

Rock glaciers, Fletschhorn Area, Valais, Switzerland, Version 1

USER GUIDE

How to Cite These Data

As a condition of using these data, you must include a citation:

Frauenfelder, R 1998. *Rock glaciers, Fletschhorn Area, Valais, Switzerland, Version 1*. [Indicate subset used]. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center. <https://doi.org/10.7265/yevw-2q82>. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT NSIDC@NSIDC.ORG

FOR CURRENT INFORMATION, VISIT <https://nsidc.org/data/GGD287>



National Snow and Ice Data Center

TABLE OF CONTENTS

1	DATA DESCRIPTION	2
1.1	Coverage of Data Set	2
1.1.1	Study Location	2
1.1.2	Geographic Extent	2
1.1.3	Period of Investigation	2
1.2	Summary Description	2
2	CONTACTS AND ACKNOWLEDGMENTS	3
3	REFERENCES AND RELATED PUBLICATIONS	3
4	DOCUMENT INFORMATION.....	4
4.1	Publication Date	4
4.2	Date Last Updated.....	4

Notice: This data set was first published on the [1998 CAPS CD](#).

The text for this document was taken unchanged from that CD.

1 DATA DESCRIPTION

1.1 Coverage of Data Set

1.1.1 Study Location

Fletschhorn Area, Southern Swiss Alps

1.1.2 Geographic Extent

Northwest latitude: 46.233 N

Northwest longitude: 7.15 E

Southeast latitude: 46.117 N

Southeast longitude: 8.117 E

1.1.3 Period of Investigation

Inventory of rock glaciers: summer of 1995

1.2 Summary Description

The Fletschhorn Area is located in the southern Swiss Alps. A high mountain chain, with peaks rising over 4000 m a.s.l. subdivides the region into two parts: the Saas valley on the western slopes of the mountain range and the Simplon region on its eastern slopes. Climatically the whole region is characterized by local continental climate, characterized by low precipitation coupled with higher amplitudes of temperature. Nevertheless, glaciers are abundant, though - due to the climatic conditions - they show small mass turnovers and reach only medium sizes. Practically all important processes and forms of the periglacial realm in the Alps (e.g. rock glaciers, perennial snow patches, solifluction forms, etc.) can be found in the area. The data set contains a total amount of 74 rock glaciers which were investigated during the summer of 1995. The thorough investigation included: analysis of infrared air photographs, mapping of the rock glaciers, measurement of their aspect, slope and size, measurements of the water temperature of sources in the vicinity or at the snout of the rock glaciers, analysis of the vegetation cover on the rock glaciers (species, coverage). The analysis of the above mentioned parameters revealed, that 32 of the investigated rock glaciers are active, 21 show signs of inactivity (either due to decreasing ice content or due to dynamic stability), 27 are to be considered as fossil objects.

The following parameters were measured and are included in the described data set:

Location (longitude and latitude)
Elevation of the front [m a.s.l.]
Length [m]
Width [m]
Aspect
Activity (active, inactive or fossil)
Source temperatures [C]
Vegetation cover (covered, sporadic or none)

Additional data that has been measured (not included in the data set on the CD):

Rock glacier type
Lithology
Analysis of the vegetation composition (species, coverage in %)
Special remarks

Current storage of data - Mark with X as many as are appropriate, or delete those that do not apply:

CD ROM		X
Paper	X	
GIS-System	X	
Spreadsheet		
Wordprocessor file(s)		X

Datacenter: cf. organization above

These data are not at risk of being lost.

2 CONTACTS AND ACKNOWLEDGMENTS

Regula Frauenfelder

3 REFERENCES AND RELATED PUBLICATIONS

Frauenfelder, R. (1997, unpubl.) Permafrostuntersuchungen mit GIS - Eine Studie im Fletschhorngebiet. Diploma thesis at the Geographical Institute of the University of Zurich. 77 p.

Frauenfelder, R. (1998, submitted.) Permafrost Investigations with GIS - A Case Study in the Fletschhorn Area, Wallis, Swiss Alps. Proceedings of the Seventh International Conference on Permafrost, Yellowknife, Canada.

4 DOCUMENT INFORMATION

4.1 Publication Date

1998

4.2 Date Last Updated

February 2021