

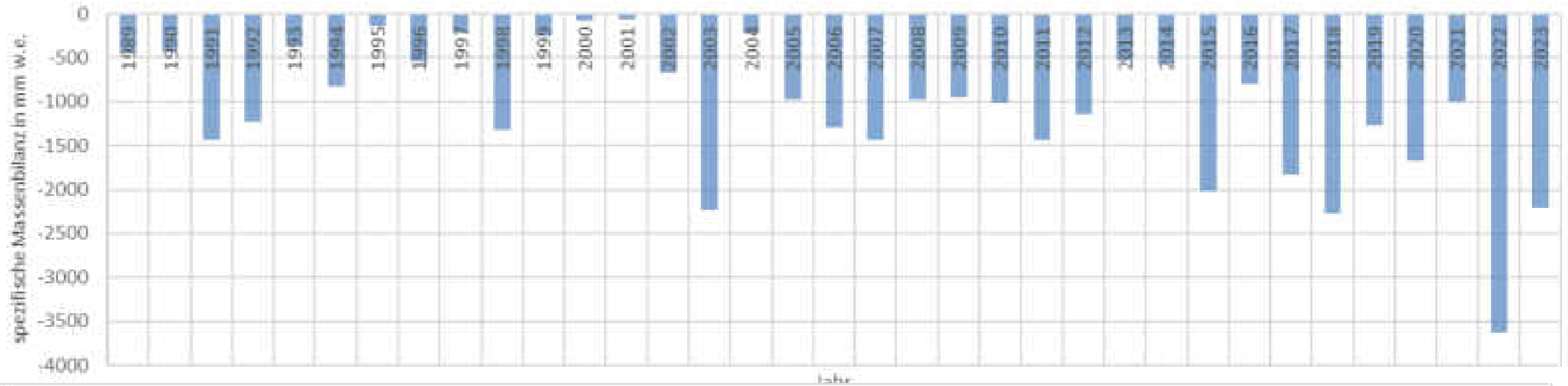
Wenn der Schnee von gestern fehlt - Die hydrologische Zukunft vergletscherter Einzugsgebiete

