

Table S1. Results of RMA regressions of ( $\log_{10}$ -transformed) bite and grip forces on selected morphological predictors\*

Taxon	Dependent variable	Predictor variable	R <sup>2</sup>	v	95% CI	F	d.f. <sub>Error</sub>	P
<b>Accipiters</b>								
<b>Grip force</b>								
Body mass		0.65	0.97		0.79–1.15	79.2	42	<0.001
Wing chord		0.68	4.01		3.30–4.72	88.0	42	<0.001
Tarsus length		0.11	1.41		1.00–1.82	5.5	42	0.024
Mid-crus circumference		0.65	1.59		1.30–1.89	77.8	42	<0.001
<b>Bite force</b>								
Body mass		0.56	0.88		0.63–1.14	28.7	23	<0.001
Wing chord		0.64	3.65		2.62–4.67	29.5	22	<0.001
Total head length		0.47	0.53		0.33–0.74	10.7	22	0.002
Post-orbital head width		0.44	2.22		1.50–2.95	30.9	21	<0.001
Head length		0.43	2.54		1.70–3.37	29.4	21	<0.001
Beak length		0.28	2.61		1.62–3.59	6.5	21	0.019
Beak depth		0.51	2.19		1.50–2.87	18.9	21	<0.001
Beak width		0.51	2.81		1.92–3.71	17.5	21	<0.001
<b>Falcons</b>								
<b>Grip force</b>								
Body mass		0.92	0.86		0.71–1.01	142.1	13	<0.001
Wing chord		0.81	2.61		1.93–3.28	30.7	7	0.001
Tarsus length		0.68	3.50		2.31–4.69	27.3	12	<0.001
Mid-crus circumference		0.89	1.92		1.44–2.39	43.3	9	<0.001
<b>Bite force</b>								
Body mass		0.80	0.76		0.57–0.95	58.6	15	<0.001
Wing chord		0.56	1.78		1.05–2.51	6.7	6	0.041
Total head length		0.83	2.36		1.76–2.97	44.7	10	<0.001
Post-orbital head width		0.83	2.56		1.76–3.36	43.2	11	<0.001
Head length		0.76	2.23		1.56–2.90	38.6	10	<0.001
Beak length		0.74	2.58		1.61–3.55	16.8	11	0.002
Beak depth		0.66	2.08		1.27–2.90	14.9	11	0.003
Beak width		0.79	2.22		1.43–3.01	19.9	11	0.001

\*Linear measurements were taken as follows using digital calipers, unless otherwise stated:

Wing chord=with tape measure, from leading edge of wrist joint to tip of longest primary feather.

Tarsus length=from lateral condyle of tibiotarsus to ventral base of metatarsus I-hallucal joint.

Mid-crus circumference=circumference of ellipse, approximated by:  $2\pi\sqrt{((\text{minor}^2 + \text{major}^2)/2)}$ , where antero-posterior depth and medio-lateral width (taken at mid-tibiotarsus length) comprise major and minor axes, respectively.

Total head length=from occipital protuberance to rostral end of culmen curvature.

Post-orbital head width=maximum width just posterior to orbit.

Beak length=cranial edge of cere to tip of maxilla.

Head length=total head length – beak length.

Beak depth=perpendicular to tomium at rictus with bill closed, from cranial edge of cere to ventral surface of mandible.

Beak width=perpendicular to maxilla at cranial edge of cere with bill closed, from one side of gape to the other.