

Supplement

Table S1 GLM results for effects of average humidity, percent impervious surface, and microarthropod abundance on ant richness

City	Average humidity				Percent impervious surface				Microarthropod abundance			
	n	estimate	t	Pr(>F)	n	estimate	t	Pr(>F)	n	estimate	t	Pr(>F)
All	102	0.040	2.27	0.025 *	128	-0.742	-4.64	<0.001 ***	121	0.011	2.05	0.043 *
Boston	28	0.124	2.21	0.036 *	32	-0.671	-1.12	0.270	31	0.011	0.69	0.498
Queens	28	0.096	2.58	0.016 *	35	-0.812	2.50	0.018 *	34	-0.012	-0.62	0.540
Baltimore	24	0.078	2.68	0.014 *	33	-0.711	-2.14	0.040 *	29	0.012	0.58	0.565
Raleigh	22	0.031	0.05	0.615	28	0.987	0.73	0.472	27	0.009	1.60	0.123

Table S2 GLM results for relationship between percent impervious surface and average temperature

City	n	estimate	t	Pr(>F)
Boston	28	0.083	2.11	0.045 *
Queens	28	0.089	5.33	<0.001 ***
Baltimore	24	0.080	2.60	0.016 *
Raleigh	22	0.014	0.24	0.812

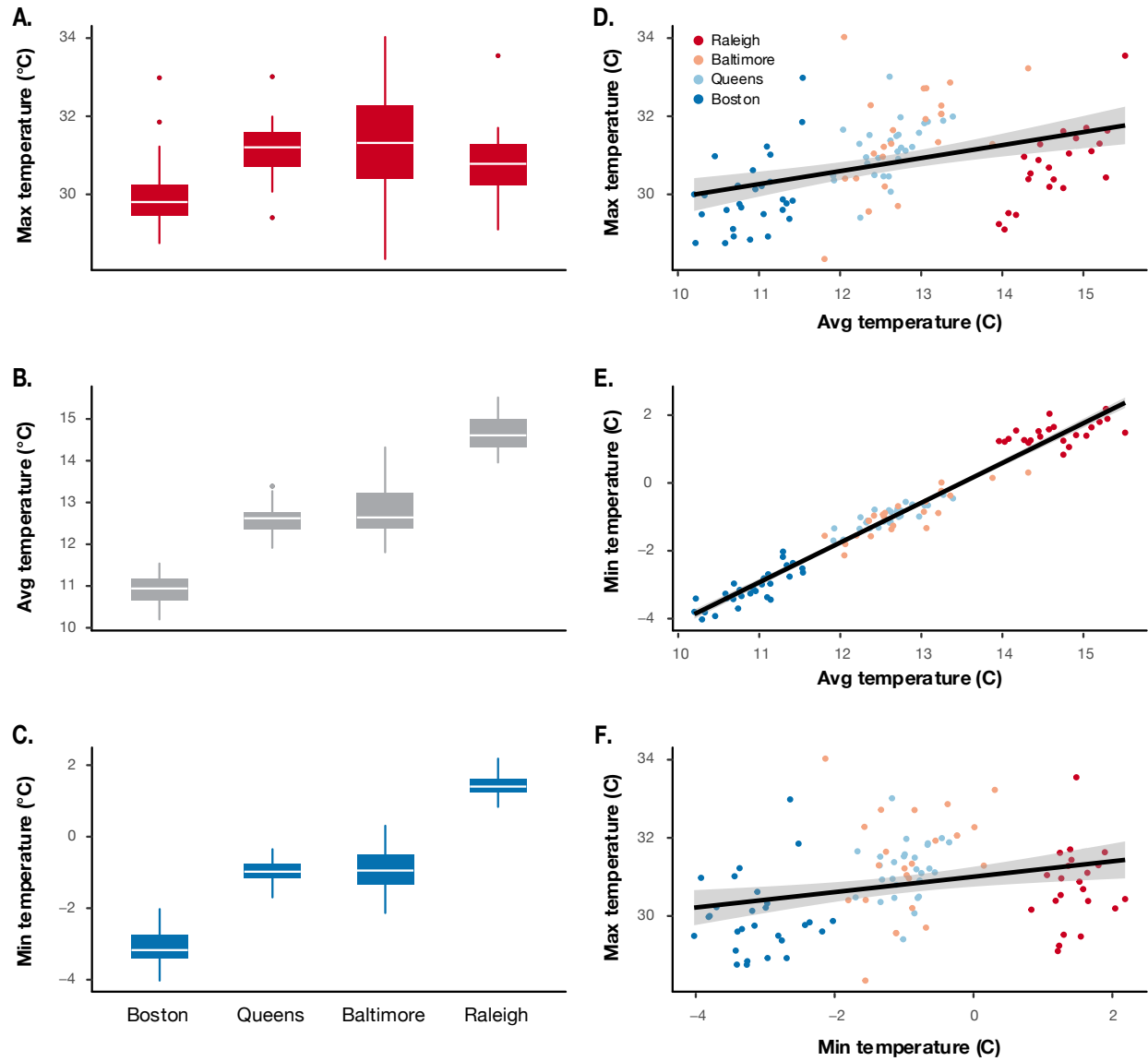


Fig S1. Measured temperatures across cities and sites. **(A-C)** Boxplots showing median, 25-75% and non-outlier range of maximum, average, and minimum temperatures (°C) among cities; **(D-F)** relationships between maximum, average, and minimum temperature across sites. Cities are indicated by color (Boston – dark blue; Queens – light blue; Baltimore – light orange-red; Raleigh – red).

