

A living space with a vision

KNOWLEDGE TRANSFER AT THE NOCKBERGE BIOSPHERE PARK



FUNDED WITH SUPPORT FROM THE PROVINCE OF CARINTHIA AND THE EUROPEAN UNION

LAND  KÄRNTEN


LE 14-20
Entwicklung für das Ländliche Raum

EUROPÄISCHE UNION
Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums:
Hier investiert Europa in die ländlichen Gebiete



Municipalities in the Nockberge Biosphere Park:

BAD KLEINKIRCHHEIM



KREMS IN KÄRNTEN



RADENTHEIN



REICHENAU



Welcome to the Nockberge Biosphere Park

At the heart of the Austrian Alps, the Nockberge Biosphere Park is characterised by gently rounded peaks, picturesque pastures and untouched forests. The Nockberge form the western part of the Gurktal Alps and stand out for their rich variety of rare animals and plants. Its tradition of alpine farming and pasture management has been fine-tuned over centuries to protect these precious species.

In 2012, the Carinthian Nockberge became part of the Biosphere Park »Salzburger Lungau & Kärntner Nockberge« and the region won an award as part of the UNESCO »Man and the Biosphere« programme (MAB).

The »UNESCO Biosphere Park« status ensures that the characteristic habitats and species are protected for future generations.

The Nockberge Biosphere Park is the only one of its kind in Carinthia and the largest Biosphere Park in Austria together with the Lungau region. It functions as a model region for sustainable development that demonstrates the successful interplay between man and nature and has attracted international attention.



"BIOSPHERE"

is another word for ecosystem, which refers to the harmonious interplay of humans, culture, wildlife and plants.

CARINTHIAN NOCKBERGE BIOSPHERE PARK

Size: ~ 485 km²

Population: ~ 10,890 *

Elevation: 588 × 2,440 m

Municipalities within the Biosphere Park:

Bad Kleinkirchheim, Krems, Radenthein, Reichenau

* As of July 2021



CARINTHIA





What is a Biosphere Park?

A Biosphere Park is centred around the people who live and work there in harmony with nature and treat the wildlife and plants around them with respect.

A Biosphere Park actively strives to maintain and develop ecologically valuable living spaces, giving equal consideration to environmental protection and economic and social interests.

Biosphere Parks are model regions of sustainability put into practice.



People make all the difference

The »Salzburger Lungau & Kärntner Nockberge« Biosphere Part is part of a global family: the UNESCO Biosphere Parks.

This global network that currently* includes 738 model regions in 134 states relies on national and international cooperation, the exchange of experiences and on learning from each other.

The tasks of a Biosphere Park are manifold and all aim at protecting and promoting the region, starting with preserving their scenic and cultural variety to including the population in the nature-friendly development of the region.

Coordination and cooperation of tourism-related, economic and educationally relevant activities and projects constitute other important focal points.

In order to implement all this as effectively as possible, Biosphere Parks follow a management plan that considers their various fields of activity and strategic priorities and that defines concrete activities. The plan is designed to support the administrative bodies of the Biosphere Park in their work and to contribute towards preparing the Biosphere Park for future challenges.



UNESCO

United Nations Educational,
Scientific and Cultural
Organization

MAN AND THE BIOSPHERE

The MAB UNESCO programme
aims at the long-term protection
of natural resources and
biodiversity.

www.unesco.at

* As of July 2022





The plan is as follows:

In the Nockberge Biosphere Park, a unique interplay between man and nature has developed over the course of centuries, which needs to be maintained, cared for and developed. The first specially devised **management plan** defines three fundamental roles to achieve this:

- **Developer:** The Biosphere Park makes an active contribution towards the development of the region.
- **Mediator:** The Biosphere Park imparts knowledge, has an educational and research function and serves as a local communication platform.
- **Organiser:** The Biosphere Park continuously adapts its organisation to current requirements to ensure that it acts in its best possible interest.



