

ELECTRONIC SUPPLEMENTARY MATERIAL

Detailed Site Descriptions

We studied lizards in four urban and four natural sites throughout the Miami metropolitan area. Generally, natural sites were closed-canopy forests on upland hammocks, consisting of hardwood-oak overstory canopy with palmettos and saplings in the understory. All natural sites were forest patches within the urban matrix of metropolitan Miami. The ‘Barnes’ natural site contains *A. sagrei* and is a designated natural area within A.D. Barnes Park, a typical city park. The ‘Montgomery’ natural site contains *A. sagrei*, and is a forest patch inside of the Montgomery Botanical Center, which features large lawns and managed gardens, insulating the site from nearby urban areas. The ‘Matheson’ natural site contains *A. cristatellus* and is a designated natural area within Matheson Hammock Park. The ‘Bear Cut’ natural site contains *A. cristatellus* and is a designated natural area within the Crandon Beach Park on Key Biscayne.

Urban sites are located within human-altered areas, generally along roadsides with bike paths, canals, and sidewalks. The ‘UM’ urban site contains *A. sagrei* and is located along a road near the University of Miami in Coral Gables. The ‘Gables’ urban site contains *A. sagrei* and is located near downtown Coral Gables, with very little vegetation and primarily artificial substrates. The ‘Red Rd.’ urban site contains both *A. sagrei* and *A. cristatellus*, and is located along a portion of Red Road in South Miami and Pinecrest. The site is a linear park along a road, bike path, and canal with a guard-rail in some parts. The ‘Crandon’ urban site contains both *A. sagrei* and *A. cristatellus*, and is located along a portion of Crandon Boulevard on Key Biscayne. We are unaware of any urban sites in Miami that contain only *A. cristatellus*.

Table S1: Morphological measurements for experimental groups

Mean (\pm SD) for morphological variables, sample size (n), and site information for the three different groups of lizards used in this study.

GROUP	n		SVL (mm)		Mass (g)		Number of sites	
	Natural	Urban	Natural	Urban	Natural	Urban	Natural	Urban
<i>Anolis sagrei</i>								
Habitat Use	M: 150 F: 111	M: 313 F: 205	M: 54.1 \pm 4.42 F: 44.0 \pm 1.89	M: 57.3 \pm 5.24 F: 44.6 \pm 2.76	--	--	2	4 (2 with <i>A. cristatellus</i>)
Preference (M only)	19	--	54.2 \pm 3.69	--	4.5 \pm 0.84	--	1	0
<i>Anolis cristatellus</i>								
Habitat Use	M: 160 F: 102	M: 176 F: 89	M: 63.7 \pm 7.16 F: 46.3 \pm 2.56	M: 66.1 \pm 5.74 F: 46.3 \pm 2.76	--	--	2	2 (overlap with <i>A. sagrei</i>)
Preference (M only)	16	--	66.8 \pm 2.26	--	9.0 \pm 1.28	--	1	0

Figure S1. Mean perch diameter and height of available perches and those used by lizards
 Mean (\pm SE) for habitat availability and habitat use by males and female lizards. Panels a & c show perch diameter, and b & d show perch height for *A. cristatellus* (a, b) and *A. sagrei* (c, d). Perch height availability was not measured because all heights are available. Asterisks denote a significant difference between urban and natural sites.

