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www.lindseynicholson.org - also check out www.rockyglaciers.co.uk for more on so called debris-covered glaciers

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does it matter that glaciers get dirtier as they shrink?

Pasterze Glacier (Austria) in 1920s – Alpenverein photo

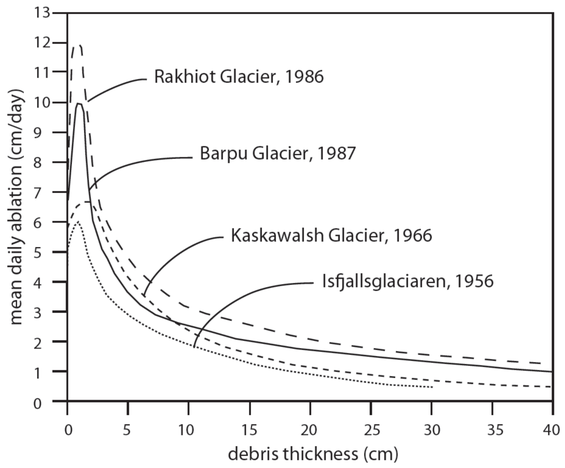
as mountain glaciers shrink, many of them become more dirty

why?

because the glaciers are losing snow and ice, but the amount of rocks and dust melting out of or onto the glacier is increasing

Pasterze Glacier (Austria) in 2012 – Alpenverein photo

Surface rocks change ice melt rate:



but, how does this affect the overall glacier behaviour?

Our research focuses on answering:

- What controls if, where, and how fast a surface rock cover develops over a shrinking glacier?
- Will the rock layer make glaciers shrink faster or slower?
- Will it change the amount of meltwater coming from the glaciers?
- Is it important to include the effect of surface rocks in fouture predictions of water availablility and glacier change?
- How will it affect glacier hazard potential?