

Supplementary online material

Table S1. Regression equations for predicting total centrum length (TCL) from centrum length (CL) of individual vertebrae, except for fluke vertebrae, and for the mean CL of the selected set of vertebrae (see text) for *Cephalorhynchus commersonii*.  $R^2$ : coefficient of determination  $p$ : p-value; %PE: percent prediction error.

Vertebra	Regression of CL on TCL	R <sup>2</sup>	p	%PE
1-7	TCL = 159.72CL - 2.59	0.45	0.213	2.931
8	TCL = 26.28CL + 64.95	0.26	0.379	3.297
9	TCL = 33.42CL + 46.08	0.43	0.227	2.958
10	TCL = 36.12CL + 31.33	0.56	0.146	2.583
11	TCL = 46.63CL + 4.61	0.86	0.022	1.374
12	TCL = 45.15CL + 2.68	0.92	0.009	1.033
13	TCL = 64.98CL - 41.74	0.76	0.052	1.583
14	TCL = 39.56CL + 7.11	0.61	0.119	2.326
15	TCL = 48.91CL - 14.31	0.73	0.065	2.035
16	TCL = 42.81CL - 1.31	0.86	0.022	1.527
17	TCL = 37.29CL + 11.17	0.91	0.010	1.096
18	TCL = 31.72CL + 23.91	0.81	0.036	1.581
19	TCL = 36.51CL + 15.34	0.84	0.028	1.612
20	TCL = 34.36CL + 21.13	0.87	0.019	1.445
21	TCL = 32.59CL + 25.86	0.88	0.018	1.215
22	TCL = 30.15CL + 30.87	0.83	0.029	1.323
23	TCL = 28.83CL + 34.24	0.88	0.017	1.181
24	TCL = 32.34CL + 27.92	0.85	0.024	1.149
25	TCL = 28.40CL + 35.83	0.85	0.027	1.211
26	TCL = 27.77CL + 38.07	0.85	0.026	1.242
27	TCL = 29.69CL + 36.18	0.91	0.012	1.022
28	TCL = 30.71CL + 35.18	0.91	0.011	1.053
29	TCL = 29.15CL + 38.59	0.91	0.011	1.204
30	TCL = 36.44CL + 27.12	0.93	0.007	1.070
31	TCL = 28.21CL + 41.68	0.92	0.009	1.107
32	TCL = 30.31CL + 38.65	0.89	0.015	1.269
33	TCL = 33.04CL + 34.65	0.86	0.022	1.394
34	TCL = 33.32CL + 34.67	0.97	0.002	0.663
35	TCL = 36.59CL + 30.97	0.87	0.018	1.486
36	TCL = 32.06CL + 38.78	0.90	0.014	1.329
37	TCL = 33.77CL + 36.64	0.98	0.001	0.599
38	TCL = 32.30CL + 40.12	0.91	0.012	1.160
39	TCL = 36.81CL + 34.03	0.89	0.016	1.020
40	TCL = 27.86CL + 47.69	0.87	0.020	1.387
41	TCL = 28.89CL + 45.86	0.82	0.034	1.739
42	TCL = 27.80CL + 46.45	0.84	0.028	1.618
43	TCL = 25.91CL + 48.71	0.70	0.076	2.200
44	TCL = 21.94CL + 53.43	0.56	0.145	2.620
45	TCL = 18.36CL + 57.94	0.51	0.172	2.737
46	TCL = 22.83CL + 50.15	0.59	0.129	2.653
47	TCL = 28.61CL + 39.70	0.72	0.069	2.182
48	TCL = 31.77CL + 34.67	0.76	0.051	1.868
49	TCL = 49.58CL + 4.64	0.86	0.023	1.403
50	TCL = 46.12CL + 12.82	0.79	0.044	1.879
51	TCL = -2.90CL + 93.62	0.01	0.909	3.723
52	TCL = -16.70CL + 116.34	0.28	0.358	3.628
53	TCL = -14.03CL + 110.84	0.59	0.130	2.602
<b>16-42</b>	<b>TCL = 33.48CL + 30.26</b>	<b>0.93</b>	<b>0.008</b>	<b>0.873</b>

Table S2. Regression equations for predicting total centrum length (TCL) from centrum length (CL) of individual vertebrae, except for fluke vertebrae, and for the mean CL of the selected set of vertebrae (see text) for *L. obscurus*.  $R^2$ : coefficient of determination;  $p$ : p-value; %PE: percent prediction error.