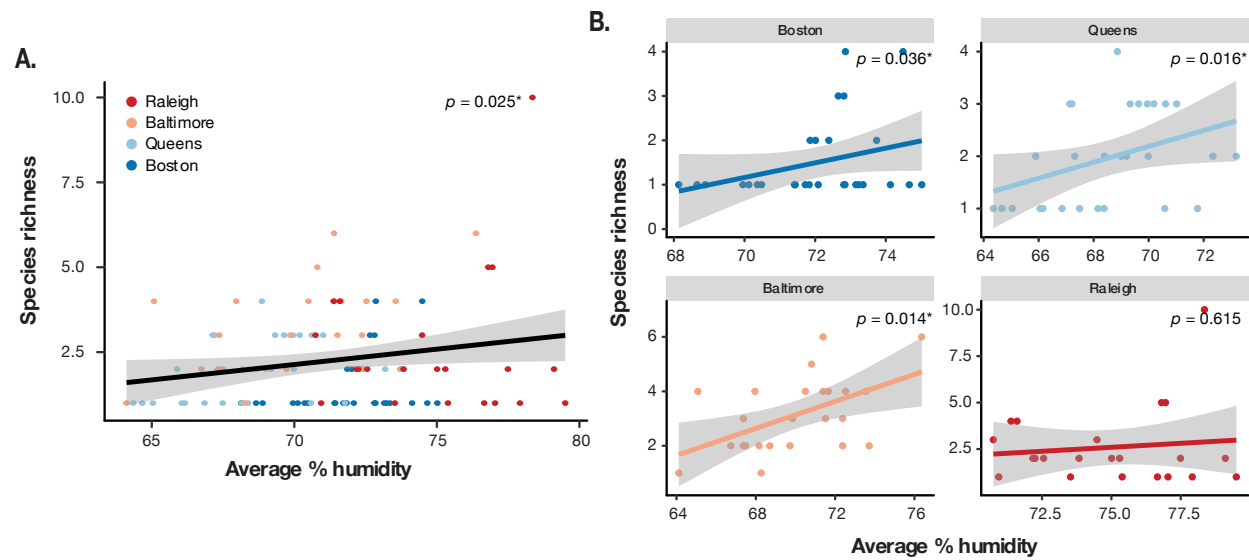


Fig S2. Relationships between average humidity and ant species richness. **(A)** Relationship across all cities and **(B)** relationships within each city. Lines indicate best fit with 95% confidence intervals. Significant relationships are indicated by $p < 0.05$.