PD Dr. Andrea Fischer

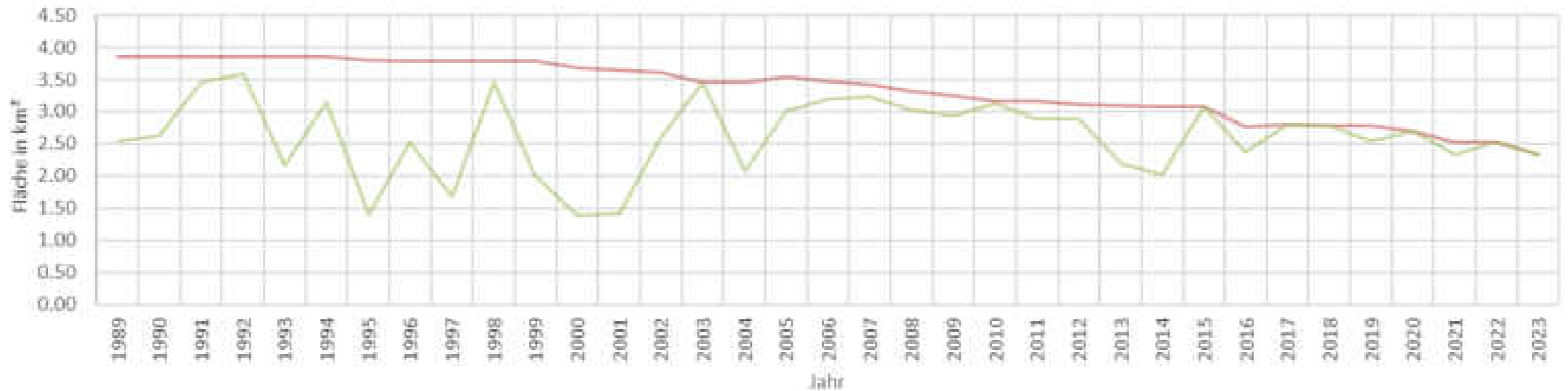
BML

09.04.2024

Spezifische Massenbilanz Jamtalferner



Flächenänderung Jamtalferner



2003



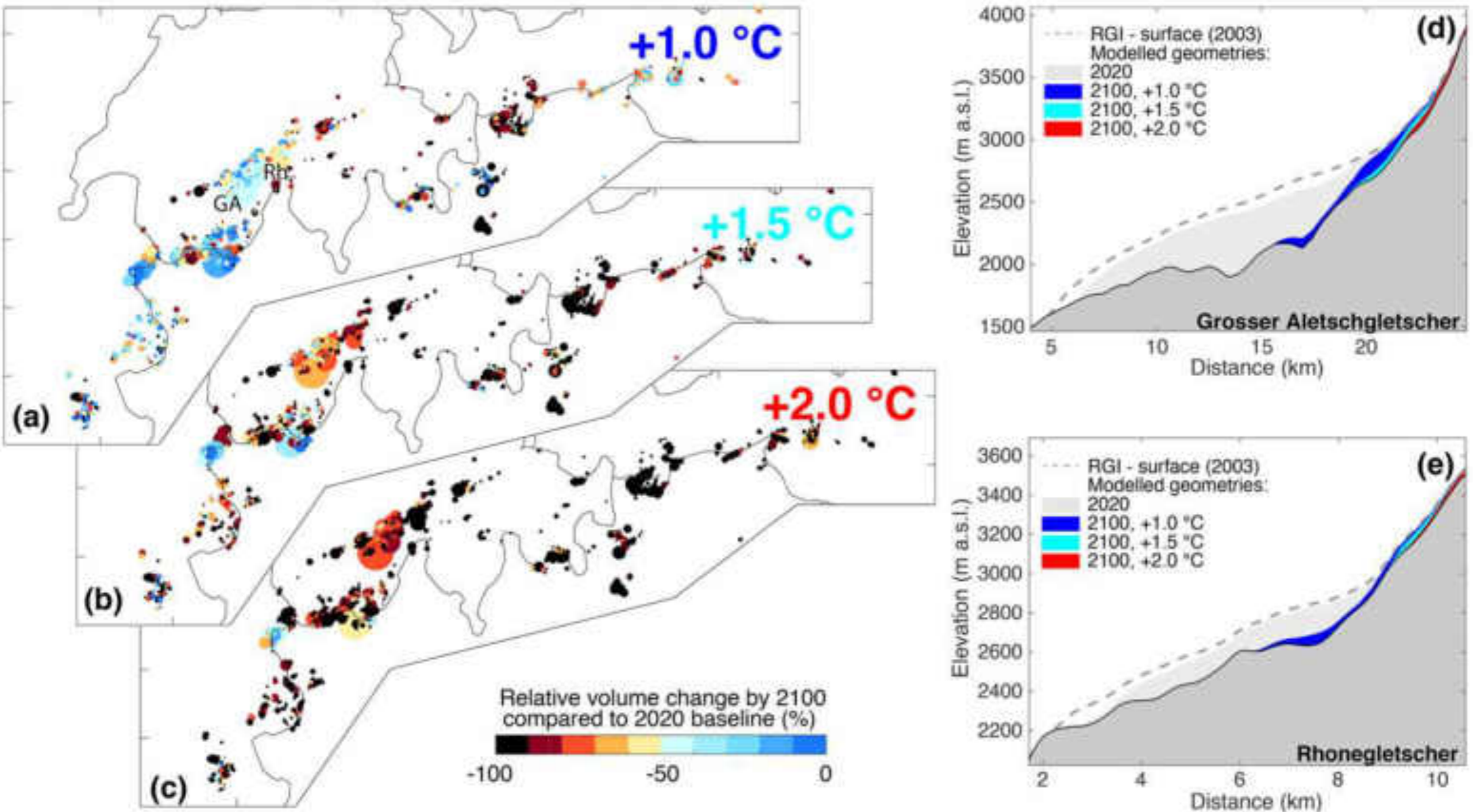
ÖAW

ÖSTERREICHISCHE
AKADEMIE DER
WISSENSCHAFTEN



2023

© Andrea Fischer

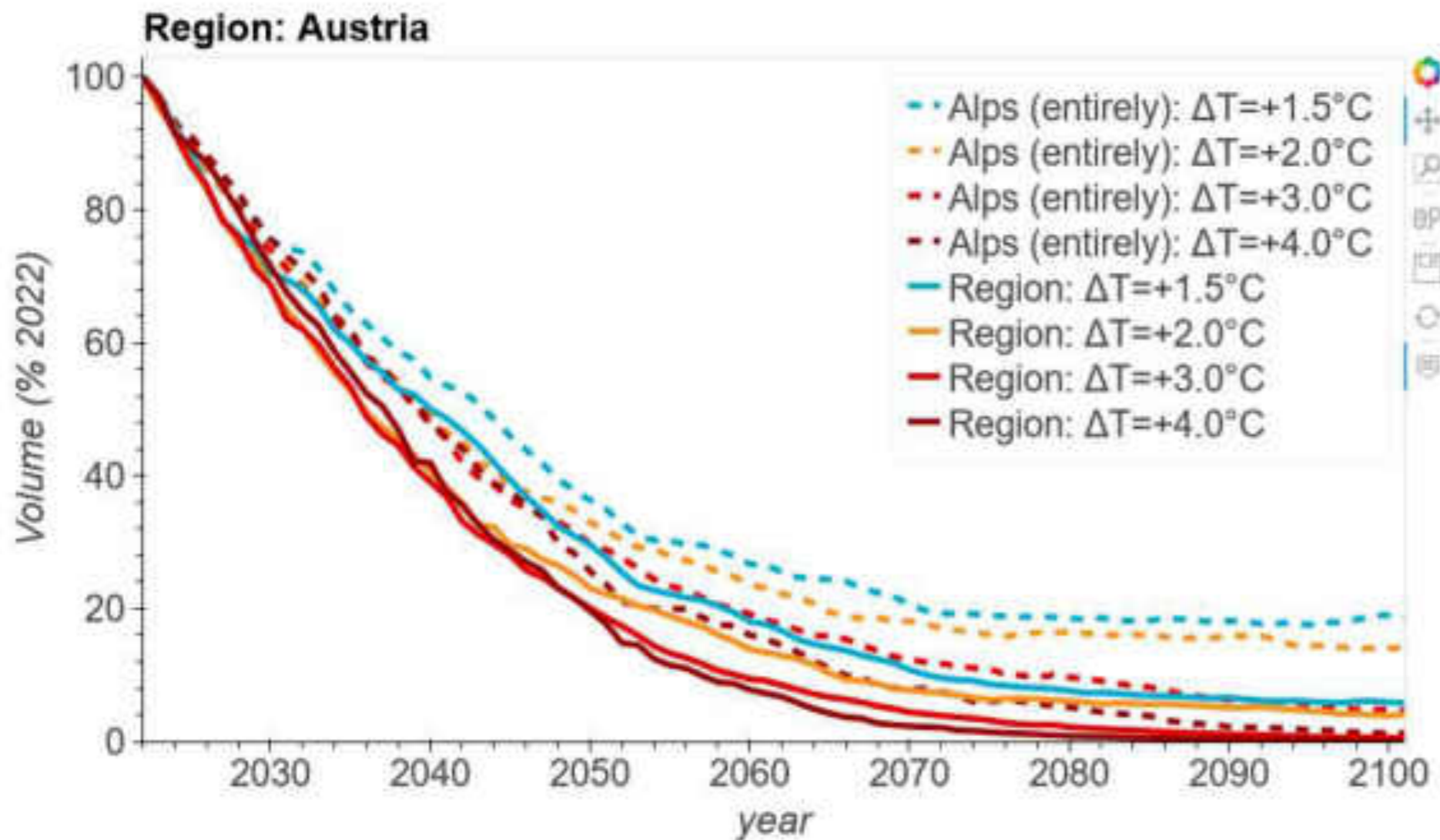


European Alps: Future glacier evolution



This interactive graphic displays the projected volume change in % relative to 2022 of all glaciers in the European Alps from 2022 to 2100 under four global warming scenarios ΔT . The scenarios correspond to the average warming until 2100 relative to 1850-1900.

