

**NATURA Tip 1**

*Beech Forests around Stolberg*

# Harz



Organisation  
der Vereinten Nationen  
für Bildung, Wissenschaft  
und Kultur



Harz - Braunschweiger  
Land - Ostfalen  
• UNESCO  
• Global Geopark



GEOPARK  
Harz . Braunschweiger Land . Ostfalen



*View from the castle of the beech forests around Stolberg*



**I**t was mineral resources like silver, lead and iron ores as well as copper shale that first drew people to settle on the edges of the Harz Mountains and, later, in the mountain range itself. All other available natural resources quickly grew in value. Water power was required. Man-made ponds and ingeniously constructed ditch systems bear witness to this. Wood was used until the supply was almost exhausted. It was required for building houses and constructing mine tunnels, but above all it was an important source of energy. Charcoal piles burned throughout the Harz Mountains, producing the charcoal that was much sought after by the metallurgical industry. The margins of the Harz Mountains have been settled since the Neolithic. The "family waste heaps" found there are evidence of the exploitation of surface deposits of copper shale. Beginning in the 10<sup>th</sup> century people began to penetrate deeper into the mountains. For more than a century during the



Selke Valley Railway



Charcoal pile

Middle Ages the Harz region was the centre of power within the Holy Roman Empire. The mineral resources found here ensured that the Ottonian dynasty of Saxon nobility remained in power. A quick look at a German Reich Railways' timetable a thousand years later further illustrates the importance of the Harz Mountains. The map of the route network presents an interesting picture: resembling a spider's web, all the important rail links converge on the Harz! The Harz Mountains were long a centre of industrialisation. Iron ore had become immensely important. The Association of German Engineers was founded here. The downside of all this: heavy metal pollution, air pollution and overused – in some places completely destroyed – forests. The government of the Free State of Anhalt was the first to recognise that forests are treasure troves not only because of their wood reserves! On 14 June 1923 it declared a forest area in the Gernrode forest district a nature reserve for the first time. Today the Spaltenmoor Nature Reserve is part of the Europe-wide Natura 2000 network of protected areas.





## Money Can't Buy Happiness

We must be able to buy something with it, though! What about, for example, a weekend in a nature park? Since 2012 virtually the entire Harz Mountains has been a nature park. With the Southern Harz Karst Landscape, 10 % of the nature park is also a biosphere reserve. Only a smaller area around the Brocken is a National Park. There nature takes precedence – there are by-laws which only allow certain paths to be used. Hide and seek among the trees, swimming, or gathering mushrooms: all of these are only allowed in the Nature Park, outside the National Park and outside the majority of nature reserves. In Saxony-Anhalt, 3 % of the biosphere reserve is under strictest protection, as is around 11 % of the total area of nature parks in the Harz. These are frequently EU Sites of Community Importance (SCIs), also known as FFH protected areas. FFH stands for Fauna (animals), Flora (plants) and Habitats. Together with EU Special Protection Areas (SPAs) for birds, these comprise the Natura 2000



Boreal owl



Lynx

network of protected areas. The four SPAs and 43 SCIs in the Harz/Saxony-Anhalt Nature Park and the Harz/Saxony-Anhalt (Mansfelder Land) Nature Park are a treasure trove of biological diversity. Their riches include more than 2,000 species of ferns and flowering plants and innumerable animal species, ranging from the tiniest creatures in the soil or beneath the bark of trees to the lynx. Among the animals is the boreal owl, which spreads its wings protectively over the mountains and forests of the Harz region in the nature park's logo. The organisation responsible for the nature park is the Regionalverband Harz, an association formed by the administrative districts in the Harz region. Among well-over one hundred sustaining members are towns and local authorities, other associations and groups and, above all, businesses and entrepreneurs. They all share an awareness that conservation of the treasures found in the Harz region is, in the long-term, worthwhile. Naturally, residents and guests of the nature park must also feel involved in conservation efforts. The following maxim applies: we can only successfully protect what we know!



