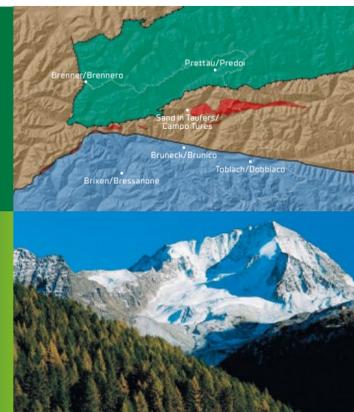


THE BOUNDARIES OF NATURE AND THE LIMITS OF MAN

There are only isolated traces of life left on the glaciers of the Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park, and even man reaches his limits here. Together with the Hohe Tauern/Alti Tauri National Park and the High Alps Nature Park Zillertal Alpen, the Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park acquires a European dimension.

Geology and minerals

One of the most prominent geological boundaries in Europe runs through Pustertal/Val Pusteria: the so-called Periadriatic Fault which separates the Eastern Alps from the Southern Alps. It is the result of the collision between the African and European plates that began around 100 million years ago and continues to this day. The Austroalpine Unit north of Pustertal/Val Pusteria consist of rocks that are over 500 million years old and have undergone multiple transformations (metamorphoses): schists, gneisses, amphibolite and marble. Around 30 million years ago, magma penetrated the Earth's crust in a fault zone in the Austroalpine Unit. The melt solidified in the crust to form the so-called Rieserferner/Vedrette di Ries pluton. Through uplift and erosion of the mountains, this tonalitic rock finally reached the earth's surface. This was the birth of the Rieserferner/Vedrette di Ries mountain range.



The geological map shows the main geological units and the intrusion of the Rieserferner/Vedrette di Ries pluton (red) in the Austroalpine Unit (brown).

- Tertiary plutons
- Penninicum
- Southern Alps
- Austroalpine

Map and Photo: Volkmar Mair

The bold and rugged peak shapes of the Rieserferner/Vedrette di Ries range (the picture shows Mount Hochgall/Collalto) are not only due to the hardness of the tonalite rock but also to the fact that, being „only“ 30 million years old, they are among the youngest rock formations in South Tyrol.

Photo: Leo Unterholzner



The historic Tauern/Tauri trail passes through the Central Gneiss of the Tauern window. The 3,499 m high Dreiherrnspitze/Picco dei Tre Signori is mainly composed of paragneiss and gives its name to the 'Dreiherrnspitze/Picco dei Tre Signori-Unit'. Photo: Alois Steger

The 'Tauern Window'

The 'Tauern Window' extends from the Brenner/Brennero Pass eastwards to the Katschberg. It reveals a view of the rocks that lie beneath the mighty Austroalpine rock units and that reached the earth's surface here through extreme uplift and erosion events of the mountain chain. Geologically speaking, the Tauern window forms an elongated dome consisting of several shells. Like in a sliced onion, the oldest units lie in the centre and the youngest in the outermost shell.

The oldest rocks of the 'Großvenediger Unit' are the mica schists, paragneisses and amphibolites of the so called 'old roof' as well as the central gneisses. The youngest rock types of the 'Glockner Unit' consist of metamorphic sediments of the European continental margin and remnants of the Penninic Ocean floor: calcschists, marbles and phyllites as well as green schists, that in some places contain copper ores.



During the last uplift phase of the Tauern Window, the rocks were stretched in some places to such an extent that cracks and fissures formed. This created the 'alpine fissures' in which the solutions could circulate, and minerals could find sufficient space to crystallise into perfect geometric shapes. Collection: Johann Holzer, Photo: Volkmar Mair



Where glaciers retreat, they leave distinctive marks on the landscape. Particularly striking are moraines, visible as accumulations of rock material along the former glacier edges, or rounded hills and glacial striations, as shown in the picture. Photo: Nature Park Office

Habitats, animals and plants

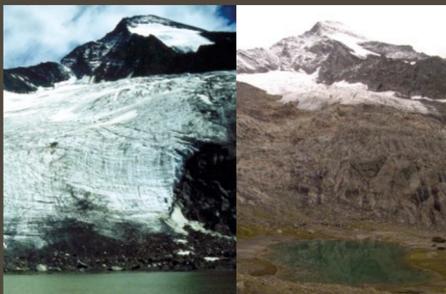
Water and ice have played a major role in shaping the mountains and valleys. The impressive landscape of the central gneisses with its rugged ridges, scree slopes and „stone mountains“ is clearly different from that of the 'Dreiherrnspitze/Picco dei Tre Signori Unit' or 'Glockner Unit' (formerly called 'Schieferhülle', schist cover) with its broad, rounded ridges and 'grass mountains'.

Glaciers

The Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park has the highest proportion of glaciers of all the South Tyrolean nature parks. Due to the mostly limited feeding area and the steep terrain, the glaciers here have always been less pronounced than around the Großvenediger and the Großglockner. Today, only the northern slopes of the nature park are still glaciated, although global warming has also taken its toll on them.

