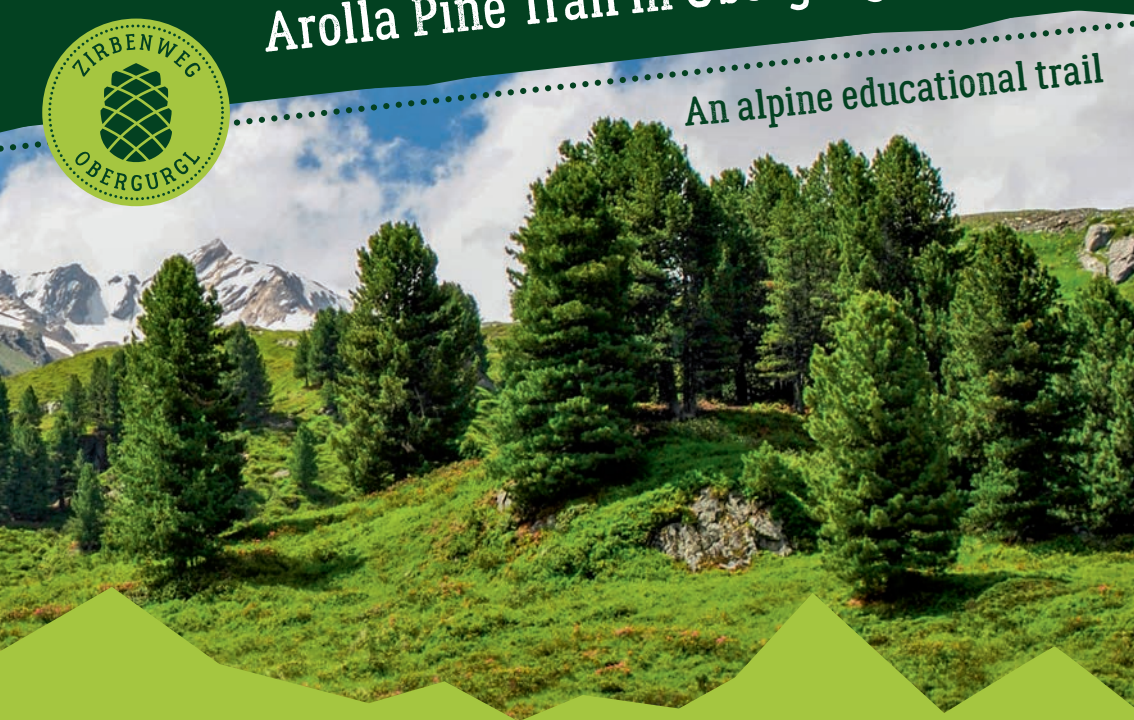


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# Arolla Pine Trail in Obergurgl