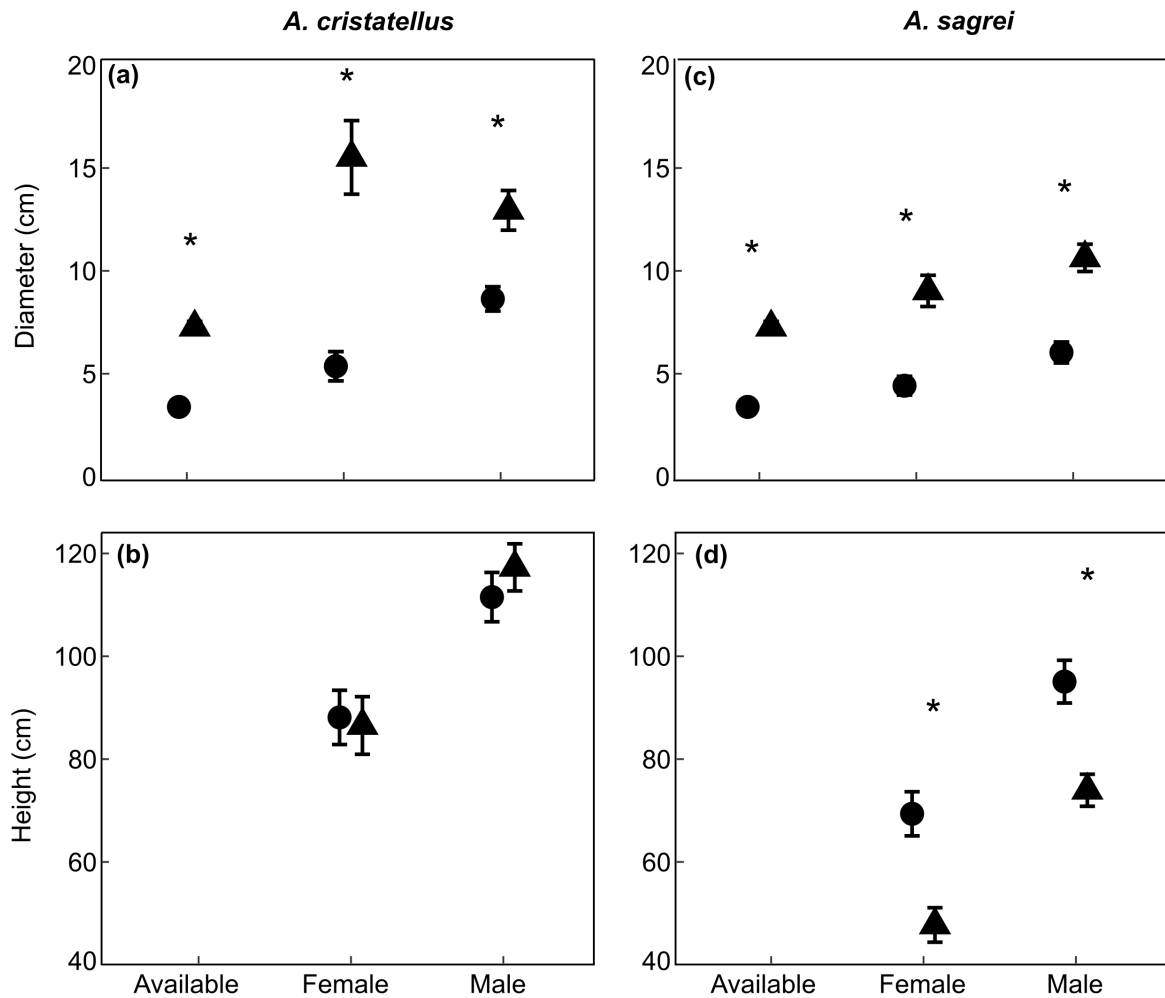


Figure S2. Histogram of perch availability and use

Frequency histograms showing perch diameter availability (blue) and perch diameter use by females (yellow) and males (red) for *A. cristatellus* in (a) natural and (b) urban sites, and for *A. sagrei* in (c) natural and (d) urban sites.

