

Inventory and genesis of glacial lakes in Switzerland since the Little Ice Age

Goal

- Overview
- Evolution
- Base for strategic planning
- Base for hazard assessment

Methods

- Existing outlines
- Mapping
- Combination

Existing data:

- Lake outlines
- Glacier outlines
- Orthoimages

Results

- Inventory (2014-2016)
- Lakes/Evolution:
 - ~1900
 - 1946
 - 1973
 - ~1982
 - 2006

Inventory/Evolution

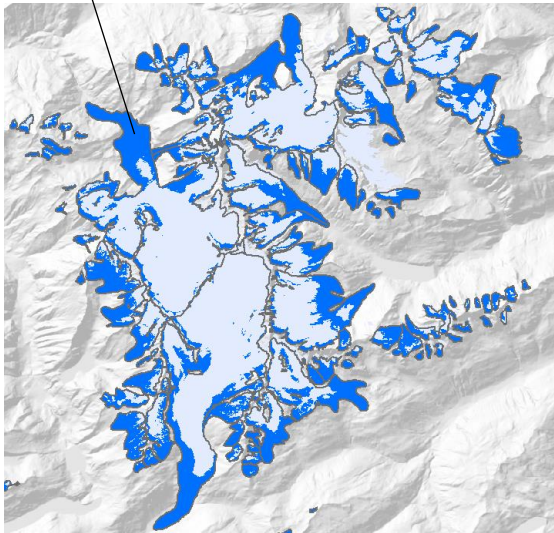
Comparison to ,expectations‘

Sedimentation

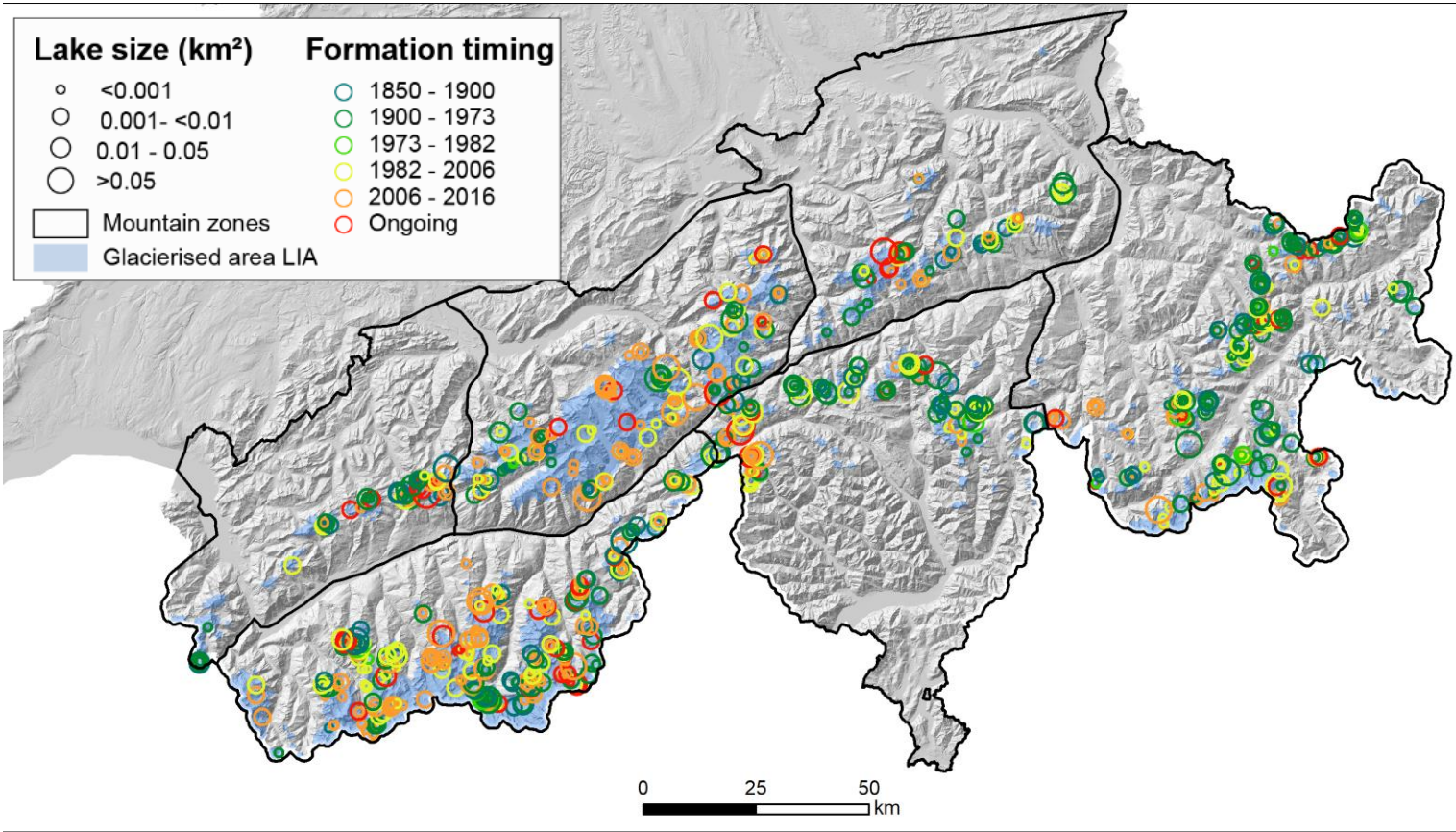
By:

Nico Mölg, Christian Huggel, Thilo Herold, Florian Storck, Simon Allen, Wilfried Haeberli, Yvonne Schaub, and Daniel Odermatt

Study area:

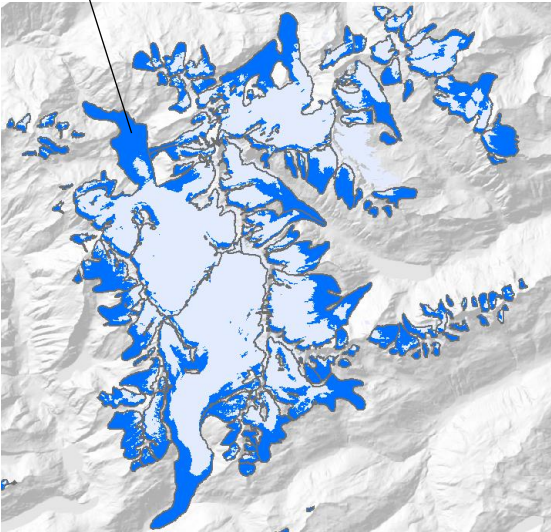


743 km²

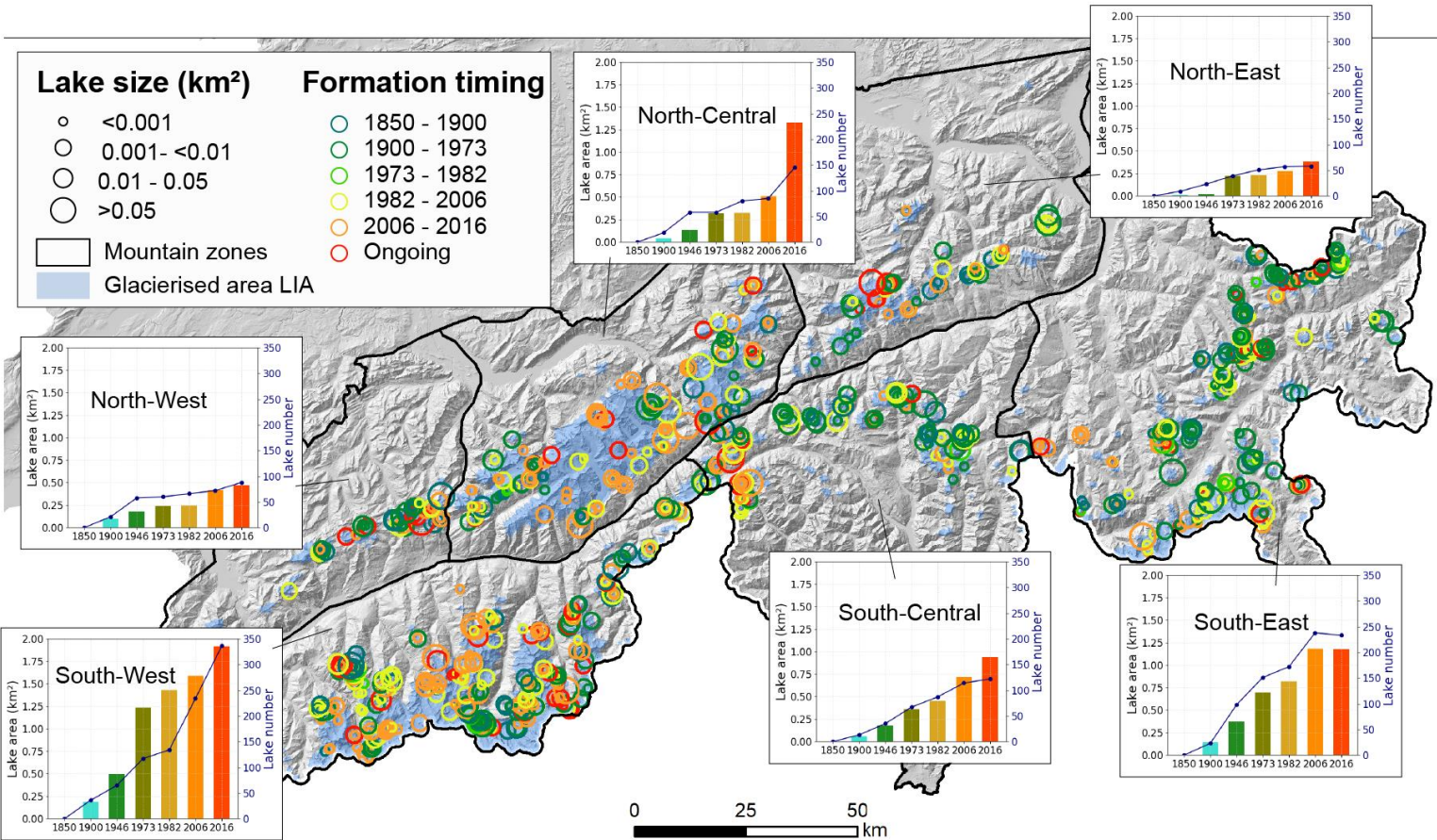


Glacial lakes in Switzerland – Inventory & Evolution

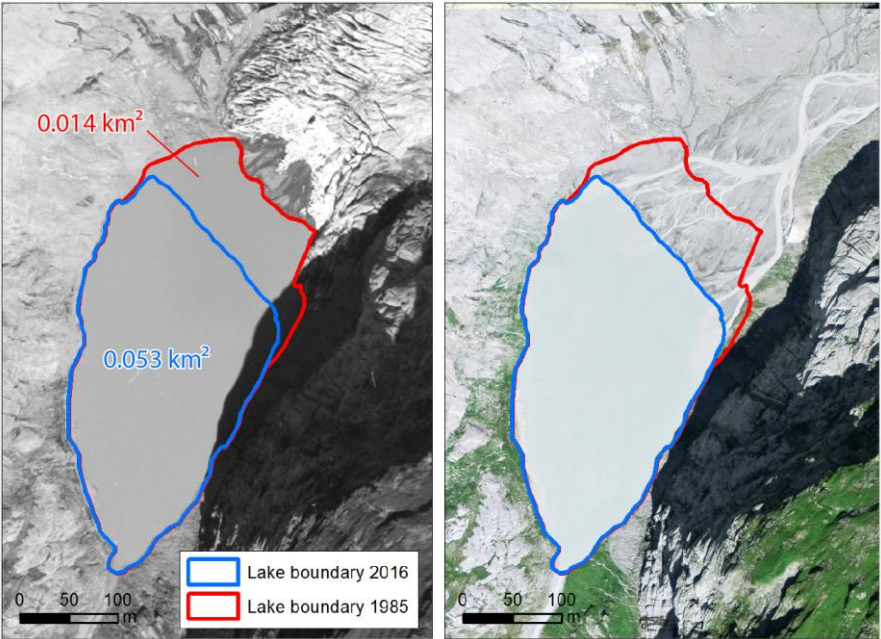