## Going On a Treasure Hunt

Searching for treasure is once more worthwhile in the Harz Nature Park and Geopark! These days it is the aboveground treasures that draw people to the Harz Mountains: the forests, mountain meadows and crystal-clear streams. Mining activity has come to a standstill. Rare species of bat now use the abandoned tunnels as their winter quarters. Show mines near Elbingerode, Strassberg or Wettelrode and museums like the Metallurgical Museum in Thale preserve mining history and memories of the mostly privation-filled lives of the miners and metalworks employees. The forests have regenerated. "Köhlerliesel" is still sung today. Traditional charcoal burning is preserved by the Harz Charcoal Burners Association and the Stemberghaus Charcoal Burning Centre, near Hasselfelde. The water in the streams and rivers is clear once more. Shimmering like gemstones, kingfishers seek their prey in them. Water drops,



*Stolberg Castle*



*Dipper*

as clear as mountain crystal, sparkle on the feathers of white-throated dippers. Black storks and peregrine falcons fly above mature broadleaf forests. The narrow gauge railways of the Harz Mountains, which once transported coal and wood, or carried people to work, today carry tourists through the Selke and Bere Valleys, or from the Holtemme up to the Brocken's peak. Also remaining, naturally, are the many places in the nature park where miners once lived or, in some cases, royalty resided.

We begin our treasure hunt at the castle of the Counts of Stolberg-Stolberg. Here, in the Natura 2000 – Harz Information Centre, we find other brochures about selected Natura 2000 protected areas in the Harz/Saxony-Anhalt and Harz/Saxony-Anhalt (Mansfelder Land) Nature Parks, along with the "Seeking Beeches!" brochure. Nineteen brochures provide fundamental information about the Natura 2000 network of protected areas and point the way to pearls of nature in selected SCIs and SPAs.



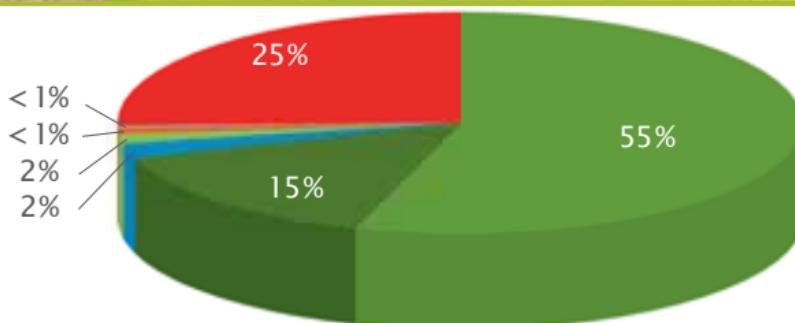
## The Area

Site of Community Importance and Special Protection Area  
"Beech Forests around Stolberg"

Code	F97/S30 LSA, DE 4431-301
Location	Around the town of Stolberg, from Auerberg Mountain to the towns of Rodishain and Rottleberode in the South Harz area.
Characteristics	Extensive area of beech forests crossed by deep fluvial valleys
Area	3.677 ha
Altitude	230 – 580 m ASL, average 450 m ASL



Beech forest in autumn



### Distribution of habitat types protected under the Habitats Directive in the area

■ FFH-LRT 9130: Asperulo-Fagetum beech forest

■ FFH-LRT 9110: Luzulo-Fagetum beech forest

■ FFH-LRT 91Eo\*: Alluvial Forests with *Alnus glutinosa* and *Fraxinus excelsior*

■ FFH-LRT 9170: Galio-Carpinetum Oak-Hornbeam Forest

■ FFH-LRT 6510: Lowland and Mountain Hay Meadows

■ Other habitat types

■ Non-habitat types

\* Priority habitat type for protection



## Asperulo-Fagetum beech forest

The European beech is the most competitive species of tree across large areas of the Harz Mountains. It dominates in natural and semi-natural forests from lower altitudes up to areas in the Upper Harz Mountains. Only at altitudes of more than 700 to 800 metres ASL does spruce gradually gain the upper hand. What makes the European beech so successful? In the shade cast by its dense, multi-layered leaf canopy its competitors are completely deprived of direct sunlight. Even beech saplings only have a chance when thick forest is thinned out. Only early in spring, before the leaf canopy has closed, does lush life unfold on the forest floor. Species like wood anemone, sweet woodruff, holewort and spring pea cover the forest floor. The black woodpecker, Germany's largest woodpecker, feels particularly at home in these forests. They construct their nesting holes in the trunks of mature beeches.