An alpine educational trail



## Views and Vistas

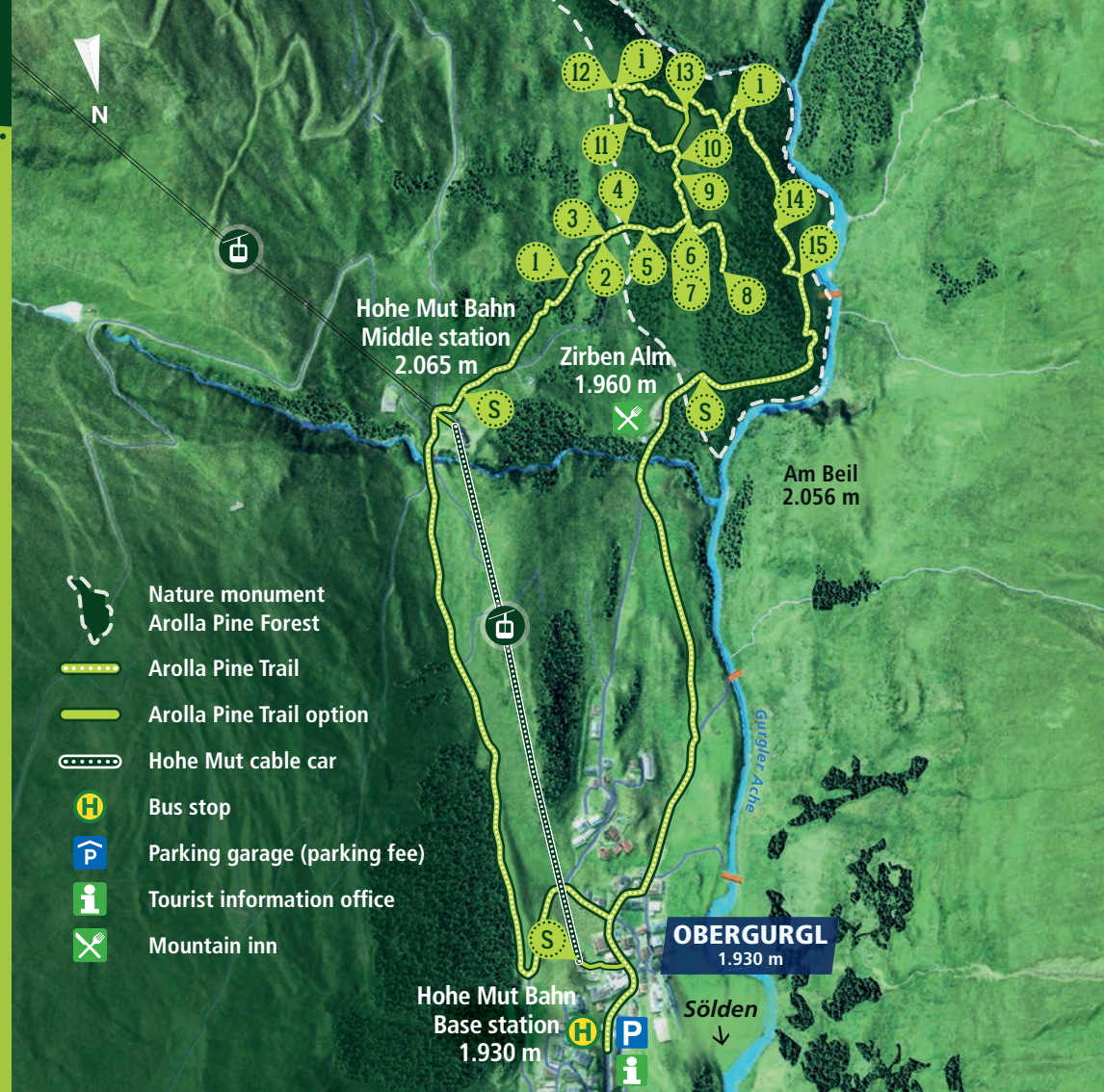


# Arolla Pine Trail in Obergurgl

4.4 km – 150 m gained – 2 h

- Trailhead
- Look out for ants!
- Valley vista
- Arolla Pine Trail nature monument
- The pine's alive!
- Spot the lichen!
- Glacier stories
- The bog
- Hayek hideaway
- Take a peek!
- Meet the Arolla Pine!
- Glacier view
- Nutcrackers
- Piccard view
- Glacial stream vista
- Marmot lookout

**HOW TO GET HERE:**  
By car: Drive to Obergurgl. Park at the Schalfkoglweg parking garage center. By bus: Take no. 4194, 8405 or 8352 to the centre of Obergurgl. Walk along Ramolweg street to the base station of the Hohe Mut cable car. The Arolla Pine Trail starts here.







# Insights into the nature park

## An Introduction

The ÖTZTAL NATURE PARK comprises several protected areas in Ötztal. With a surface of about 510 km<sup>2</sup> (126,000 acres), it expands from the valley floor to high-alpine terrain shaped by glaciers. The ÖTZTAL NATURE PARK has five goals: sustaining nature and landscape, recreation, education, research and regional development.



Cobweb house-leek

© Anton Vorauer

### TAKE A LOOK!

Five info points as well as numerous guided hikes and talks provide further insights.  
[www.naturpark-oetztal.at](http://www.naturpark-oetztal.at)



Ibex horn

© Michael Auer

## Hohe Mut exhibit

THE NEW NATURE PARK EXHIBITION

The Ötztal Nature Park exhibit is located downstairs at the Hohe Mut Alm. Visit the exhibit to learn about high-alpine research, the glacier foreland habitat, climate change and geology. You can even see a 3,500-year-old ibex horn. All of that at an altitude of 2,670 m!