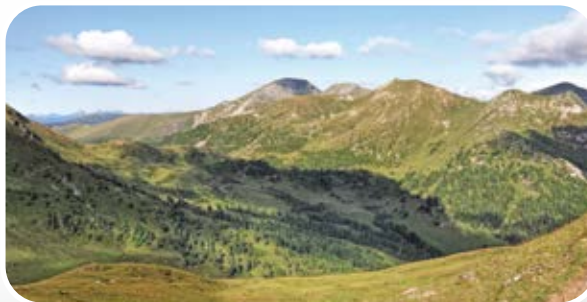
Maintain what is unique while making room for innovations

The Nockberge mountains are a geological rarity. Their characteristic feature consists in gently rounded peaks, different to the rugged Alps that surround them. In fact, the name »Nocke« is derived from the shape of these rounded peaks that can be up to 2,440 metres high. Some of these peaks remained free from ice during the last ice age, or only had local glaciers. Many of the small, high-altitude lakes in the Nockberge are relics of these former cirque glaciers. The ice-free zones, on the other hand, served as a refuge for countless plants and small animals.

The basis of the Nockberge is formed by crystalline types of rock, over 500 million years old, that are

blanketed by a younger limestone and dolomite layer in the east. The water that penetrates this layer heats up on its way down and re-emerges in the valley of Bad Kleinkirchheim as thermal water with a temperature of 36 °C. The Nockberge region is also known for its bathing tradition, and the Karlbath, located along the Nockalmstraße, is Austria's oldest rural bathing room.

The high valleys and sunny hillsides of the Nockberge have been characterised by rural customs and alpine farming for centuries. Mining was also an economic factor until well into the second half of the 19th century. Today, tourism has become the most important source of income.



ZONING

Every biosphere park is divided into zones:

- a *nature zone* that comprises typical ecosystems
- a *conservation zone* that envisages careful interventions
- a *development zone*, where sustainable development is mandatory.

-  Settlement area
-  Research
-  Education
-  Traditional farming
-  Nature zone
-  Conservation zone
-  Development zone





Colourful treasures wherever you look

The Nockberge Biosphere Park has a particularly diverse flora, the result of a geological particularity: A limestone band runs through the primary rock, making it possible for species with entirely different requirements in terms of habitat to occur right next to one another.

Up until 1,700 metres, the region is dominated by subalpine spruce forests. Above this level, larch and stone pine dominate. The stone pines (“Zirbe”) grow up to 20 or even 25 metres high and are to be found exclusively in the Alps and in the Carpathians, with the Nockberge range being home to the largest population in the eastern Alps. Above the current forest line, alpine meadows dominate the landscape.

These characteristic meadows studded with a variety of flowers are kept alive by alpine farming. Without being used as grazing lands or being mowed regularly, bushes and shrubs would appear on the meadows, and sooner or later also trees. Instead, the meadows are home to many kinds of orchids, such as the highly fragrant black vanilla orchid. Another characteristic feature is the Speik plant, a rather plain little thing that has, however, played an important role in the Nockberge for centuries, thanks to its intense fragrance and the Valerian oil contained in its roots.

Low moors, located around the outlet points of mountain springs, also harbour many botanical gems and are typical of the region.

STONE PINE (*Pinus cembra*)

These trees are extremely resistant towards frost and survive even temperatures of $-40\text{ }^{\circ}\text{C}$ without any problems.

SPEIK (*Valeriana celtica*)

The roots of the Speik plant were already used for medicinal purposes, as incense and as the basis for soap during ancient times, and even Cleopatra is said to have used them as a bath additive.

A coveted commodity, its numbers declined sharply until it was placed under protection in 1946.





Gentle landscape, fierce wildlife

The gently rounded peaks of the Nockberge are home to many animals from the classic alpine fauna, such as the red deer, the alpine marmot, and all four domestic species of grouse (snow grouse, black grouse, wood grouse and hazel grouse).

As some of the peaks remained glacier-free during the last ice age, they now harbour species that are only found within circumscribed areas, in particular spiders, ground beetles and rove beetles. One of the relic populations of the Dotterel, one of Austria's rarest breeding birds, outside the northern tundras may also be found here.

