

## ***Supplementary Material***

### **Comparison of the microbial communities in the volcanic glaciers of the South and North hemispheres**

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**I. Supplementary Tables S1-S3**

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## I. Supplementary Tables S1-S3

**Table S1. Chemical analysis of ions in meltwater.** Concentrations are expressed in ppb ( $\pm$ SEM) of three replicates. <sup>a</sup>BD: below detection.

File: Table S1.xlsx

**Table S2. Analysis of bacterial 16S rRNA genes retrieved from ice samples.** OTU level aggregate counts of 3 sampling replicates.

File: Table S2.xlsx

**Table S3. Correspondence analysis and Species-environment correlations ( $\lambda$ ).**

No. of analysis	Type of analysis	Environmental variables	$\lambda_1$	$\lambda_2$	$\lambda_3$	$\lambda_4$	Figure
1	PCA	-	0.983	0.012	0.004	0.001	5
2	CCA	Distance to South Pole	0.242	0.009	0.003	0.001	6
3	DCA	Adaptation to temperature	0.589	0.028	0.001	0.000	7
4	CCA	$\text{NH}_4^+$ , $\text{NO}_2^-$ , $\text{NO}_3^-$ , $\text{SO}_4^{2-}$ , SRP, DOC	0.245	0.006	0.003	0.000	8A
5	CCA	Mg, Fe, Ca, Mn, K, C, Si, Na, Cl, S, Br, Co, Cu	0.246	0.006	0.003	0.000	8B
6	DCA	Sulfur and iron metabolism	0.728	0.058	0.001	0.000	9

## II. Supplementary Figures

**Figure S1.** Graphic representation of the relative abundance (No. reads) belonging to the most abundant genus in each glacier.

