

The Bisamberg

A natural treasure in our hands

LIFE project Bisamberg
Layman's report



Contents

1.	Introduction	4
2.	Valuable arid locations	5
2.1	Drought tolerant plants and those, which go for long periods without nutrients	5
2.2	Highly specialized animal species	6
3.	Landscapes through time	7
4.	Endangered dry and semi-dry grasslands	9
5.	LIFE-Nature project measures	10
6.	Outlook	18

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Foreword

Lower Austria offers a great diversity of landscapes with valuable environments inhabiting rare animal and plant species. Preserving and developing these habitats is a difficult task that requires taking responsibility.

The implementation of nature conservation measures is also supported by the European Union. LIFE-Nature counts as one of the most important promotional instruments for nature conservation. Many projects in the past would not have been possible without it. Between 1996 and 2011, a total of 19 nature conservation projects were funded by LIFE-Nature in Lower Austria. The total project volume amounts to approximately 74 million Euro, 46% of which were contributed by the EU. Therefore, it can be said that Lower Austria has used this funding pool very successfully.

In the past, the majority of lower Austrian LIFE-Nature projects were aimed toward freshwater ecology research. There were also some wildlife and habitat conservation projects. In total, four projects were focused on conservation and development of steppe and dry grasslands like the LIFE-Nature project Bisamberg. The Bisamberg landscape consists of sunken roads, vineyards, meadows and forests.

However the main portion of the landscape is shaped by species- and flower-rich dry grasslands which have developed on barren locations in the arid climate.

Over the course of the past centuries, these dry grasslands started to disappear because traditional cultivation, like grazing livestock which inhibits the emergence of hardwoods, was abandoned.

Removing trees and shrubs, and adding grazing goats, so that rare grasses and herbs that require lots of light can grow, are two important measures in maintaining the rich biodiversity of the Bisamberg. In addition, in forested areas tree species that are not native to the region are removed. The goal is to develop natural deciduous forests. Leaving dead wood on the forest ground should also increase biodiversity in the long run. Therefore, the LIFE project Bisamberg is an essential contribution to maintaining the rich biodiversity on the doorstep of the city of Vienna.

Dr. Stephan Pernkopf
Lower Austrian Government
Official for Nature Conservation



Heinz Wiesbauer

**Arid locations
on the Bisamberg**

1. Introduction

Lower Austria and Vienna declared 700 hectares in the Bisamberg region as protected areas under national law ("Europaschutzgebiet") due to its unique flora and fauna. This makes the Bisamberg part of the natural areas protected under "Natura 2000", a European network of protected areas which represented a requirement for receiving financial support from the EU. Much needed management measures were implemented as part of the LIFE-Nature project Bisamberg between July 2006 and June 2011.

The project area is situated across the municipalities Langenzersdorf, Bisamberg, and the city of Vienna.

The western slopes of the mountain situated in Langenzersdorf and Bisamberg are dominated by dry and semi-dry grasslands that are overgrown with bushes and downy oak forests. A few isolated vineyards can be

found on the slopes too. On the plateau, there are extensive oak-hornbeam forests.

The Viennese part of the project area is dominated by agricultural use. Vineyards on the south eastern slopes of the Bisamberg and the Lahnerberg are divided by hedges, rows of trees, fallow land, and sunken roads. A special natural treasure are the so-called "Alte Schanzen", former defence fortifications in the east of the Bisamberg. Valuable dry and semi-dry grasslands have formed here due to the extensive use of these structures.

Within the framework of the LIFE-Nature project, extensive management measures have been implemented on the Bisamberg, Lahnerberg and the Alte Schanzen area. These measures should help the long-term conservation of the characteristic flora and fauna of these precious dry grasslands and forests.

2 Valuable arid locations

The steep slopes of the Bisamberg and the Alte Schanzen feature a vast area of arid locations. Many highly specialized animal and plant species occur in these valuable habitats.

2.1 Drought tolerant plants and those, which go for long periods without nutrients

Many plants that occur in this area are adapted to living in arid locations. Xerophytes (drought tolerant species) can manage to survive with only little water. For instance, the Austrian *Scorzonera* species (*S. austriaca*) is coated in a layer of wax which reduces evaporation. The Carline Thistle (*Carlina vulgaris*) and *Jurinea mollis* are protected by dense hairs and stronger cell walls. *Festuca* and *Stipa* species have curled leaves in order to reduce evaporation by decreasing surface area.

