Table S1. Adult marula tree abundance, seedling detections, and estimated seedling-search effort across 20 sampling sites in Olifants West Nature Reserve, South Africa.

Site	Adult trees sampled	Total marula trees present (includes dead trees)	Seedlings detected 2019/20	Seedlings detected 2021/22	Estimated search team-minutes 2019/20 (6 visits)	Estimated search team-minutes 2021/22 (2 visits)
A	5	6	0	2	600	240
B	13	13	2	3	1560	520
C	14	16	0	5	1680	640
D	3	3	1	3	360	120
E	3	3	0	2	360	120
F	8	10	1	1	960	400
G	6	6	8	0	720	240
H	3	4	0	2	360	160
I	2	2	1	12	240	80
J	1	1	0	0	120	40
K	7	8	0	4	840	320
L			0	4		
M	5	5	1	0	600	200
S	8	10	0	0	960	400
T			0	0		
U	6	6	0	8	720	240
V			0	0		
W	9	9	0	2	1080	360
X	4	4	0	0	480	160
Z	1	1	0	0	120	40
Total	98	107	14	48	11760	4280

Table S2. Fixed-effect estimates from the pooled linear mixed model of effort-standardized antelope site use at Olifants West Nature Reserve, South Africa. Vegetation-community coefficients are contrasts relative to *Acacia–Combretum*. Continuous spatial covariates were standardized across the 20 study sites, so coefficients represent the change in mean weekly site use associated with a one-standard-deviation increase in the corresponding distance. Because the

pooled model did not provide a stable basis for ecological interpretation, we report its coefficient estimates and p-values for completeness but do not draw ecological conclusions from them.

Predictor	Estimate (β)	SE	df	95% CI	*p*
Intercept	1.904	2.318	127.99	−2.640 to 6.448	0.413
Colophospermum–Combretum	−0.165	3.584	122.00	−7.189 to 6.860	0.963
Combretum	−1.207	2.383	122.00	−5.877 to 3.463	0.613
Combretum–Sclerocarya	−0.777	2.397	122.00	−5.475 to 3.920	0.746
Dicrostachys–Terminalia	−2.301	1.513	122.00	−5.266 to 0.664	0.131
Grewia–Combretum	−1.503	2.578	122.00	−6.556 to 3.551	0.561
Grewia–Grewia	−0.415	2.403	122.00	−5.124 to 4.295	0.863
Distance to waterhole	−0.201	0.222	122.00	−0.635 to 0.233	0.366
Distance to river	−0.655	0.805	122.00	−2.234 to 0.923	0.417
Distance to road	−0.037	0.191	122.00	−0.412 to 0.338	0.847
Distance to fence	−1.629	1.890	122.00	−5.333 to 2.075	0.390
Distance to building	−1.336	1.564	122.00	−4.401 to 1.729	0.395

Table S3. Diagnostic results for the pooled linear mixed model of effort-standardized antelope site use at Olifants West Nature Reserve, South Africa. The model showed optimizer/convergence and singularity problems and severe collinearity among several habitat covariates, particularly vegetation community and distances to river, fence, and buildings. Because the pooled model did not provide a stable basis for ecological interpretation, these diagnostics are reported to document why its individual coefficients were not interpreted.

Diagnostic	Result
Observations	140
Model returned	Yes
Optimizer/convergence problem	Yes
Singular fit	Yes
Rank deficient	No
Interpretation ready	No
Overall classification	Optimizer/convergence problem
VIF: vegetation community	342.63
VIF: distance to waterhole	3.10
VIF: distance to river	40.93
VIF: distance to road	2.31

Diagnostic	Result
VIF: distance to fence	225.43
VIF: distance to building	154.39