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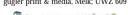
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Protected Areas in Austria

Protected Landscape Areas:

... Distinctive landscape terrain of high aesthetic and recreational value. Measures designed to cause major impairment of the landscape can be prevented by public law proceedings.

Protected Areas:

... Areas comprising habitats and/or animal and plant species eligible for protection. Interventions that are incompatible with the protection objective are to be prevented. As a rule, agricultural and forestry operations are permitted to the "habitual extent".

Natura 2000 Areas:

... Protected sites of community interest designated in compliance with two EU Directives (Fauna-Flora-Habitat and Bird Protection Directives) and forming part of a Europe-wide network of protected areas. There is no ban on traditional agricultural and forestry operations.

National Parks:

... Areas protected pursuant to the criteria of the World Conservation Union (IUCN) laid down with a view to preserving their ecological integrity. A national park can be subdivided into zones subject to varying degrees of protection. The "core zone" is dedicated to the preservation and development of natural landscapes and should be exempt from agricultural or forestry operations. In the "outer zone" utilisation is permitted as long as it is geared to the protection objectives.

Biosphere Parks:

... Form part of the worldwide network of UNESCO Biosphere Reserves, which comprises large-scale ecosystems of outstanding importance to the preservation of biodiversity. Nature conservation is combined with the preservation of cultural diversity and the promotion of research and education in the interests of the aims pursued.

Further information on Natura Trails in Austria:

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Dachstein World Heritage



Natural and cultural history dating back thousands of years





Tracking Austria's Natural Treasures

Graphic design: Karlheinz Maireder







Natura Trails: Tracking Austria's Natural Treasures



I've loved you, tiny flower, ever since I've known your name! Far Eastern Saying (TEIJI)

Austria is known for its diverse areas of outstanding natural beauty. The span extends from untouched mountain peaks to cultural landscapes shaped by people through the centuries – all of them home to an impressive variety of fauna and flora.

Many of these landscapes are protected by law to preserve them for future generations. No matter whether they come under nature and landscape protection, whether they have been designated Natura 2000 areas or national parks, the goal invariably is to ensure the longterm protection of important habitats while respecting the needs of the local population.

The Österreichische Bundesforste (Austrian Federal Forests Management) plays an important role in the natural space management of significant natural and cultural landscapes in Austria and is the owner of many protected areas. Its tasks and responsibilities thus include the preservation, sustainable use and management of our natural heritage.

At the same time, the Austrian Federal Forests Management is a competent partner of Friends-of-Nature in the context of leisuretime organisation and recreation, maintaining an attractive network of walking trails which is being extended by Natura Trails: Natura Trails are designed to give visitors a living experience of biological diversity and to make them aware of the nature around them – which we also hope to achieve with the present brochure!

Andrea Lichtenecker & Gerald Plattner
Naturfreunde Internationale Österreichische Bundesforste

The Dachstein MassifNatural gem in the Salzkammergut

Embedded in the picturesque, lake-studded Salzkammergut near Hallstatt – at the tri-junction point of Upper Austria, Styria and Salzburg – the Dachstein massif, with Hoher Dachstein as its highest peak, rises majestically to an altitude of 2995 m. Since time immemorial people have been fascinated by this mountain, so that legends and stories about the region abound.

The area is special not just for its many beauty spots, such as the karst landscape, the sheer rock faces, the gentle Alpine pastures and idyllic lakes, but also for the attractions deep down in the mountain's innards, where you find the oldest salt mine in the world and a widely ramified network of (ice) caves including the *Rieseneishöhle*, the *Mammuthöhle*, the *Koppenbrüllerhöhle* and the *Hirlatzhöhle*. Thanks to its immense diversity, the Dachstein region is also home to many animal and plant species – some of them in danger of becoming extinct.

This unique, thousands-of-years-old natural and cultural landscape has been shaped by the forces of nature and the aspirations of humankind. The earliest records of settlers date back 7000 years. The Hallstatt high culture, which owed its wealth to salt mining and was named after several prehistoric burial places discovered above the town of Hallstatt, flourished





from the 8^{th} to the 5^{th} century BCE. Mining operations suffered a severe setback caused by a natural disaster (most probably a mountain slide). After the Celts and Romans there was an intermission in major salt mining operations up until the 13^{th} century. Today, the salt mine is open to visitors.

The landscape inspired many painters and writers, among them Adalbert Stifter, who wrote his work "Rock Crystal" in this area in the 19^{th} century.

"There is not a man, young or old, in the village who has not something to tell about its peaks and crags, its caves and crevasses, its streams and torrents – either something that has happened to himself or that he has heard about from others."