Another survival strategy for plants is to shift the vegetative/generative phase to periods when soil moisture is high. This is how the seeds of many annual plants are already mature in April or May and remain in this state during the dry summer months. Spring geophytes, like *Ornithogalum kochii* and *Gagea pusilla*, also use the moist spring months and remain in the soil as bulbs over the dry period.

Many characteristic species that once shaped the dry grasslands are now listed as highly endangered, e.g. the Red List of ferns and flowering plants. Some species like the lady's-slipper orchid (*Cypripedium calceolus*), *Artemisia panicii*, and *Himantoglossum adriaticum* are specifically mentioned in Annex II of the EU Flora-Fauna-Habitat-Directive and are thus under special protection. Pasture hawkbeard (*Crepis pannonica*) and *Vinca herbacea* are considered rare treasures with only a few occurrences in Austria.



Pulsatilla grandis grows on shallow soil and flowers in early spring.



A wax coating protects *Scorzonera austriaca* against extreme dryness.



Stipa species reduce evaporation by curling their leaves.



Andrena nigroaenea males pollinate *Ophrys sphegodes*.

Heinz Wiesbauer (4 x)

***Artemisia pancicii* occurs in only a few locations and is protected throughout Europe.**



2.2 Highly specialized animal species

Dry grasslands and forests are inhabited by many habitat specialists, in particular many thermophilic species. Therefore, much Mediterranean and Pannonic species can be found here at their range limit; some are considered national rarities.

For certain insect groups, the region Bisamberg-Stammersdorf is the most species-rich region in all of Austria, e.g. true bugs (347 species) and wild bees (393 species). In the course of surveying for this project there were also 163 species of ground beetles, 83 long-horn beetles, 140 digger wasps, and 731 butterflies collected. In the light of nature conservation, the dry grasslands and forests of the Bisamberg are among the most important locations in Austria that should be protected.

Arid locations are home to several faunistic treasures like the European ground squirrel (*Spermophilus citellus*), the black velvet spider (*Eresus kollari*), the bush cricket (*Saga pedo*), and the mason bee (*Hoplitis papaveris*). The woodlark (*Lullula arborea*), the giant peacock moth (*Saturnia pyri*), or the moth *Eriogaster catax* mark the transfer from grasslands to areas overgrown with bushes and forest edges.

Highly specialized animal species in dry grasslands include, amongst others, the plasterer bee *Colletes graeffei* and the Chequered Blue Butterfly (*Scolitantides orion*) whose larvae feed on *Sedum maximum*. *Colletes graeffei* nest on sparsely covered grounds and collect pollen exclusively from the small yellow onion (*Allium falvum*). Such a strong tie to a forage plant also bears risks. If the plant does not bloom at the right time or is not available due to other reasons (e.g. early mowing), this can reduce the bee population severely.

Besides the plasterer bee *Collectes graeffei*, there are several other wild bees that are restricted to only one or a few plant species

A floristic Bisamberg treasure: *Vinca herbacea*.



A characteristic Bisamberg species: *Eresus kollari* (image shows male).



The giant peacock moth (*Saturnia pyri*) is Europe's largest moth.



Heinz Wiesbauer (4 x)

for pollen and have high demands when it comes to their nesting location, for instance, *Dasyroda argentata* and *Hoplitis mitis*.

Dry forests are also one of the last refuges for the buprestid beetle *Capnodis tenebrionis*. The beetle is highly endangered in Central Europe and there are only two locations in Austria where it can be found. The beetle's larva lives in the roots of sloes (*Prunus spinosa*) and other fruit trees. The stag beetle *Lucanus cervus* and the longhorn beetle *Prionus coriarius* are two other beetle species that live in forests rich of dead woods.

3 Landscapes through time

Without anthropogenic influences, the Bisamberg would only bear small forest-free areas given current climate conditions. Over many centuries, humans shaped this area by clearing woods, grazing livestock, mowing, farming, and wine-growing. This extensive land use and the steady removal of nutrients through grazing both contributed to the formation of species-rich grasslands. The dry and semi-dry grasslands, as well as, the forests of the Bisamberg were formerly used as grazing land since, traditionally, livestock was not kept in paddocks but tended by shepherds. Driving livestock down into the village every day gave way to further soil degradation since dung was usually deposited in the village stables and used to fertilize the fields. Until the end of the 19th century this type of land use significantly shaped the dry and semi-dry grasslands.

Today these habitats are highly endangered due to structural changes in agriculture and the abandonment of traditional uses. The decline of grasslands on the Bisamberg during past centuries has been shown most prominently in the municipalities Langenzersdorf and Bisamberg. The "Franzische Landesaufnahme" (a historical map) contains detailed data on land use from the



The rare butterfly *Scolitantides orion* lives in dry, hot locations where *Sedum maximum* also grows.



