

1 **Prominent bacterial heterotrophy and sources of ¹³C-depleted**
2 **fatty acids to the interior Canada Basin**

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1 Supplementary material

2 Supplementary Table 1. $\delta^{13}\text{C}$ values of POC and FAMES in the Canada Basin prior to sorption blank corrections

	DOC blank		seasonally ice-free station CB4								ice-covered station CB9			
	(‰) ±		50 m (‰) ±	150 m (‰) ±	1000 m (‰) ±	2000 m (‰) ±	2500 m (‰) ±	3000 m (‰) ±	3500 m (‰) ±	3750 m (‰) ±	50 m (‰) ±	150 m (‰) ±	500 m (‰) ±	1000 m (‰) ±
POC	-25.1 0.1		-29.5 0.1	-24.8 0.1	-22.7 0.1	-23.0 0.1	-22.7 0.1	-24.5 0.1	-24.3 0.1	-24.6 0.1	-27.0 0.1	n.d.	-24.1 0.1	n.d.
12:0	-27.9 1.0			-29.5 0.3	-27.5 0.4			-32.1 2.6	-30.3 0.9	-30.0 0.6				
14:0	-30.0 0.3		-36.2 0.7	-30.1 0.5	-24.1 0.5	-25.2 0.6	-27.2 0.3	-26.4 0.3	-26.4 0.4	-26.9 0.3	-34.5 0.4	-27.9 0.3	-27.1 0.4	-25.8 1.3
15:0			-34.0 0.7	-25.7 0.3	-22.7 1.1	-22.4 1.1	-24.8 0.6	-26.2 0.6	-25.7 0.3	-28.3 0.5	-30.8 0.4		-25.4 0.4	-22.3 0.9
16:0	-26.5 0.4		-35.8 0.3	-29.5 0.3	-26.1 0.5	-27.7 0.4	-27.7 0.4	-25.1 0.3	-25.5 0.3	-26.2 0.4	-35.1 0.3	-28.8 0.6	-27.8 0.4	-27.1 0.4
17:0				-28.5 0.5	-23.3 1.0	-23.7 1.0		-23.1 0.6	-23.0 0.8	-23.8 0.6			-25.2 0.7	
18:0	-25.9 0.3		-30.0 0.5	-28.6 0.3	-28.1 0.3	-27.5 0.3	-27.4 0.3	-24.7 0.6	-24.5 0.3	-26.8 0.3	-29.6 0.7	-28.9 0.3	-28.1 0.3	-28.6 0.3
SFA	-26.4 2.3		-35.4 3.1	-29.7 2.6	-27.1 2.3	-27.7 2.4	-27.8 2.4	-23.9 2.0	-24.8 2.2	-27.3 2.3	-34.2 3.0	-29.1 2.5	-27.9 2.4	-27.9 2.4
i-15:0			-31.2 0.5	-24.6 0.5	-21.8 0.5	-21.7 0.8	-23.1 0.7	-24.4 0.9	-25.1 0.5	-22.7 0.5	-26.3 0.4		-23.9 0.3	-22.6 1.5
ai-15:0			-28.4 0.3	-24.1 0.3	-22.7 0.3	-22.7 0.5	-22.6 1.3	-23.8 0.6	-24.6 0.3	-22.7 0.6	-24.7 0.3		-22.9 0.3	-22.0 0.3
i-17:0					-21.0 0.9			-41.8 2.8	-39.8 0.3	-22.1 0.9			-23.0 0.3	
BFA			-30.0 2.6	-24.4 2.0	-22.1 1.8	-22.3 1.6	-22.8 1.3	-27.4 1.6	-27.3 2.3	-22.6 1.6	-25.8 2.2		-23.4 2.0	-22.3 1.4
16:1n9											-28.6 0.3			
18:1n9											-32.7 0.4			
MUFA											-29.9 2.7			
18:2n6											-26.5 0.9			
$\Delta_{\text{POC-SFA}}$	1.3		5.8	4.9	4.3	4.7	5.1	-0.7	0.3	2.6	7.2		3.7	
$\Delta_{\text{POC-BFA}}$			0.5	-0.4	-0.6	-0.7	0.1	2.9	3.0	-2.0	-1.2		-0.7	
$\Delta_{\text{SFA-BFA}}$			-5.3	-5.3	-4.9	-5.4	-5.0	3.6	2.6	-4.6	-8.4		-4.5	-5.6

3 n.d. not determined

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