Asperulo-Fagetum beech forest



Spring pea



## Luzulo-Fagetum beech forest

As is typical for mountainous areas, the Harz has a highly varied relief. Loess deposited during the Ice Age has been, in part, redeposited or eroded. Erosion processes have resulted in solid rock being exposed at the surface, upon which only thin, nutrient-poor soils could be formed. Most of this stone, such as the greywacke and granite which are widely distributed in the Harz Mountains, contains low levels of carbonate. This favours soil acidification. Where water supply is adequate, Luzulo-Fagetum beech forests typically develop. The majority of typical tree species, such as sessile oak, rowan or sycamore, have light-permeated crowns, which allows the formation of a species-poor herbaceous layer. This allows white wood-rush (*Luzula luzuloides*, order Poales), which lends its name to the habitat type, to grow here.



## Alluvial Forests with *Alnus glutinosa* and *Fraxinus excelsior*

Particularly along streams and rivers in the Harz Mountains and the surrounding forelands we find a very special kind of alluvial forest: alder and ash forest. A high water table and regular flooding present no problem for the characteristic tree species. Their ability to regenerate from root stock and trunk segments ensures rapid reafforestation after severe high-water episodes. Alluvial forests also help protect against flood waves reaching the lower reaches of waterways because they lower flow velocity. In winter and spring the alders occasionally attract huge flocks of Eurasian siskins. The majority of seeds are not, however, eaten. They fall to the snow and are spread by meltwater. In spring the yellow-flowering lesser celandine lights up the forest floor. Those in the know value the leaves of the ground elder as a seasonal wild edible.



Alders



Sessile oak leaves



## Galio-Carpinetum Oak-Hornbeam Forest

The Lower Harz receives relatively low levels of precipitation. It lies in the rain shadow of the Brocken massif. Therefore, tree species that rely on a good supply of water have difficulties in locations with poor access to groundwater. This provides opportunities for tree species with a high tolerance for aridity. In most cases, the winners are sessile oak and hornbeam. Both species like warmth and therefore occur at lower altitudes in mountainous terrain. Also characteristic of Galio-Carpinetum oak-hornbeam forests are soils with ample nutrients. A light-permeable canopy allows a species-rich herbaceous layer and understorey to prosper, including Scotch mist, lily of the valley and mezereon. The coarse bark of the oak is home to a multitude of insects. The rare middle spotted woodpecker specialises in prising these insects out.



## Lowland and Mountain Hay Meadows

Before mineral resources were mined in the Harz Mountains they were covered in thick forest. Depending on the location this consisted principally of European beech or sessile oak and hornbeam. Many areas cleared as a consequence of mining or settlement were used for haymaking or as livestock pasture. This is how the "Harz meadows" were created. At lower altitudes spreading bellflower and great burnet, as well as grasses such as false oat-grass, quaking-grass, or meadow foxtail grow in **lowland hay meadows**. Higher up, plants find different growing conditions. There, in **mountain hay meadows**, wood cranesbill, mountain tobacco or baldmoney can be found. Butterflies, like the common yellow swallowtail or the small tortoiseshell, flit among the flowers. Mowing and modest grazing result in good growing conditions for grassland plants and hinder the spread of trees and bushes.



Hay Meadows



Spreading bellflower



## Other Natura 2000 Habitat Types

On steep slopes, or on scree or talus piles, **mixed forests of slopes, screes and ravines** prosper. These are comprised chiefly of European ash, sycamore and Scotch elm. Such a forest can be found near Stolberg, along Grosse Wilde Creek. **Hydrophilous tall herb communities** with, for example, meadowsweet and valerian, grow along Krummschlacht Creek. Sections of the Thyra, the Lude and Krummschlacht Creek are semi-natural **watercourses of plain to montane levels**. Rich aquatic vegetation flourishes in the clear waterways, including European speedwell and long-beaked water feathermoss. On nutrient-poor, silicate-rich soils we can find small areas of **species-rich montane Nardus grassland**, containing the eponymous matgrass (*Nardus stricta*) and heath bedstraw. **Calcareous and siliceous rocky slopes with chasmophytic vegetation and caves not open to the public** constitute particularly rare habitats.