The plasterer bee *Colletes graeffei* is highly specialised and collects pollen exclusively from the small yellow onion (*Allium falvum*).



The tenebrionid beetle *Capnodis tenebrionis* lives on the western Bisamberg slopes.



The rare katydid *Saga pedo* can be found occasionally in shrubby dry grasslands.

Heinz Wiesbauer (4 x)

The view from the Bisamberg on Vienna attracted many artists. In 1845 Friedrich Loos painted the yet unobstructed view of the growing metropolis. Today many of these areas are forested.



Wien Museum, Friedrich Loos, Fernsicht vom Bisamberg auf Wien, 1845

year 1820 on a 1:2.880 scale. In the western part of the Bisamberg, grasslands used to dominate the region representing 67 % of the total area. Vineyards accounted for 21 % of the area; such a large part was never reached again. Forest and farmland made up 5 and 7 % respectively (Bassler & al. 1995).

At the end of the 19th century, large-scale afforestations started to fundamentally change the Bisamberg's landscape. By 1910 the proportion of forest rose to 35 %. Mainly former pasture and arable land situated on slopes and plateaus were being afforested. In the following time period, the

forest area steadily grew, at the cost of grassland areas, and amounted to 67 % in 1994.

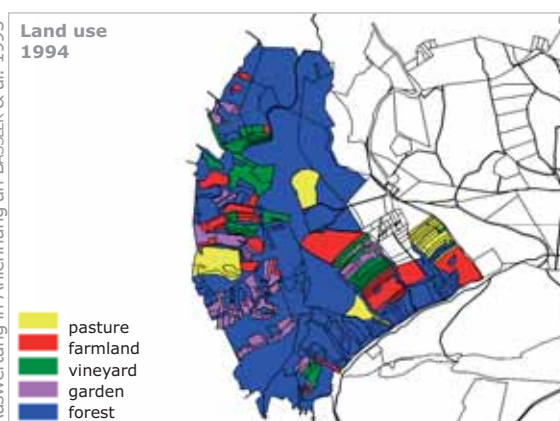
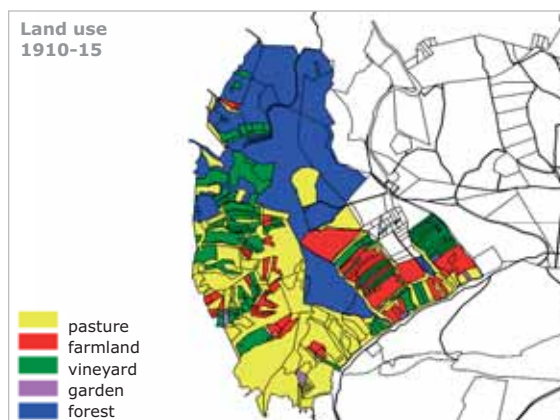
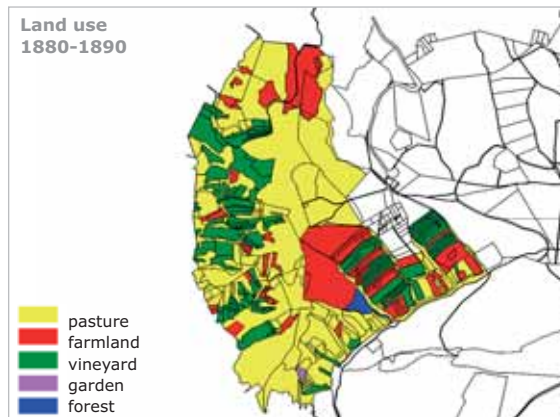
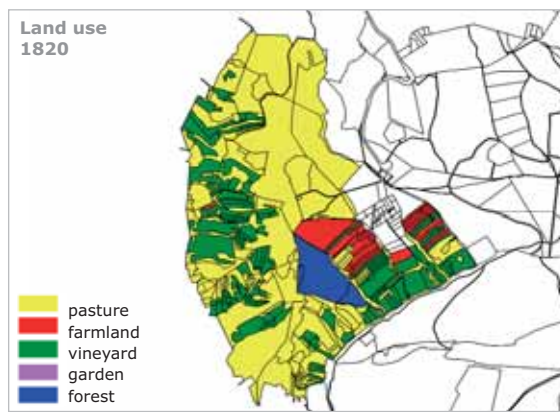
This demonstrates how the landscape of the western slopes changed drastically and sustainably over the course of two centuries. The proportion of dry and semi-dry grasslands was reduced by more than 90 % during this period. This fundamental structural change in agriculture is also reflected in agricultural statistics. At the end of the 19th century, the animal population in the municipalities Langenzersdorf, Bisamberg, Klein-Engersdorf, Hagenbrunn, Stammers-

dorf und Strebersdorf, all bordering the Bisamberg, was composed of 549 horses, 648 cattle, and several sheep and goats (k.k. stat. Central-Commission 1903: Gemeindelexikon, Bd. NÖ). Until now the proportion of grazing animals, with the exception of some riding horses and goats, have gone mostly extinct.

