

Supplementary Materials

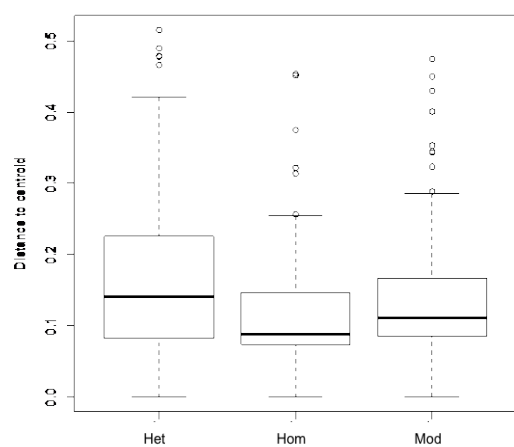
Table S1. Sum of microquadrats (a) and sites (b) considering the two main effects of landscape heterogeneity, gap/forest environment and their interaction.

(a)

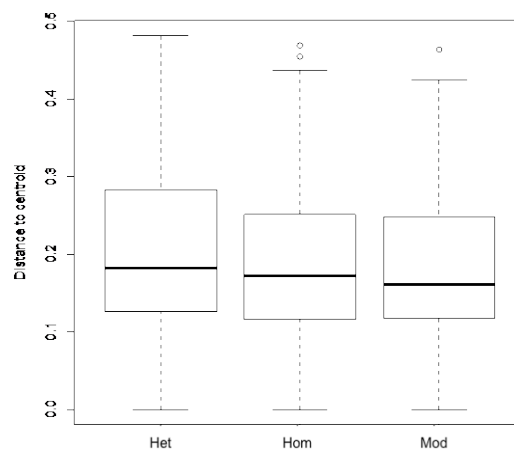
Gap/forest environment					
Landscape heterogeneity	Forest	Small	Medium	Large	Total
Homogenous	144	54	80	92	370
Moderate	144	48	82	93	367
Heterogeneous	143	55	72	94	364
Total	431	157	234	279	1101

(b)

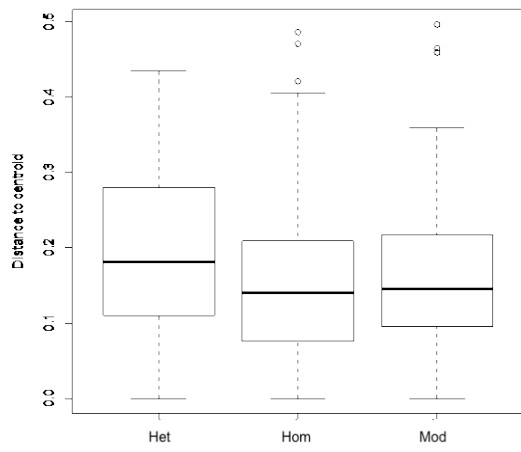
Gap/forest environment					
Landscape heterogeneity	Forest	Small	Medium	Large	Total
Homogenous	36	13	13	12	74
Moderate	36	12	15	12	75
Heterogeneous	36	14	12	12	74
Total	108	39	40	36	223



