

Appendix 2. Parameter estimates and 85% lower (LCI) and upper (UC) confidence intervals for all competitive models ($\Delta AICc < 2.0$) for predicting occupancy of five focal species. Based on data collected during springtime autonomous recording unit (ARU) surveys in Iowa, USA, 2015-2019.

Species	Parameter	β	LCI	UCI	
Common Yellowthroat	Model #1				
	$p(\text{int})$	1.94	1.25	2.63	
	$p(\text{temp})$				
	$\Psi(\text{int})$	0.34	-0.33	1.00	
	$\Psi(\text{prairie})^*$	0.24	-0.41	0.89	
		2.22	0.46	3.97	
	Model #2				
	$p(\text{int})$	2.05	1.36	2.74	
	$\Psi(\text{int})$	0.92	0.37	1.47	
	Field Sparrow	Model #1			
$p(\text{int})$		-0.35	-0.71	0.00	
$p(\text{distance to road})$		-0.34	-0.79	0.14	
$\Psi(\text{int})$		0.94	0.04	1.83	
$\Psi(\text{woody})^*$		2.18	0.87	3.50	
Model #2					
$p(\text{int})$		-0.29	-0.64	0.07	
$p(\text{distance to road})$		-0.25	-0.72	-0.23	
$\Psi(\text{int})$		-0.93	-1.75	-0.11	
$\Psi(\text{developed})^*$		2.63	1.31	3.94	
Model #3					
$p(\text{int})$		-0.30	-0.66	0.05	
$p(\text{distance to road})$		-0.26	-0.73	0.21	
$\Psi(\text{int})$		0.19	-1.29	1.67	
$\Psi(\text{woody})$		1.16	-0.59	2.90	
$\Psi(\text{prairie})$		-1.33	-3.08	0.42	
$\Psi(\text{developed})^*$		2.31	0.27	4.63	
Grasshopper Sparrow		Model #1			
		$p(\text{int})$	-0.47	-0.88	-0.07
		$\Psi(\text{int})$	1.00	-0.40	2.41
	$\Psi(\text{crop})$	-1.57	-3.42	0.28	
	Model #2				
	$p(\text{int})$	-0.43	-0.87	0.01	
	$\Psi(\text{int})$	0.51	-0.36	1.38	
	Model #3				
	$p(\text{int})$	-0.44	-0.92	0.03	
	$\Psi(\text{int})$	0.69	-0.76	2.14	
	$\Psi(\text{grass})$	0.96	-0.76	2.68	
	Model #4				
	$p(\text{int})$	-0.52	-0.91	-0.14	
	$\Psi(\text{int})$	3.53	-0.78	7.83	
	$\Psi(\text{distance to road})$	-3.43	-8.29	1.43	
	$\Psi(\text{grass})$	4.81	-0.12	9.74	

	$\Psi(\text{distance to road*grass})$	-4.16	-9.58	1.26
	Model #5			
	$p(\text{int})$	-0.46	-0.93	0.00
	$\Psi(\text{int})$	0.61	-0.49	1.72
	$\Psi(\text{distance to road})$	-0.77	-1.90	0.32
Savannah Sparrow	Model #1			
	$p(\text{int})$	-0.51	-0.79	-0.24
	$\Psi(\text{int})$	-0.09	-0.91	0.73
	$\Psi(\text{woody})^*$	-1.58	-2.66	-0.50
	Model #2			
	$p(\text{int})$	-0.55	-0.84	-0.27
	$\Psi(\text{int})$	0.24	-0.62	1.10
	$\Psi(\text{crop})^*$	1.28	0.25	2.30
Vesper Sparrow	Model #1			
	$p(\text{int})$	0.47	0.24	0.70
	$p(\text{distance to road})$	1.02	0.72	1.32
	$\Psi(\text{int})$	0.79	0.22	1.36
	$\Psi(\text{woody})^*$	-0.65	-1.27	-0.02
	Model #2			
	$p(\text{int})$	0.48	0.24	0.71
	$p(\text{distance to road})$	1.05	0.75	1.35
	$\Psi(\text{int})$	0.86	0.29	1.92
	$\Psi(\text{crop})$	0.24	-0.25	0.72
	Model #3			
	$p(\text{int})$	0.48	0.25	0.71
	$p(\text{distance to road})$	1.06	0.76	1.36
	$\Psi(\text{int})$	1.11	0.29	1.92
	$\Psi(\text{prairie})$	-0.49	-1.59	0.60

*Indicates an informative predictor of occupancy