In the 18th and 19th century there were some expansive forests, not only in the plateau area but also between Stammersdorf and Hagenbrunn. These forests were mainly used as imperial hunting grounds and were therefore surrounded by fences. Some of these forests still exist, like "Herrenholz" and "Alte Gaid Leithen"; while others, like "Frauenholz", "Luckenholz" and parts of "Köbeln" have been cleared.

4 Endangered dry and semi-dry grasslands

With the decline of pasture farming, large parts of former pastures were afforested which changed the original landscape fundamentally. Some of the plants that were seeded include European black pine (*Pinus nigra*), scots pine (*Pinus silvestris*), European ash (*Fraxinus excelsior*), and various other deciduous tree species like the drought-tolerant black locust (*Robinia pseudoacacia*). The latter tree originates from North America and is problematic from a conservation point of view since nitrogen-fixing soil bacteria (*Rhizobium*) live in the tree's roots. The bacteria help fertilize the soil which fosters the growth of a thick understory with nutrient-loving plants. On one hand the rapid expansion of this tree species happens through basal shoots and coppicing, while on the other hand, expansion occurs through seeds that can be dispersed over long distances by wind. The so-called "tree of heaven" (*Ailanthus altissima*) from China, which expanded its range significantly on several grassland areas, bears a similar displacement-potential. In suburban settlements and gardens, lilac (*Syringa vulgaris*) is covering increasingly



Auswertung in Anlehnung an BASSLER & al. 1995

Land use in the western part of the Bisamberg through time.



LIFE-Nature and Natura 2000

LIFE is the EU's financial instrument supporting environmental and nature conservation projects throughout the EU, as well as in some candidate, acceding and neighbouring countries.

Natura 2000 is the centrepiece of EU nature & biodiversity policy. It is an EUwide network of nature protection areas established under the 1992 Habitats Directive. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) which they designate under the 1979 Birds Directive.

LIFE-Nature-Project „Bisamberg“

Area: Lower Austrian and Vienna

Responsible for the Project: Office of the Lower Austrian Provincial Government, Department for Nature Conservation

Project Partners:
City Government of Vienna, Environmental Protection, MA 22
City Government of Vienna, Forestry Office and Urban Agriculture – MA 49
Local Authority of Langenzersdorf
Distelverein
Local Authority of Bisamberg

Co-financing:
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management

Project Time Span: 1.7.2006–30.6.2011
Total Budget: 727.000 € (60 % EU)

www.life-bisamberg.at

greater areas. This ornamental shrub was artificially introduced to protect against erosion and now dominates many hillside regions.

Only areas with barren soil and very steep slopes were spared from the vast afforestation efforts. However, due to the lack of grazing pressure, hardwoods started to grow in these areas. With such an increase of shade, characteristic grassland species were gradually displaced by hedge, ruderal and forest species. The restoration of grasslands becomes very difficult once a certain percentage of shading across an area is reached, i.e. height and number of trees or shrubs.

In addition, dry and semi-dry grasslands have also suffered from nutrient and pesticide impacts.

5 LIFE-Nature project measures

Within the framework of this LIFE-Nature project, a number of comprehensive management measures have been implemented in the Bisamberg region with the goal to preserve the characteristic flora and fauna of dry grasslands and forests sustainably. Some of the most important measures are hardwood removal, small-scale forest clearance, grazing, and mowing. In forested areas, introduced trees and shrubs are removed to promote natural forest communities. Also, species specific protection measures will help to support populations of the European ground squirrel and the plant *Artemisia pancicii*. The following section shortly explains each management measure.

Habitat management in dry grasslands

In order to conserve dry and semi-dry grasslands, certain maintenance is needed since the traditional, landscape-shaping, pasture farming has been abandoned for many years. Habitat management varies significantly from one location to the other. For instance, shallow grasslands on rocky

slopes on the western side of the Bisamberg need only little care. In such areas it is usually enough to remove emerging trees and shrubs every few years.