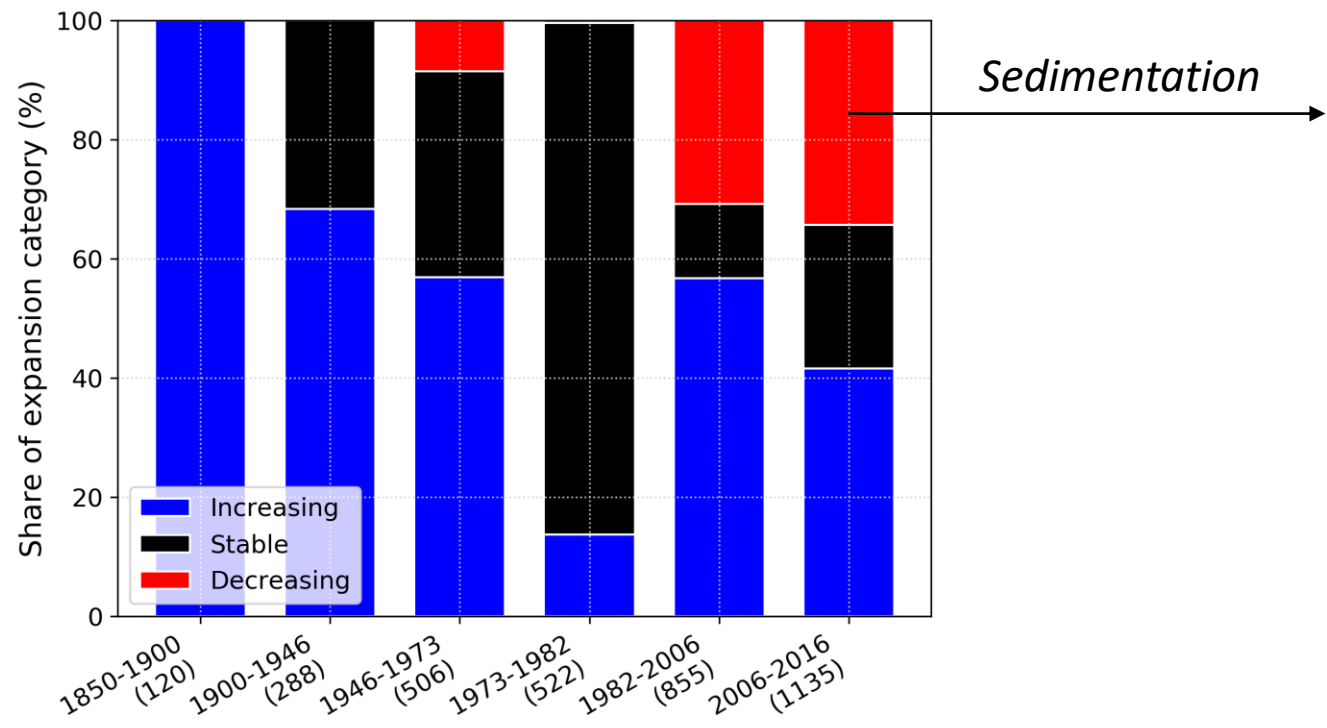
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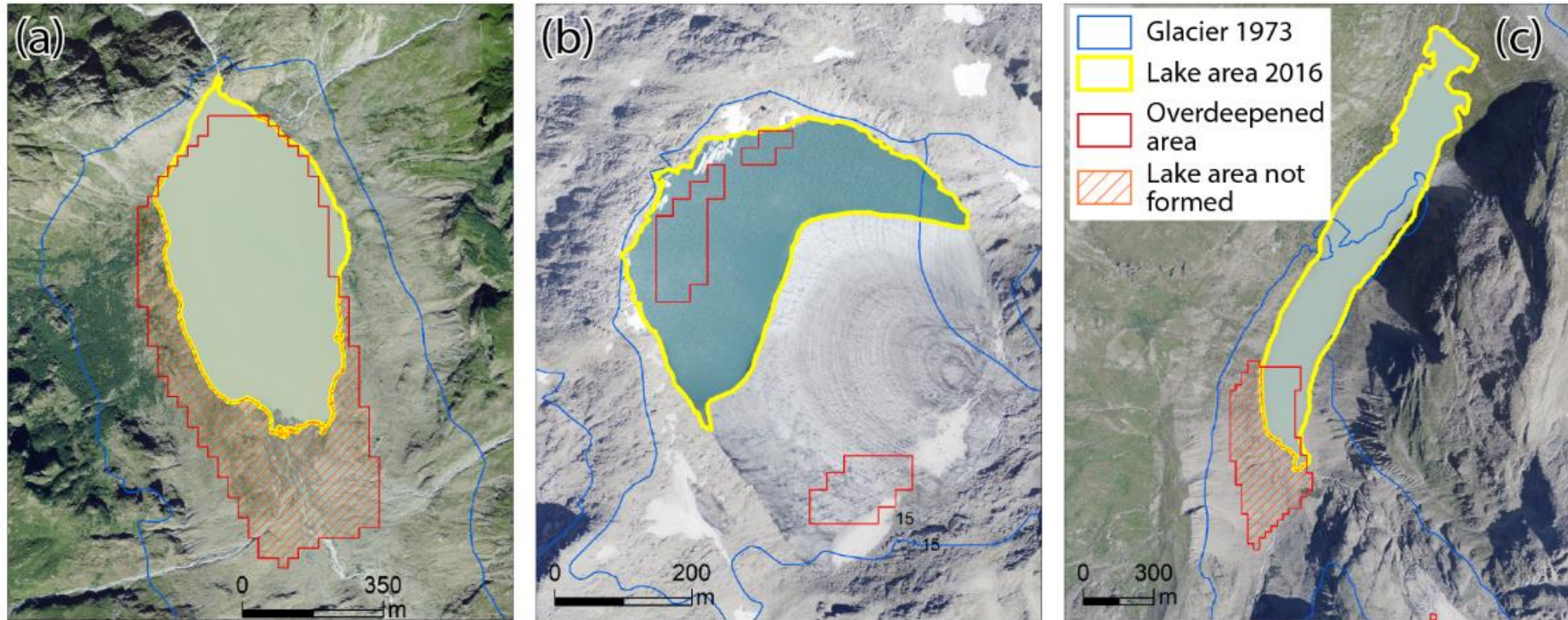
743 km²