The Biosphere Park ensures that characteristic habitats and species may be systematically promoted and thus preserved for future generations.

The nutcracker is a good example that demonstrates just how important these habitats are. The birds prise the seeds out of pinecones and either eat them straightaway or store them away for the winter. A single nutcracker will stash away around 10,000 seeds per season, and it will find most of its caches later on. The remainder will grow into new stone pine trees.



WOOD GROUSE

Grouse require a very specific habitat, and the undisturbed, natural coniferous forests of the Nockberge fulfil their requirements to a tee.

With a wingspan of up to 1,30 metres, the wood grouse is the largest kind of domestic grouse and the heraldic animal of the Nockberge Biosphere Park.





A natural setting shaped by human hands

The characteristic cultural landscape of the Nockberge is a result of century-long alpine farming and grazing activities. Alpine farming still shapes the region, reflecting its importance for the livelihoods of the people who look after it. Traditional fences and roofs covered in larch wood shingles are just as important for the region's character as its buildings of cultural heritage.

True to the motto »**protection through utilisation**«, the Nockberge Biosphere Park supports the conservation of characteristic elements in the landscape and promotes natural farming and grazing methods.

The meadows of the Nockberge have been used as grazing lands up into the summit regions for almost 1,000 years, which is reflected in the outstanding quality of the final products.

One example is the Nockberge Almrind, pasture-fed beef that stands out for its delicate marbling, fine-grained texture and juiciness. The unique aroma and flavour of this speciality are directly linked to the local alpine vegetation.

ALPINE FARMING

The Nockberge were first developed for their ore deposits. The forest exploitation required for charcoal production led to a decrease of forested areas over the centuries. These areas were used and preserved as grazing lands and meadows.

With the decline of iron mining, alpine farming became increasingly important to ensure the livelihood of the local population.





A shared path

The Carinthian Nockberge Biosphere Park is more than just a nature preserve. It links existing facilities and functions as a hub between interests, stakeholders and living environments. Through its cooperation with influential organisations, the management of the Biosphere Park contributes to the sustainable development of the region.

The label »UNESCO Biosphere Park« is something special and delivers impulses for tourism, business, and public relations. The Biosphere Park actively cooperates with the local population and represents the Nockberge region on a national and international level.

Keeping this natural setting intact while providing a living environment for humans that benefits it instead of impacting it negatively is the superordinate goal, culminating in a mutually beneficial relationship.

Establishing the Nockberge as a multi-faceted hiking region fits in well with the overall concept. Through targeted offers for visitors, regional tourism is promoted and extended. Interactive exhibitions along the Nockalmstraße, adventure programmes with Biosphere Park Rangers and themed trails are just a few measures that add value to the region.



NOCKMOBIL

Alternative means of transport are becoming increasingly important. Once again, the Biosphere Park is taking a leadership role to guide the region towards a sustainable future.

To complement public transport facilities, the »Nockmobil« group taxi provides a service based on actual requirements.

The service may be booked via an app, by telephone or online and takes guests and locals where they want to go – safely, inexpensively, and environmentally friendly.

www.nockmobil.at



+43 123 500 444 24



Passing on the baton

The Biosphere Park fosters local traditions and works towards preserving and valuing them. The idea is not to turn the region into a gigantic outdoor museum, but rather to pass on the passion, skills and knowledge from generation to generation.

The careful handling of resources used to be an absolute necessity to ensure the survival of the farms. This necessity produced farming methods that were fully in tune with their natural setting, and crafting skills that still leave us amazed. In other destinations, it may be regarded as tourist folklore, but in the Nockberge Biosphere Park, it still comes from the heart: the love of traditional music and dancing. Numerous clubs and associa-

tions bear witness to this. This cultural treasure of the Carinthian Nockberge matches our modern idea of sustainability, true to the motto: *Abide by proven principles to create something new.*

Just like this landscape has been shaped by the hard work of its population for centuries, the region has in turn also left its mark on its people.