With more greenhouse gas emissions, global warming increases further, and with that, more glacier mass melts. Discover the differences between the alpine countries & regions by selecting one and comparing it to the total Alpine glacier evolution! We always show the median, and if you hover with the mouse, the 5th and 95th percentile are shown. In the interval between, we expect that 90% of the values of different climate models lie.



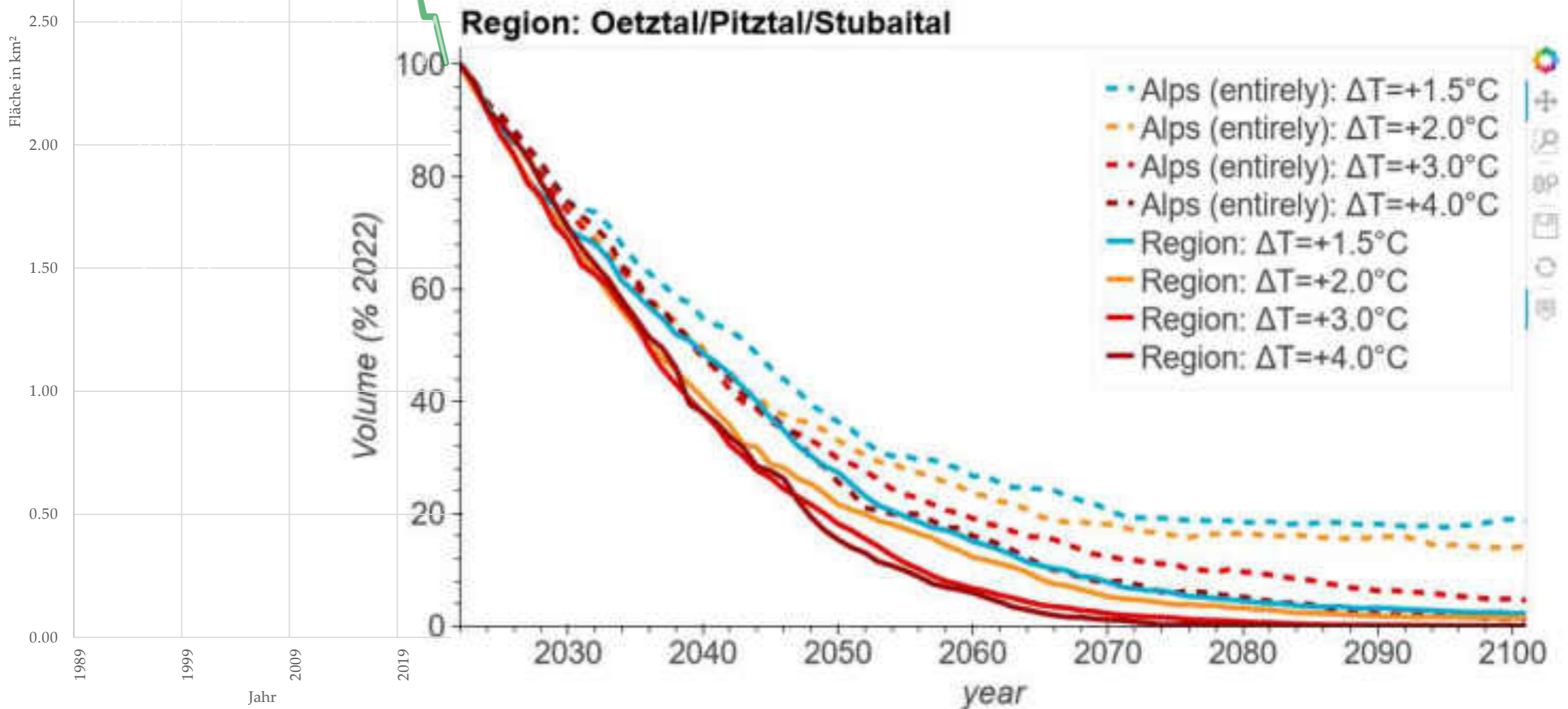
Region
Austria

https://edu.oggm.org/en/latest/alps_future-app_rounce_delta_T_en.html

European Alps: Future glacier evolution



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Urezzasjoch - Blick nach Nordwesten zum Jamtalferner
31.07.22 16:40 7.1°C

