

**Table 1a** Descriptive statistics for dewlap measurements in **males**. Population means  $\pm$  standard deviation or proportions (prop.) are displayed for each population. Sample size ( $N$ ) can vary according to dewlap measurement and therefore, ranges are provided for some populations. Proportion of variation among groups is also shown (= 100 \* the coefficient of intraclass correlation).

Population	$N$	Dewlap size size ( $cm^2$ )	Dewlap pattern			Dewlap colour				Dewlap display	
			prop. solid	prop. marginal	prop. spotted	brightness	hue	RF 365 nm	RF 655 nm	DE rate (counts/min)	prop. DE
<i>Males</i>											
Acklins	11	2.58 $\pm$ 0.68	0.91	0.09	0.00	–	–	–	–	–	–
Andros	24	1.21 $\pm$ 0.33	0.00	0.13	0.88	–	–	–	–	–	–
Cayman Brac	23-28	1.53 $\pm$ 0.39	0.43	0.54	0.04	11353 $\pm$ 1317	567.3 $\pm$ 4.9	0.0015 $\pm$ 0.0002	0.0048 $\pm$ 0.0003	0.16 $\pm$ 0.46	0.22
Chub Cay	23	1.67 $\pm$ 0.49	0.00	0.04	0.96	–	–	–	–	–	–
Crooked Island	24	1.81 $\pm$ 0.61	0.50	0.46	0.04	–	–	–	–	–	–
Grand Bahama	28	1.59 $\pm$ 0.41	0.25	0.68	0.07	–	–	–	–	–	–
Grand Cayman	24-27	1.64 $\pm$ 0.41	0.00	0.93	0.07	8746 $\pm$ 1213	550.8 $\pm$ 3.8	0.0011 $\pm$ 0.0002	0.0053 $\pm$ 0.0005	0.94 $\pm$ 1.57	0.50
Jamaica	22-35	1.17 $\pm$ 0.27	0.60	0.11	0.29	10439 $\pm$ 1791	554.7 $\pm$ 12.2	0.0017 $\pm$ 0.0003	0.0043 $\pm$ 0.0004	0.35 $\pm$ 0.65	0.32
Little Cayman	23-29	2.00 $\pm$ 0.56	0.45	0.52	0.03	8637 $\pm$ 1449	555.6 $\pm$ 8.7	0.0011 $\pm$ 0.0001	0.0053 $\pm$ 0.0003	0.04 $\pm$ 0.11	0.13
Pigeon Cay	17	1.56 $\pm$ 0.39	0.82	0.06	0.12	–	–	–	–	–	–
San Salvador	24-27	1.96 $\pm$ 0.75	0.59	0.41	0.00	7164 $\pm$ 1138	558.6 $\pm$ 7.7	0.0018 $\pm$ 0.0002	0.0040 $\pm$ 0.0004	0.08 $\pm$ 0.14	0.33
Santa Clara	24-27	2.06 $\pm$ 0.36	0.00	0.41	0.59	–	–	–	–	2.28 $\pm$ 1.79	0.96
Soroa 1	23-24	1.91 $\pm$ 0.45	0.00	0.75	0.25	10659 $\pm$ 1418	550.3 $\pm$ 5.0	0.0011 $\pm$ 0.0001	0.0052 $\pm$ 0.0003	2.15 $\pm$ 2.24	0.67
Soroa 2	22-30	2.27 $\pm$ 0.46	0.00	0.73	0.27	10006 $\pm$ 1520	550.1 $\pm$ 1.7	0.0011 $\pm$ 0.0002	0.0052 $\pm$ 0.0003	3.57 $\pm$ 2.62	0.97
South Abaco	21-28	1.35 $\pm$ 0.48	0.00	0.64	0.36	8374 $\pm$ 1038	550.5 $\pm$ 5.9	0.0015 $\pm$ 0.0002	0.0042 $\pm$ 0.0003	0.35 $\pm$ 0.61	0.43
South Bimini	20-27	1.62 $\pm$ 0.45	0.00	0.00	1.00	9081 $\pm$ 1332	551.8 $\pm$ 10.2	0.0016 $\pm$ 0.0002	0.0042 $\pm$ 0.0003	0.51 $\pm$ 0.74	0.55
Staniel Cay	27	1.91 $\pm$ 0.69	0.48	0.41	0.11	–	–	–	–	–	–
Among-population variation		27.60%				46.65%	33.65%	70.00%	90.00%		

Abbreviations: DE = dewlap extension, ‘–’ = missing data; more details about the variables can be found in the ‘Materials and methods’ section of the published article.

**Table 1b** Descriptive statistics for dewlap measurements in **females**. Population means  $\pm$  standard deviation or proportions (prop.) are displayed for each population. Sample size ( $N$ ) can vary according to dewlap measurement and therefore, ranges are provided for some populations. Proportion of variation among groups is also shown (=100\*the coefficient of intraclass correlation).