Glacial lakes in Switzerland – Sedimentation



Glacial lakes in Switzerland – Comparison to ,expectations‘



Linsbauer et al. (2012): GlabTop (1973)

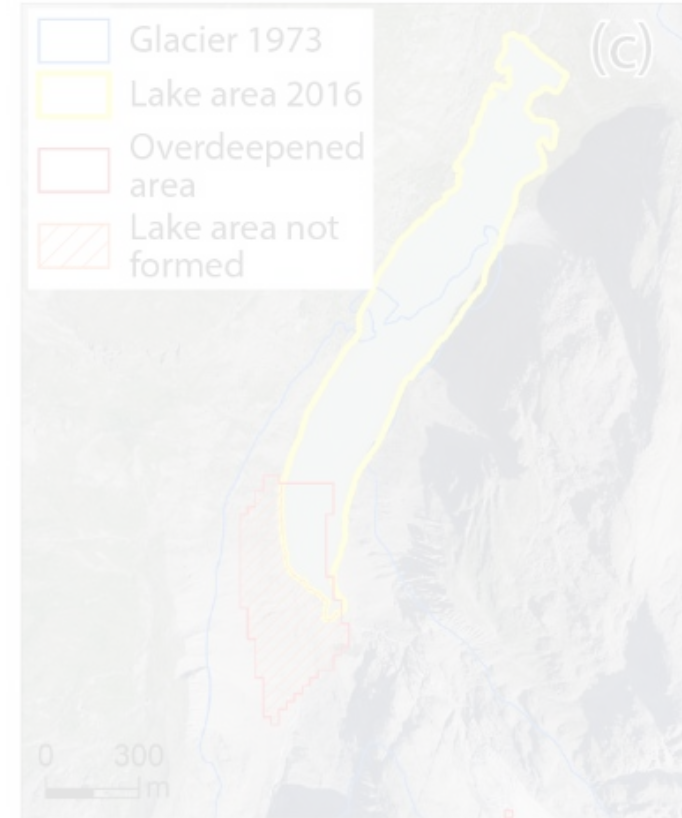
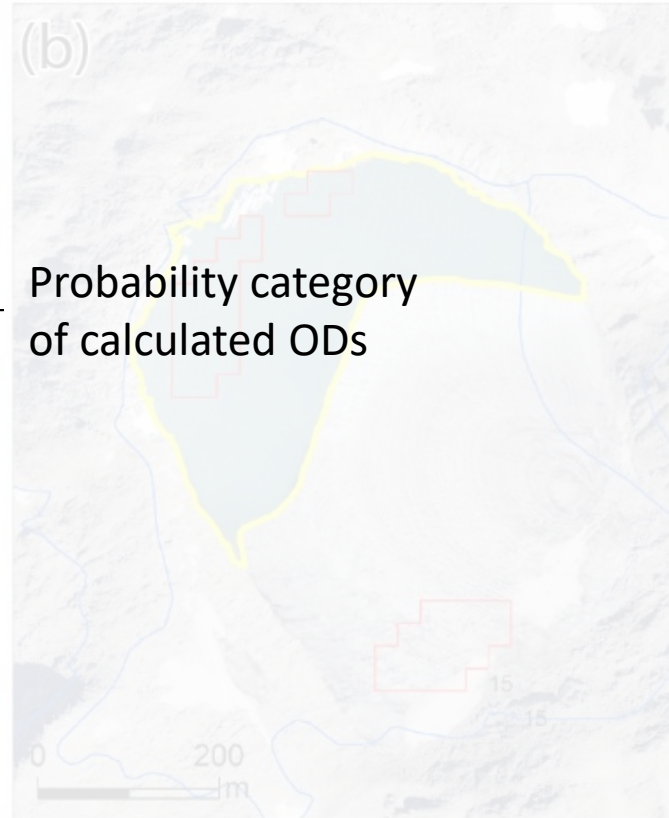
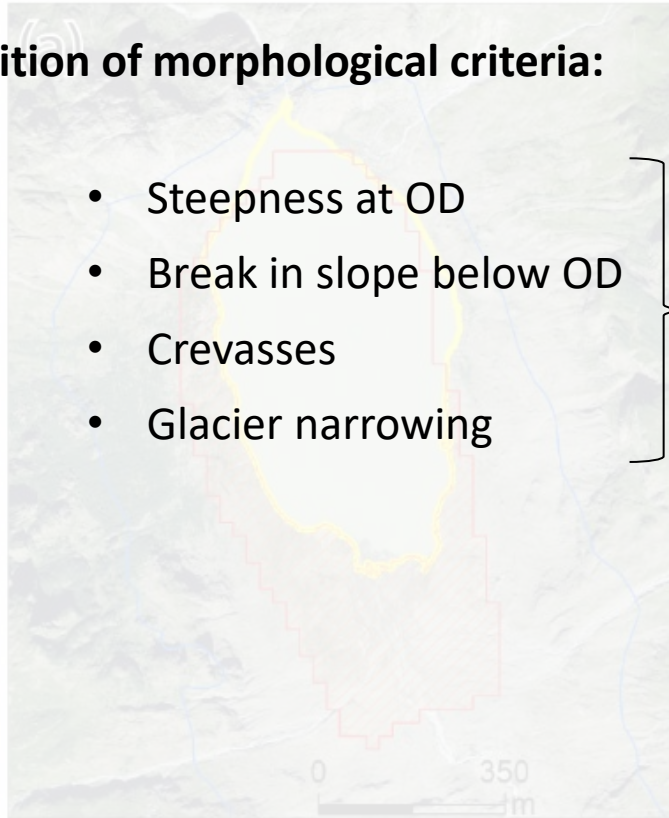