Stifter: Rock Crystal (1853)

Owing to its rich natural and cultural heritage the singularly beautiful Hallstatt-Dachstein-Salzkammergut mountain region received the special accolade of being inscribed on the

UNESCO World Heritage: "This cultural landscape combines aspects of nature and culture in a manner which is both harmonious and mutually complementary."

The Dachstein massif is also the largest nature reserve in Upper Austria, designated by the Land of Upper Austria in close cooperation with the Austrian Federal Forests Management in its capacity as landowner.

As a Natura 2000 area, the Dachstein massif is, moreover, protected under the international Fauna Flora Habitat and Bird Protection Directives of the European Union: This makes it part of an EU-wide network of protected areas designed to preserve endangered fauna, flora and habitats, while taking account of the needs of the local population.

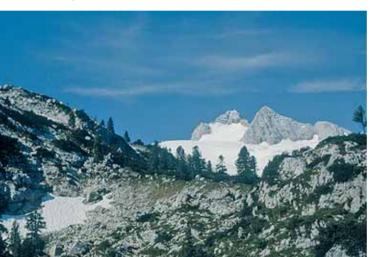
Glaciers, karst and cavesLandscape with a double bottom

The history of the Dachstein massif started more than 250 million years ago, when salt deposits were formed, as a sea basin was drying up. The Triassic limestones, which dominate the massive mountain, were deposited in a shallow sea about 50 million years later. Only after more than another 100 million years, were the Alps with the Dachstein massif uplifted by a series of faulting and folding processes.

During the glacial periods of the Ice Age, the Dachstein glaciers occasionally extended as far down as the northern shore of Lake Hallstatt, and it is to them that the Echern valley, owes its U-shape which is gently notched into the landscape. A few glaciers are still left in the summit region, the Hallstatt glacier being the largest. They form part of the eastern Alps and are retreating as a result of global warming.

The Dachstein is one of the largest and most imposing karst formations in Austria. Typical phenomena on a karsty surface are karren (runnels) and sink holes (funnel-shaped holes) through which rain and melt water enters the many cracks, fissures and joints in the subsoil. The carbon dioxide contained in the water enhances the dissolution of the limestone both on the surface and underground.

The local population had long known about the caves and had occasionally used them as cellars. Systematic exploration began in 1909. Scientists started to explore the Dachstein caves in 1910, when the giant cave and subsequently the Mammut cave were discovered in the context of a speleological congress. The caves are now open to visitors.



The VegetationFrom the Echern valley to the Dachstein plateau

The Dachstein plateau and the area surrounding the massif boast a luxuriant variety of plants that change with the altitude, as does the climate. Temperatures drop and precipitation, solar irradiation and wind increase in intensity. Plants develop different strategies as they adjust to the changing conditions. One way of adjusting is the evolution of small-growing varieties, with the dwarf pine as a case in point. Other Alpine plants depend on specific soil and subsoil conditions: The hairy Alpine rose, for example,



which typically occurs in this area, grows only on calcareous soils in high-altitude forest communities, while its close relative, the rust-leaved Alpine rose, prefers silicic soils.



Alpine Adenostyles, a variety typically occurring on soils rich in base and well supplied with water in deciduous and coniferous forests, will be your faithful companions as you walk from the Echern valley up to the plateau.

From the Echern valley to the Tiergarten shelter (ca 500 to 1450 m)

An area characterised by lush, mixed mountain forests: a typical representative of the deciduous varieties is the common beech; the ash is one of the other varieties found down in the valley, while further up we encounter the sycamore and the mountain ash. Typical representatives of the coniferous varieties are the spruce and the larch, occasionally joined by the fir. With rising altitude, coniferous trees gradually

replace deciduous trees.

In the herb layer along the way, you will occasionally happen on the fancy willow-leafed gentian.

From the Tiergarten shelter to the Wiesalm (ca 1450 to 1650 m)

With rising altitude, the spruce is gradually replaced by the larch, and from time to time you will still encounter small-growing deciduous trees, such as the green alder. The higher up you move, the sparser and clearer the forest stands will become and the more often they will be intermingled with stone pine, dwarf pine and Alpine rose.



Up here, it is the monkshood that grows by the wayside. This is the most poisonous plant in Central Europe, which may cause nettle rash on sensitive skin upon the slightest contact with either blossoms or leaves.

From the Wiesalm to the Wiesberghaus (ca 1650 to 1872 m)

This is where the ground gets increasingly rocky and barren, with towering limestone rocks as the most prominent landscape features. The larch-cum-stone pine forest becomes ever sparser and eventually only individual stone pines will stand sentinel among the Alpine roses and dwarf pines. In Upper Austria, the stone pine is a protected species. Its use – including the gathering of branches and cones – is forbidden in the Dachstein nature reserve.



