

Supplementary material I: List of analyzed specimens of *Anolis* species

Species	Voucher	Ecomorph
<i>allisoni</i>	MCZA 33074	Trunk-crown
<i>allisoni</i>	MCZZ 26996	Trunk-crown
<i>angusticeps</i>	MCZA 29330	Twig
<i>armouri</i>	MCZA 33116	Trunk-ground
<i>armouri</i>	MCZA 33125	Trunk-ground
<i>brunneus</i>	JASIL 2843	Trunk-crown
<i>brunneus</i>	JASIL 2848	Trunk-crown
<i>brunneus</i>	JASIL 2850	Trunk-crown
<i>carolinensis</i>	JASIL 2807	Trunk-crown
<i>carolinensis</i>	JASIL 2808	Trunk-crown
<i>carolinensis</i>	JASIL 2809	Trunk-crown
<i>carolinensis</i>	JASIL 2810	Trunk-crown
<i>carolinensis</i>	JASIL 2812	Trunk-crown
<i>coelestinus</i>	JASIL 2672	Trunk-crown
<i>coelestinus</i>	JASIL 2673	Trunk-crown
<i>conspersus</i>	MCZA 33075	Trunk-crown
<i>conspersus</i>	MCZA 33076	Trunk-crown
<i>conspersus</i>	MCZA 33077	Trunk-crown
<i>conspersus</i>	MCZZ 27000	Trunk-crown
<i>cooki</i>	MCZR 122188	Trunk-ground
<i>cratatellus</i>	MCZA 33111	Trunk-ground
<i>cratatellus</i>	MCZA 33112	Trunk-ground
<i>cratatellus</i>	MCZA 33120	Trunk-ground
<i>cratatellus</i>	MCZA 33121	Trunk-ground
<i>cratatellus</i>	MCZA 33122	Trunk-ground
<i>cratatellus</i>	JASIL 2800	Trunk-ground
<i>cratatellus</i>	MCZR 122197	Trunk-ground
<i>cybotes</i>	MCZA 33050	Trunk-ground
<i>cybotes</i>	MCZA 33052	Trunk-ground
<i>cybotes</i>	MCZA 33053	Trunk-ground
<i>cybotes</i>	MCZA 33054	Trunk-ground
<i>cybotes</i>	MCZA 33055	Trunk-ground
<i>cybotes</i>	MCZA 33057	Trunk-ground
<i>cybotes</i>	MCZA 33059	Trunk-ground
<i>cybotes</i>	MCZA 33060	Trunk-ground
<i>cybotes</i>	MCZA 33061	Trunk-ground
<i>cybotes</i>	MCZA 33062	Trunk-ground
<i>cybotes</i>	MCZA 33063	Trunk-ground
<i>cybotes</i>	MCZA 33065	Trunk-ground

<i>cybotes</i>	MCZA 33066	Trunk-ground
<i>cybotes</i>	MCZA 33067	Trunk-ground
<i>cybotes</i>	MCZA 33068	Trunk-ground
<i>cybotes</i>	MCZA 33069	Trunk-ground
<i>cybotes</i>	MCZA 33070	Trunk-ground
<i>cybotes</i>	MCZA 33071	Trunk-ground
<i>cybotes</i>	MCZA 33072	Trunk-ground
<i>cybotes</i>	MCZA 33078	Trunk-ground
<i>cybotes</i>	MCZA 33080	Trunk-ground
<i>cybotes</i>	MCZA 33081	Trunk-ground
<i>cybotes</i>	MCZA 33082	Trunk-ground
<i>cybotes</i>	MCZA 33083	Trunk-ground
<i>cybotes</i>	MCZA 33084	Trunk-ground
<i>cybotes</i>	MCZA 33085	Trunk-ground
<i>cybotes</i>	MCZA 33086	Trunk-ground
<i>distichus</i>	JASIL 2680	Trunk
<i>distichus</i>	JASIL 2681	Trunk
<i>distichus</i>	JASIL 2683	Trunk
<i>evermanni</i>	MCZA 10526	Trunk-crown
<i>evermanni</i>	MCZR 137728	Trunk-crown
<i>evermanni</i>	MCZR 137730	Trunk-crown
<i>garmani</i>	MCZR 51880	Crown-giant
<i>garmani</i>	MCZR 73381	Crown-giant
<i>garmani</i>	MCZR 73378	Crown-giant
<i>grahami</i>	MCZA 24502	Trunk-crown
<i>grahami</i>	MCZA 24510	Trunk-crown
<i>grahami</i>	MCZA 24511	Trunk-crown
<i>grahami</i>	MCZA 24512	Trunk-crown
<i>grahami</i>	MCZA 24554	Trunk-crown
<i>grahami</i>	MCZA 24559	Trunk-crown
<i>grahami</i>	MCZA 24564	Trunk-crown
<i>grahami</i>	MCZA 24565	Trunk-crown
<i>grahami</i>	MCZA 24590	Trunk-crown
<i>grahami</i>	MCZA 24597	Trunk-crown
<i>grahami</i>	MCZA 24599	Trunk-crown
<i>grahami</i>	MCZA 24600	Trunk-crown
<i>grahami</i>	MCZA 24601	Trunk-crown
<i>grahami</i>	MCZA 24603	Trunk-crown
<i>grahami</i>	MCZA 24604	Trunk-crown
<i>grahami</i>	MCZA 24605	Trunk-crown
<i>grahami</i>	MCZA 24607	Trunk-crown
<i>grahami</i>	MCZA 24608	Trunk-crown
<i>grahami</i>	MCZA 24609	Trunk-crown