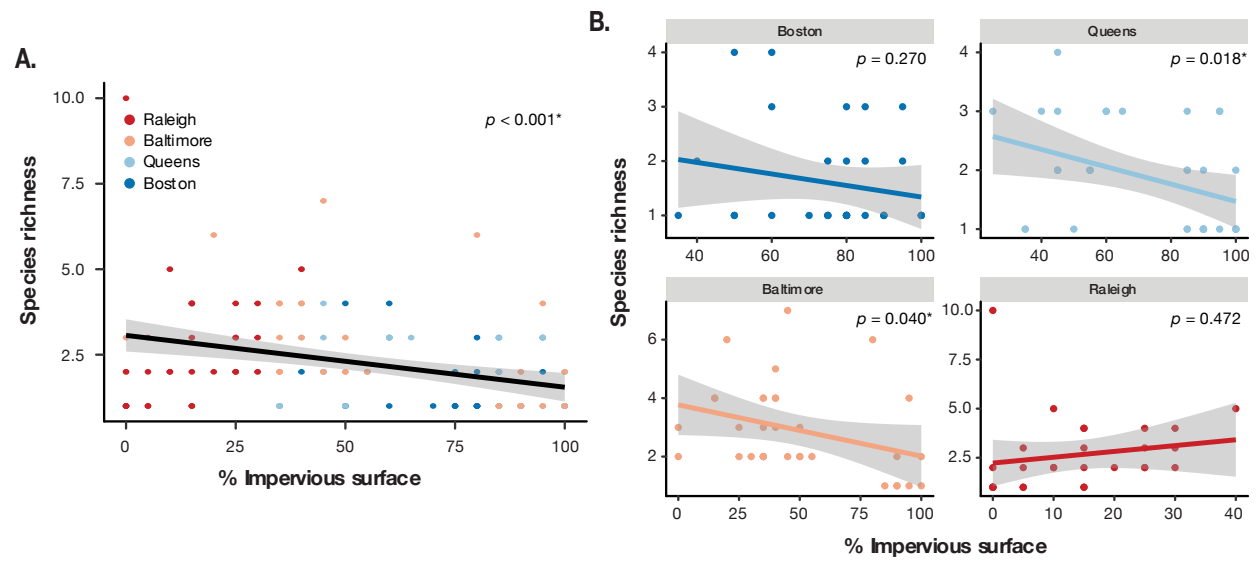


Fig S3. Relationships between percent impervious surface and ant species richness. **(A)** Relationship across all cities and **(B)** relationships within each city. Lines indicate best fit with 95% confidence intervals. Significant relationships are indicated by $p < 0.05$.

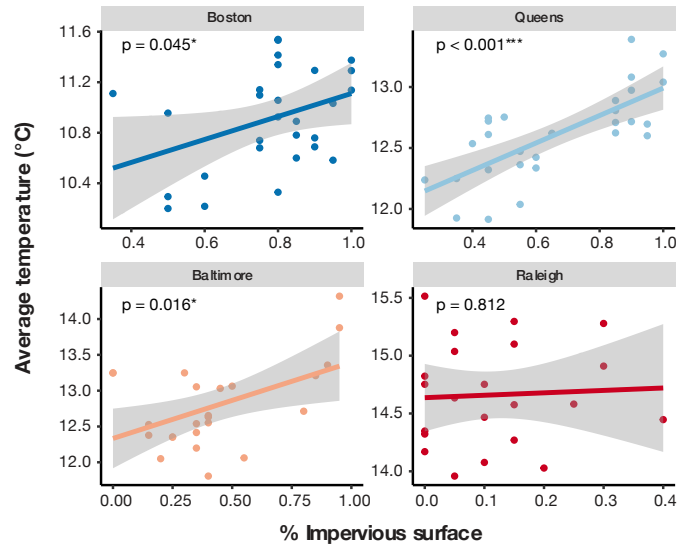


Fig S4. Relationship between percent impervious surface and average temperature (°C) at each site within each city. Lines indicate best fit with 95% confidence intervals. Significant relationships are indicated by $p < 0.05$.

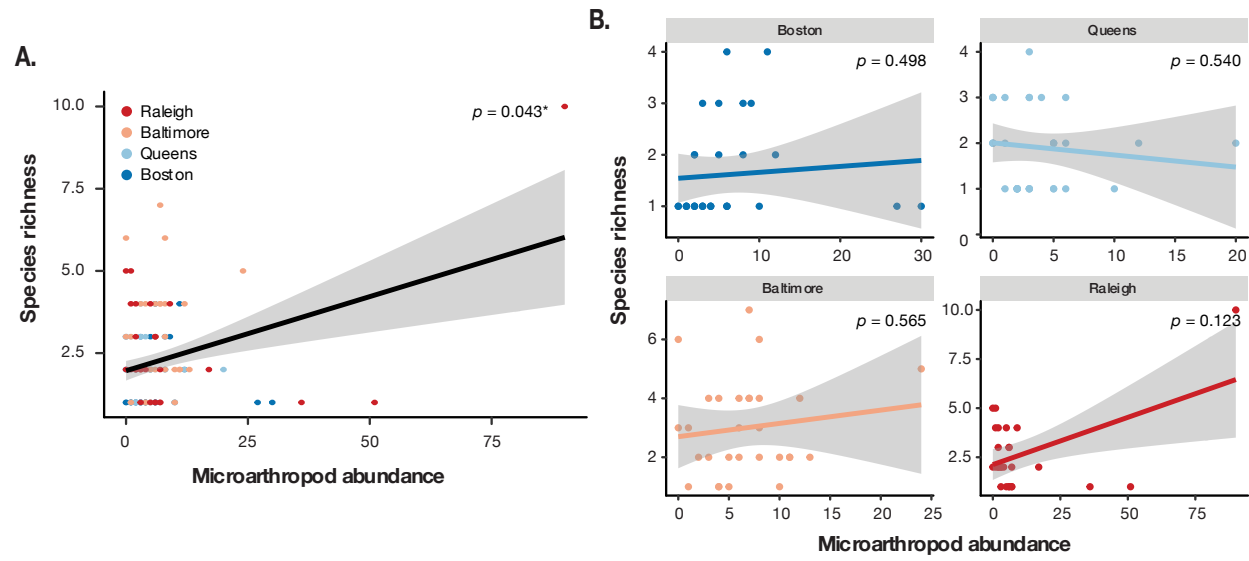


Fig S5. Relationships between microarthropod abundance and ant species richness. **(A)** Relationship across all cities and **(B)** relationships within each city. Lines indicate best fit with 95% confidence intervals. Significant relationships are indicated by $p < 0.05$.