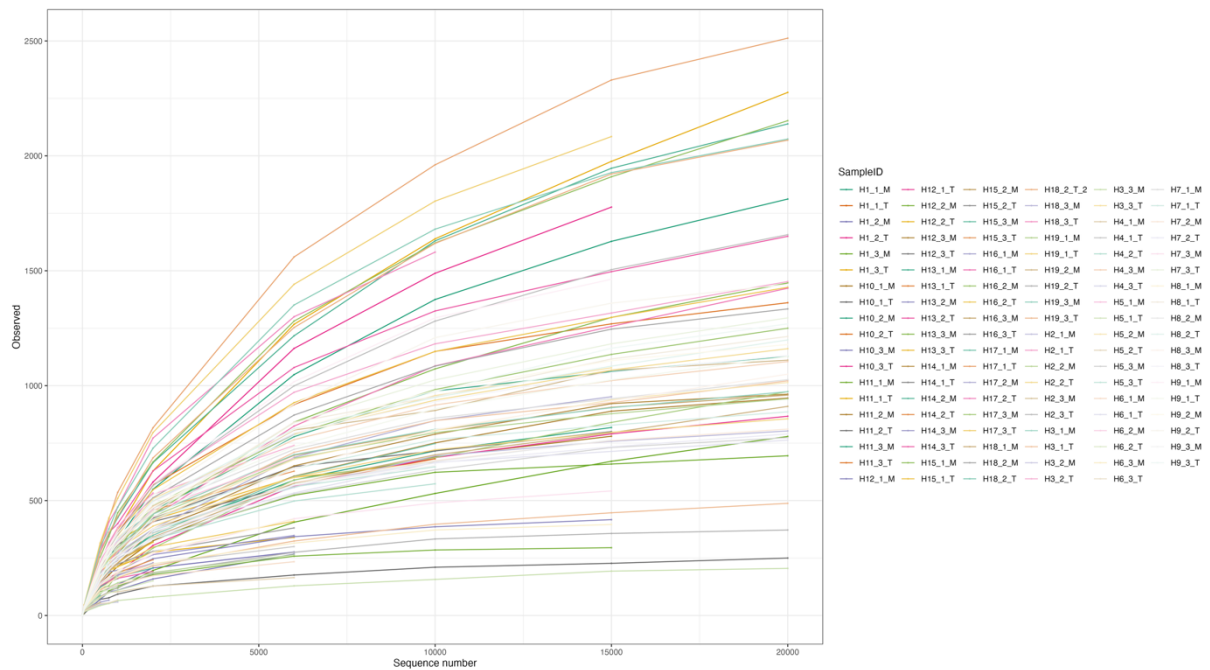
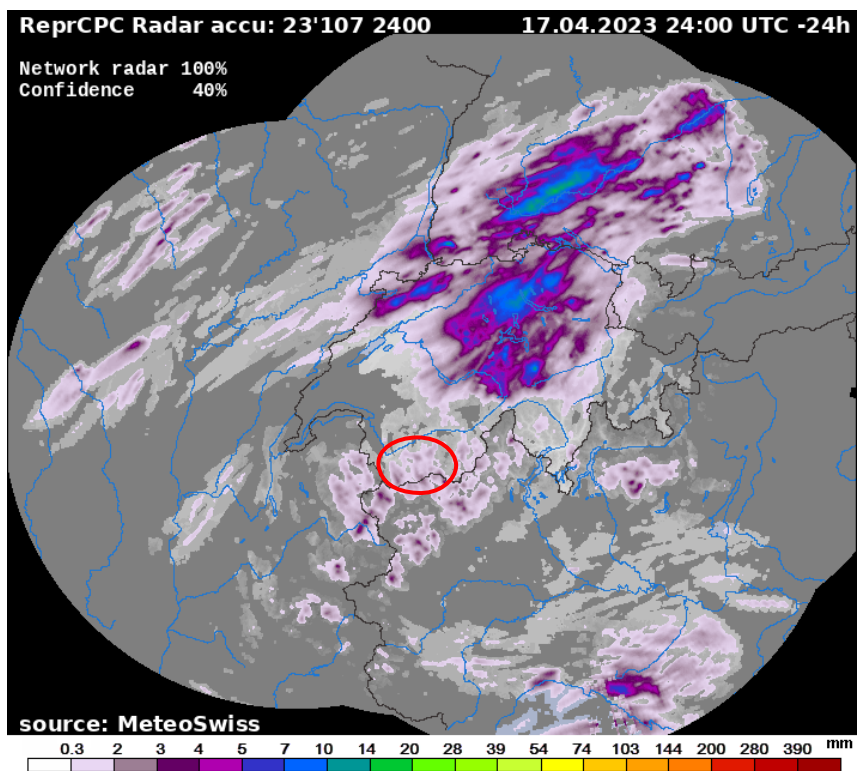
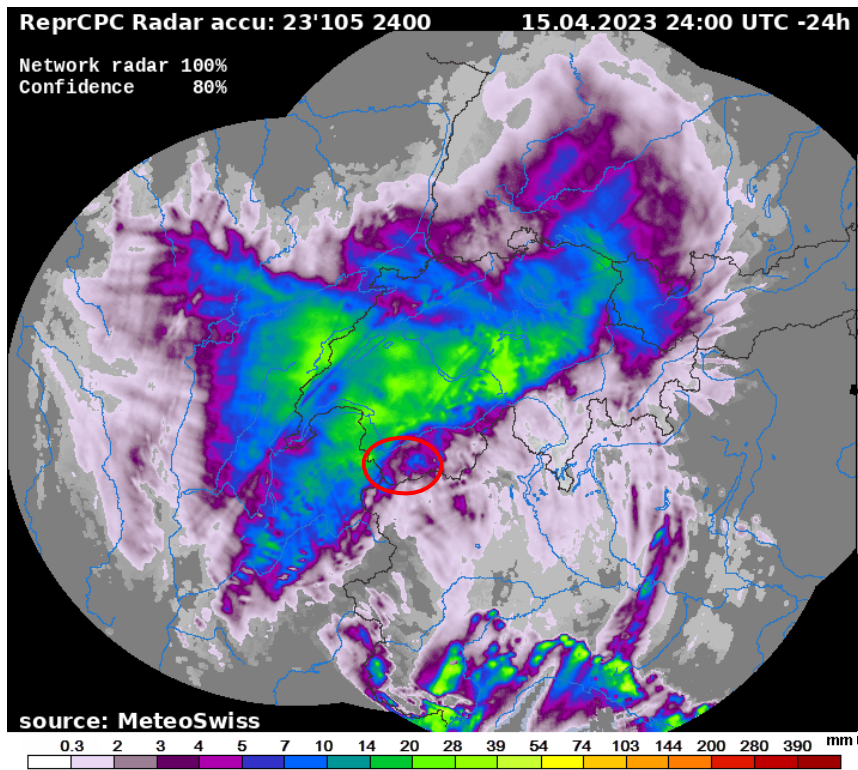
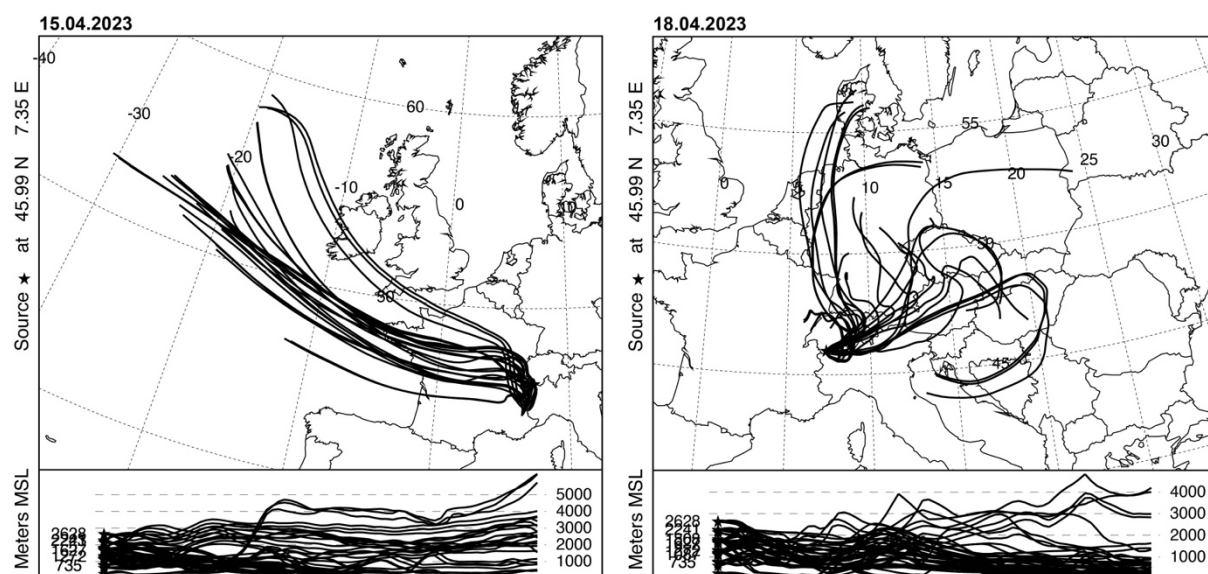
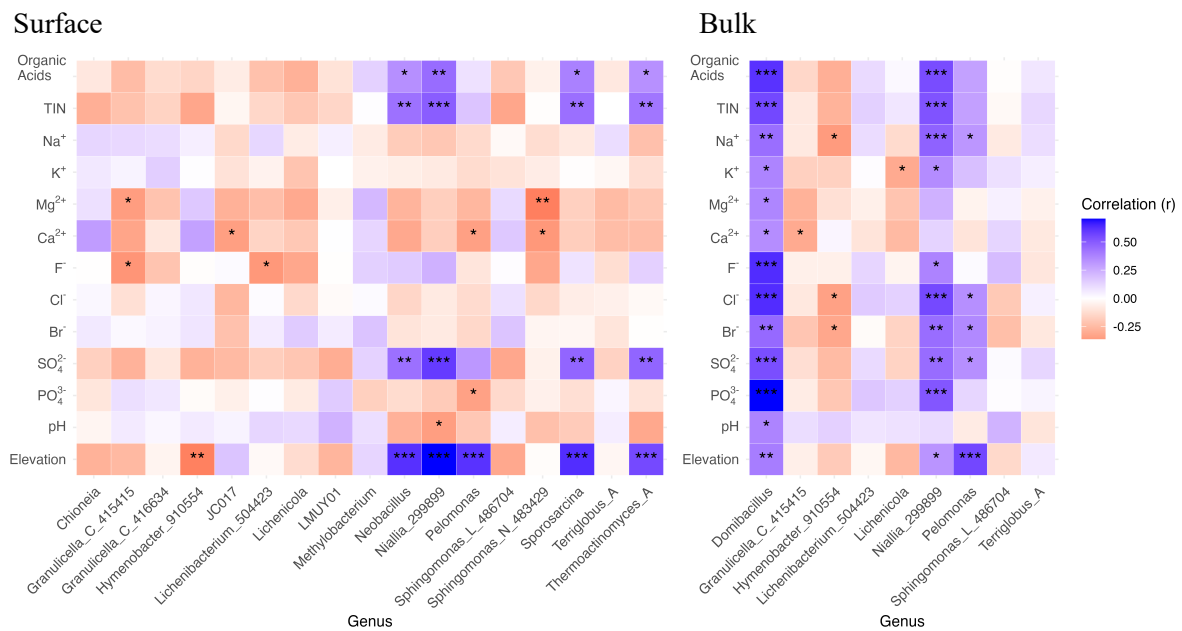
Microbial community composition of seasonal snowpack in the Swiss Alps

Supplementary Fig. S1. Rarefaction curves of OTUs after quality filtering in individual samples.
Rarefaction analysis based on OTUs retained after quality filtering (OTUs present ≥10 times and detected in at least 2 samples).

Supplementary Fig. S2. 24-hour precipitation profiles. The CPC images are raingauge-adjusted radar images (radar-raingauge combination) with the map of Switzerland embedded (source: MeteoSwiss). The sampling area is in the red ellipse.

Supplementary Fig. S3. NOAA HYSPLIT 72-hour backwards trajectories ending in the sampling area. Trajectories were calculated ending at 00:00 UTC on April 15, 2023 and April 18, 2023, at the sampling site (45.986°N, 7.353°E) at 500 m above ground level, using GDAS1 meteorological data and model vertical velocity calculations.

Supplementary Fig. S4. Core bacterial community of surface and bulk snow. The heatmap displays Spearman correlation coefficients between core bacterial genera and environmental factors. The colour gradient indicates the strength and direction of the correlations. Statistical significance is marked by asterisks based on Benjamini-Hochberg (BH) adjusted p-values (*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$).