## Where the Beech Trees Grow

We begin our hike in the town of Stolberg in the Southern Harz area, with its half-timbered buildings. The town is easily reached by bus or car. Free parking can be found on the edge of town when entering from the direction of Auerberg Mountain or at the Hotel Beutel "Chalet Waldfrieden" near the Rittertor. The rail connection between Kelbra and Stolberg/Harz has been discontinued and a bus route now connects the two railway stations. From the 'Am Markt' bus stop, the railway station or the Rittertor, there are marked routes, for example along Rittergasse or the Schlossberg road, leading to Stolberg Castle. In 1210 the town was granted its charter. As early as the High Middle Ages there was a castle complex on the site where the present-day castle stands. The Counts of Stolberg resided here as, subsequently, did the Princes of Stolberg-Stolberg. Countess JULIANA OF STOLBERG (1506 – 1580), who was born in Stolberg Castle, is the matriarch of the House of Orange-



Exhibition "Seeking Beeches!"



Market square with town hall

Nassau, the current ruling house of the Netherlands. A modern-day monument commemorates her. From 1947 the castle was used as a holiday home by the Free German Trade Union Federation of the East Germany. Now, after years of standing empty, the German Foundation for the Protection of Monuments is having it renovated a section at a time. The exhibition by the Regionalverband Harz and the Southern Harz Karst Landscape Biosphere Reserve, entitled "Seeking Beeches!", in the Baroque wing of the castle, presents fascinating information about the Natura 2000 network of protected areas in the Harz Nature Park and, in particular, about the European beech. This species of tree is ubiquitous around Stolberg. The extensive beech forests and the bird life that is specifically-adapted to them led to the area being declared both a SCI and a SPA. Well-prepared and highly-informed we can now begin our hike through the beech forests around Stolberg, starting here at the castle. The two hiking routes described below can be undertaken separately or can be combined to create a single, longer route.



## Loop trail Around Zwisselberg Mountain

The almost 4 km long, signposted loop trail around Zwisselberg Mountain begins at the former castle stables. To begin with we follow the Obere Hirschallee trail in the direction of the Hirschdenkmal (Stag Monument). The path was created by the House of Stolberg as a riding track. It was later used as a promenade. On the slopes dropping steeply away to Lude Creek grows **forest of slopes, screes and ravines**. **Galio-Carpinetum oak-hornbeam forest** prospers in dry, sunny areas on the lower part of the slope. This is the forest we look into from the Stag Monument.

*As long as beech trees stand on the mountains*

*As long as the stag roams the forest*

*The House of Stolberg will continue to thrive*

These lines are inscribed on the stone plinth, atop which the stag strides. A striding stag in black on a field of gold is the coat of