Population	$N$	Dewlap size size ( $cm^2$ )	Dewlap pattern			Dewlap colour				Dewlap display	
			prop. solid	prop. marginal	prop. spotted	brightness	hue	RF 365 nm	RF 655 nm	DE rate (counts/min)	prop. DE
<i>Females</i>											
Acklins	12	0.33 $\pm$ 0.06	1.00	0.00	0.00	–	–	–	–	–	–
Andros	19	0.25 $\pm$ 0.05	0.21	0.68	0.11	–	–	–	–	–	–
Cayman Brac	25-29	0.28 $\pm$ 0.03	0.38	0.62	0.00	13143 $\pm$ 1339	563.3 $\pm$ 4.9	0.0019 $\pm$ 0.0002	0.0039 $\pm$ 0.0003	0.01 $\pm$ 0.04	0.08
Chub Cay	20	0.26 $\pm$ 0.06	0.45	0.25	0.30	–	–	–	–	–	–
Crooked Island	18-19	0.30 $\pm$ 0.05	0.68	0.21	0.11	–	–	–	–	–	–
Grand Bahama	23	0.21 $\pm$ 0.04	0.22	0.78	0.00	–	–	–	–	–	–
Grand Cayman	22-29	0.30 $\pm$ 0.05	0.00	0.86	0.14	10543 $\pm$ 1277	547.2 $\pm$ 3.0	0.0014 $\pm$ 0.0002	0.0042 $\pm$ 0.0005	0.03 $\pm$ 0.13	0.05
Jamaica	14-15	0.27 $\pm$ 0.04	0.64	0.36	0.00	12215 $\pm$ 1690	557.3 $\pm$ 18.2	0.0022 $\pm$ 0.0003	0.0034 $\pm$ 0.0004	0.00	0.00
Little Cayman	22-30	0.30 $\pm$ 0.04	0.00	1.00	0.00	9821 $\pm$ 1565	552.1 $\pm$ 5.4	0.0014 $\pm$ 0.0002	0.0043 $\pm$ 0.0003	0.00	0.00
Pidgeon Cay	8	0.32 $\pm$ 0.06	1.00	0.00	0.00	–	–	–	–	–	–
San Salvador	22-24	0.34 $\pm$ 0.06	0.13	0.87	0.00	8929 $\pm$ 1296	561.3 $\pm$ 7.2	0.0016 $\pm$ 0.0001	0.0044 $\pm$ 0.0002	0.02 $\pm$ 0.09	0.08
Santa Clara	15-24	0.30 $\pm$ 0.05	0.13	0.71	0.17	–	–	–	–	0.02 $\pm$ 0.04	0.13
Soroa 1	8-21	0.40 $\pm$ 0.05	0.00	1.00	0.00	10386 $\pm$ 1007	549.4 $\pm$ 2.3	0.0013 $\pm$ 0.0002	0.0047 $\pm$ 0.0003	0.03 $\pm$ 0.07	0.14
Soroa 2	17-24	0.39 $\pm$ 0.06	0.04	0.92	0.04	10207 $\pm$ 1294	549.6 $\pm$ 1.9	0.0013 $\pm$ 0.0001	0.0048 $\pm$ 0.0003	0.1 $\pm$ 0.24	0.18
South Abaco	20-25	0.28 $\pm$ 0.05	0.00	0.40	0.60	11549 $\pm$ 1887	548.2 $\pm$ 8.8	0.0017 $\pm$ 0.0002	0.0037 $\pm$ 0.0003	0.08 $\pm$ 0.15	0.25
South Bimini	22-24	0.37 $\pm$ 0.05	0.46	0.21	0.33	10856 $\pm$ 1267	547.0 $\pm$ 8.6	0.0017 $\pm$ 0.0002	0.0039 $\pm$ 0.0003	0.00	0.00
Staniel Cay	20	0.26 $\pm$ 0.06	0.81	0.19	0.00	–	–	–	–	–	–
Among-population variation		50.38%				44.05%	42.39%	69.63%	56.19%		

Abbreviations: DE = dewlap extension, ‘–’ = missing data; more details about the variables can be found in the ‘Materials and methods’ section of the published article.

**Table 2** Climate data for the nine *A. sagrei* populations sampled. Mean values are presented.

Population	Climate variables				Coordinates	
	Annual precipitation (mm)	Annual LST (°C)	Annual radiation (kJ m <sup>-2</sup> day <sup>-1</sup> )	Annual NDVI	Latitude	Longitude
Cayman Brac	1219	26.958	18968.639	0.518	19.686	-79.874
Grand Cayman	1391	30.401	18442.127	0.611	19.284	-81.373
Jamaica	1247	26.958	18846.472	0.518	19.664	-80.083
Little Cayman	1075	25.535	19724.517	0.415	24.117	-74.465
San Salvador	1065	28.750	19400.545	0.273	18.507	-77.716
Soroa 1	1634	25.740	18523.100	0.810	22.807	-83.019
Soroa 2	1484	28.474	18523.100	0.710	22.778	-83.002
South Abaco	1130	26.396	19330.025	0.805	26.104	-77.184
South Bimini	1191	26.012	19196.632	0.479	25.703	-79.300