Grasslands on deeper soils, which owe their existence to humans, need to be exposed to extensive use like grazing or mowing in order to be preserved, otherwise forests will form very quickly in these areas. However, it is important to proceed on a small-scale basis to avoid potential negative repercussions for wildlife. For instance, very large areas should not be subject to grazing or mowing to ensure the availability of flowers, food plants, and nesting structures for insects.

Extensive grazing has proved to be a particularly efficient and ecologically sound management technique and has therefore been reintroduced in several areas. Since 2007, a goat herd, of about 40 individuals, have been grazing on the Alte Schanzen in Stammersdorf. Grazing is focused on areas overgrown with bushes, cleared areas, and nutrient-rich lawns with higher vegetation. The goats are kept within a particular area for several weeks with the help of electric fences. A shelter and drinking trough are available for the animals. At this point, the method is still in a trial phase in order to obtain a better understanding about intensity, duration and timing of the grazing.

Accompanying these management techniques, monitoring of some target species (i.e. butterflies, wild bees, and grasshoppers) reflects positive effects from grazing since their populations are improving. The increase of spaces with open ground and less dense grass are particularly beneficial to highly specialized species which include many endangered animals and plants. European ground squirrels living on fallow lands in the area have already noticed this change on the Alte Schanzen, immigrated to these short grasslands and now inhabit their original habitat.



The invasive tree of heaven (*Ailanthus altissima*) is expanding its range on several grassland areas.



Locusts are destroying dry grasslands since nitrogen-fixing bacteria living in the tree's root area fertilize the soil.



Heinz Wiesbauer (3x)

Removing hardwoods in dry grassland areas.



Peter Buchner

A butterfly survey and other LIFE-Nature research studies provide valuable information for improving management measures.

The "Elisabeth-Höhe" used to offer a magnificent view of Klosterneuburg and Korneuburg (around 1900).



Archiv Horx

In 2010, goat grazing was expanded to a cleared area near the "Elisabeth-Höhe". Here, the goal is to dispose of any hardwood growths and to increase the value of the bordering dry grassland. Owing to this measure, the magnificent view of Korneuburg and Klosterneuburg has opened up again for which the "Elisabeth-Höhe" used to be famous for.

Until only a few years ago the view of Klosterneuburg and Korneuburg was obstructed by forest.



Forestry mulchers were used to improve the view.

Cattle are also grazing on the Lahnerberg, specifically on a large area densely overgrown with bushes. The grazing area covers about five hectares. In order to conserve or even improve the status of all of these locations it is important to ensure resources and funding are available for maintaining these measures for the future. Standardized maintenance measures with predetermined dates and specifications are not suitable for these sensitive areas since respective developments – that can differ from year to year – need to be considered on a small scale. In addition, supporting scientific studies are necessary to constantly optimize respective management measures.

Silvicultural measures

Today forests are the dominant landscape feature of the Bisamberg; more than two thirds of the total area is covered with hardwoods. Forests not only serve as habitats, economic, and nature areas but are also important recreational areas in urban settings. At the same time, forests are also important connecting elements in the landscape.

Visitors enjoying the view



Heinz Wiesbauer (3 x)

Silvicultural measures require long-term thinking and acting. Since many pine forests are dying off, the overall concept has changed significantly over the past years. Developing location-compatible deciduous forests and implementing a near-natural forest management are the strategies of Vienna's forestry department which also correspond to the goals of the EU Flora-Fauna-Habitat-Directive.



Several goats are grazing in the area of the "Elisabeth-Höhe"

