Supplementary Materials

Landscape Characteristics Affecting Small Mammal Occurrence in Heterogeneous Olive Grove Agro-Ecosystems

Table S1. Support for the effects of each landscape variable alone on Cabrera and Lusitanian pine voles occupancy relative to the model with constant occupancy (*Psi~1*), while keeping detectability as a function of transect location (*p~TransType*) (see Table 1). AICc scores of models with constant occupancy were 529.13 and 261.33 for the Cabrera and Lusitanian vole, respectively. Supported effects are identified in bold.

	Cabrera vole			Lusitanian pine vole		
Psi Submodel	AICc	DeltaAICc	Wt-AICc	AICc	DeltaAICc	Wt-AICc
Cover metrics						
~OliveCover	530.99	−1.86	0.28	262.76	−1.42	0.33
~PastCover	531.45	−2.32	0.24	**260.76**	**0.57**	**0.57**
~ShrubCover	531.35	−2-22	0.25	262.68	−1.34	0.34
~AgricCover	**528.11**	**1.03**	0.63	262.68	−1.34	0.34
~ForestCover	531.49	−2.36	0.24	263.60	−2.26	0.24
Edge metrics						
~OliveEdgeD	530.27	−1.13	0.36	262.81	−1.48	0.32
~PastEdgeD	531.18	−2.05	0.26	**260.29**	**1.04**	**0.63**
~ShrubEdgeD	531.46	−2.33	0.24	262.80	−1.47	0.32
~AgricEdgeD	**527.25**	**1.88**	0.72	263.65	−2.32	0.24
~ForestEdgeD	531.36	−2.23	0.25	262.86	−1.52	0.32
Density metrics						
~OlivePatchD	530.27	−1.13	0.36	263.69	−2.35	0.24
~PastPatchD	531.28	−2.14	0.26	**258.28**	**3.05**	**0.82**
~ShrubPatchD	531.46	−2.33	0.24	263.32	−1.98	0.27
~AgricPatchD	**526.91**	**2.22**	0.75	263.48	−2.15	0.25
~ForestPatchD	531.35	−2.22	0.25	263.24	−1.91	0.28
Aggregation metrics						
~OliveNLSI	530.71	−1.57	0.31	**259.57**	**1.76**	**0.71**
~PastNLSI	**528.35**	**0.78**	0.60	264.96	−3.62	0.14
~ShrubNLSI	530.86	−1.72	0.30	261.69	−0.36	0.46
~AgricNLSI	**528.08**	**1.05**	0.63	262.04	−0.70	0.41
~ForestNLSI	531.49	−2.36	0.24	**261.20**	**0.13**	**0.52**
Diversity metrics						
~PatchRichness	530.56	−1.43	0.33	263.39	−2.05	0.26
~ShanDiv	530.40	−1.26	0.35	263.00	−1.67	0.30
~ShanEvn	531.11	−1.98	0.27	262.93	−1.59	0.31

Table S2. Pearson's correlations among covariates receiving some support regarding their effects on Cabrera vole occupancy. Correlations >0.6 or <−0.6 are indicated in bold, and from each of the corresponding pair of variables only the one yielding the lower AICc in single covariate occupancy models was retained in subsequent analyses (see main text).

	AgricCover	AgricEdgeD	AgricPatchD	AgicNLSI	PastNLSI
AgricCover	1				
AgricEdgeD	**0.89**	1			
AgricPatchD	**0.72**	**0.88**	1		
AgricNLSI	0.18	0.36	0.46	1	
PastNLSI	0.49	0.48	0.25	0.06	1

Table S3. Pearson's correlations among covariates receiving some support regarding their effects on Lusitanian pine vole occupancy. Correlations >0.6 or <−0.6 are indicated in bold, and from each of the corresponding pair of variables only the one yielding the lower AICc in single covariate occupancy models was retained in subsequent analyses (see main text).

	PastCover	PastEdgeD	PastPatchD	OliveNLSI	ForestNLSI
PastCover	1				
PastEdgeD	**0.80**	1			
PastPatchD	**0.69**	**0.87**	1		
OliveNLSI	−0.22	−0.23	−0.21	1	
ForestNLSI	0.17	0.19	0.04	−0.10	1

Table S4. Alternative versions of the full model for each species, accounting for those covariates that were highly correlated and therefore may not be included in the same model. In each case the model indicated in bold was the alternative with lower AICc scores, and therefore was carried forward to the model building and selection procedure (see main text).

Species	*Psi* Submodel	AICc
Cabrera vole	**~Agric_EdgeD + Agric_NLSI + Past _NLSI**	**525.22**
	~Agric_Cover + Agric_NLIS + Past _NLSI	527.25
	~Agric_Patch_D + Agric_NLSI + Past _NLSI	528.03
Lusitanian pine vole	**~ Past _Patch_D + Forest_NLSI + Olive_NLSI**	**259.31**
	~ Past _Cover + Forest_NLSI + Olive_NLSI	261.84
	~ Past _EdgeD+ Forest_NLSI + Olive_NLSI	261.53