

The epibiont *Xenobalanus globicipitis* indicates differences in swimming kinematics among cetaceans

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Supplementary Material

Table S1. Mean values ($\pm$ SD) of infection parameters of the barnacle *Xenobalanus globicipitis* on the flukes of 5 cetacean species collected from two different geographic areas, western Mediterranean (WM) and Canary Islands (CI). Abbreviations: N, number of cetacean individuals; TL, Total body Length (cm); CFL, Curved Fluke Length (cm); LD, Linear Density (barnacles/cm). The parameters abundance and LD are also given for the dorsal (D) and ventral (V) fluke sides, separately.

Cetacean species	Area	N	TL	CFL	Abundance	Abundance (D)	Abundance (V)	LD	LD (D)	LD (V)	% dorsal	N	% central (D)	N	% central (V)
<i>Ziphius cavirostris</i>	WM	2	341.5 $\pm$ 58.7	105.6 $\pm$ 33.3	54.0 $\pm$ 73.5	33.0 $\pm$ 43.8	20.0 $\pm$ 28.3	0.32 $\pm$ 0.45	0.40 $\pm$ 0.54	0.24 $\pm$ 0.35	80.8 $\pm$ 27.2	2	72.7 $\pm$ 32.0	1	100
	CI	3	436.0 $\pm$ 173.3	124.1 $\pm$ 54.0	112.0 $\pm$ 128.7	66.3 $\pm$ 71.6	46.0 $\pm$ 57.9	0.72 $\pm$ 1.03	0.84 $\pm$ 1.17	0.60 $\pm$ 0.90	68.8 $\pm$ 27.3	3	89.8 $\pm$ 11.2	2	86.3 $\pm$ 1.6
<i>Grampus griseus</i>	WM	9	236.2 $\pm$ 56.2	73.0 $\pm$ 22.3	24.6 $\pm$ 26.1	14.1 $\pm$ 12.9	10.4 $\pm$ 14.0	0.21 $\pm$ 0.27	0.23 $\pm$ 0.27	0.18 $\pm$ 0.27	66.1 $\pm$ 16.9	9	71.5 $\pm$ 22.8	8	64.1 $\pm$ 37.1
	CI	3	205.3 $\pm$ 51.2	63.2 $\pm$ 19.2	51.0 $\pm$ 63.6	22.7 $\pm$ 20.3	28.3 $\pm$ 43.2	0.37 $\pm$ 0.43	0.34 $\pm$ 0.26	0.39 $\pm$ 0.60	67.4 $\pm$ 31.5	3	65.9 $\pm$ 4.1	2	23.8 $\pm$ 13.5
<i>Tursiops truncatus</i>	WM	9	230.0 $\pm$ 42.5	58.6 $\pm$ 11.5	7.6 $\pm$ 9.9	8.8 $\pm$ 9.8	1.0 $\pm$ 2.0	0.07 $\pm$ 0.09	0.16 $\pm$ 0.18	0.02 $\pm$ 0.04	96.2 $\pm$ 6.5	6	75.9 $\pm$ 26.4	2	50.0 $\pm$ 70.7
	CI	2	292.5 $\pm$ 19.1	74.1 $\pm$ 8.8	35.5 $\pm$ 37.5	30.5 $\pm$ 33.2	5.0 $\pm$ 4.2	0.26 $\pm$ 0.28	0.44 $\pm$ 0.50	0.07 $\pm$ 0.07	82.4 $\pm$ 6.6	2	63.8 $\pm$ 9.4	2	62.5 $\pm$ 17.7
<i>Stenella coeruleoalba</i>	WM	51	164.5 $\pm$ 39.4	35.5 $\pm$ 10.2	8.9 $\pm$ 10.7	8.3 $\pm$ 10.1	0.6 $\pm$ 1.4	0.13 $\pm$ 0.14	0.24 $\pm$ 0.26	0.02 $\pm$ 0.06	90.5 $\pm$ 24.0	49	72.7 $\pm$ 28.5	3	55.3 $\pm$ 43.9
	CI	16	181.9 $\pm$ 45.1	48.7 $\pm$ 12.7	8.7 $\pm$ 11.3	7.6 $\pm$ 9.5	1.6 $\pm$ 4.2	0.10 $\pm$ 0.12	0.13 $\pm$ 0.14	0.03 $\pm$ 0.08	89.1 $\pm$ 27.0	15	67.9 $\pm$ 40.0	13	8.9 $\pm$ 15.4