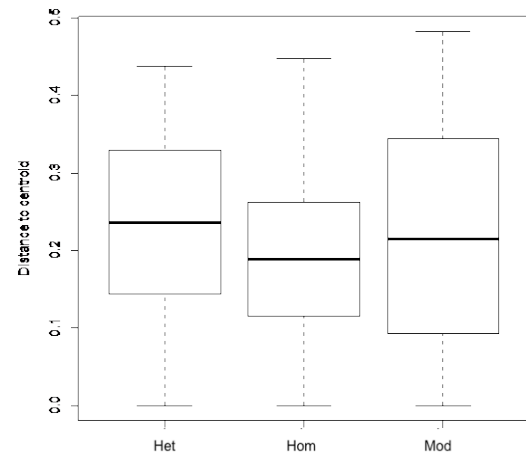
(a) Shrub/Forest understory



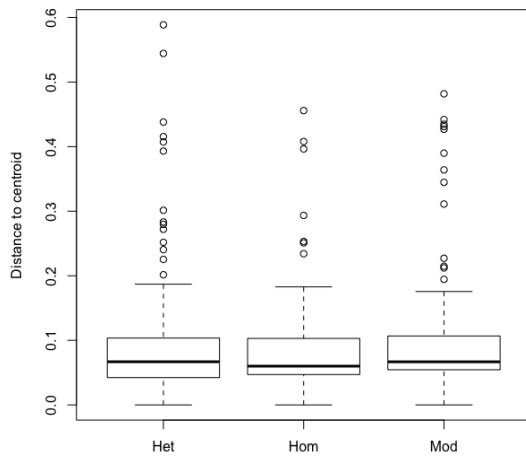
(b) Shrub/Large gaps



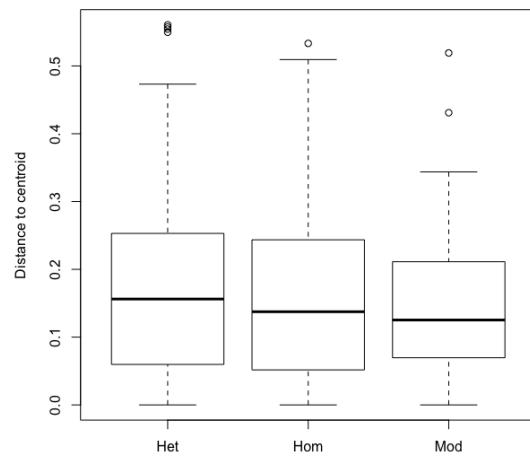
(c) Shrub/Medium gaps



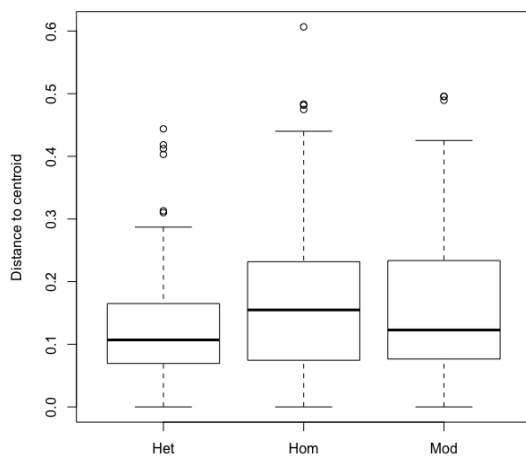
(d) Shrub/Small gaps



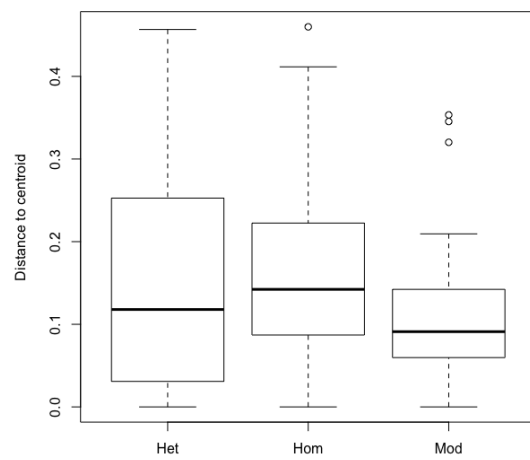
(e) Tree seedling/Forest understory



(f) Tree seedling/Large gaps

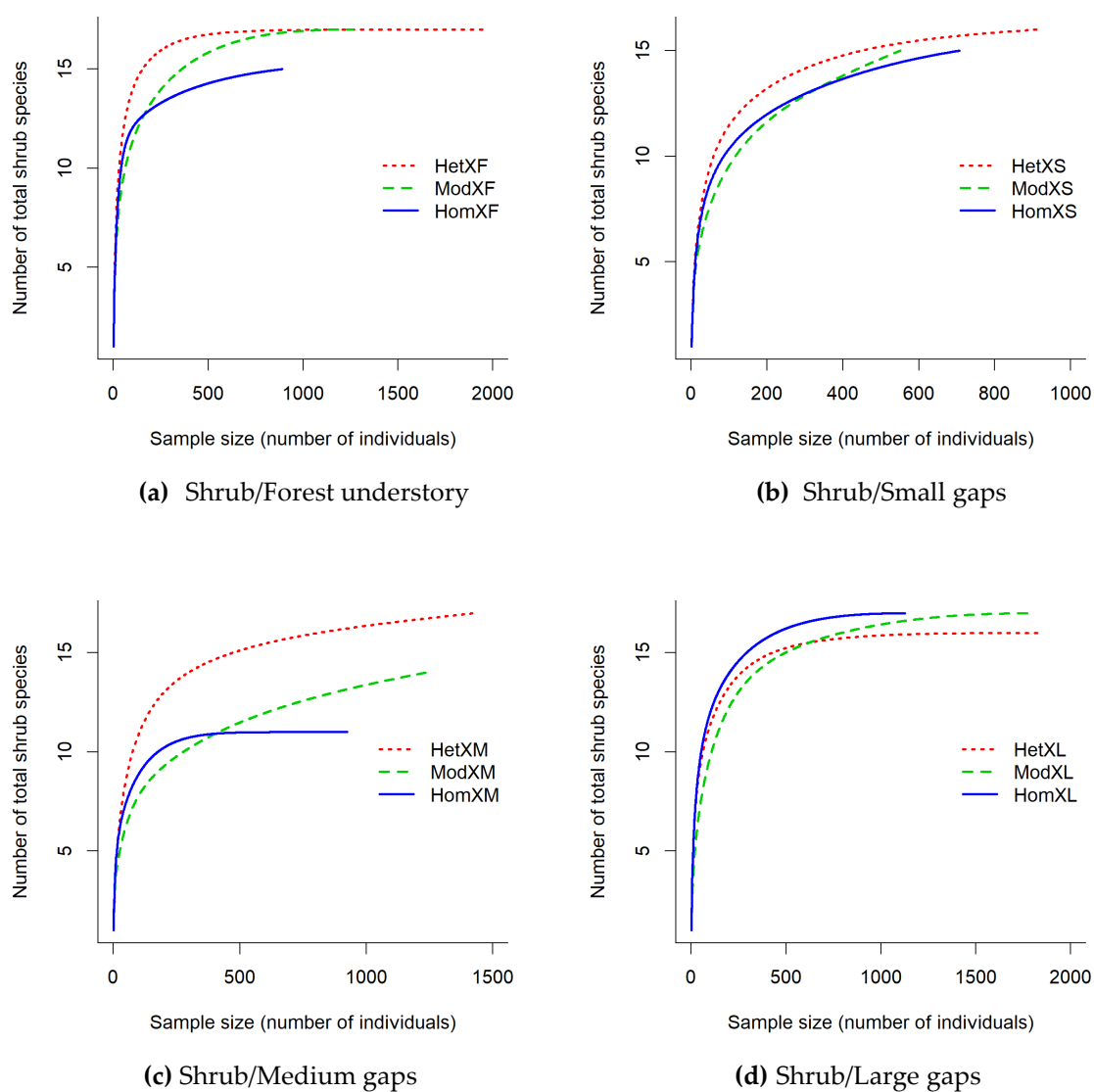


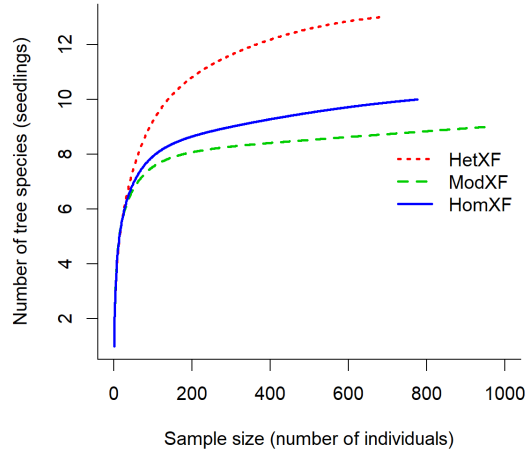
(g) Tree seedling/Medium gaps



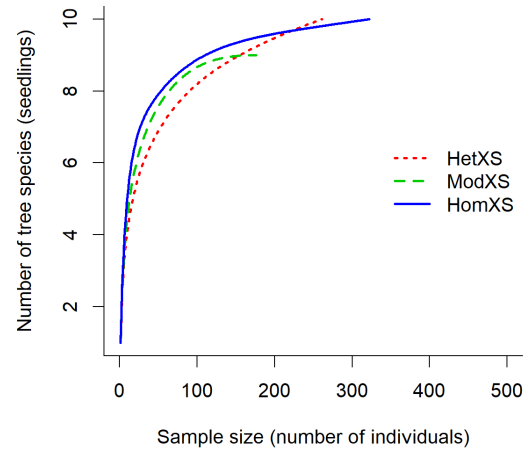
(h) Tree seedling/Small gaps

Figure S1. Box-plot of the multivariate distance to the spatial mean (centroid) for shrub (a to d) and tree seedling (e to h) species groups in landscapes of different heterogeneity levels (heterogeneous (Het), moderate (Mod), homogenous (Hom)) for different gap/forest environments (forest (F) understory, small (S) gaps, medium (M) gaps, large (L) gaps).

