## Focus on stamps

The Collector's Magazine

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Special stamp on protecting glaciers

# The ice giants are on the retreat



# Shrinking glaciers alter the alpine I

The Morteratsch Glacier is one of the biggest and best-known ice flows in the Swiss Alps. Since reaching its farthest extent in 1850, its front has retreated by about two-and-a-half kilometres. A new Swiss Post special stamp highlights the shrinkage of the "Vadret da Morteratsch" over the past 150 years.

Drastic glacier shrinkage is a telling indicator of long-term climate change in the Alps. The rise of approximately 1.5 °C in mean temperatures is not immediately visible, but the massive retreat of glaciers forcefully illustrates this development. Since 1850 and the end of the "Little Ice Age", alpine glaciers have lost around half of their surface area and two thirds of their volume.

## **Retreating almost everywhere**

While the largest alpine glaciers – most of them slow-reacting and with a flat tongue – like the Great Aletsch Glacier (northern Valais Alps) have shrunk steadily, medium-sized and steep glaciers like the Upper Grindelwald Glacier in the Bernese Alps reacted with re-advances during phases of cool summers or winters with lots of snow.

## The Morteratsch is melting too

The Vadret da Morteratsch covers about 15 square kilometres and is 7 kilometres

## **Glacier stamps in 40 countries**

Many affected countries will be issuing stamps highlighting the theme of melting polar regions and glaciers between January and March, helping to spread the urgent message "Preserve the Polar Regions and Glaciers". The Philatelic Centres of Finland and Chile launched this international stamp campaign, and very quickly 40 countries worldwide agreed to issue stamps. While each decided on its own execution of the theme, all the stamps feature an ice crystal symbol, either on the stamp itself or on the stamp sheet. long, making it one of the 15 biggest glaciers in the Alps. It reached its farthest recorded extent just after 1860, halting only a few dozen metres from where Morteratsch railway station now stands. In its virtually continuous retreat, the glacier has shrunk some two-and-a-half kilometres over the past 150 years, losing more than one fifth of its surface area and over one third of its volume. Around 1920 and between 1965 and 1985 (periods which favoured glacierization), melting of the slow-reacting Vadret da Morteratsch glacier slowed considerably only to accelerate noticeably between 1935 and 1965 and since 1995.

## Further shrinkage on the cards

Although winter snowfall was one factor which caused glaciers to start retreating after 1850 and to periodically re-advance again later, rising temperatures were the main reason for the massive shrinkage of glaciers over the past 150 years. The increase of around  $1.5 \,^\circ$ C in the  $\rightarrow$ 

## "Vadret" or "Glatscher"?

The Morteratsch Glacier is located in Engadine (Canton Graubünden), where both German and Romansch are spoken. The latter comprises numerous dialects as spoken in the various valleys. "Glatscher" and "Vadret" are synonyms for glacier in Engadine. "Glatscher" is used throughout Romansch-speaking Graubünden, while "Vadret" is specific to the Surselva region. On the stamp sheet, Swiss Post therefore opted for the variant "Glatscher dal Morteratsch" but decided to use "Vadret da Morteratsch" for the first-day cancellation, as the form used on maps and in Pontresina.



The stamps were produced using an offset/serigraphy technique and a special ink (optically variable luminescence). Depending on the angle of light, the stamp shows the glacier 150 years ago or as it is today.



## andscape

13.0





The "Vadret da Morteratsch" is one of many alpine glaciers which have steadily decreased in length and volume over past decades (large picture). A signposted nature trail and an illustrated guide make it possible to explore the retreat of this alpine giant step by step. For the purpose of comparison, the top picture shows the glacier in 1911, with the famous Bernina Massif in the background. Photos: swiss-image.ch/Robert Boesch, "Sammlung Gesellschaft für ökologische Forschung, München"

Sheetlet

CHF 10.



→ Alps is roughly twice the global average. And, according to the latest climate reports, Man is largely responsible for this warming.

Mean global temperatures are expected to rise a further 1-6 °C by the end of the 21st century and, under such conditions, glaciers are likely to continue disappearing at an even faster rate which clearly deviates from the norm observed over the past 11,500 years. This will impact not only on the landscape but also on the water cycle, as well as causing more mud flows and rock slides. Glaciers can only be effectively protected by the fast, resolute reduction of greenhouse gases.

> Michael Zemp, Max Maisch (both of Zurich University), Martin Hoelzle (Fribourg University)

Until just a few decades ago, the Upper Grindelwald Glacier in the Bernese Oberland was still growing. However, now – like most of the other giant rivers of ice – it too is shrinking fast. Photo: swiss-image.ch/ Lucia Degonda Morteratschgletscher 1850-2008 Länge: -2.5 km Fläche: -25% Volumen: -35%

#### First-day cover motif

#### Special stamp Preserve the glaciers

#### Sales Philately: From 21.2.2009 until 31.3.2010, while stocks last Post offices: From 5.3.2009, while stocks last

#### Validity

Unlimited from 5.3.2009

## Printing

Offset, 4-colour, and serigraphy, optically variable luminescence ink; Joh. Enschedé, Haarlem, Netherlands

## Sizes

Stamp: 40×31.5 mm Sheetlet: 115×210 mm (5 rows of 2 stamps)

### Paper

White stamp paper, with optical brightener, mat gummed, 110 gm<sup>2</sup>

Perforation 13¾:13¼

Designer Thomas Kissling, Zurich

## First-day cancellation



## National and international glacier observation

Glacier observation in Switzerland has been coordinated since 1893, and the Committee of Experts on Cryosphere Monitoring (EKK) of the Swiss Academy of Sciences (SCNAT) is now responsible for this coordination. For decades, private individuals, cantonal forestry offices, federal agencies, power station companies, as well as the Zurich FIT and various universities have been carrying out this observation work. Introduced in 1894, international glacier observation was modelled on the Swiss glacier measurement network and has since been headed mainly by Swiss experts. At present, the World Glacier Monitoring Service (WGMS), based at Zurich University's Department of Geography, is in charge of collecting and publishing standardized international data on glaciers.