One result of this interaction is the multi-faceted use of the plants that grow in the Biosphere Park. The knowledge about their uses and healing properties is reflected in the ancient tradition of fumigation, in the production of ointments and soaps, and in the rural bathing culture.



KARLBAD BATHING ROOM

Right at the heart of the Nockberge Biosphere Park, people have been taking therapeutic baths for more than 200 years.

Stones from nearby Karlbach creek are heated in the embers of a fire and placed in larch wood troughs that have been filled with spring water. The stones contain iron and sulphur and will burst, thus heating the spring water with its low concentration of radon to approx. 40 °C. Bathing in this water, in combination with the healing steam, is highly beneficial for body and soul.





CHALKBOARD MENU
Sausage
Salami
Egg sandwich
Burger



Our resolution: Sustainability

The Nockberge have a potential for year-round tourism. In summer, numerous day trip destinations, information points and mountain inns invite visitors to discover the region at their own pace. In winter, ski resorts, cross-country skiing trails spanning many kilometres, and natural ice rinks await. For dedicated hikers, there is the Nockberge Trail, a long-distance hiking route. If you are in search of rest and relaxation, look no further than the thermal spa in Bad Kleinkirchheim, or the Karlbath bathing room.

The Nockberge Biosphere Park supports the gentle use of this unique natural habitat for maintaining and strengthening the local economy. Dedicated events and themed exhibitions aim at introducing

guests and locals to this unique natural setting, fully accessible wherever possible. A sophisticated hiking trail and ski touring system also provides wildlife protection zones.

The promotion of regional economic cycles and the development and marketing of authentic, innovative products safeguards future prospects for the entire region.

Many of the treasures that have their origin in the Biosphere Park, from pasture-farmed hay to meat from pasture-fed animals or locally sourced wood, are as unique as the Biosphere Park itself. Maintaining this authenticity contributes towards the long-term balance of environmental and economic interests.



ACCESSIBLE GRUNDALM PASTURE

In order to make it possible for families with strollers as well as disabled or frail people to enjoy this natural setting, the exhibition rooms and the Silva Magica trail on Grundalm pasture were made fully accessible, including the parking and sanitary facilities.

Speech codes on the panels along the round trails enable visually impaired visitors to experience the trail acoustically. All the facilities are ÖZIV-certified.





Knowledge creates trust

The UNESCO label »Biosphere Park« describes a recognised model and future region that is all about the development of ecological, economical and sustainable land use and the protection of ecosystems.

In order to foster the understanding of the reciprocal effects between humans and nature, the Nockberge Biosphere Park also carries out research projects and systematically collects and processes regional data.

Wide-ranging cooperation with scientific institutions aims at delivering insights with regard to regional challenges such as climate change, demographic change and environmental protection.

With the cooperation initiative »**Science_Link Nockberge**«, the Biosphere Park has created a link to the **University of Klagenfurt** and the **Carinthian University of Applied Sciences**.

Scientists and students use the Biosphere Park as a research space, thus contributing directly to regional knowledge transfer.

A research exchange platform suggests topics for bachelor, master and PhD theses. The resulting theses as well as other publications that are of topical relevance for the Biosphere Park may be accessed online in the »**NockoThek**« reference database. This is a great way to find out more about the particularities of this unique living space, free of charge.



GEO-TAG DER NATUR (NATURE DAY)

We can only protect what we know. The Nockberge Biosphere Park is home to a multitude of animal and plant species.

On the daily »GEO-Tag der Natur« (Nature Day), nature-loving explorers set out to find characteristic and/or unique species within the region over a period of 24 hours. All finds are meticulously documented and thus contribute to the thorough investigation of the Biosphere Park.



Learning from life

Knowledge transfer and environmental education are two of the core missions of any Biosphere Park. The Nockberge Biosphere Park sets great store by imparting information in a way that suits the individual target groups.

