

CORRECTION

Correction: The Biogeochemical Role of Baleen Whales and Krill in Southern Ocean Nutrient Cycling

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There is an error in [Table 2](#). The numbers in the “Zn” column for “Average among krill” should be 255.5 ± 141.6 . Please see the corrected [Table 2](#) here.

There is a reference missing from [Table 3](#). Please see the corrected [Table 3](#) here.



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Table 2. Carbon, phosphate and trace element concentrations (mean ± standard deviation) in Antarctic krill and whales (mg kg⁻¹ dry weight).

Species	Sample type	n	Fe	Cd	Co	C(x 10 ⁴)	P(x 10 ⁴)	Cu	Zn	Mn
Pygmy blue, <i>Baleoptera musculus</i> <i>brevicauda</i>	Faeces	7	63.34 ± 17	7.1 ± 2.2	0.5 ± 0.2	17.6 ± 2.5	8.7 ± 2.5	312.2 ± 98.6	607.2 ± 66.0	16.2 ± 9.0
Blue, <i>Baleoptera</i> <i>musculus</i>	Faeces	15	161.8 ± 106.5	29.7 ± 8.6	1 ± 0.8	18.5 ± 3.2	9.8 ± 1.9	239.5 ± 68.6	460.8 ± 187.2	33.4 ± 10.6
	Muscle	1	58.3 ± 17.5	0.02	0.006 ± 0.005	5.1	0.03 ± 0.007	1.5 ± 0.2	41.6 ± 4.1	0.3
Fin, <i>Baleoptera</i> <i>physalus</i>	Faeces	2	237.4 ± 45.3	42.1 ± 13.1	2.1 ± 1.3	22.1 ± 0.7	12.1 ± 0.4	290.7 ± 11.4	407.1 ± 52.8	30.5 ± 6.9
	Muscle	1	215.7 ± 45.8	0.2 ± 0.3	0.07 ± 0.03	52.8	0.6 ± 0.02	9.2 ± 2.7	108.2 ± 29.2	4.5 ± 0.3
Humpback, <i>Megaptera</i> <i>novaehollandiae</i>	Faeces	2	118.6 ± 30.1	4.2 ± 3.5	0.9 ± 0.8	-	2.9 ± 2.1	74.1 ± 5.2	1099.0 ± 553.0	18.2 ± 10.7
Sperm whale, <i>Physeter</i> <i>macrocephalus</i>	Faeces	1	756.7	575	2.2	348.2	6.9	1635.4	2663.6	96
Average among whales	Faeces		145.9 ± 135.4	34.7 ± 88.9	0.9 ± 0.87	19.2 ± 4.5	8.9 ± 3.1	292.4 ± 238.1	621.5 ± 432.9	27.7 ± 16.5
	Muscle		136.9 ± 91.6	0.11 ± 0.19	0.04 ± 0.04	51.9 ± 1.2	0.4 ± 0.2	5.3 ± 4.5	78.9 ± 40.9	2.4 ± 2.3
Antarctic krill, <i>Euphausia superba</i>	Whole krill	5	174.3 ± 0.5	4 ± 0.1	0.1	54.2	3.13 ± 0.04	98.0 ± 0.6	275.7 ± 0.5	17.7 ± 0.1
Krill, <i>Nyctiphanes</i> <i>australis</i>	Whole krill	5	91.4 ± 1.1	2.8	0.1	35.9	6.6 ± 0.01	40.7 ± 0.2	444.8 ± 2.6	8.0 ± 0.1
Krill, <i>Euphausia</i> <i>pacifica</i>	Whole krill	5	62.1 ± 0.6	2.3	0.1	45.2	1.4 ± 0.009	15.6 ± 0.2	293.6 ± 2.3	9.2 ± 0.1
Krill, <i>Meganyctiphanes</i> <i>norvegica</i>	Whole krill	10	11.3 ± 8.9	2.2 ± 0.5	0.04 ± 0.02	43.2 ± 2	1.06 ± 0.6	44.6 ± 11.0	90.5 ± 40.8	2.0 ± 0.8
Average among krill	Whole krill	25	76.6 ± 64.1	2.7 ± 0.8	0.08 ± 0.03	44.3 ± 6.6	2.8 ± 2.3	49.1 ± 30.5	255.5 ± 141.6	8.4 ± 6.1

Carbon data for humpback whales are not available

Krill samples were homogenates of 5 animals of each species

Iron data for all species have been discussed in Nicol [16].

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Table 3. Summary of dissolved and particulate trace element concentrations in surface waters from the literature (nmol L⁻¹).

Sampling location	Depth (m)	Size partitioning	Fe	Cd	Co	P	Cu	Zn	Mn	C	Reference
Marguerite Bay, WAP		Dissolved									Hendry [63]
Ross Sea	0-100	Dissolved		0.34-0.86			0.43-3.3	2.2-8.2	0.33-1.2		Corami [45]
Ross Sea	0.5-375	Dissolved			0.04-0.73		1.23-2.16	0.24-5.17			Fitzwater [64]
Ross Sea	0-380	Dissolved					0.5-11.6		0.01-6.6		Grotti [65]
Weddell Sea	50	Dissolved	2.01						0.34		Westerlund and Öhman [66]
Atlantic sector	40	Dissolved		0.155-0.905							Löscher [67]
Atlantic sector	40-100	Dissolved					0.95-6.66	1.7-10.8			Löscher [68]
Indian-Pacific sector	40	Dissolved		0.25-0.27			1.2-1.4	2.3-2.4			Frew [69]
Indian-Pacific sector	40	Dissolved	0.1								Bowie [44]
Southern Ocean	0-20	Dissolved	0.03	0.34	0.02		1.78	1.01	0.08		Cullen [32]
Ross Sea	0-100	Particulate		0.011-0.097			0.05-0.733	0.2-1.2	19-198		Corami [45]
Ross Sea	0.5-100	Particulate							0.01-0.17		Fitzwater [64]
Ross Sea	0-380	Particulate					0.04-1.36		0.01-3.1		Grotti [65]
Weddell Sea	50	Particulate	2.18						0.022		Westerlund and Öhman [66]
Atlantic sector	40	Particulate		0.02-0.14							Löscher [67]
Atlantic sector	40-100	Particulate					0.026-0.222				Löscher [68]
East Antarctica	0-1	Particulate		0.001-0.018			0.017-0.070	0.020-0.805	0.007-0.141	1170	Lannuzel [70]
Amundsen Sea open ocean	8-50	Particulate	0.071-0.66		16.6-44.5				8.81-39.4		Planquette [46]
Southern Ocean	0-20	Particulate	0.26	0.34	0.04		0.38	2.91	0.44		Cullen [32]
Overall ranges		Dissolved	0.03-2.01	0.04-0.9	0.02		0.43-6.6	0.24-10.8	0.01-6.6		
		Particulate	2.18	0.01-0.14	0.04	16.6-44.5	0.017-1.36	0.02-2.91	0.01-198	1170	

Data from Frew [69] and Bowie [44] in the Australasian-Pacific sector are from non-fertilised surface waters

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Reference

1. Ratnarajah L, Bowie AR, Lannuzel D, Meiners KM, Nicol S (2014) The Biogeochemical Role of Baleen Whales and Krill in Southern Ocean Nutrient Cycling. PLoS ONE 9(12): e114067. doi:[10.1371/journal.pone.0114067](https://doi.org/10.1371/journal.pone.0114067) PMID: [25469984](https://pubmed.ncbi.nlm.nih.gov/25469984/)