<i>Delphinus delphis</i>	WM	9	171.8 ± 43.9	49.0 ± 22.8	9.7 ± 12.4	6.3 ± 6.9	3.6 ± 6.6	0.11 ± 0.11	0.15 ± 0.16	0.07 ± 0.10	65.3 ± 39.4	8	55.3 ± 35.9	6	35.8 ± 50.0
	CI	10	194.5 ± 40.3	51.6 ± 12.7	14.6 ± 10.4	13.4 ± 10.6	3.9 ± 8.9	0.16 ± 0.12	0.30 ± 0.25	0.10 ± 0.24	86.0 ± 30.8	9	64.2 ± 24.8	5	17.3 ± 28.9

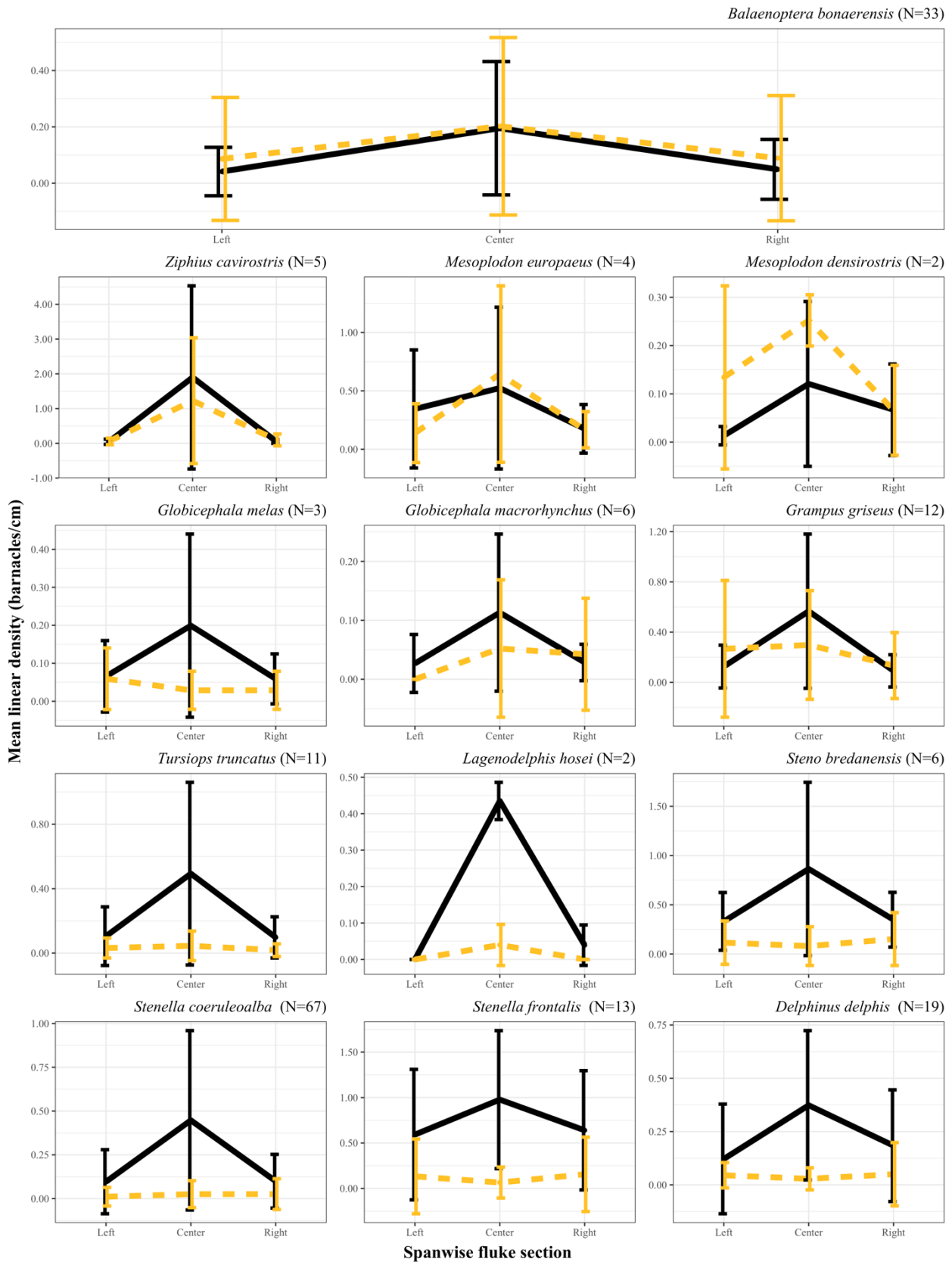


Figure S1. Spatial distribution of the epibiotic barnacle *Xenobalanus globicipitis* on the flukes of 183 cetaceans from 13 species. Mean linear density (individuals/cm) per fluke side (dorsal, solid black line; and ventral, dashed yellow line) and spanwise section (left, for relative positions 0-33.3%; center, 33.4-66.7%; and right, 66.8-100%). Bars represent standard deviation. See main text for details.