The Rötspitze/Pizzo Rosso in the Upper Ahrntal/Valle Aurina in 1987 and in 2020.

Photo: Alois Steger



Lakes

Surrounded by mixed coniferous forests, Lake Antholz/Anterselva, South Tyrol's third largest natural lake, lies at the head of Antholztal/Valle Anterselva. Countless visitors marvel at its unique mountain atmosphere and emerald-green water.



The 44-hectare Lake Antholz/Anterselva is dammed off by debris slides from both sides of the valley. Photo: Sepp Hackhofer

Sometimes, the Creeping Avens can be found just a few metres from the ice stream. Yellow flowers, hairy fruit clusters and long runners, similar to those of strawberries, characterise this pioneer plant.

Photo: Sepp Hackhofer



Quite a few of the pioneer plants are evergreen and thus save a lot of energy and time because they do not have to constantly rebuild their foliage, such as the rare *Saxifraga biflora* for example.

Photo: Sepp Hackhofer

Peat moors

Especially in the northern side valleys of Ahrntal/Valle Aurina, as well as in other parts of the nature park, there are numerous valuable wetland habitats. The 'Rötmoos' peat moor is beautifully situated with the backdrop of Mount Rötspitze/Pizzo Rosso in the background.

Also worth mentioning are the peat moors at the bottom of Wiental/Valle di Vila, the 'Poienmoos' peat moor or the moor near the upper Kofleralm mountain meadow in Rein in Taufers/Riva di Tures. Plants such as the Round-leaved Sundew or the Alpine Butterwort and animals such as the grass frog are common in these areas.

The extensive 'Rötmoos' peat moor can be reached at the end of the mining educational trail in Kasern/Casere. In the background stands the imposing Rötspitze/Pizzo Rosso, with a beautiful glacier hollow in the foreground.

Photo: Sepp Hackhofer

Typical of the grass frog are the large spawn clusters that can consist of 700 to 4,500 eggs.

Photo: Sepp Hackhofer

Forests

One of the highest Swiss Pine stands in the Eastern Alps is enthroned on 'Tristennöckl' above the Kasseler/Roma mountain hut at 2,465 m a.s.l.. The roots penetrate deep into the rock between the steep schist beds. The prerequisite for this record-breaking location is the shady northern exposure.

But why there, when it would be much warmer and more favourable to life on the southern flank of the Rieserfernergruppe/Gruppo delle Vedrette di Ries? Because the intense sunlight in spring there would cause the needles to use up their water reserves at a time when no replenishment can come from the frozen ground yet. The tree would thus die from 'frost desiccation'.



The 'Tristennöckl' above the Kasseler/Roma mountain hut, a 'forest above the tree line', is a natural monument as such. Photo: Sepp Hackhofer



The spotted nutcracker busily collects stone pine seeds in autumn as a food reserve for the winter and buries them in various places. Those it does not retrieve germinate and grow into new trees. Photo: Nature Park Office



The moist gullies, where the Green Alder feels at home, are favoured by the hazel grouse. It is the smallest of the grouse species found in South Tyrol. Photo: Sepp Hackhofer

Ungulates are also widespread in the nature park. Red deer and roe deer, whose males grow and shed new antlers every year, prefer to live in the forests.



Photo: Tetraon

The distribution of the Swiss Pine variety and its occurrence in special locations, such as on large boulders, is the result of the tireless work of the Northern nutcracker.

The coniferous forests in the nature park vary greatly from the valley to the tree line. The lower part is dominated by Spruce, the most common tree species in the nature park. Towards the top, it is slowly replaced by larch and Swiss Pine - depending on the location, these form the upper forest boundary together or alone. Occasionally, various deciduous trees can also be found in the forests, such as Rowan, Birch, Aspen, Goat Willow or the Grey Alder that forms beautiful, extensive stands in Antholz/Anterselva.

Man and nature

Humans play an important role in the Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park. Many habitats, with the exception of the high mountain region, where wilderness prevails, have been created by human cultivation. Such as the mountain meadows and pastures, for example, of which there are over a hundred in the nature park. The natural forest line has been pushed down in many areas by grazing and mowing. The continuation of these traditional forms of management characterises the landscape and promotes biodiversity, a particularly valuable feature in the protected area.

Natura 2000

Natura 2000 is a European nature conservation project. It aims to create a network of protected areas for the long-term protection of natural and semi-natural habitats as well as for wild animals and plants in order to safeguard biodiversity.

All South Tyrolean nature parks are part of the Natura 2000 network and their designation is based on two European directives: the Flora-Fauna Habitats Directive and the Birds Directive.

Mountain meadows rich in plant species are important Natura 2000 habitats. The abundance of flowers is only possible because the mountain meadows are regularly mowed and not over-fertilized.

