




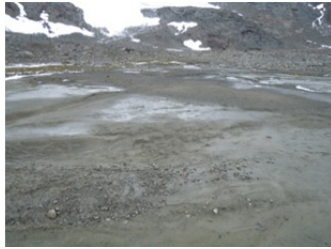
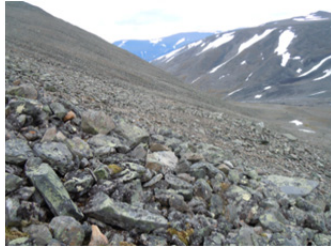



Table S1: Land cover classes and their distribution in the study area (Photos: M. Fuchs).

Land Cover (mean altitude)	Criteria and % stones within the class	Picture
Birch Forest (656 m a.p.s.l.)	Mountain birch ($\geq 10\%$) on average 4% stones	
Tundra Meadow (652 m a.p.s.l.)	relatively flat and treeless area with dwarf shrubs herbs, graminoids, mosses, lichen and undergrowth on average 14% stones	
Shrub (688 m a.p.s.l.)	$\geq 30\%$ shrub (mainly dwarf shrub) (woody deciduous species as well as evergreen shrubs) on average 17% stones	
Patchy Boulder Grass/Moss (1129 m a.p.s.l.)	Grass dominated with minor fractions of moss and lichen on average 35% stones	

Land Cover (mean altitude)	Criteria and % stones within the class	Picture
Patchy Boulder Moss (1181 m a.p.s.l.)	moss or lichen predominant with less than 20% grass on average 42% stones	
Sand / Gravel (1293 m a.p.s.l.)	$\geq 50\%$ sand or gravel, organic layer only sparsely present, sampling by pipe possible on average 47% stones	
Stones (1304 m a.p.s.l.)	$\geq 80\%$ stones and no sampling by pipe possible	
Permanent Snow / Ice (1530 m a.p.s.l.)	No sampling	
Water (1194 m a.p.s.l.)		