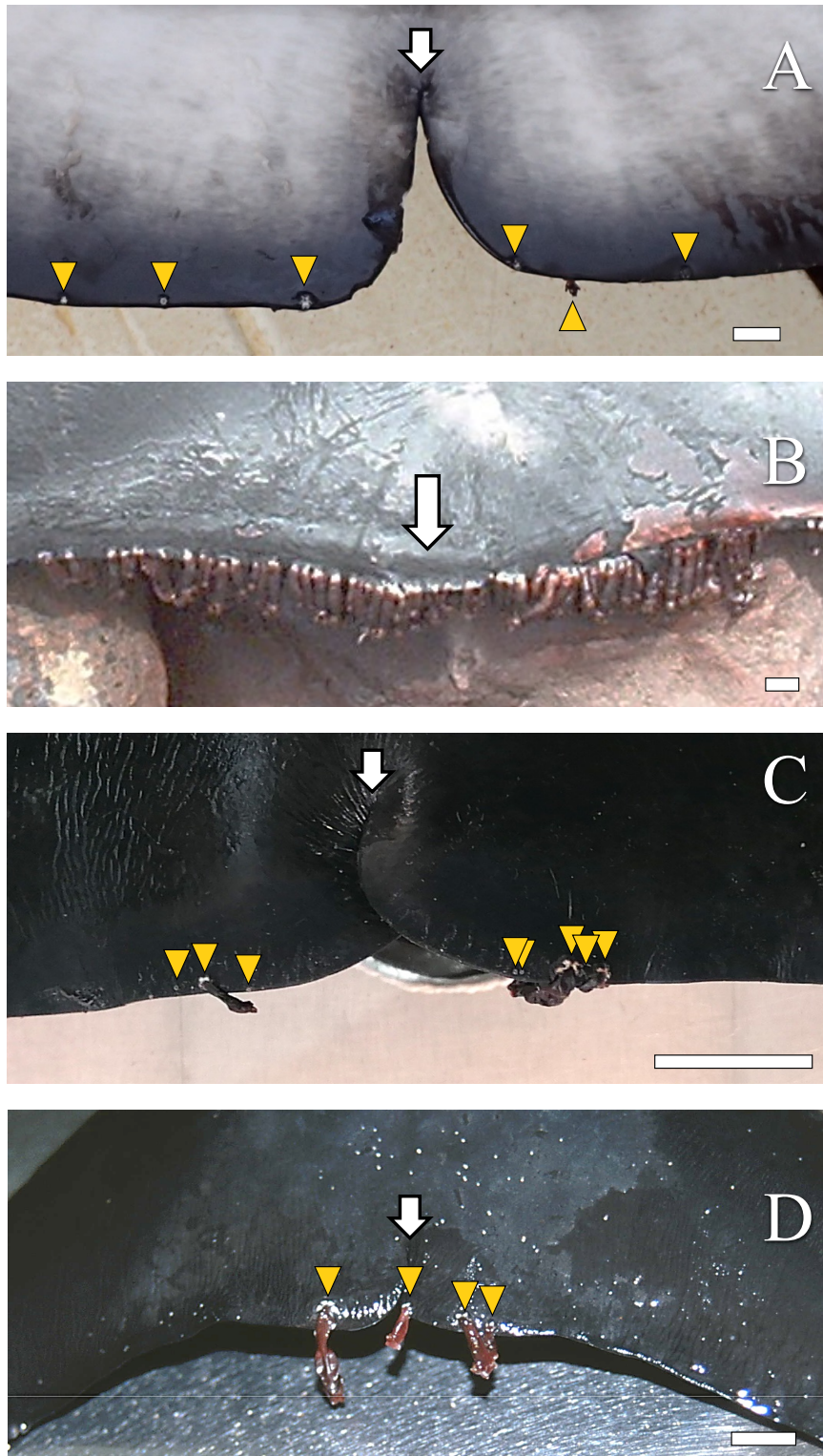


Figure S2. Spatial distribution of the barnacle *Xenobalanus globicipitis* on the flukes of representative cetaceans from 4 ecomorphological groups: A, Group 1 – Balaenopteridae (ventral fluke side of an Antarctic minke whale, *Balaenoptera bonaerensis*, with a similar number of barnacles on the dorsal side); B, Group 2 – Ziphiidae (dorsal side of a Gervais' beaked whale, *Mesoplodon europaeus*, with the ventral side equally colonized by barnacles); C, Group 3 – larger Globicephalinae (dorsal side of a Risso's dolphin, *Grampus griseus*, with no barnacles on the ventral side); D, Group 4 – smaller Delphinidae (dorsal side of a common dolphin, *Delphinus delphis*, with no barnacles on the ventral side). The position of the fluke notch and barnacles are indicated with white and yellow arrows, respectively. Scale bars: 2 cm.