<i>grahami</i>	MCZA 24614	Trunk-crown
<i>grahami</i>	MCZA 24617	Trunk-crown
<i>grahami</i>	MCZA 24621	Trunk-crown
<i>grahami</i>	MCZA 24622	Trunk-crown
<i>grahami</i>	MCZA 24624	Trunk-crown
<i>grahami</i>	MCZA 24629	Trunk-crown
<i>grahami</i>	MCZA 24630	Trunk-crown
<i>grahami</i>	MCZA 24632	Trunk-crown
<i>grahami</i>	MCZA 24633	Trunk-crown
<i>grahami</i>	MCZA 24634	Trunk-crown
<i>grahami</i>	MCZA 24675	Trunk-crown
<i>gundlachi</i>	MCZR 183186	Trunk-ground
<i>gundlachi</i>	MCZR 183187	Trunk-ground
<i>jubar</i>	MCZA 29334	Trunk-ground
<i>jubar</i>	MCZA 29335	Trunk-ground
<i>jubar</i>	MCZA 29337	Trunk-ground
<i>jubar</i>	MCZA 29338	Trunk-ground
<i>jubar</i>	MCZA 29339	Trunk-ground
<i>jubar</i>	MCZA 29340	Trunk-ground
<i>jubar</i>	MCZA 29341	Trunk-ground
<i>krugi</i>	MCZR 150650	Grass-bush
<i>lineatopus</i>	MCZR 73179	Trunk-ground
<i>opalinus</i>	MCZR 177919	Trunk-crown
<i>opalinus</i>	MCZA 24568	Trunk-crown
<i>opalinus</i>	MCZA 24587	Trunk-crown
<i>ophiolepis</i>	MCZA 29349	Grass-bush
<i>ophiolepis</i>	MCZA 29432	Grass-bush
<i>poncensis</i>	MCZR 158234	Grass-bush
<i>poncensis</i>	MCZR 158236	Grass-bush
<i>porcatus</i>	MCZA 29351	Trunk-crown
<i>porcatus</i>	MCZA 29352	Trunk-crown
<i>porcatus</i>	MCZA 29353	Trunk-crown
<i>porcatus</i>	MCZA 29354	Trunk-crown
<i>porcatus</i>	MCZA 29355	Trunk-crown
<i>porcatus</i>	MCZA 29356	Trunk-crown
<i>porcatus</i>	MCZA 29357	Trunk-crown
<i>porcatus</i>	MCZA 29358	Trunk-crown
<i>porcatus</i>	MCZA 29359	Trunk-crown
<i>pulchellus</i>	MCZR 150901	Grass-bush
<i>pulchellus</i>	MCZR 151352	Grass-bush
<i>sagrei</i>	MCZZ 26998	Trunk-ground
<i>sagrei</i>	MCZA 33107	Trunk-ground
<i>sagrei</i>	MCZA 33108	Trunk-ground

<i>sagrei</i>	MCZA 33109	Trunk-ground
<i>sagrei</i>	MCZA 33110	Trunk-ground
<i>sagrei</i>	MCZA 33123	Trunk-ground
<i>stratulus</i>	MCZR 138168	Trunk-crown
<i>stratulus</i>	MCZR 138204	Trunk-crown
<i>valencienni</i>	MCZR 82004	twig

Supplementary material II: Descriptive statistics for log transformed hemipenial and non-genital traits: mean and standard deviation (Std Dev).

	Dewlap	Thigh	Shank	Hemipenis length	Hemipenis width at lobes	Hemipenis width at body
Mean	1.59	1.13	0.93	0.77	0.57	0.33
Std Dev	0.10	0.09	0.08	0.13	0.15	0.12