.20
Temperature	-0.10	0.19	-0.47	0.27
Precipitation	-0.12	0.19	-0.50	0.26
Previous Detection	-0.39	0.47	-1.32	0.53
<i>Raccoon</i>				
Year	0.32	0.22	-0.12	0.76
Month	-0.22	0.22	-0.65	0.22
Slope	0.01	0.18	-0.35	0.36
Temperature*	-0.64	0.19	-1.02	-0.26
Precipitation	-0.18	0.19	-0.56	0.20
Previous Detection	-0.01	0.46	-0.91	0.90
<i>Eastern gray squirrel</i>				
Year*	0.90	0.41	0.11	1.70
Month	-0.46	0.34	-1.12	0.20
Slope	-0.85	0.49	-1.80	0.10
Temperature	-0.20	0.34	-0.86	0.46
Precipitation	-0.15	0.33	-0.79	0.49
Previous Detection*	1.33	0.61	0.13	2.54

*Designates statistically significant detection covariates, as determined by whether the 95% confidence interval contains 0.

[†]Designates an imprecise but supported covariate effect, as determined by parameters whose 95% confidence interval contained 0, but the bulk of the parameter's distribution was either positive or negative.

Table S2. Model-averaged estimates of covariate coefficients (β), standard errors (SE), and 95% confidence intervals from site occupancy (ψ) models within 90% confidence interval of best fitting model for white-tailed deer, raccoons, and eastern gray squirrels during May-August 2015-2016 in Trail of Tears State Forest, Union County, Illinois, USA.

Species Covariate	$\hat{\beta}$	\widehat{SE}	95% Confidence Interval	
			Lower	Upper
<i>White-tailed deer</i>				
Sugar Maple Importance	-0.22	0.28	-0.77	0.33
American Beech Importance*	-0.60	0.30	-1.19	-0.01
Oak Importance†	0.65	0.35	-0.02	1.33
Hickory Importance	0.65	0.41	-0.15	1.46
Yellow Poplar Importance	0.54	0.43	-0.31	1.39
Ground Cover	0.66	0.67	-0.66	1.98
Seedling Density	-0.55	0.48	-1.49	0.39
Sapling Density	-0.27	0.40	-1.06	0.52
Coarse Woody Debris (CWD)	0.13	0.51	-0.86	1.12
Basal Area	-0.11	0.27	-0.64	0.41
Overstory Density	0.19	0.28	-0.36	0.75
Average DBH	0.15	0.28	-0.39	0.69
<i>Raccoon</i>				
Sugar Maple Importance	0.05	0.25	-0.44	0.54
American Beech Importance	-0.22	0.27	-0.74	0.30
Oak Importance	-0.27	0.28	-0.81	0.28
Hickory Importance	-0.13	0.26	-0.64	0.38
Yellow Poplar Importance	-0.43	0.31	-1.03	0.18
Ground Cover	-0.33	0.27	-0.85	0.20
Seedling Density	-0.03	0.27	-0.56	0.50
Sapling Density	0.21	0.23	-0.25	0.67
Coarse Woody Debris (CWD)	0.30	0.38	-0.45	1.06
Basal Area	0.14	0.24	-0.32	0.60
Overstory Density	0.23	0.26	-0.28	0.75
Average DBH	-0.02	0.25	-0.51	0.48
<i>Eastern gray squirrel</i>				
Sugar Maple Importance	0.23	0.28	-0.32	0.78
American Beech Importance	0.28	0.31	-0.32	0.89
Oak Importance	-0.07	0.31	-0.68	0.54
Hickory Importance	-0.01	0.32	-0.63	0.62
Yellow Poplar Importance	0.11	0.27	-0.42	0.64
Ground Cover	-0.42	0.32	-1.05	0.21
Seedling Density	0.04	0.32	-0.59	0.66
Sapling Density	0.06	0.26	-0.44	0.57
Coarse Woody Debris (CWD)	-0.38	0.76	-1.88	1.11
Basal Area	-0.09	0.28	-0.64	0.47
Overstory Density	-0.07	0.28	-0.61	0.47
Average DBH	0.05	0.30	-0.53	0.63

*Designates statistically significant detection covariates, as determined by whether the 95% confidence interval contains 0.

[†]Designates an imprecise but supported covariate effect, as determined by parameters whose 95% confidence interval contained 0, but the bulk of the parameter's distribution was either positive or negative.