On the plateau (ca 1700 to 2100 m)



The plateau presents itself as a mosaic of rock landscapes, Alpine meadows, tallherb communities, dwarf pine stands and low-brush, such as Alpine rose and Salix glabra, with a few stone pines watching over them. Also typical of this altitude are lowgrowing cushion plants, such as Alchemilla anisiaca from the lady's mantle family.

Higher up, only Alpine pioneer grass, mosses, algae and lichen are able to withstand the extreme weather conditions

Golden eagle and marmot Predator and prey

The golden eagle, with a wingspan of up to 230 cm, is probably the most imposing bird of prey to be found in the Alps. The plumage colour is black-brown with a golden-buff crown and nape. When it is gracefully kiting through the sky

is visible even from the ground. Golden eagles build their eyries on rock faces and trees at the tree line. Pairs remain together for life and also raise their young together. Marmots and chamois fawns are among the prey they hunt in their vast hunting grounds.

above the Dachstein massif.

the striking digitation

of its flight feathers

In about 1900, the population of golden eagles in the Austrian Alps was at its nadir, with only a few pairs left. This was the result of a merciless hunt started by people who, at the time, considered the golden eagle a competitor in their own pursuit of prey. Currently, the number of golden eagles populating the Alps is estimated at about 1100 to 1200 pairs. Designated as an endangered species, they are strictly protected by the European Bird Protection Directive.

The marmot is one of the cutest inhabitants of the Alps. It lives above the tree line on Alpine ranges and turf, talus slopes as well as in fringe areas of glaciers at altitudes between 1500 and 2700 m. Marmots are gregarious and live in colonies. Their underground burrows are widely ramified. When alarmed, they emit a sharp whistling call to warn the other members of the colony. Marmots hibernate up to 7 months in their burrows, living exclusively on their fat depots. They mainly eat grasses and herbs. With a little luck and patience you can watch them from the Natura Trail.

Natura Trail Dachstein World Heritage Site

Starting point: Echerntal parking lot in Hallstatt-Lahn **End point:** Valley station of the Krippenstein cable car

(Dachsteinseilbahnen) in Obertraun

Access by public transport: Train to Hallstatt, bus service between Obertraun (*Krippensteinbahn*) and Hallstatt-Lahn. For details access www.oebb.at, www.hallstatt.net or www.dachstein.at

Dachstein

Walking time: ca 7 to 8 hrs total

1st stage: Parking lot Echerntal – Wiesberghaus (elevation gain 1340 m), 4 to 5 hrs (Path 601 Wiesberghaus/Simonyhütte)

 2^{nd} stage: Wiesberghaus – Gjaidalm – Krippenstein/cable car station (elevation gain 230 m), ca 3 hrs (Path 654). The path between Wiesberghaus and Gjaidalm coincides with the Dachstein Nature Trail in the World Heritage Hiking World.

Refreshment and accommodation:

Wiesberghaus, Friends-of-Nature House, Upper Austria Tel.: 06134/20620 und 0664/6367795; e-mail: wiesberghaus@aon.at **Tip:** Option for hikers to have their rucksacks transported on the material ropeway

Route description:

From the Echerntal parking lot follow the forest road (Path 601). Walk past the monument of nature and Dachstein explorer Friedrich Simony on to the Dürrenbach bridge and the Gletschergarten (glacier garden). From the bridge you can already see the glacier potholes (to visit take the narrow footpath).

Having passed the starting point of the material ropeway, take the Dachsteinreitweg at the next bifurcation and follow the forest path to Wiesberghaus, which ascends on the left. You will soon reach a junction, where a path leads left to Wiesberghaus and another one takes you straight to the source of the Waldbach brook at 913 m (ca. 15 min).

Following the forest path to Wiesberghaus you repeatedly cut across the serpentines of the forest road (please note signage!). At the Tiergarten shelter (1468 m) you can top up your water bottles at the spring.

Continue along Herrengasse, which is lined with Alpine Adenostyles, past Wiesalm through an ocean of Alpine flowers and Alpine roses to Wiesberghaus.

From Wiesberghaus follow hiking path 654 through Bärengasse to Gjaidalm, where refreshments will await you at the Dachsteinalm lodge. From there take the path to the Krippenstein cableway station



(note guidepost) and enjoy a breathtaking view of the karst landscape. Walking the Natura Trail in the reverse direction is a more leisurely option. You start at the end point of the Krippenstein cableway and descend from Wiesberghaus to Hallstatt.



Your contacts in the region:

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The Natura Trails project fosters nature experience and makes biodiversity more tangible, thus contributing in a major way to the international "Countdown 2010" initiative. In compliance with the UN Biodiversity Convention, the initiative strives to significantly reduce biodiversity loss by 2010. Friends of Nature and Österreichische Bundesforste actively support Countdown 2010. http://www.countdown2010.net