Jamtalferner 2022



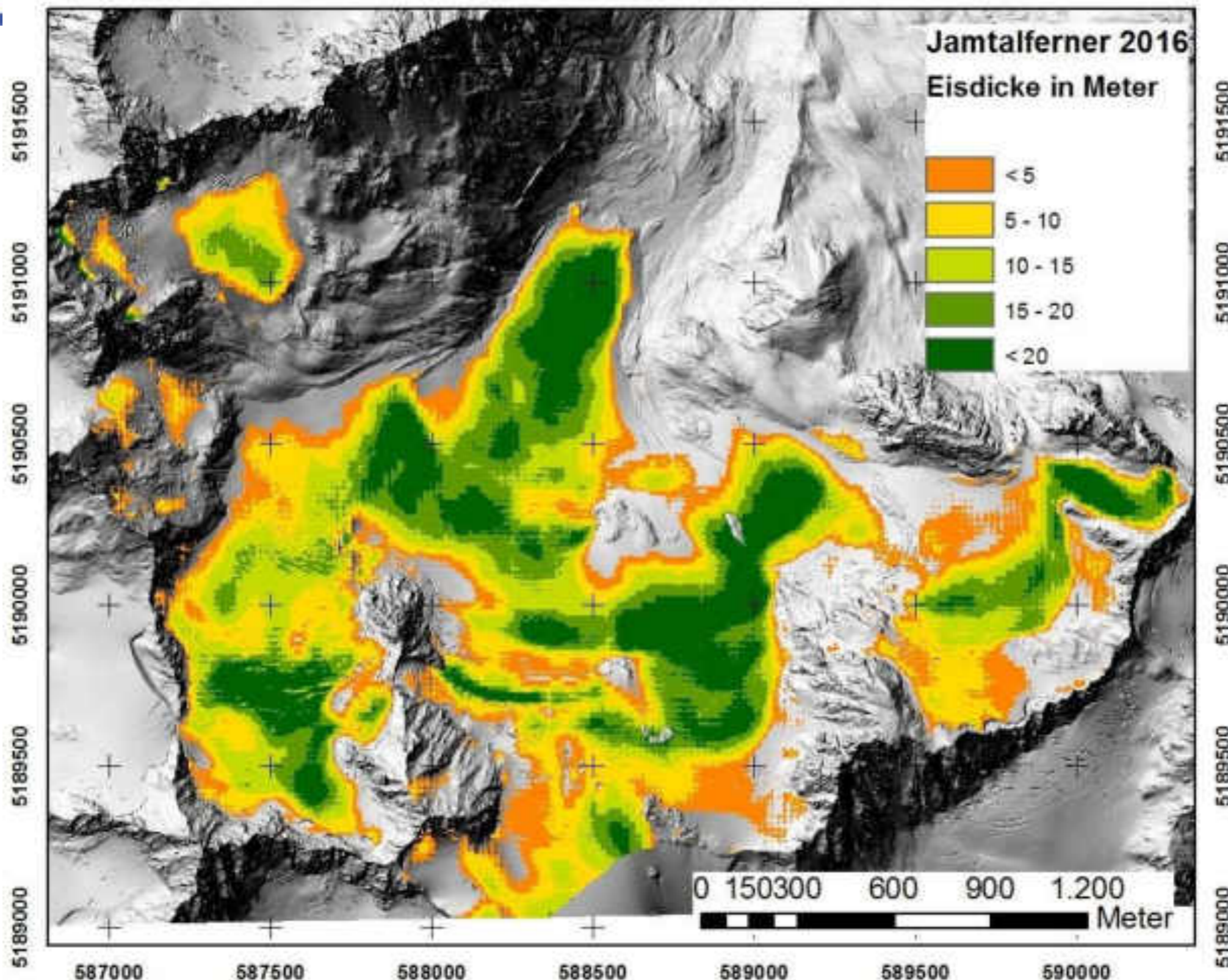
Urezzasjoch - Blick nach Nordwesten zum Jamtalferner
14.10.23 16:40 3.8°C

