

SUPPLEMENTARY MATERIAL 7. Models of occupancy (ψ) for the summer season in 3 riparian forest types along the lower San Pedro River, Arizona, USA. Table includes only data from 2 April 2018 to 8 July 2018. Models show the importance of habitat components (PC1–PC4) in predicting species occurrence using multiple-model inference. The term ψ stands for occupancy, and p stands for detection probability. The last 4 columns show the beta (β) values (lower and upper limits of 95% confidence interval) of occupancy with habitat components. Species are listed in alphabetical order.

Species	Model	npar	AICc	Δ AICc	Weight	Deviation	Gradient of riparian vegetation (PC1)	Distance to disturbance (PC2)	Vegetation cover (PC3)	Proportion of nonnative (PC4)
American badger	psi(PC4) p(.)	3	95.45	0.00	0.42	87.73	—	—	—	5.33 (-2.59, 13.25)
	psi(.) p(.)	2	96.72	1.28	0.22	33.92	—	—	—	—
	psi(PC1)p(.)	3	96.91	1.46	0.20	89.20	1.01 (-0.40, 2.43)	—	—	—
	psi(PC3) p(.)	3	98.60	3.16	0.09	90.89	—	—	0.59 (-0.61, 1.78)	—
	psi(PC2) p(.)	3	99.00	3.56	0.07	91.29	—	-0.50 (-1.91, 0.92)	—	—
Black bear	psi(PC3) p(.)	3	62.13	0.00	0.56	54.42	—	—	8.10 (-10.9, 27.1)	—
	psi(.) p(.)	2	64.39	2.26	0.18	14.88	—	—	—	—
	psi(PC4) p(.)	3	64.45	2.32	0.17	56.74	—	—	—	9.28 (-9.00, 27.6)
	psi(PC1) p(.)	3	67.00	4.87	0.05	59.29	9.13 (-47.6, 65.9)	—	—	—
	psi(PC2) p(.)	—	—	—	—	—	—	—	—	—
Bobcat	psi(PC4) p(.)	3	155.03	0.00	0.64	147.32	—	—	—	4.15 (-1.23, 9.54)
	psi(.) p(.)	2	157.38	2.34	0.20	64.48	—	—	—	—
	psi(PC1) p(.)	3	159.59	4.56	0.07	151.87	0.80 (-1.43, 3.03)	—	—	—
	psi(PC3) p(.)	3	160.12	5.08	0.05	152.40	—	—	-0.35 (-2.09, 1.39)	—
	psi(PC2) p(.)	3	160.29	5.26	0.05	152.58	—	0.004 (-1.42, 1.43)	—	—
Coyote	psi(PC1) p(.)	3	113.97	0.00	1.00	106.26	12.96 (-6.64, 32.5)	—	—	—
	psi(.) p(.)	2	128.75	14.78	0.00	49.91	—	—	—	—

SUPPLEMENTARY MATERIAL 7. Continued.

Species	Model	npar	AICc	Δ AICc	Weight	Deviation	Gradient of riparian vegetation (PC1)	Distance to disturbance (PC2)	Vegetation cover (PC3)	Proportion of nonnative (PC4)
	psi(PC4) p(.)	3	129.72	15.75	0.00	122.00	—	—	—	0.84 (-0.50, 2.19)
	psi(PC2) p(.)	3	130.99	17.02	0.00	123.28	—	-0.66 (-3.63, 2.30)	—	—
	psi(PC3) p(.)	3	131.64	17.67	0.00	123.93	—	—	-0.09 (-1.27, 1.09)	—
Javelina	psi(PC3) p(.)	3	119.08	0.00	0.67	111.37	—	—	-2.88 (-9.09, 3.34)	—
	psi(.) p(.)	2	122.46	3.37	0.12	46.39	—	—	—	—
	psi(PC1) p(.)	3	122.64	3.56	0.11	114.93	1.07 (-0.40, 2.55)	—	—	—
	psi(PC2) p(.)	3	124.42	5.34	0.05	116.71	—	-0.58 (-1.85, 0.69)	—	—
	psi(PC4) p(.)	3	124.74	5.66	0.04	117.03	—	—	—	-0.48 (-1.70, 0.73)
Gray fox	psi(PC3) p(.)	3	41.87	0.00	0.44	34.15	—	—	-1.37 (-2.99, 0.26)	—
	psi(.) p(.)	2	42.80	0.93	0.28	15.19	—	—	—	—
	psi(PC2) p(.)	3	44.31	2.44	0.13	36.59	—	1.09 (-1.08, 3.26)	—	—
	psi(PC1) p(.)	3	45.29	3.42	0.08	37.57	-0.48 (-1.97, 1.01)	—	—	—
	psi(PC4) p(.)	3	45.69	3.82	0.07	37.98	—	—	—	-0.11 (-1.53, 1.31)
Coati	psi(PC2) p(.)	3	82.27	0.00	0.80	74.56	—	3.37 (-0.82, 7.57)	—	—
	psi(.) p(.)	2	86.56	4.29	0.09	26.53	—	—	—	—
	psi(PC4) p(.)	3	87.29	5.02	0.06	79.57	—	—	—	9.28 (-7.52, 26.1)
	psi(PC3) p(.)	3	89.38	7.11	0.02	81.66	—	—	0.18 (-0.93, 1.28)	—
	psi(PC1) p(.)	3	89.47	7.20	0.02	81.76	-0.02	—	—	—

