

Supplementary information to:

Little evidence for switches to environmental sex determination and turnover of sex chromosomes in lacertid lizards

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Table S1. List of samples of lacertids and their outgroups used in the study.

Family	Subfamily	Species	Sex	
			♂	♀
Teiidae	Teiinae	<i>Cnemidophorus deppei</i>	1	1
Teiidae	Tupinambinae	<i>Tupinambis merianae</i>	1	1
Teiidae	Tupinambinae	<i>Dracaena guianensis</i>	1	1
Blanidae	Blaninae	<i>Blanus strauchi</i>	1	1
Blanidae	Blaninae	<i>Blanus cinereus</i>	1	1
Lacertidae	Gallotiinae	<i>Psammodromus hispanicus</i>	1	1
Lacertidae	Gallotiinae	<i>Psammodromus algirus</i>	1	1
Lacertidae	Gallotiinae	<i>Gallotia stehlini</i>	1	1
Lacertidae	Lacertinae	<i>Atlantolacerta andreanskyi</i>	1	1
Lacertidae	Lacertinae	<i>Nucras intertexta</i>	1	1
Lacertidae	Lacertinae	<i>Nucras taeniolata</i>	1	1
Lacertidae	Lacertinae	<i>Vhembelacerta rupicola</i>	1	1
Lacertidae	Lacertinae	<i>Meroles squamulosus</i>	1	1
Lacertidae	Lacertinae	<i>Pedioplanis lineocellata</i>	1	1
Lacertidae	Lacertinae	<i>Mesalina guttulata</i>	1	1
Lacertidae	Lacertinae	<i>Acanthodactylus schreiberi</i>	1	1
Lacertidae	Lacertinae	<i>Phoenicolacerta troodica</i>	1	1
Lacertidae	Lacertinae	<i>Timon lepidus</i>	1	1
Lacertidae	Lacertinae	<i>Lacerta schreiberi</i>	1	1
Lacertidae	Lacertinae	<i>Lacerta trilineata</i>	1	1
Lacertidae	Lacertinae	<i>Teira dugesii</i>	1	1
Lacertidae	Lacertinae	<i>Scelarcis perspicillata</i>	1	1
Lacertidae	Lacertinae	<i>Podarcis pityusensis</i>	1	1
Lacertidae	Lacertinae	<i>Podarcis bocagei</i>	1	1
Lacertidae	Lacertinae	<i>Apathya cappadocica</i>	1	1
Lacertidae	Lacertinae	<i>Iberolacerta monticola</i>	1	1
Lacertidae	Lacertinae	<i>Iberolacerta horvathi</i>	1	1
Lacertidae	Lacertinae	<i>Anatololacerta oertzeni</i>	1	1
Lacertidae	Lacertinae	<i>Algyroides nigropunctatus</i>	1	1
Lacertidae	Lacertinae	<i>Iranolacerta brandtii</i>	1	1
Lacertidae	Lacertinae	<i>Darevskia portschinskii</i>	1	1
Lacertidae	Lacertinae	<i>Darevskia raddei</i>	1	1

Table S2: Primers used for the measurement of relative gene dosage by qPCR.

Primer name	Forward primer	Reverse primer	Amplicon size
mecom_1	AGAGACTTGAGACCGTTACCTTTG	CACTGATGGTGTGCTGGTTTT	162
adarb2_1	CTGCTGGGAATGCGACTGG	GCCTTTCGGAGACTGTGGAG	175
smad7_27	TGTGAAAGGCTGGGGTCAGT	AAAGCAAGCACTCAGAAGGAGA	166
mars2_1	TCTTCTGCCCTTGAACCGTC	GGATGCCCTTGTGAACTACCT	200
lpar4_29	CACCTCTCCCCATTTGTGATG	TGCTGCTTTGACCCTTTCGT	180
klhl13_47	CTGACCACGCAACATAGCA	CAGAAGGCTCCAATGACCAC	183
mbnl3_1	GCTGCCTTGATTTTGGCTTG	CGGGGCGAGAACGACT	167
gab3_5	CGATGTCTTTGTTGACTTTGTGG	TGATAATGGAGAGGATGAGGAGAAA	166
angptl2_39	GGCACCCGTCACCTTCTG	AATGGCTGTCGTGGGAGT	166
hspa5_1	CCATCACACGCTGGTCAAAG	GGACTGGACAAAAGGGAGGG	163
lrrc8a_3	GGAGGCTGAAGATGGAGTGTG	TCAACAACGAGGGCACCAAG	120

Table S4: Statistics for the test of the deviations of the gene dose ratios in lacertids and outgroups from the values 0.5 expected for Z-specific genes and 1.0 expected for (pseudo)autosomal genes.

a) lacertids

Gene	Mean	Std.Err.	N	Test against 0.5		Test against 1.0	
				t-value	p	t-value	p
adarb2_2	1.03	0.02	27	22.16	<0.00001	1.33	0.20
smad7_27	1.03	0.02	22	23.46	<0.00001	1.29	0.21
lpar4_29	0.55	0.04	19	1.51	0.15	-12.65	<0.00001
klhl13_47	0.48	0.01	26	-1.86	0.08	-43.46	<0.00001
mars2_1	0.53	0.03	21	0.83	0.42	-14.77	<0.00001
gab3_5	0.51	0.02	16	0.57	0.58	-20.08	<0.00001
mbnl3_1	0.56	0.05	16	1.21	0.25	-9.18	<0.00001
hspa5_1	0.64	0.07	16	1.95	0.07	-5.09	<0.00001
lrrc8a_11	0.55	0.06	16	0.82	0.43	-8.12	<0.00001
angptl2_39	0.54	0.03	12	1.23	0.24	-13.58	<0.00001

b) outgroups

Gene	Mean	Std.Err.	N	Test against 0.5		Test against 1.0	
				t-value	p	t-value	p
adarb2_2	0.87	0.07	2	5.62	0.11	-2.08	0.29
smad7_27	1.00	0.08	4	6.52	0.01	0.00	1.00
gab3_5	0.93	0.06	3	7.61	0.02	-1.17	0.36
mbnl3_1	1.13	0.05	4	12.79	0.001	2.60	0.08
hspa5_1	0.96	0.03	5	16.37	<0.00001	-1.42	0.23
lrrc8a_11	1.11	0.04	4	16.43	<0.0001	3.02	0.06