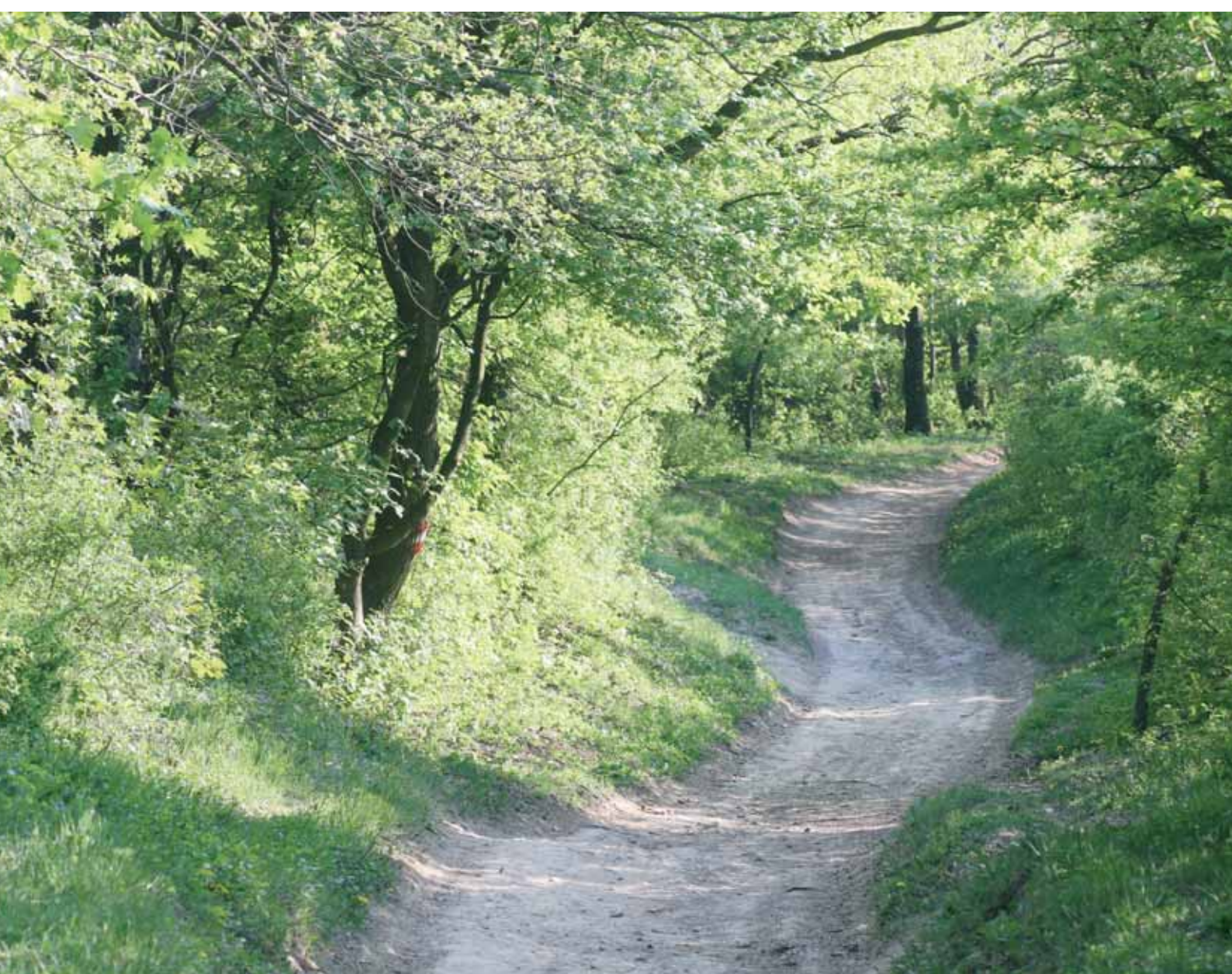
The practical application of this strategy means that tree species that do not belong into the natural forest image will be removed by forestry services. In case of insufficient natural regeneration, habitat-appropriate native tree species like oaks, service trees (*Sorbus torminalis*) and cherries will be planted. For that purpose seedlings have been grown from seeds collected on the Bisamberg.

How to manage dead wood is another important component of near-natural silviculture that needs to be addressed. The goal is to leave increasingly more dead wood in the forests provided that there is no potential danger to persons or property. The great importance of dead wood for a large number of insect species (i.a. stag and longhorn beetle species), forest birds, and small mammals has been clearly demonstrated by

this LIFE-Nature project's research studies. Large-size standing dead wood is particularly valuable in this regard. Depending on tree species and location, forest management aims for a multi-layered tree planting approach. Targeted measures are directed at promoting rare trees and shrubs like *Sorbus torminalis*, *Sorbus aria* agg., *Juniperus communis*, and *Quercus pubescens*.

Special attention is directed at conserving and developing near-natural forest communities like oak-hornbeam deciduous forests, downy oak forests and juniper heaths.

The majority of Bisamberg forests can be assigned to Pannonic oak-hornbeam forests (FFH habitat type 91G0*). At the tree layer, hornbeams (*Carpinus betulus*), pedunculate oaks (*Quercus robur*), and sessile oaks (*Quercus petraea*) dominate. Depending on



In the 18th and 19th century many Bisamberg forests were used as imperial hunting grounds. Today these are important recreational areas for the population.

the location, European ashes (*Fraxinus excelsior*), field maples (*Acer campestre*), or *Tilia platyphyllos* can also occur in larger numbers. Service trees (*Sorbus torminalis*) and wild cherries (*Prunus avium*) are only rarely found. Forests are managed as middle forests which results in a mosaic of closed forest areas and glades.