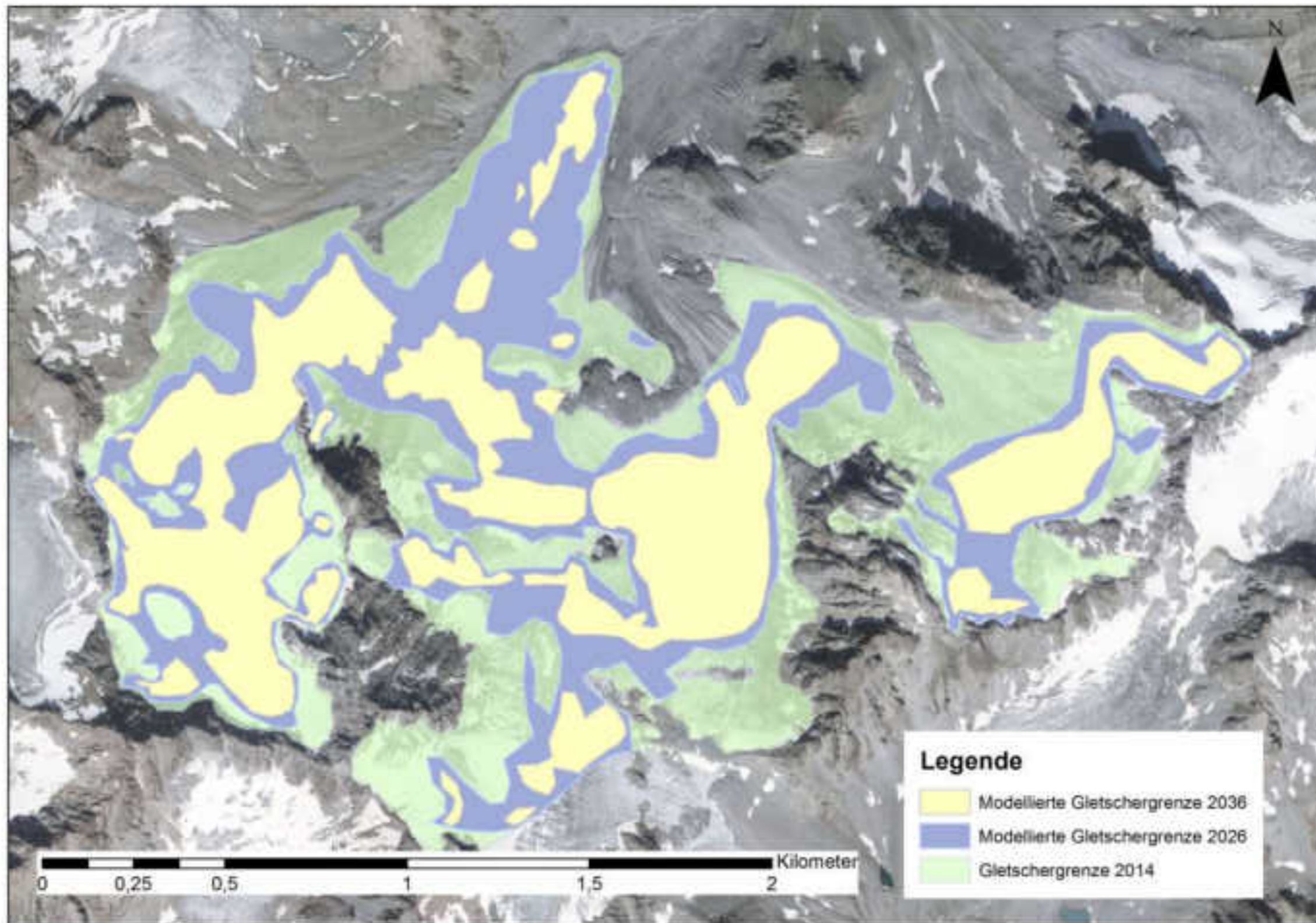
Jamtalferner 2023











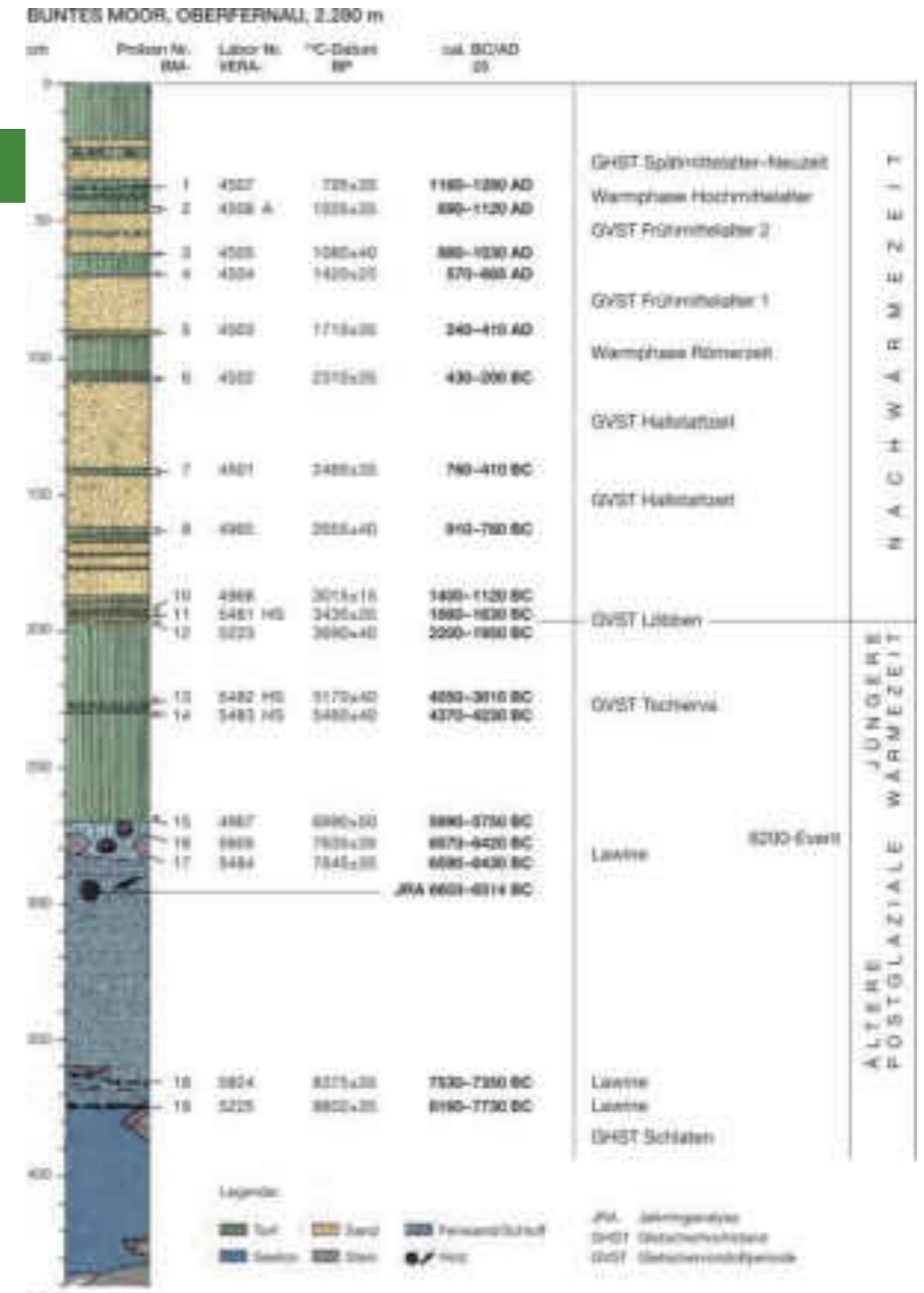
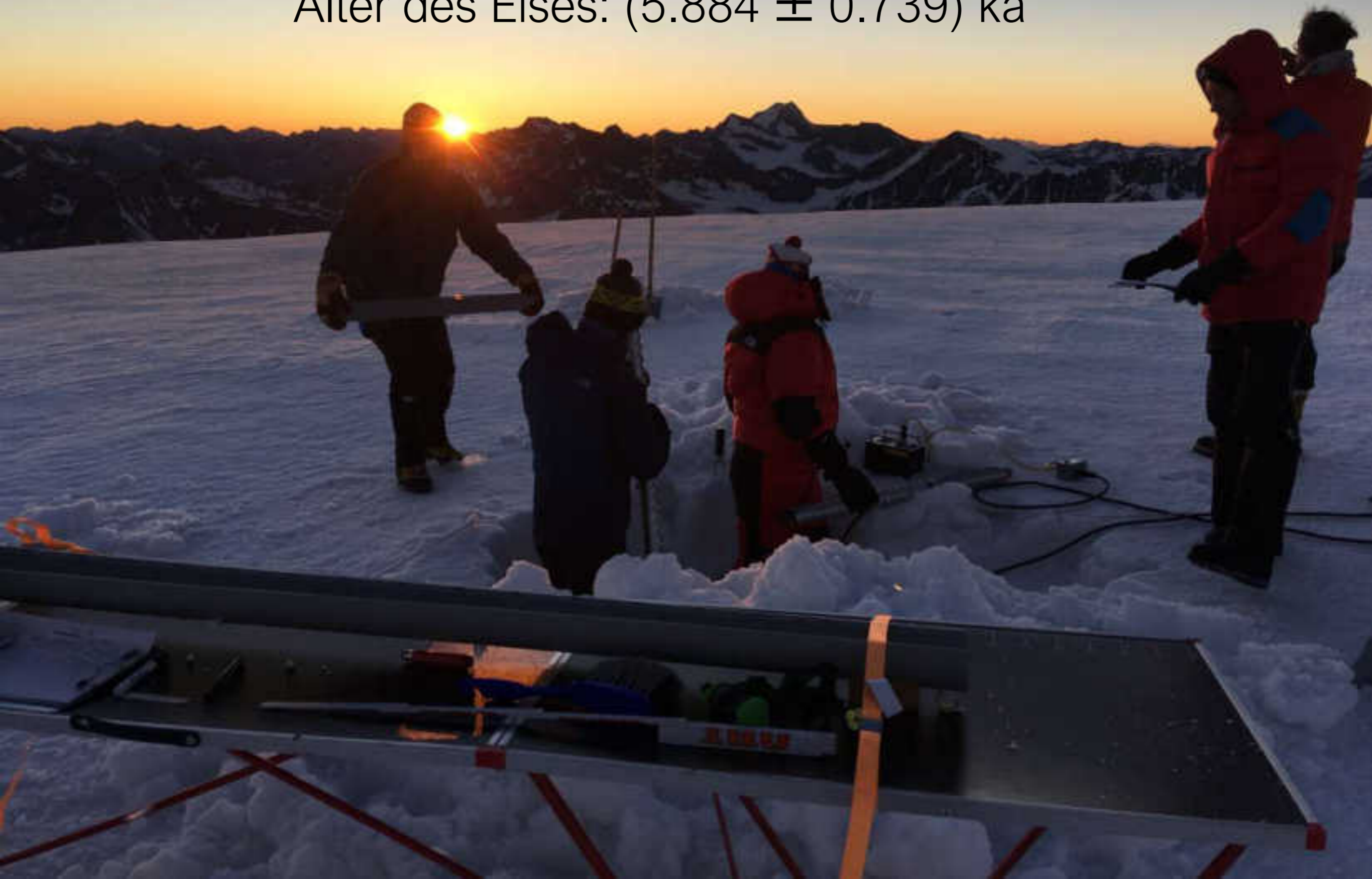
