

Appendix 3.

PCA results

Table A3.1. PCA loadings (rounded to 2 decimal places) for each environmental variable used. All shaded cells correspond to either the two highest or two lowest loadings for respective dimension. Those shaded in green indicate variables associated with "greenspace", in grey associated with "greyspace" or "concrete cover", and in beige associated with "dirt." In parentheses, the percent of variance explained by the respective dimension.

Environmental Variable	Dim. 1 (31.6%)	Dim. 2 (16.5%)	Dim. 3 (10%)	Dim. 4 (8.7%)
LOC_Tree	0.31	0.22	0.16	-0.13
LOC_Grass	0.31	0.22	0.14	0.08
LOC_Asphalt	-0.19	0.24	-0.12	-0.39
LOC_Building	-0.35	0.01	-0.28	0.31
LOC_Dirt	0.09	-0.47	0.29	-0.22
NEI_Tree	0.37	0.13	-0.04	0.02
NEI_Grass	0.35	0.03	-0.02	0.12
NEI_Asphalt	-0.23	0.35	0.10	-0.28
NEI_Building	-0.36	0.18	0.09	0.19
NEI_Dirt	0.032	-0.49	0.20	-0.30
Distance from Park	-0.01	-0.34	-0.27	0.43
Distance from Water	-0.22	0.13	0.54	0.14
Distance from Center	-0.02	0.09	0.53	0.32
Observed Species	0.33	0.15	-0.22	0.22
Simpson Evenness	-0.14	-0.08	0.01	-0.24
Avg. # Individual Birds	0.13	0.20	-0.26	-0.22

Interpretation of PCA results:

Dimension 2 (PC2) suggested a gradient of greenspace versus dirt open area. Dimensions 3 and 4 were less clearly interpreted, although they seem to be related to distance from the center of the city (PC3) and distance from the nearest park (PC4). The four cities displayed little differences along PC2, except for Huacho. The variables measured through bird surveys had less clear associations with the different dimensions. Observed species richness has relatively strong associations with dimensions 2, 3, and 4 (more dirt, less species; further away from center, less species; further away from nearest park, more species). Simpson evenness is associated with dimension 4 in the following manner: less urban, less evenness. Average number of individual birds is associated with dimension 2 such that less dirt, means more birds, and negatively associated with dimensions 3 and 4 (closer to center, more birds; in places closer to parks, more birds).