Glacial lakes in Switzerland – Comparison to ,expectations‘

Addition of morphological criteria:

- Steepness at OD
- Break in slope below OD
- Crevasses
- Glacier narrowing

Probability category
of calculated ODs



Linsbauer et al. (2012): GlabTop (1973)

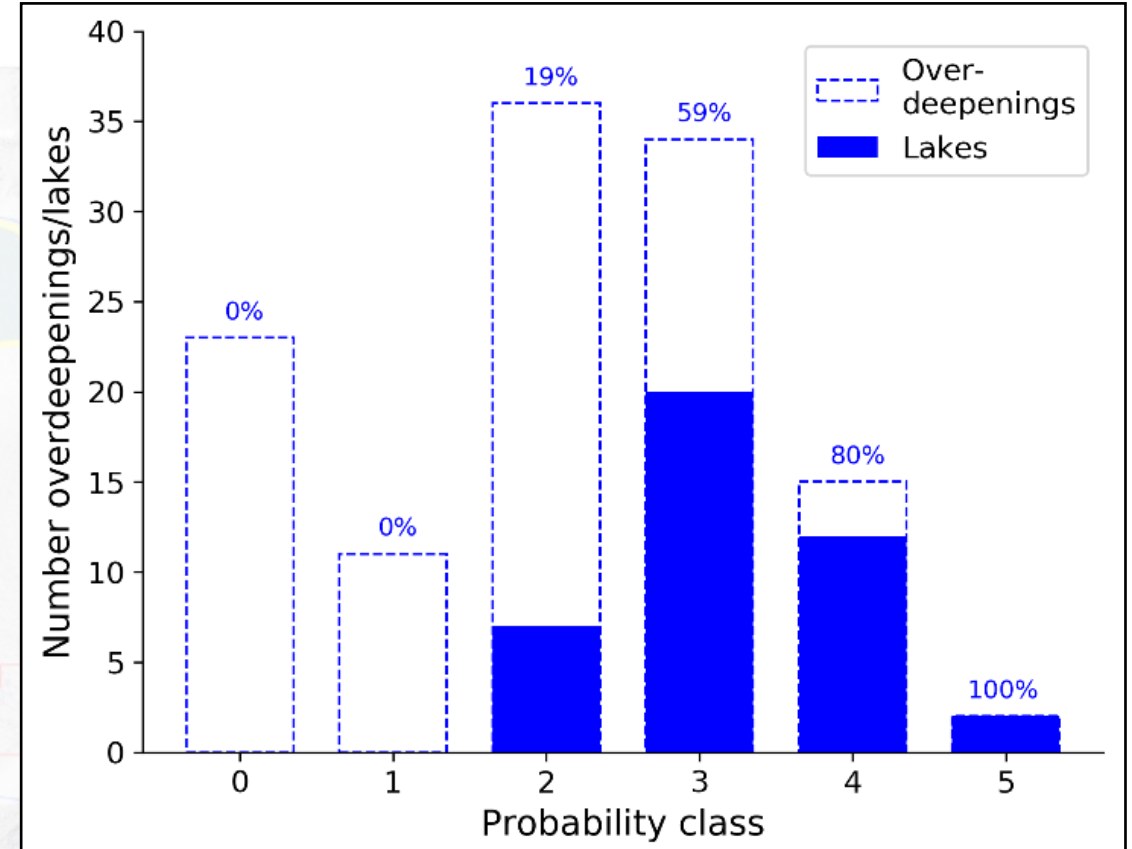
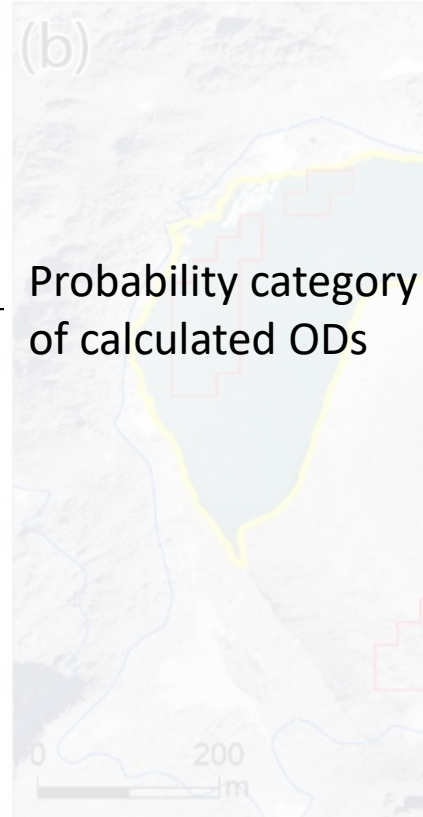
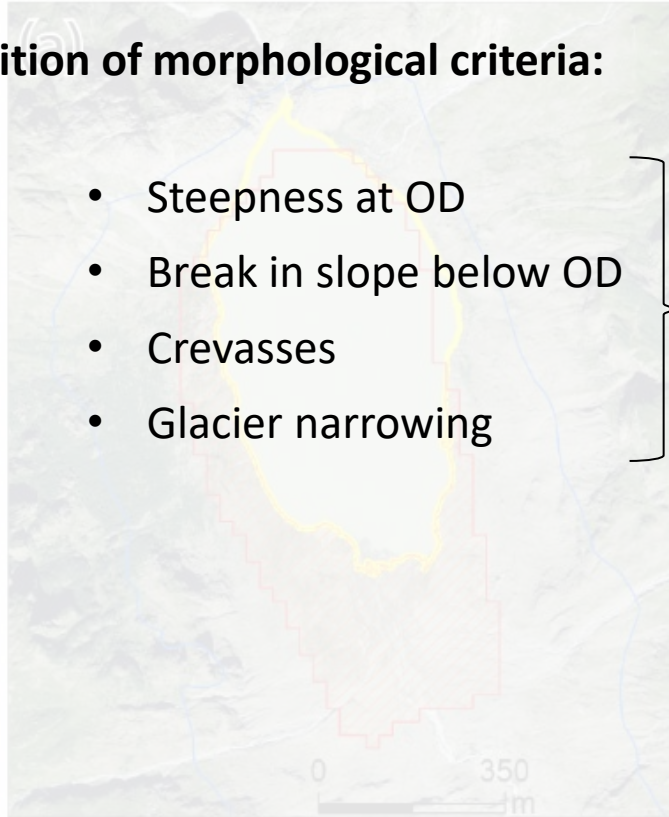


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