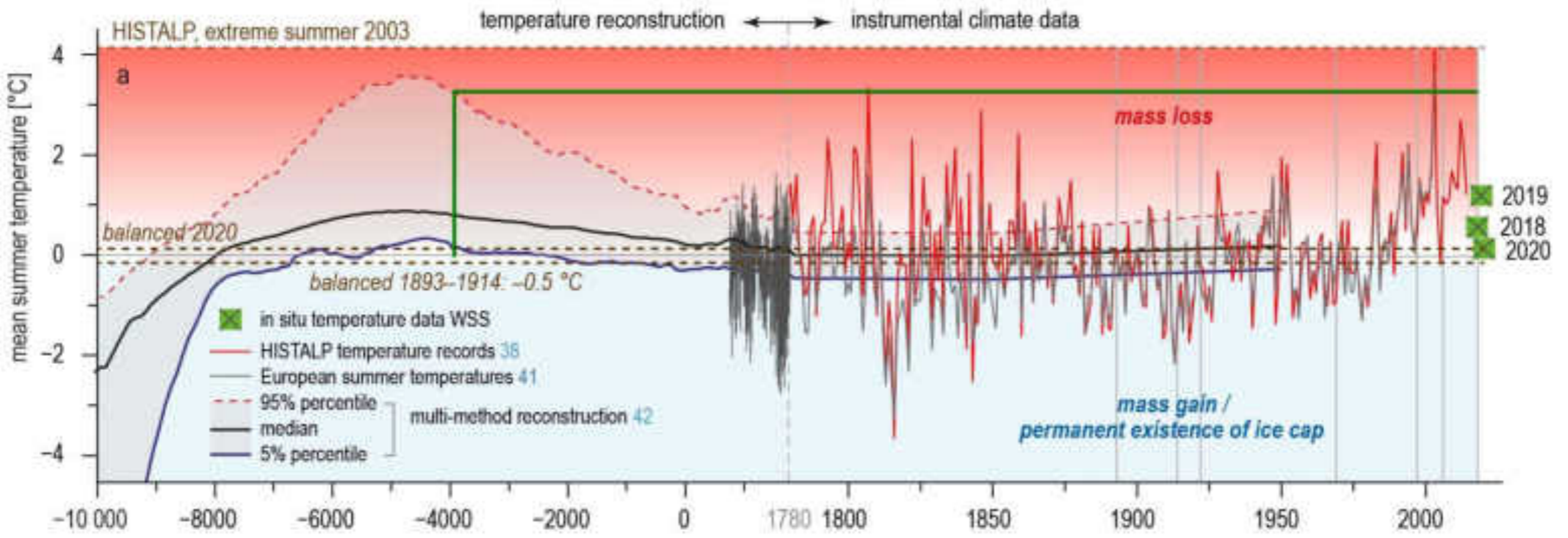


Fig. 3. Stratigraphie, Radiocarbon-Datierung und die Gleichung des Holozäns im neuen Zeitstrahlprofil des Buntens Moores.

