

**Supplementary Table.** Comparison of trace mineral concentrations (mg/kg, dry weight) found in Northern Mountain caribou (this study) and other caribou herds/ecotypes in various parts of Canada.

Element	Liver			Kidney		
	NM Caribou (mean (SD))	Other Herds (mean (herd, reference))	Comparison (t-test)	NM Caribou (mean (SD))	Other Herds (mean (herd, reference))	Comparison (t-test)
<b>Cd</b>	5.45(4.13)	1.96 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 3.69 (Arviat, <i>Elkin and Bethke, 1995</i> ) 2.24 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 4.39 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 1.18 (Leaf River, <i>Robillard et al., 2002</i> ) 0.94 (George River, <i>Robillard et al., 2002</i> ) 4.52 (General, <i>Gamberg (unpublished data)</i> )	NM Higher	52.58(28.94)	9.68 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 33.87 (Arviat, <i>Elkin and Bethke, 1995</i> ) 18.79 (Southampton, <i>Elkin and Bethke, 1995</i> ) 14.06 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 31.98 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 8.93 (Leaf River, <i>Robillard et al., 2002</i> ) 5.23 (George River, <i>Robillard et al., 2002</i> ) 12.23 (Banks Island, <i>Larter and Nagy, 2000</i> ) 42.60 (Bluenose, <i>Larter and Nagy, 2000</i> ) 21.90 (Porcupine, <i>Gamberg, 2013</i> ) 21.00 (Qamanirjuac, <i>Gamberg, 2013</i> ) 38.8 (General, <i>Gamberg (unpublished data)</i> ) 24.8 (Porcupine, <i>Gamberg et al., 2020</i> )	NM Higher
<b>Co</b>	0.23(0.07)	0.30 (General, <i>Gamberg (unpublished data)</i> )	NM Lower*	0.44(0.16)	0.32 (General, <i>Gamberg (unpublished data)</i> )	NM Higher*
<b>Cu</b>	215.12(128.35)	83.63 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 51.85 (Arviat, <i>Elkin and Bethke, 1995</i> ) 120.76 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 105.36 (Lake Harbour, <i>Elkin and Bethke, 1995</i> )	NM Higher*	24.52(4.74)	49.73 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 40.1 (Arviat, <i>Elkin and Bethke, 1995</i> ) 27.76 (Southampton, <i>Elkin and Bethke, 1995</i> ) 43.65 (Cape Dorset, <i>Elkin and Bethke, 1995</i> )	NM within range

		116.21 (General, <i>Gamberg (unpublished data)</i> )			29.57 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 22.80 (Porcupine, <i>Gamberg, 2013</i> ) 22.00 (Qamanirjuac, <i>Gamberg, 2013</i> ) 24.95 (General, <i>Gamberg (unpublished data)</i> ) 24.3 (Porcupine, <i>Gamberg et al., 2020</i> )	
<b>Fe</b>	470.30(295.61)	1594.97 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 701.84 (Arviat, <i>Elkin and Bethke, 1995</i> ) 3627.66 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 3956.18 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 1065.15 (General, <i>Gamberg (unpublished data)</i> )	NM Lower*	192.12(89.55)	237.26 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 217.67 (Arviat, <i>Elkin and Bethke, 1995</i> ) 194.94 (Southampton, <i>Elkin and Bethke, 1995</i> ) 440.85 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 342.99 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 217.69 (General, <i>Gamberg (unpublished data)</i> )	NM Lower
<b>Pb</b>	0.06(0.08)	0.38 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 0.25 (Arviat, <i>Elkin and Bethke, 1995</i> ) 2.64 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 3.38 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 0.89 (Leaf River, <i>Robillard et al., 2002</i> ) 0.89 (George River, <i>Robillard et al., 2002</i> ) 0.73 (General, <i>Gamberg (unpublished data)</i> )	NM Lower*	1.95(12.45)	0.11 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 0.10 (Arviat, <i>Elkin and Bethke, 1995</i> ) 0.33 (Southampton, <i>Elkin and Bethke, 1995</i> ) 0.42 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 0.47 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 0.28 (Leaf River, <i>Robillard et al., 2002</i> ) 0.20 (George River, <i>Robillard et al., 2002</i> ) 0.98 (Banks Island, <i>Larter and Nagy, 2000</i> ) 0.21 (Bluenose, <i>Larter and Nagy, 2000</i> ) 0.09 (Porcupine, <i>Gamberg, 2013</i> )	NM Higher

					0.30 (Qamanirjuac, <i>Gamberg, 2013</i> ) 1.20 (General, <i>Gamberg (unpublished data)</i> )	
<b>Mn</b>	6.47(3.59)	12.62 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 10.84 (Arviat, <i>Elkin and Bethke, 1995</i> ) 8.60 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 15.85 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 10.54 (General, <i>Gamberg (unpublished data)</i> )	NM Lower*	5.84(2.44)	8.96 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 12.03 (Arviat, <i>Elkin and Bethke, 1995</i> ) 9.73 (Southampton, <i>Elkin and Bethke, 1995</i> ) 11.66 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 18.62 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 8.00 (General, <i>Gamberg (unpublished data)</i> )	NM Lower*
<b>Mo</b>	1.84(0.75)	2.64 (General, <i>Gamberg (unpublished data)</i> )	NM Lower*	0.91(0.33)	0.76 (General, <i>Gamberg (unpublished data)</i> )	NM Higher*
<b>Se</b>	1.70(1.32)	0.52 (General, <i>Gamberg (unpublished data)</i> )	NM Higher*	4.92(0.69)	4.80 (Porcupine, <i>Gamberg, 2013</i> ) 4.20 (Qamanirjuac, <i>Gamberg, 2013</i> ) 3.73 (General, <i>Gamberg (unpublished data)</i> ) 4.5 (Porcupine, <i>Gamberg et al., 2020</i> )	NM Higher
<b>Zn</b>	87.21(47.95)	114.11 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 92.27 (Arviat, <i>Elkin and Bethke, 1995</i> ) 75.84 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 76.27 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 101.16 (General, <i>Gamberg (unpublished data)</i> )	NM within range	127.91(16.14)	123.49 (Bathurst, <i>Elkin and Bethke, 1995</i> ) 120.86 (Arviat, <i>Elkin and Bethke, 1995</i> ) 111.87 (Southampton, <i>Elkin and Bethke, 1995</i> ) 106.73 (Cape Dorset, <i>Elkin and Bethke, 1995</i> ) 96.75 (Lake Harbour, <i>Elkin and Bethke, 1995</i> ) 107.80 (Porcupine, <i>Gamberg, 2013</i> ) 107.90 (Qamanirjuac, <i>Gamberg, 2013</i> ) 114.00 (General, <i>Gamberg (unpublished data)</i> )	NM Higher

\* = Northern Mountain caribou mean element concentration (this study) is significantly different than all available means from other Canadian herds, at  $p < 0.05/m$ , where  $m$  is the number of 'other herd' means being tested against for each element (i.e. Bonferroni correction applied due to multiple comparisons).

