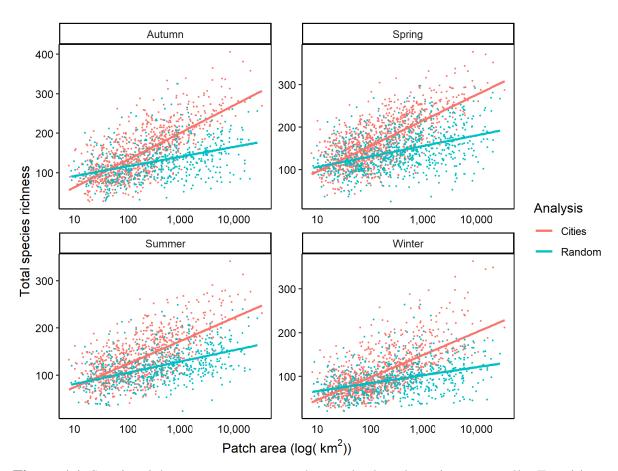
**Appendix 5**. Intra-annual analysis of our species-area relationships for cities, random polygon patches, and the comparison between the two.

**Table A1**. Results from GAMs for the species-area relationship within cities, split intraannually. Note that only a subset of the 1,581 cities were included in each model.

Term	Season	Estimate	Std. Error	z value	Pr(> z )	Deviance explained	Number of cities
Patch area (log)	Summer	0.178	0.001	199.592	< 0.001	0.671	848
Patch area (log)	Winter	0.185	0.001	213.124	< 0.001	0.820	1008
Patch area (log)	Spring	0.163	0.001	238.257	< 0.001	0.644	1083
Patch area (log)	Autumn	0.194	0.001	242.316	< 0.001	0.695	899



**Figure A1**. Species richness patterns per patch area, broken down intra-annually. For cities, the sample sizes were as follows: Summer -848; Spring -1083; Autumn -899; Winter -1008. For random polygons, the sample sizes were as follows: Summer -563; Spring -769; Autumn -537; Winter -620. See Table A2 for model results.

**Table A2**. Results of GAMs which tested for the interaction between analysis and patch area (bolded in the table below), separately for each season (N=4 models). The deviance explained ranged from 56% to 75%. Sample sizes for each of the analysis types per season are given in Figure A1 legend, above.

Term	Season	Estimate	Std. Error	z value	Pr(> z )	Deviance explained
Patch area (log)	Summer	0.171	0.001	202.795	< 0.001	0.590
Random analysis	Summer	0.853	0.025	34.036	< 0.001	0.590
Patch area (log):Random analysis	Summer	-0.059	0.001	-44.244	< 0.001	0.590
Patch area (log)	Winter	0.177	0.001	214.254	< 0.001	0.749
Random analysis	Winter	0.601	0.016	37.648	< 0.001	0.749
Patch area (log):Random analysis	Winter	-0.073	0.001	-53.930	< 0.001	0.749
Patch area (log)	Spring	0.157	0.001	239.633	< 0.001	0.560
Random analysis	Spring	0.433	0.012	36.223	< 0.001	0.560
Patch area (log):Random analysis	Spring	-0.058	0.001	-56.738	< 0.001	0.560
Patch area (log)	Autumn	0.186	0.001	243.093	< 0.001	0.606
Random analysis	Autumn	0.688	0.015	45.789	< 0.001	0.606
Patch area (log):Random analysis	Autumn	-0.080	0.001	-63.053	< 0.001	0.606