Gernot Patzelt (2016): Das Bunte Moor in der Oberfernau (Stubai Alpen, Tirol) - Eine neu bearbeitete Schlüsselstelle für die Kenntnis der nacheiszeitlichen Gletscherschwankungen der Ostalpen – Jahrbuch der Geologischen Bundesanstalt – 156: 97 - 107.

Alter des Eises: (5.884 ± 0.739) ka





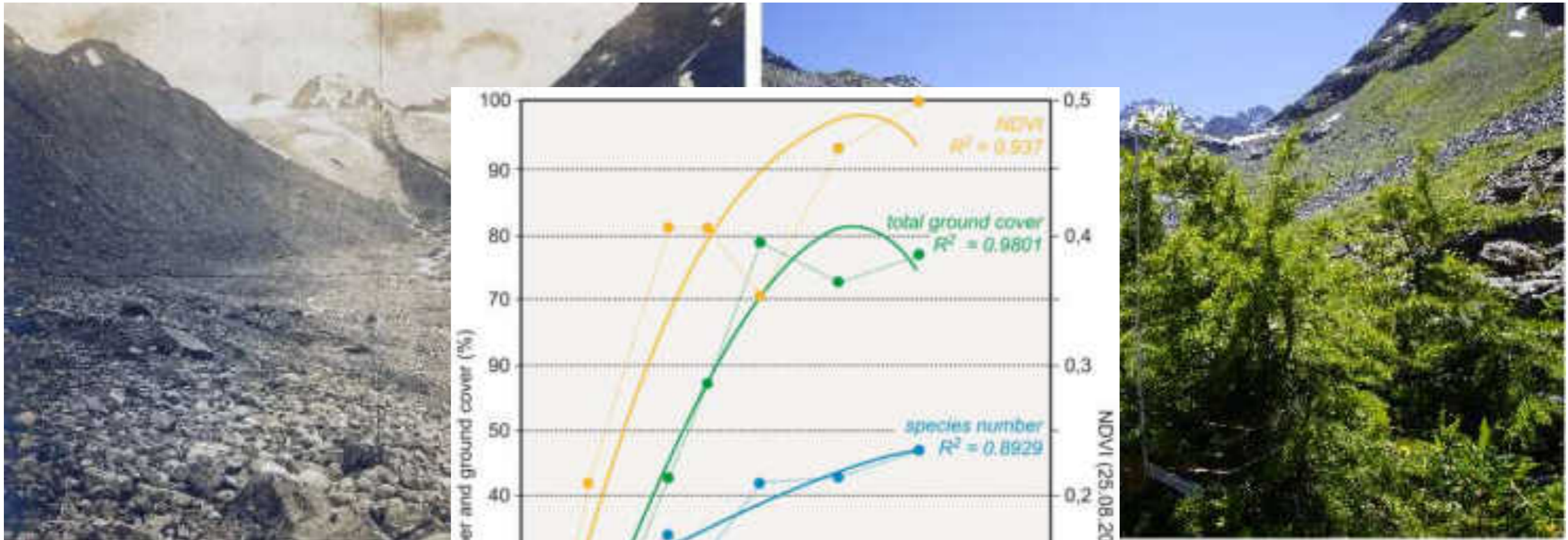
DOI: 10.1073/pnas.1816468116



<https://doi.org/10.1659/MRD-JOURNAL-D-22-00002.1>











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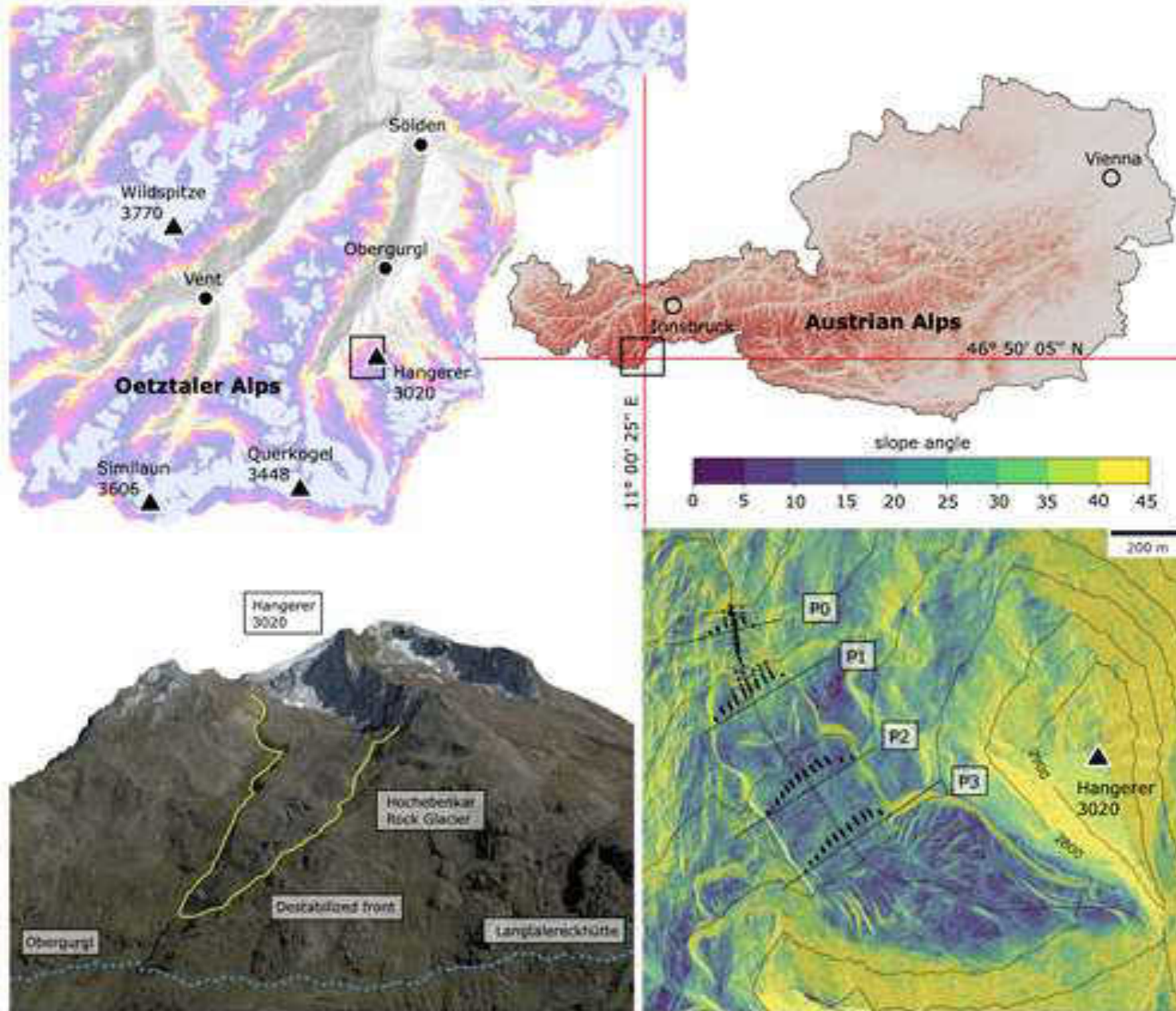








