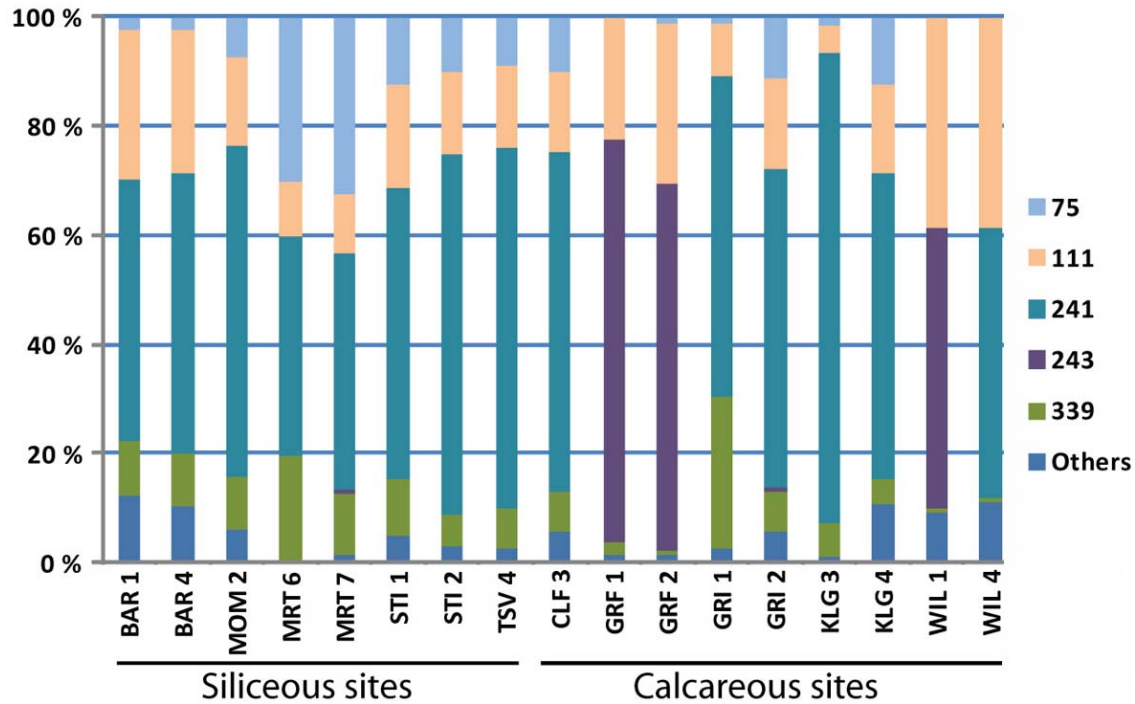


Supplementary Material



3

4 Supplementary Figure S1: Bar diagrams of *pmoA*-based T-RFLP fingerprint patterns obtained
5 from 17 subsamples representing 10 different glacier forefields. The T-RFLP patterns were
6 generated using the primer set A189f-A682r. The percentage abundance of 5 distinguishable
7 T-RFs are indicated by different colors. The T-RF labeled “Others” refers to the sum of three
8 minor T-RFs. In principle, the composition of the T-RF patterns showed a similar trend as
9 those obtained by nested PCR (Fig. 4). Common to the patterns of both T-RFLP datasets is
10 the dominant presence of either the combination of the 241-bp and 339-bp T-RFs, or the 243-
11 bp T-RF. Discrepancies can be explained by different primer selectivity. The missing *pmoA*-
12 assigned 350-bp T-RF is only amplified by the primer set *pmoA206f-mb661r* and not by
13 A189f-682r. *In silico* analysis suggests that the 111-bp T-RF represents *Nitrosospira*-like
14 *amoA* that is efficiently detected by A189f-682r, but not by *pmoA206f-mb661*. The 75-bp T-
15 RF may represent *pmoA* of Cluster 1 as mentioned above or *Methylocaldum*-related *pmoA* as
16 suggested by *in silico* analysis, or a combination of both methanotroph groups. The *pmoA* of
17 *Methylocaldum*, a type Ib methanotroph, is efficiently detected by the primer set A189f-682r,
18 but not by *pmoA206f-mb661*.