Photo: Sepp Hackhofer



Rieserferner/Vedrette di Ries, Range

Kasern/Casere Indopoint

Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park



RIESERFERNER-AHRN/VEDRETTE DI RIES-AURINA NATURE PARK VISITOR CENTER
Rathaus/Municipio Street, 8
39032 Sand in Taufers/Campo Tures
Phone +39 0474 677 546
info.rfa@provinz.bz.it

Opening hours:
nature-parks.provinz.bz.it/en
Free admission!



NATURE PARK OFFICE
Rittner Straße/via Renon
39100 Bozen/Bolzano
Phone +39 0471 417 770
natur.bozen@provinz.bz.it
nature-parks.provinz.bz.it



NATURPARK PARCO NATURALE PARC NATURAL NATURE PARK

RIESERFERNER-AHRN VEDRETTE DI RIES-AURINA

RIESERFERNER-AHRN/VEDRETTE DI RIES-AURINA NATURE PARK
The boundaries of nature and the limits of man



**RIESERFERNER-AHRN/
VEDRETTE DI RIES-AURINA
NATURE PARK**
The boundaries of nature and
the limits of man

Rock ptarmigan
Photo: Claudio Siera

Alpine rescue signal

- 1 Within 1 minute, emit 6 acoustic or visual signals (at 10 second intervals)
- 2 Pause for 1 minute
- 3 Repeat the signal (until response arrives)
- 4 Response: 3 signals within 1 minute

Emergency call centre **112**

Key

- Nature park boundary
- State border
- Access road
- Blocked road
- Car park
- Ascent system
- Nature Park Visitors' Centre
- Infopoint
- Marked hiking trail
- Difficult trail
- Via ferrata
- Route over the glacier
- Mountain pass
- Water body
- Waterfall
- Earth pyramids
- Inn/Rest area
- Mountain hut
- Camping

The nature parks in South Tyrol

are areas of particular value for the conservation of nature and landscape, research, awareness-raising and environmental education. They offer numerous opportunities for direct and respectful interaction with nature.

- | | |
|---|--|
| 1 Schlern-Rosengarten
Sciliar-Catinaccio
7,288 ha
2,156 m
★ 1974 | 5 Trudner Horn
Monte Corno
6,873 ha
1,571 m
★ 1980 |
| 2 Texelgruppe
Gruppo di Tessa
31,407 ha
2,857 m
★ 1976 | 6 Drei Zinnen
Tre Cime
11,878 ha
1,961 m
★ 1981 |
| 3 Puez-Geisler
Puez-Dolè
Pöz-Odles
10,729 ha
1,499 m
★ 1978 | 7 Rieserferner-Ahrn
Vedrette di Ries-Aurina
31,334 ha
2,610 m
★ 1988 |
| 4 Fanes-Sennes-Prags
Fanes-Senes-Braies
25,485 ha
1,929 m
★ 1980 | N Nationalpark
Stilfserjoch
Parco nazionale dello Stelvio
53,447 ha
3,255 m
★ 1935 |

The Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park in a nutshell

The centrepiece of the nature park is the Rieserferner/Vedrette di Ries range between Antholz/Anterselva and Rein in Taufers/Riva di Tures with the Hochgall/Collalto (3,436 m) as its landmark. Between Reintal/Val di Riva and Ahrntal/Valle Aurina lies the Durreck/Dura range with the Durreckspitze/Cima Dura (3,135 m) as the highest peak. This is followed to the east by the Venediger range with the two highest peaks in the nature park, the Rötspitze/Pizzo Rosso (3,495 m) and the Dreiherrnspitze/Picco dei Tre Signori (3,499 m). The Rieserferner-Ahrn/Vedrette di Ries-Aurina Nature Park is the second largest nature park in South Tyrol and it is seamlessly connected across the border to the Austrian Hohe Tauern National Park and the Zillertal Alps High Mountain Nature Park. Together, these three protected areas form the largest contiguous protected area in Central Europe, covering over 2,500 km².

- The nature park's municipalities**
- | | |
|--|--|
| Sand in Taufers/Campo Tures
Nature park's share 12,024 ha
Tourist office Ph +39 0474 678 076
www.ahrntal.com | Rasen-Antholz/Rasun-Anterselva
Nature park's share 4,587 ha
Tourist office Ph +39 0474 496 269
www.antholz.com |
| Gais
Nature park's share 2,909 ha
Tourist office Ph +39 0474 555 722
www.bruneck.com | Ahrntal/Valle Aurina
Nature park's share 3,464 ha
Tourist office Ph +39 0474 671 136
www.ahrntal.com |
| Percha/Perca
Nature park's share 2,051 ha
Tourist office Ph +39 0474 555 722
www.bruneck.com | Prettau/Predoi
Nature park's share 6,298 ha
Tourist office Ph +39 0474 671 136
www.ahrntal.com |

- Rules of behaviour**
- Don't pick
 - No vehicles
 - Don't camp
 - Don't trash
 - No noise
 - Dog on a leash
 - No fire
 - No drones
 - Don't collect