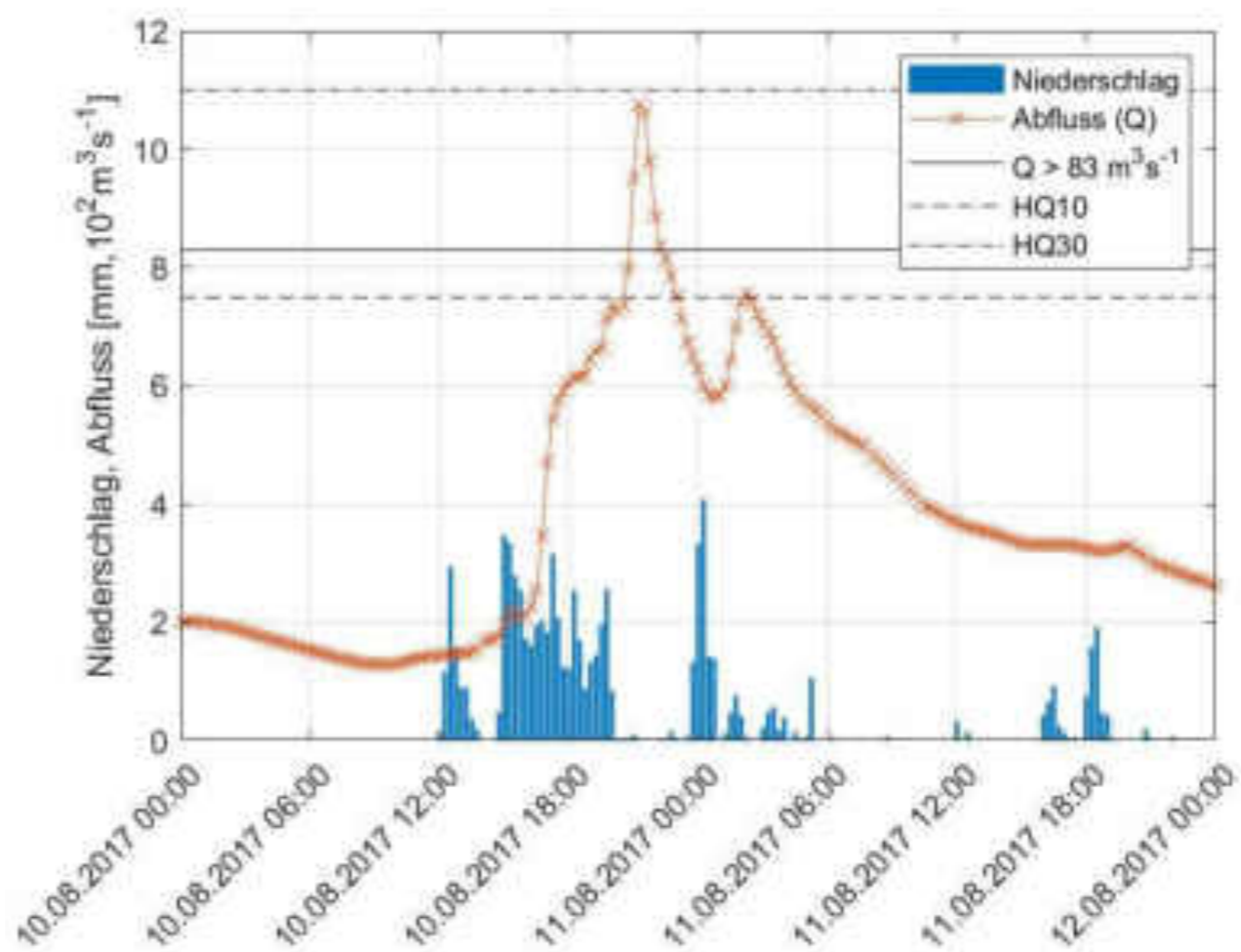






<https://doi.org/10.1659/MRD-JOURNAL-D-22-00002.1>









- Massenbilanzmessungen zeigen extreme Schmelze und Flächenverluste mit Auswirkungen auf den Sedimenthaushalt
- Beschleunigung aller Prozesse absehbar
- Timing der Schmelze ist völlig verändert
- Absehbar ist eine Umstellung der direkten Messungen nötig
- Unerforschte Rolle basaler Schmelze, Einbruchsformen, Albedoänderung und Schuttbedeckung (nicht quantifiziert)
- Gletscherinventare etwa alle 3 bis 5 Jahre wären wichtig um das Verschwinden kleiner Gletscher und den Zerfall der großen Gletscher zu erfassen
- Umgang mit geänderten Regimes in der Verwaltung?