Low-intensity monitoring of small-mammal habitat associations and species interactions in an urban forest-preserve network

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Table S1. Candidate model set for detection probability for six small mammal species from 225 sites on forest preserves in Lake County, Illinois, USA during August-October 2009-2012.

Hypothesis	Model
Global	$\beta 0 + \beta 1(\text{Day of year}) + \beta 2(\text{Day of year}^2) + \beta 3(\text{Temp}) + \beta 4(\text{Temp}^2) + \beta 5(\text{Year}) + \beta 6(\text{Temp} \times \text{Rain}) + \beta 7(\text{Trap-response}) + \beta 8(\text{Effort})$
Temporal	$\beta 0 + \beta 1(\text{Year})$
Temporal	$\beta 0 + \beta 1(\text{Survey-specific})$
Environmental	$\beta 0 + \beta 1(\text{Temp}) + \beta 2(\text{Temp}^2) + \beta 3(\text{Rain})$
Environmental	$\beta 0 + \beta 1(\text{Temp}) + \beta 2(\text{Temp}^2)$
Environmental	$\beta 0 + \beta 1(\text{Temp}) + \beta 2(\text{Rain})$
Environmental	$\beta 0 + \beta 1(\text{Temp} \times \text{Rain})$
Environmental	$\beta 0 + \beta 1(\text{Temp})$
Environmental	$\beta 0 + \beta 1(\text{Rain})$
Temporal and environmental	$\beta 0 + \beta 1(\text{Day of year}) + \beta 2(\text{Day of year}^2) + \beta 3(\text{Rain})$
Temporal	$\beta 0 + \beta 1(\text{Day of year}) + \beta 2(\text{Day of year}^2)$
Temporal and environmental	$\beta 0 + \beta 1(\text{Day of year}) + \beta 2(\text{Rain})$
Temporal	$\beta 0 + \beta 1(\text{Day of year})$
Behavior	$\beta 0 + \beta 1(\text{Trap-response})$
Survey design	$\beta 0 + \beta 1(\text{Effort})$
Null	$\beta 0$ (intercept-only)

Table S2. Candidate model set for site occupancy for six small mammal species from 225 sites on forest preserves in Lake County, Illinois, USA during August-October 2009-2012.

Hypothesis	Model
Global	$\beta 0 + \beta 1(\text{PC1}) + \beta 2(\text{PC2})$
Canopy	$\beta 0 + \beta 1(\text{PC1})$
Xeric/Mesic	$\beta 0 + \beta 1(\text{PC2})$
Null	$\beta 0$ (intercept-only)

Table S3. Total number of detections of six small mammal species from 225 sites on forest preserves in Lake County, Illinois, USA during August-October 2009-2012.

Species		Year				Total
		2009	2010	2011	2012	
Short-tailed shrew	*Blarina brevicauda*	34	39	17	22	112
Meadow vole	*Microtus pennsylvanicus*	111	47	55	31	244
White-footed mouse	*Peromyscus leucopus*	84	177	121	304	686
Gray squirrel	*Sciurus carolinensis*	7	27	13	16	63
Masked shrew	*Sorex cinereus*	15	3	7	26	51
Eastern chipmunk	*Tamias striatus*	5	5	27	24	61
	Total detections:	256	298	240	423	1217
	Tomahawk trap effort[a]:	537	529	543	490	2099
	Sherman trap effort[a]:	1099	998	1137	997	4231
	Total effort(trap nights):	1636	1527	1680	1487	6330

[a]Effort is calculated separately for Tomahawk and Sherman traps and was adjusted for trap disturbance (see Methods).