SUPPLEMENTARY MATERIAL 7. Continued.

Species	Model	npar	AICc	Δ AICc	Weight	Deviation	Gradient of riparian vegetation (PC1)	Distance to disturbance (PC2)	Vegetation cover (PC3)	Proportion of nonnative (PC4)
Mountain lion	psi(PC2) p(.)	3	53.59	0.00	1.00	45.88	(-1.24, 1.20) —	8.16 (-0.72, 17.0)	—	—
	psi(.) p(.)	2	68.78	15.19	0.00	29.39	—	—	—	—
	psi(PC1) p(.)	3	69.67	16.08	0.00	61.96	-0.90 (-2.26, 4.68)	—	—	—
	psi(PC3) p(.)	3	71.12	17.52	0.00	63.40	—	—	-0.41 (-1.47, 0.65)	—
	psi(PC4) p(.)	3	71.26	17.67	0.00	63.55	—	—	—	-0.40 (-1.63, 0.83)
Raccoon	psi(PC2) p(.)	3	32.72	0.00	0.41	25.00	—	3.69 (-2.30, 9.68)	—	—
	psi(.) p(.)	2	33.63	0.91	0.26	13.50	—	—	—	—
	psi(PC1) p(.)	3	34.48	1.76	0.17	26.76	-1.43 (-3.79, 0.93)	—	—	—
	psi(PC3) p(.)	3	35.43	2.72	0.10	27.72	—	—	-0.75 (v2.15, 0.66)	—
	psi(PC4) p(.)	3	36.46	3.74	0.06	28.74	—	—	—	0.23 (-1.27, 1.72)
Skunks	psi(.) p(.)	2	105.09	0.00	0.37	35.79	—	—	—	—
	psi(PC3) p(.)	3	105.26	0.16	0.34	97.54	—	—	1.01 (-0.35, 2.37)	—
	psi(PC1) p(.)	3	107.71	2.62	0.10	100.00	-0.29 (-1.36, 0.78)	—	—	—
	psi(PC2) p(.)	3	107.81	2.71	0.10	100.09	—	0.24 (-0.82, 1.31)	—	—
	psi(PC4) p(.)	3	107.94	2.85	0.09	100.23	—	—	—	0.15 (-1.02, 1.33)
Mule deer	psi(PC2) p(.)	3	74.44	0.00	0.88	66.72	—	-3.00 (-6.33, 0.31)	—	—
	psi(PC3) p(.)	3	79.99	5.55	0.05	72.28	—	—	-8.10 (-24.8, 8.61)	—

SUPPLEMENTARY MATERIAL 7. Continued.

Species	Model	npar	AICc	Δ AICc	Weight	Deviation	Gradient of riparian vegetation (PC1)	Distance to disturbance (PC2)	Vegetation cover (PC3)	Proportion of nonnative (PC4)
	psi(.) p(.)	2	80.67	6.23	0.04	30.12	—	—	—	—
	psi(PC1) p(.)	3	82.20	7.76	0.02	74.49	1.64	—	—	—
							(-2.26, 5.54)			
	psi(PC4) p(.)	3	83.48	9.05	0.01	75.77	—	—	—	-0.19 (-1.41, 1.01)
White-tailed deer	psi(PC3) p(.)	3	23.71	0.00	0.82	16.00	—	—	-8.10 (-27.4, 11.2)	—
	psi(PC2) p(.)	3	27.35	3.64	0.13	19.64	—	8.16 (-12.7, 28.9)	—	—
	psi(.) p(.)	2	30.76	7.05	0.02	10.63	—	—	—	—
	psi(PC1) p(.)	3	31.50	7.79	0.02	23.79	-1.64	—	—	—
							(-4.56, 1.28)			
	psi(PC4) p(.)	3	33.66	9.94	0.01	25.94	—	—	—	0.12 (-1.49, 1.74)