[www.naturpark-oetztal.at/hohe-mut](http://www.naturpark-oetztal.at/hohe-mut)



© Anton Vorauer





# The Arolla Pine Trail brochure

## How to use the brochure

All stops on the Arolla Pine Trail and in the brochure are numbered. The brochure will give you additional information, inspiration and food for thought for every stop. Time to discover some exceptional views and vistas!



**BE ACTIVE!**  
Turn this trail into your own  
personal Arolla Pine Trail!



## Station

# 1

## Look out for ants!

### Small is beautiful

Can't seem to find the ant hill?  
That's right! Narrow-headed ants  
build flat nests. The dark particles  
in the nest work like solar panels.  
The ants carry leaves, bark pieces  
and pine needles of up to 17 times  
their body weight for many metres  
to build their nests.

Ants are useful: They till the  
soil, eat dead animals and  
insects that harm the forest  
and spread plant seeds.



© motasdesign



© TB Glaser



© TB Glaser



TAKE A LOOK!

Use your magnifying glass to  
examine an ant up close!



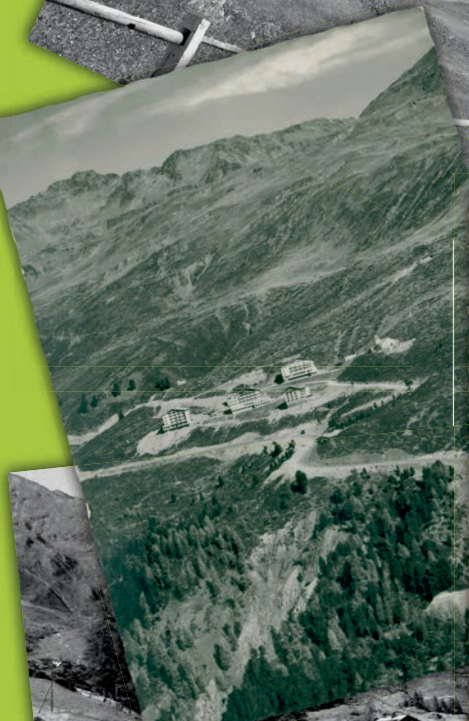
## Station

# 2

## Valley vista

### Obergurgl in the early days

Obergurgl was already settled in 7,500 B.C. The first fire clearing and pasture farming activities were recorded around 4,500 B.C. Interestingly, settlers migrated from the South, from Passeiertal. The early 20th century marked the beginning of Alpine tourism in Obergurgl. In 1949, the first T-bar lift was built. In 1961, the foundation of Hochgurgl was laid. The first hotels were opened.





# Station

3

## Arolla Pine Forest natural monument

### A natural treasure

The Arolla Pine Forest is located in the Ötztal Alps. It is ancient and rare. This makes it an official natural monument.

The ÖTZTAL NATURE PARK is home to over 3,570 scientifically identified animal species and 1,150 different vascular plants (60% of all species found in Tyrol). They live under various conditions: on mountain pastures, in alpine tundra, in bogs and on barren glaciers.

[www.naturpark-oetztal.at](http://www.naturpark-oetztal.at)



© Jakob Abermann

## Station

# 4

## The pine's alive!

### A tree with many talents

Arolla pine wood promotes health and wellbeing. The knotted pine wood is traditionally used for cosy wainscot living rooms and to make beds. It has been proven to lower the heartrate, reduce stress and increase wellbeing.

Arolla pine wood is easy to work with and performs well in high-humidity environments. Its characteristic scent lasts for a long time and repels fungi, bacteria and moths.



© Anton Klocker



## Station

# 5

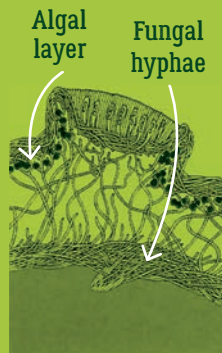
## Spot the lichen!

### Alpine minimalists

Lichens are survivors! They can withstand frosty temperatures and endure extreme heat. They can even grow on surfaces without humus or nutrients. Lichens are extremely frugal, withdrawing water and carbon dioxide from the air and transforming them into sugar with the help of the alpine sun (photosynthesis).

### Two for one

Lichens are composite organisms. On the outside, fungi protect them from dehydration and radiation. On the inside, green algae take care of nutrition through photosynthesis.



by Campbell



### Bio indicators

Lichens are bio indicators. They indicate changes in environmental conditions and air quality. Because of the good quality of air the Arolla Pine Forest is a paradise for lichens. Fruticose lichens sprawl on the ground, on trees and between dwarf shrubs. Foliose lichens nestle on tree bark. Bizarrely shaped crustose lichens cover boulders and rocks.