Thermophilic downy oak forests thrive on shallow, west-facing slopes (FFH habitat type 91H0*). Next to scattered and slow-growing downy oaks (*Quercus pubescens*), whitebeams (*Sorbus aria* agg.), service trees (*Sorbus torminalis*), and wild apple and pear trees (*Malus* sp., *Pyrus* sp.) occur.

This type of forest is also called steppe forest. Due to the high availability of light, shrub layers have developed in this forest community which also promotes the growth of plants from neighbouring meadow and hedge communities. Downy oak forests are threatened by upcoming locusts (*Robinia pseudoacacia*), lilacs (*Syringa vulgaris*) and pines (*Pinus nigra*, *P. sylvestris*). In order to eliminate these trees and shrubs permanently (in particular locusts and lilacs), quick intervention as well as thorough and repeated maintenance measures are vital.

Juniper heaths (FFH habitat type 5130) occur on small areas and only very locally

on the Bisamberg. Juniper heaths are considered witnesses of formerly widespread pasture farming and therefore also bear cultural-historical significance. Junipers have always been avoided by grazing livestock since the plant is rich in essential oils and has hard and pointy needles. These features promoted the plant's spread across pastures. After pasture farming had been abandoned, juniper no longer had a competitive advantage and other trees and shrubs gradually replaced the light-loving plant. Juniper heaths are particularly threatened by upcoming locusts (*Robinia pseudoacacia*) but also other higher growing trees and shrubs. Although forestation can be a very lengthy process, it is absolutely vital to manage these areas with extensive grazing and occasional clearing in order to maintain the plant community in the long term. Juniper heath habitat leads into semi-dry grasslands. In addition to junipers (*Juniperus communis*), there are also downy oaks (*Quercus pubescens*), whitebeams (*Sorbus aria*), European black pines (*Pinus nigra*), and shrubs like the single-seeded hawthorn (*Crataegus monogyna*) and the rivet (*Ligustrum vulgare*).

The silvicultural and ecological goals have not been implemented throughout the entire area of the Bisamberg but only on project sites designated by the forestry departments of the city of Vienna and the municipality Langenzersdorf.

Further management measures

In addition to the measures regarding dry grasslands and forests described above, species conservation measures were also implemented within the framework of the LIFE-Nature project.

One of these measures is geared towards protecting the population of *Artemisia panicii*. This plant occurs only on a single location on the Bisamberg even though several other well-suited sites exist. The population on top of Langenzersdorf is concentrated on



Downy oak (*Quercus pubescens*) is a characteristic dry forest species and dominates on western slopes of the Bisamberg.



Livestock avoids junipers (*Juniperus communis*) due to their pointy needles; therefore, the plant can be used as an indicator of former pasture land.



The larva of the long-horn beetle *Prionus coriarius* develops in roots of trees.



The stag beetle *Lucanus cervus* is under protection all throughout Europe. On the Bisamberg the species is frequently encountered.

Heinz Wiesbauer (5 X)

***Artemisia pancicii* occurs on a single location on the Bisamberg.**



Heinz Wiesbauer

The highly endangered plant has been planted at two additional sites.



Franz Michael Grünweiss

The European ground squirrel population has already improved due to the removal of hardwoods in the area of the Alte Schanzen.



Heinz Wiesbauer

In order to restore sunny loess walls, hardwoods have been removed in several sections.



Marlis Schmetz

a very small area and is severely endangered due to the steep hillside location on an erosion-prone thin layer of clay and flysch. Considering that this plant is only found in ten locations worldwide, it does seem reasonable to plant it in additional suitable locations for conservation purposes. In order to avoid mixing populations from separate distribution areas, plant parts from the Bisamberg location were taken and seedlings were grown at the Botanical Garden of the University of Vienna. These seedlings were planted at two additional suitable Bisamberg sites. The two sites will be closely monitored and documented over the following years so that the acquired data can also be used for future local maintenance.

Another priority area of the LIFE-Nature project has been the protection and development of the European ground squirrel population. All conservation measures were targeted at conserving and improving the habitat. European ground squirrels react very sensitively to an increase in height and density of the weed layer as well as shrub encroachment. Therefore, numerous hardwoods were removed in the dry grassland areas of the Alte Schanzen. Grazing has further facilitated the formation of open, short grassland sites. By planting a short grass layer, in wine-growing areas, vineyards have also managed to be "squirrel-friendly". These measures severely improved the European ground squirrel's habitat and in addition provided an important contribution towards protection against erosion.

