

## Supplemental information S4

Lilliefors (Kolmogorov-Smirnov) results to test normality of the morphometric data.

		UNCORRECTED DATA		CORRECTED DATA (log-transformation)	
		D	<i>p</i> -value	D	<i>p</i> -value
MALES	Bill length	0.054972	0.4123	0.057592	0.3394
	Bill width	0.06995	0.09483	0.096836	<b>0.002935</b>
	Bill depth	0.1015	<b>0.001389</b>	0.082337	<b>0.02284</b>
	Wing chord	0.091529	<b>0.006226</b>	0.10299	<b>0.001019</b>
	Tail length	0.092575	<b>0.00617</b>	0.1023	<b>0.001372</b>
FEMALES	Bill length	0.081525	0.3631	0.074573	0.5069
	Bill width	0.068054	0.6071	0.075687	0.4343
	Bill depth	0.087028	0.2568	0.067232	0.6603
	Wing chord	0.23253	<b>7.92E-10</b>	0.21699	<b>1.72E-08</b>
	Tail length	0.16319	<b>0.0001559</b>	0.15024	<b>0.0008004</b>

Test of Wilcoxon/Mann-Whitney to evaluate differences between males and females.

	W	<i>p</i> -value
Bill length	6035	<b>3.63E-06</b>
Bill width	5843	<b>0.004239</b>
Bill depth	7172	<b>5.97E-12</b>
Wing chord	8327	<b>2.20E-16</b>
Tail length	7944	<b>2.20E-16</b>

Kruskall-Wallis tests to evaluate significant differences between paired geographic groups (SMO, GRO, CHIS, CA). *Below diagonal*: males, *above diagonal*: females. \**p*-value<0.05, \*\**p*-value<0.01. \*\*\**p*-value<0.001.

Bill length	SMO	GRO	CHIS	CA
SMO	---	3.5738	0.47915	2.633
GRO	3.6541	---	<b>7.8077**</b>	0.28482
CHIS	0.78686	1.1404	---	<b>4.411*</b>
CA	0.03264	<b>7.3222**</b>	2.0731	---

Bill width	SMO	GRO	CHIS	CA
SMO	---	0.13414	0.20259	<b>9.953**</b>
GRO	1.9535	---	0.18922	<b>7.6985**</b>
CHIS	0.55619	0.82187	---	<b>7.7066**</b>

CA	<b>15.34***</b>	<b>4.6982*</b>	<b>12.269***</b>	---
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Bill depth	SMO	GRO	CHIS	CA
SMO	---	<b>6.0137*</b>	1.6954	<b>14.834***</b>
GRO	<b>4.9483*</b>	---	1.9715	<b>6.0147*</b>
CHIS	0.12252	<b>9.4637**</b>	---	<b>9.6839**</b>
CA	<b>13.908***</b>	0.75679	<b>22.012***</b>	---

Wing chord	SMO	GRO	CHIS	CA
SMO	---	<b>12.942***</b>	1.37227	<b>7.1119**</b>
GRO	0.3494	---	<b>15.785***</b>	<b>21.26***</b>
CHIS	0.055364	0.060538	---	1.5062
CA	<b>15.655***</b>	<b>7.6503**</b>	<b>11.681***</b>	---

Tail length	SMO	GRO	CHIS	CA
SMO	---	<b>9.2154**</b>	0.86099	<b>9.6551**</b>
GRO	3.4614	---	<b>6.5611*</b>	<b>19.203***</b>
CHIS	<b>5.3036*</b>	0.20569	---	<b>11.884***</b>
CA	3.13	<b>7.4467**</b>	<b>14.044***</b>	---