Vertebra	Regression of CL on TCL	$R^2$	$p$	%PE
1-7	TCL = 55.34CL + 75.20	0.23	0.409	2.921
8	TCL = 27.32CL + 81.49	0.47	0.204	2.981
9	TCL = 27.44CL + 70.67	0.54	0.158	2.684
10	TCL = 28.97CL + 59.39	0.46	0.206	3.047
11	TCL = 49.31CL + 12.68	0.54	0.158	2.762
12	TCL = 23.69CL + 59.50	0.19	0.468	3.643
13	TCL = 47.41CL + 3.38	0.69	0.079	2.078
14	TCL = 49.96CL - 4.81	0.66	0.095	1.985
15	TCL = 55.14CL - 18.14	0.69	0.083	2.184
16	TCL = 67.10CL - 43.26	0.71	0.071	2.137
17	TCL = 57.24CL - 17.22	0.84	0.029	1.609
18	TCL = 45.05CL + 13.16	0.79	0.044	1.835
19	TCL = 37.46CL + 31.89	0.61	0.121	2.522
20	TCL = 43.38CL + 23.77	0.67	0.089	2.191
21	TCL = 49.49CL + 18.02	0.53	0.162	2.669
22	TCL = 42.44CL + 30.62	0.63	0.109	2.394
23	TCL = 39.28CL + 39.22	0.70	0.075	2.082
24	TCL = 41.40CL + 36.98	0.68	0.087	2.224
25	TCL = 47.67CL + 26.89	0.82	0.033	1.351
26	TCL = 33.16CL + 55.31	0.71	0.074	2.094
27	TCL = 42.98CL + 39.96	0.76	0.053	1.980
28	TCL = 64.15CL + 7.70	0.95	0.004	0.890
29	TCL = 51.28CL + 30.57	0.87	0.021	1.521
30	TCL = 51.15CL + 31.30	0.97	0.002	0.666
31	TCL = 45.24CL + 40.18	0.81	0.038	1.840
32	TCL = 40.58CL + 47.76	0.75	0.056	2.023
33	TCL = 68.13CL + 7.05	0.96	0.003	0.737
34	TCL = 41.59CL + 47.19	0.83	0.032	1.637
35	TCL = 56.55CL + 23.14	0.99	0.001	0.481
36	TCL = 49.75CL + 33.78	0.93	0.008	1.061
37	TCL = 61.47CL + 13.76	0.85	0.026	1.326
38	TCL = 42.24CL + 44.84	0.81	0.037	1.770
39	TCL = 46.87CL + 37.79	0.97	0.002	0.743
40	TCL = 43.70CL + 42.31	0.85	0.025	1.405
41	TCL = 42.94CL + 42.90	0.88	0.019	1.201
42	TCL = 24.49CL + 70.81	0.90	0.012	1.030
43	TCL = 44.97CL + 37.95	0.51	0.175	2.621
44	TCL = 51.01CL + 26.28	0.63	0.110	2.327
45	TCL = 48.31CL + 28.23	0.72	0.070	2.048
46	TCL = 53.65CL + 18.02	0.64	0.105	2.248
47	TCL = 48.38CL + 26.35	0.79	0.043	1.544
48	TCL = 47.90CL + 24.60	0.75	0.058	1.660
49	TCL = 40.06CL + 36.79	0.72	0.068	1.729
50	TCL = 39.22CL + 36.16	0.60	0.123	2.234
51	TCL = 23.27CL + 64.44	0.39	0.259	2.864
52	TCL = 13.30CL + 82.57	0.19	0.046	3.369
53	TCL = 9.90CL + 88.60	0.16	0.504	3.349
54	TCL = 6.66CL + 95.13	0.10	0.607	3.552
55	TCL = 7.54CL + 92.13	0.11	0.583	3.596
56	TCL = 12.88CL + 78.19	0.20	0.448	3.472
57	TCL = 33.16CL + 27.51	0.64	0.105	2.271
58	TCL = 27.76CL + 44.09	0.88	0.019	1.301
59	TCL = 4.67CL + 100.44	0.12	0.569	2.839
60	TCL = 1.87CL + 107.21	0.02	0.801	3.163
33-42	<b>TCL = 46.85CL + 37.59</b>	<b>0.94</b>	<b>0.006</b>	<b>0.926</b>