Abstract

Subglacial environments harbor active microbial communities. The composition of these communities is influenced by a number of factors, with glacial hydrology being one of the most important ones. This affects not only formation of subglacial communities but also the mobilisation of microorganisms and their subsequent release to downstream ecosystems. The seasonally evolving drainage system connects supraglacial and subglacial environments, and thus microorganisms from supraglacial environments are exported to proglacial streams along with subglacial microorganisms. The contribution of these two microbial communities to proglacial assemblage is not uniform and may be influenced by the size or geographical location of the glacier or by the phase of the glacier drainage system. Microorganisms from proglacial assemblages can form biofilms in proglacial streams or contribute to the community composition in downstream ecosystems. This work summarizes current knowledge of mobilisation and subsequent export of microorganisms from subglacial environments.