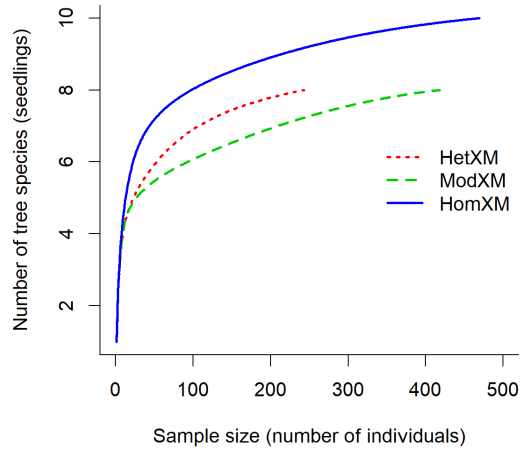




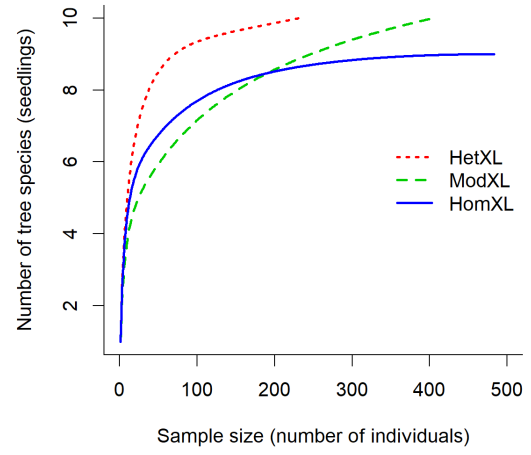
(e) Tree seedling/Forest understory



(f) Tree seedling/Small gaps



(g) Tree seedling/Medium gaps



(h) Tree seedling/Large gaps

Figure S2. Species rarefaction curves from landscapes with different spatial heterogeneity levels (heterogeneous (Het), moderate (Mod), homogenous (Hom)) in four distinct gap/forest environments (forest (F) understory, small (S) gaps, medium (M) gaps, large (L) gaps) for shrub (a to d) and tree seedling (e to h) species.

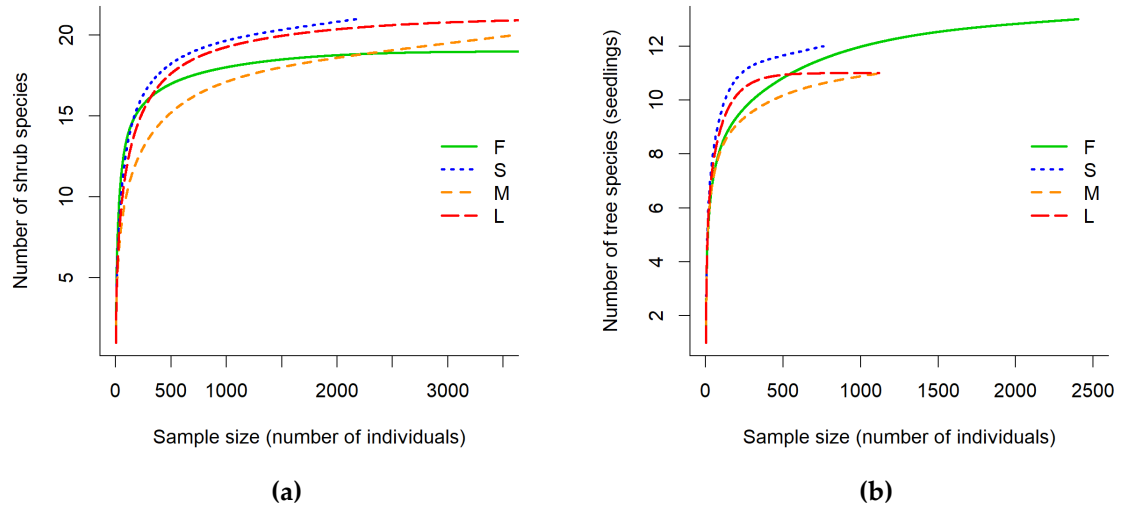


Figure S3. Species rarefaction curves from four distinct gap/forest environments (forest (F) understory, small (S) gaps, medium (M) gaps, large (L) gaps) for shrub (a) and tree seedling (b) species.