

SUPPLEMENTARY MATERIAL 9. Two-species occupancy models depicting occupancy (ψ) and detection probability (r) for coyote (A) and gray fox (B). Coyote is the dominant species and gray fox is the subordinate. An uppercase A or B indicates the species is present, while a lowercase a or b indicates the absence of a species. Table includes only data from 2 April 2018 to 8 July 2018. The study was conducted along the lower San Pedro River, Arizona, USA.

Model	npar	AICc	Δ AICc	Weight	Deviance
$\psi_i A(.) \psi_i B A(.)$ EQUAL $\psi_i B a(.) p A(.) p B(.) r A(.) r B A(.) r B a(.)$	7	179.23	0.00	0.51	154.03
$\psi_i A(.) \psi_i B A(.) \psi_i B a(.) p A(.) p B(.) r A(.) r B A(.)$ EQUAL $r B a(.)$	7	179.43	0.20	0.46	154.23
$\psi_i A(.) \psi_i B A(.) \psi_i B a(.) p A(.) p B(.) r A(.) r B A(.) r B a(.)$	8	185.37	6.14	0.02	153.37

A: Coyote

B: Gray fox

$\psi_i A$: Occupancy of species A

$\psi_i B A$: Occupancy of species B, given species A present

$\psi_i B a$: Occupancy of species B, given species A absent

$p A$: Detection probability of species A, given species B absent

$p B$: Detection probability of species B, given species A absent

$r A$: Detection probability of species A, given both species A and B present

$r B A$: Detection probability of species B, given both species A and B present and A detected

$r B a$: Detection probability of species B, given both species A and B present and A not detected