The sunken roads typical for the Bisamberg and Stammersdorf regions have significantly changed over the last centuries since locusts (*Robinia pseudoacacia*) and other hardwoods have overtaken the slopes.

With the decline of vegetation-free loess walls many habitat specialists (wild bees, digger wasps, spider wasps, gold wasps,

wasps in the family Vespidae, bee-eaters, and many other steep slope inhabitants) have lost their breeding sites and have become rare or disappeared entirely.

In order to restore sunny slopes and loess walls, hardwoods have been removed in certain sections. This measure could only be implemented on a small scale since it is labour-intensive and costly.

Public relations

Not many people are aware of the significance of the Natura 2000 area Bisamberg even though it is considered one of the most species-rich areas. But only things that are known can be protected effectively. Therefore, public relations are given high priority in the LIFE project. Numerous events and excursions were organised to inform a broad audience on the subject "dry grasslands and forests". In addition, a film on the region's characteristic features has been produced.



Special emphasis within public relations has been put on the book "Der Bisamberg und die Alten Schanzen – Vielfalt am Rande der Großstadt Wien" which elaborates on the faunistic and vegetation ecological importance of the region. The richly illustrated field guide contains a plethora of interesting information on the natural and cultivation history of the dry grasslands and forests. Comprehensive species lists including historical museum data further verify the significance of the region. The first edition of 1700 pieces was sold out only a few weeks after it was published which demonstrates a high demand for relevant literature for the public.

To further educate the public, information boards have been placed at several points of interest throughout the region. Pamphlets, information folders, and a website complete the broad spectrum of outreach work.

6 Outlook

The LIFE-Nature project predominantly financed initial measures aimed at reaching a favourable conservation status. However, to maintain this status for the future, maintenance measures need to be continued, especially in semi-dry and dry grasslands, sunken roads and juniper heaths.

In order to minimize effort it is vital to implement these measures in a continuous manner. Suspending management measures over the course of several years would be a significant setback for all nature-related goals and would also result in additional costs. LIFE-Nature project sponsors and partners have therefore made a commitment to the EU to keep up maintenance within the limits of their resources in order to prevent further habitat degradation. The declared goal of the LIFE-Nature project Bisamberg is to assess natural potential, to correct mistakes made in the past, and to restore the Bisamberg's rich and diverse landscape (at least in some parts). The



Heinz Wiesbauer

Bisamberg and the Alte Schanzen are among Austria's most biologically diverse regions. The research conducted in the course of this project not only proves the great importance of these regions for Austria's biodiversity but also shows a large number of highly endangered species. It is up to us to conserve this extraordinary diversity and ensure that nature-lovers from Vienna and surrounding regions can enjoy this captivating recreational area.

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LIFE-Nature project partners share their views



City Councillor for the Environment Mag. Ulli Sima, Vienna

"The Natura 2000 region Bisamberg is clearly a natural treasure and also a diverse recreational area in the north of Vienna. Diverse and tightly integrated habitat types like vineyards, meadows, and forests shape this landscape and provide an important retreat for rare animal and plant species living in the metropolis Vienna. For many years the city of Vienna has been working hard to conserve and promote the city's biodiversity. The LIFE project, implemented as a cross-regional project, served as a stimulus to sustainably protect a habitat that almost got lost by abandoning traditional cultivation."



Mayor Mag. Andreas Arbesser, Langenzersdorf

"The western slopes of the Bisamberg located in the region of the Langenzersdorf municipality are characterized by valuable dry grasslands. Many rare animal and plant species live there. This precious dry habitat had been threatened to disappear due to the abandonment of traditional pasturing until only a few years ago. As mayor of Langenzersdorf I am very glad that necessary conservation measures have been facilitated by the province of Lower Austria and the EU. We need to continue maintenance also in the future so we can conserve nature's treasures permanently."



Mayor Abg.z.NR Dorothea Schittenhelm, Bisamberg

"The LIFE project has created important impulses for the municipality Bisamberg. In my regard, protecting biodiversity and dealing with the nature in our living space is a very important concern. Furthermore, the "Elisabeth-Höhe" has become more appealing owing to the "panoramic view from Bisamberg" project, and offers a magnificent view overlooking the Danube valley, Klosterneuburg, and surrounding areas. We are very glad to have this species-rich area right on our doorsteps that also offers a place to relax, draw strength, and experience and enjoy nature together."



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