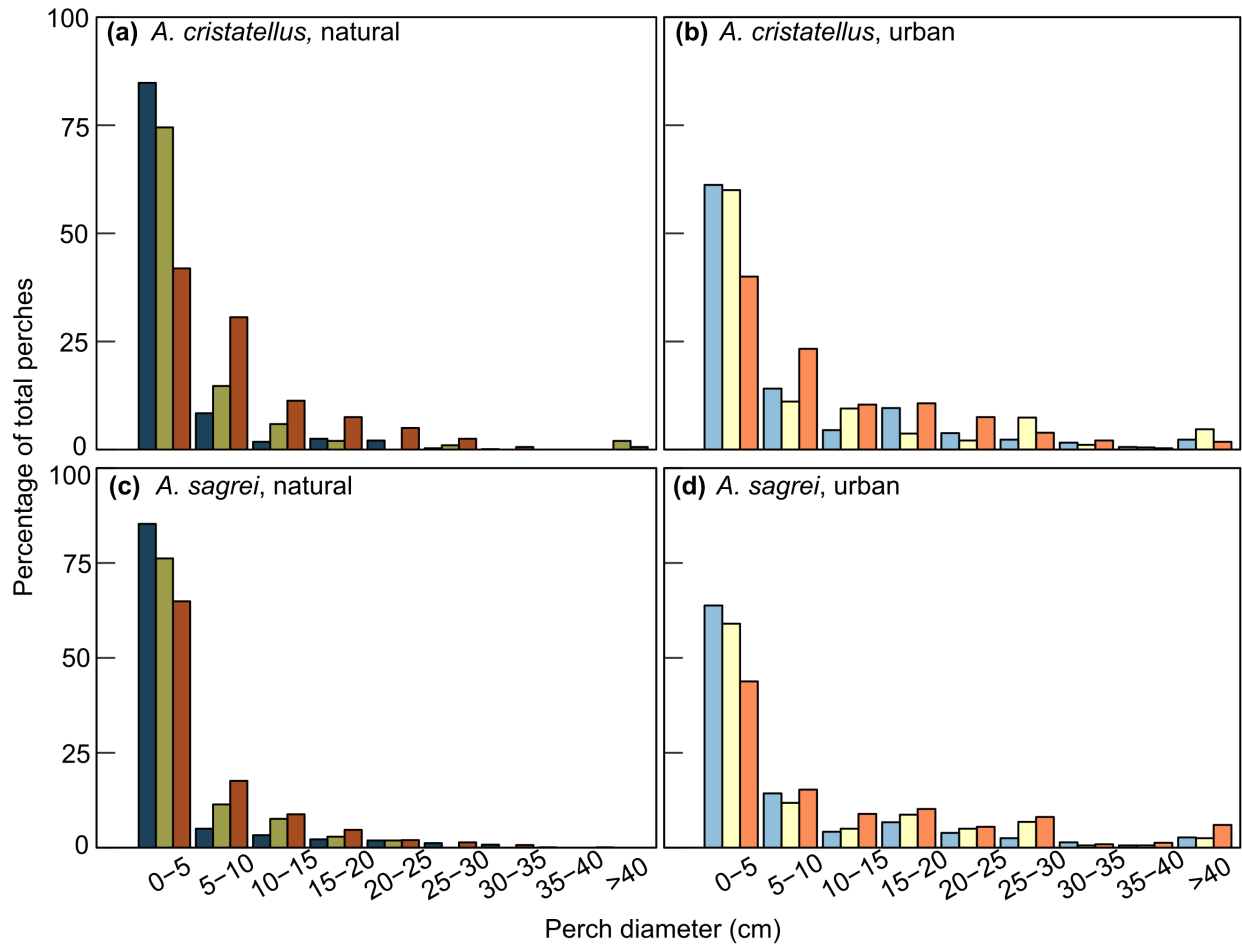


Table S2. Site-specific availability data

A comparison of natural and urban sites in this study showing species present, perch diameter available (mean±SE), and percent of open space, calculated as the percentage of open points from availability transects.

Site	Species Present	Perch Diameter (cm)	Open Space (%)
<i>Natural</i>			
Matheson	<i>A. cristatellus</i>	2.8±0.22	2
Bear Cut	<i>A. cristatellus</i>	3.7±0.28	2
Montgomery	<i>A. sagrei</i>	2.8±0.26	0
Barnes	<i>A. sagrei</i>	4.2±0.36	0
<i>Urban</i>			
UM	<i>A. sagrei</i>	6.0±0.45	42
Coral Gables	<i>A. sagrei</i>	6.9±0.60	56
Crandon	<i>A. cristatellus</i> & <i>A. sagrei</i>	7.9±0.45	51
Red Road	<i>A. cristatellus</i> & <i>A. sagrei</i>	7.7±0.75	56

Figure S3. Differences in perch use distributions between urban and natural sites

Cumulative distribution functions illustrating differences in perch diameter niche between natural (red) and urban (blue) for *A. cristatellus* (a) females and (b) males, and *A. sagrei* (c) females and (d) males.