TAKE A LOOK!

Use your magnifying glass to discover the lichens in the forest.

Photos: © motasdesign

STATION 5 - SPOT THE LICHEN!

# Station

6

7

## Insights into the past

### Test your knowledge!

1.) What makes the bog acid?  
A Peat B Sun dew

2.) Bogs are ...  
A public areas B protected areas

3.) Which tree can endure extremely cold temperatures?  
A Arolla pine B Spruce

4.) 170 years ago, the European climate was colder, and the Rotmoos Ferner glacier was longer. By how much?  
A 2 km B 500 m

5.) When was the peat in the Pine Forest bog formed?  
A During the last ice age B After the last ice age

6.) When was the peak of the last ice age?  
A About 100,000 years ago B About 25,000 years ago

7.) Where do dragonflies live?  
A Near wet bogs B On Arolla pine trees



Hangerer  
3.021 m

Schön-  
wieskopf  
2.328 m

Kleinleitenspitze  
3.445 m

Schalfkogl  
3.540 m

Firmisan-  
schneide  
3.491 m

Hinterer  
Spiegelkogel  
3.426 m

Nördlicher  
Ramolkogl  
3.428 m

### TAKE A LOOK!

Find the mountains in the Gurgler Valley!  
Align the triangle on the panoramic map in your brochure with the triangle on the lectern.



## Station

8

### Hayek hideaway

Clean air. Free thoughts.

The Nobel-prize winning author in economics, Friedrich A Hayek spent many summers in Obergurgl. In fact, he wrote his most famous book “The Constitution of Liberty” here. In 1982, he introduced his book “The Fatal Conceit” at a convention in Obergurgl, which, today, is considered one of the most convincing responses to socialism.

“Freedom granted only when it is known beforehand that its effects will be beneficial is not freedom.”

Friedrich August von Hayek

(The Constitution of Liberty,  
Routledge & Kegan Paul, London 1963, p. 83)

TAKE YOUR TIME!

Have a seat, relax and let your breath flow.  
Listen to the sounds of nature.

## Station

9

### Take a peek!



### Pygmy owl

The Eurasian pygmy owl is the smallest European owl. It is active during day-time, dusk and dawn and uses the tree hole as a hideout or for storing food.

### Great spotted woodpecker

The great spotted woodpecker feeds mainly on insects and insect larvae, which it vigorously pecks out from beneath the tree bark with its strong beak.



### Pine martens

During the day, pine martens like to hide in their nests, which they often build in tree holes. At night, they go out and forage for food like mice, bird eggs, carcasses, insects, nuts and berries.

### Sharing a home





## Station

# 10

## Meet the Arolla pine!

Every tree tells a story

The annual growth rings of a tree trunk show the age of a tree and provide information on the individual years. Only trees growing in climate zones with cold winters, during which the trees don't grow, have annual rings. Spring wood is lighter in colour than summer wood. This makes it easy to distinguish the individual years. You can determine the age of a tree by comparing its rings with another tree.

Photo: © Johannes Brunner



YOUR TURN!

Can you find the annual ring from your year of birth?

## Station

11

### Glacier view

#### The power of ice

During the last ice age, the area of today's Arolla Pine Forest was entirely covered by a layer of ice up to an altitude of 2,900 metres. Only a few mountains peaked out of the ice. You can easily tell which ones are rugged and edgy. The rocks further down were literally sanded down by the glacier and are much smoother.



#### TAKE A LOOK!

Have you discovered the glacial polish on the rocks along the Arolla Pine Trail?

## Station

12

### Nutcrackers

Get creative!



Hold the nutcracker stencil up against a fun background. Take a photo and post it on social media #zirbenwald.



Turn the page to use the stencil!





#Zirbenwald

## Station

12

## Nutcrackers

### Not a fussy eater

In autumn and winter, nutcrackers mainly live on pine nuts. In summer they eat insects, spiders and bird eggs before converting to berries in late summer.



### Bilberry

*Vaccinium myrtillus*

Bilberry flowers and berries are borne singly. The stems are green and angular, and the leaves are finely toothed. This distinguishes bilberries (European blueberries) from bog bilberries.



