

S2 Table. Results of Kruskal-Wallis test examining the influence of diel depth phase on pitch and acceleration metrics. A Dunn-Šidák correction was used for multiple comparisons due to unequal sample size among phases. Median values reported include interquartile range. Diel depth phases without a shared letter were significantly different.

	Shark ID	HG1	HG2	HG3	HG5
Pitch (°)	Shallow Night	-0.3 (-5.5 to 3.7) ^a	-1.5 (-8.8 to 6.8) ^a	-0.8 (-5.8 to 3.8) ^a	0.6 (-7.6 to 6.4) ^a
	Deep Day	1.0 (-2.8 to 3.9) ^b	0.2 (-6.0 to 6.9) ^b	1.3 (-2.2 to 4.7) ^b	2.9 (-6.1 to 7.2) ^b
	Dawn Descent	-1.5 (-6.6 to 1.2) ^c	-9.2 (-12.6 to -4.1) ^c	-11.8 (-14.8 to -8.0) ^c	-11.0 (-14.7 to -4.1) ^c
	Dusk Ascent	8.2 (3.0 to 18.4) ^d	5.0 (-0.0 to 9.0) ^d	7.7 (3.7-15.3) ^d	8.6 (6.5 to 11.0) ^d
	chi-square	362.8813	215.9827	810.0148	337.9918
	<i>P</i>	<0.0001	<0.0001	<0.0001	<0.0001
Tail Beat Frequency (Hz)	Shallow Night	0.20 (0.18-0.21) ^a	0.15 (0.13-0.16) ^a	0.21 (0.18-0.21) ^a	0.20 (0.16-0.27) ^a
	Deep Day	0.16 (0.15-0.18) ^b	0.13 (0.13-0.15) ^b	0.19 (0.18-0.21) ^b	0.18 (0.15-0.21) ^b
	Dawn Descent	0.15 (0.15-0.15) ^c	0.15 (0.13-0.16) ^c	0.24 (0.21-0.24) ^c	0.17 (0.15-0.18) ^c
	Dusk Ascent	0.18 (0.18-0.18) ^a	0.14 (0.13-0.15) ^a	0.18 (0.18-0.20) ^d	0.21 (0.19-0.22) ^a
	chi-square	998.8428	281.5264	625.3958	161.9906
	<i>P</i>	<0.0001	<0.0001	<0.0001	<0.0001
Tail Beat Amplitude	Shallow Night	0.06 (0.03-0.11) ^a	0.09 (0.07-0.12) ^a	0.05 (0.04-0.07) ^a	0.04 (0.03-0.06) ^a
	Deep Day	0.08 (0.06-0.10) ^b	0.11 (0.08-0.13) ^b	0.07 (0.06-0.09) ^b	0.04 (0.03-0.06) ^a
	Dawn Descent	0.13 (0.11-0.16) ^c	0.12 (0.08-0.15) ^c	0.08 (0.07-0.11) ^c	0.08 (0.05-0.10) ^b
	Dusk Ascent	0.07 (0.05-0.09) ^a	0.08 (0.07-0.10) ^d	0.05 (0.03-0.09) ^a	0.03 (0.02-0.04) ^c
	chi-square	741.6099	172.6446	704.4636	233.1664
	<i>P</i>	<0.0001	<0.0001	<0.0001	<0.0001
ODBA (m s⁻²)	Shallow Night	0.13 (0.10-0.20) ^a	0.19 (0.15-0.23) ^a	0.17 (0.14-0.20) ^a	0.12 (0.10-0.16) ^a
	Deep Day	0.18 (0.16-0.20) ^b	0.23 (0.18-0.26) ^b	0.24 (0.20-0.30) ^b	0.19 (0.14-0.22) ^a
	Dawn Descent	0.22 (0.20-0.27) ^c	0.22 (0.19-0.26) ^b	0.22 (0.19-0.26) ^c	0.13 (0.10-0.16) ^b
	Dusk Ascent	0.16 (0.14-0.20) ^b	0.20 (0.17-0.23) ^c	0.17 (0.12-0.25) ^d	0.12 (0.11-0.14) ^a
	chi-square	686.6868	296.8927	1017.232	197.363
	<i>P</i>	<0.0001	<0.0001	<0.0001	<0.0001