Lectures, seminars and workshops introduce the local population to a variety of subjects as part of the **adult education initiative**. For visitors, there is plenty to find out in the **information points** along the Nockalmstraße. **Guided theme programmes** also provide fascinating insights into the particularities of the Biosphere Park.



With the goal of raising awareness from a young age, the Biosphere Park is particularly active in the schools within the region. Numerous schools in and around the Biosphere Park are officially accredited as **Biosphere Park schools and partner schools**.

A dedicated educational concept aims at awakening children's natural curiosity. Biosphere Park Rangers visit classrooms with a **mobile exhibition** and a great deal of expertise in actively involving kids in the wide range of topics related to the Biosphere Park. There are also **targeted programmes** at hand for **school project days and excursions**.



SCHLAUFUX ON TOUR

What makes the Nockberge Biosphere Park so unique? What is the secret of the »Nocken«? What animals and plants are characteristic of the region, and what role do humans play in this system?

These and many more questions are discussed in the interactive educational programme »Schlaufux on Tour«. From the very first year of schooling, children have the opportunity to learn facts and figures about the Nockberge Biosphere Park in a playful manner.





The future in full view

The 21st century is facing an ever-increasing number of challenges. Rising temperatures are bound to change natural and cultivated landscapes.

In the Nockberge Biosphere Park, these provide the livelihood for farmers, tourism and society as a whole. The status »Biosphere Park« provides an opportunity for coping with new realities of life in a provident, coordinated and regionally accepted manner.

By building up a network of partners, fostering awareness for biodiversity and initiating pilot actions to support the local economy, the Biosphere Park plays a leading role in the region.

The uniform brand profile and sales platform for products from the Biosphere Park is such a model project and supports the economy, tourism and commerce; promotes regional economic cycles and contributes towards the protection of biodiversity.

The Nockberge Biosphere Park is not alone in these efforts: All the Biosphere Park worldwide pursue similar projects with the goal of fostering positive development. The essence of all these best-practice examples is freely available to our network partners, creating a giant pool of ideas, strategies and approaches to secure the future of man and nature on a sustainable basis.



YOUTH FORUM

Involving the local population in its efforts is a key priority of the Nockberge Biosphere Park, and the ideas, visions and suggestions from young people and young adults are particularly important in this context.

To ensure that the Nockberge region remains an attractive space to live and work in for 15- to 30-year-olds, the Biosphere Park regularly organises youth forums.





Reaching our goals together

The gently rounded peaks of the Nockberge Biosphere Park have always favoured a unique interplay between humans and nature. With its characteristic alpine farms and pastures, the Nockberge Biosphere Park has preserved the rich variety of its flora, which in turn provides a habitat for a wide range of animals.

Passing traditions and skills is one of our core responsibilities. Tried-and-tested knowledge, paired with innovative approaches, is the basis for successful cooperation. Based on long-term planning and sustainable activities, we ensure that biological variety is protected while promoting social and economic development as well as the preservation of cultural values at the same time.

Your Carinthian Nockberge Biosphere Park





Gedruckt nach der Richtlinie des Österreichischen Umweltzeichens "Druckerzeugnisse", Oberdruck, UW-Nr. 1247
www.oberdruck.at

PUBLISHING DETAILS

Media holder and publisher: Association „Entwicklung Biosphärenpark Nockberge“, A-9565 Ebene Reichenau 117

Images: © Archiv Biosphärenpark Nockberge, Monika Brandstätter, Daniela Ebner, Alexandra Gasser, Franz Gerdl, Susanne Glatz-Jorde, Michael Gruber, Lukas Kogler, Michael Machatschek, Hans Peter Maierbrugger, Millstätter Tourismus GmbH, Heinz Mayer, Helmut Moik, Ewald Nefie, Gert Perauer, Karl Selden, Michael Stabenheiner, Wolfgang Stefaner, Sam Strauß

Printed by: Oberdruck GmbH, A-9991 Dölsach | Design: Telos werbung und pr - www.telos.at | Errors and misprints excepted. © 2022