### Bog bilberry

*Vaccinium uliginosum*

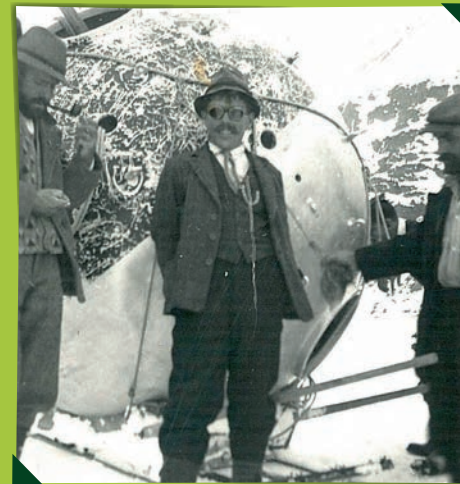
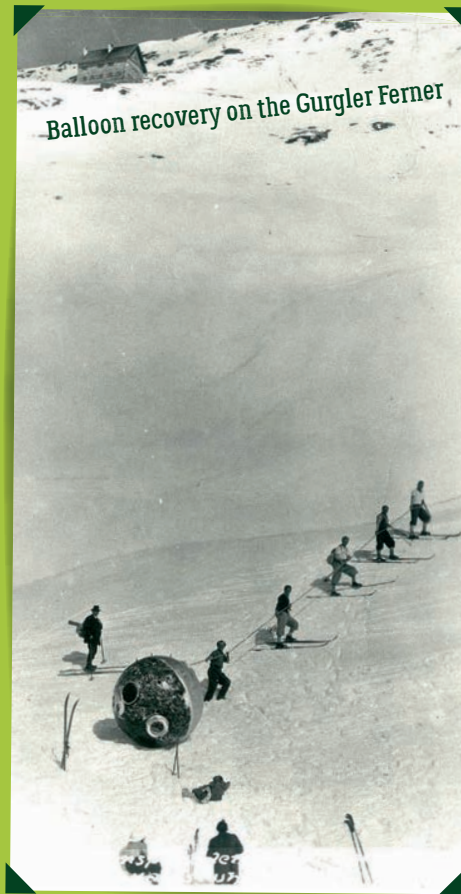
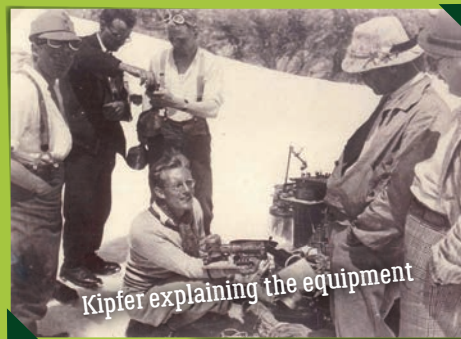
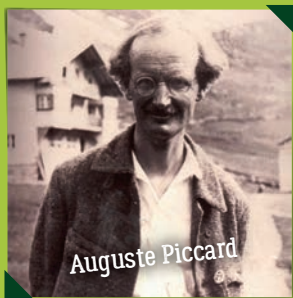
Bog bilberries resemble bilberries but cause mild intoxication, nausea and dizziness. The flowers and berries grow in clusters.

Station

13

Piccard view

Photo album





## Station

# 14

## Glacial stream

Some like it cold

Living conditions in a glacial stream are rough. The water level undergoes extreme changes, and the water temperature hardly ever exceeds 4°C. The riverbed is unstable and offers little food. Fine rock flour turns the water into cloudy glacial milk and clogs up gills. This is why the glacial stream is no home for fish. However, some well-adapted creatures like the Chironomidae larvae are hardy enough to withstand these harsh conditions.



## Station

# 15

## Marmot lookout



**WILDLIFE VIEWING!**  
Which of these have you spotted  
in the Nature Park?



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## Quiz answers (stations 6+7):

- 1.) A 2.) B 3.) A 4.) A  
5.) B 6.) B 7.) A

motas

## Zoom in!

Use your magnifying glass to explore the Arolla Pine  
Forest. Watch the ants, discover the world of lichens  
and detect many exciting details up close. If you hold  
on to it, it might even come in handy back home!

## Respect our environment!





**ÖTZ  
TAL** | **OBERGURGL  
HOCHGURGL**



**Take your brochure home!**