Stag Monument



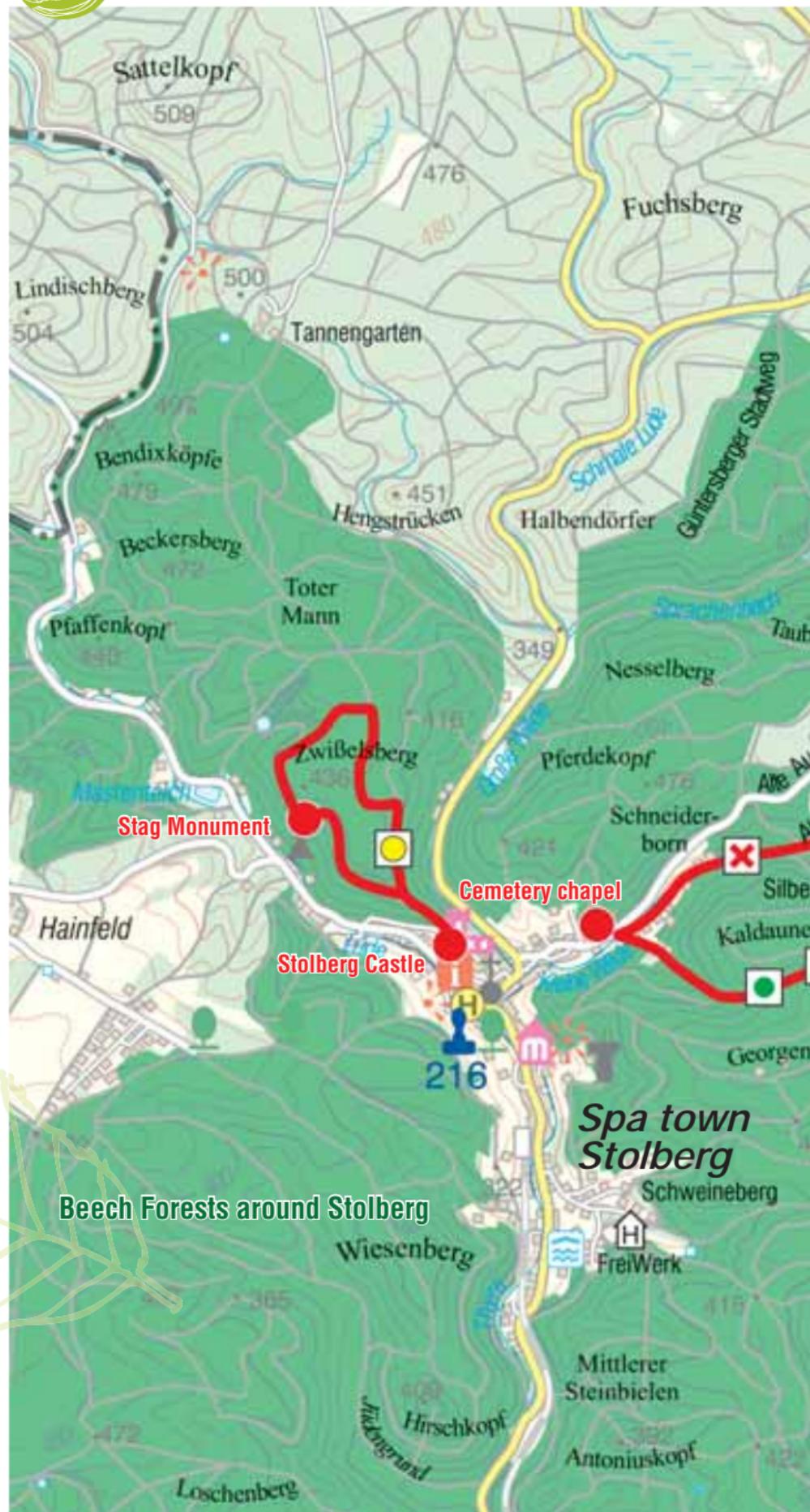
At Roehren Pond

arms of the many-branched House of Stolberg. The monument was erected in 1911.

On Zwisselberg Mountain (435.6 m ASL) itself extensive beech forests flourish. Here, European beeches, with their high crowns and silvery trunks, are the predominant tree species across wide areas. Tits, Eurasian jays, chaffinches, treecreepers and woodpeckers offer up an impressive concert in spring. First, we encounter **Luzulo-Fagetum beech forest** growing here on stony, nutrient-poor soil. Along with the eponymous white wood-rush (*Luzula luzuloides*), wood sorrel also grows here. This soon transitions to **Asperulo-Fagetum beech forest**, typical on more nutrient-rich soils. Here we can find toothwort and oak fern. We continue on to Röhren Pond. This pond originally served as a water supply for the castle. To begin with, donkeys transported the water, while later a pipeline led directly to the castle. Today the pond is heavily silted up. A small stream runs from it into Lude Valley and is accompanied by an **alder and ash forest**.



## Route suggestion



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**Beech Forests around Stolberg** Site of Community Importance/  
Special Protection Area 215

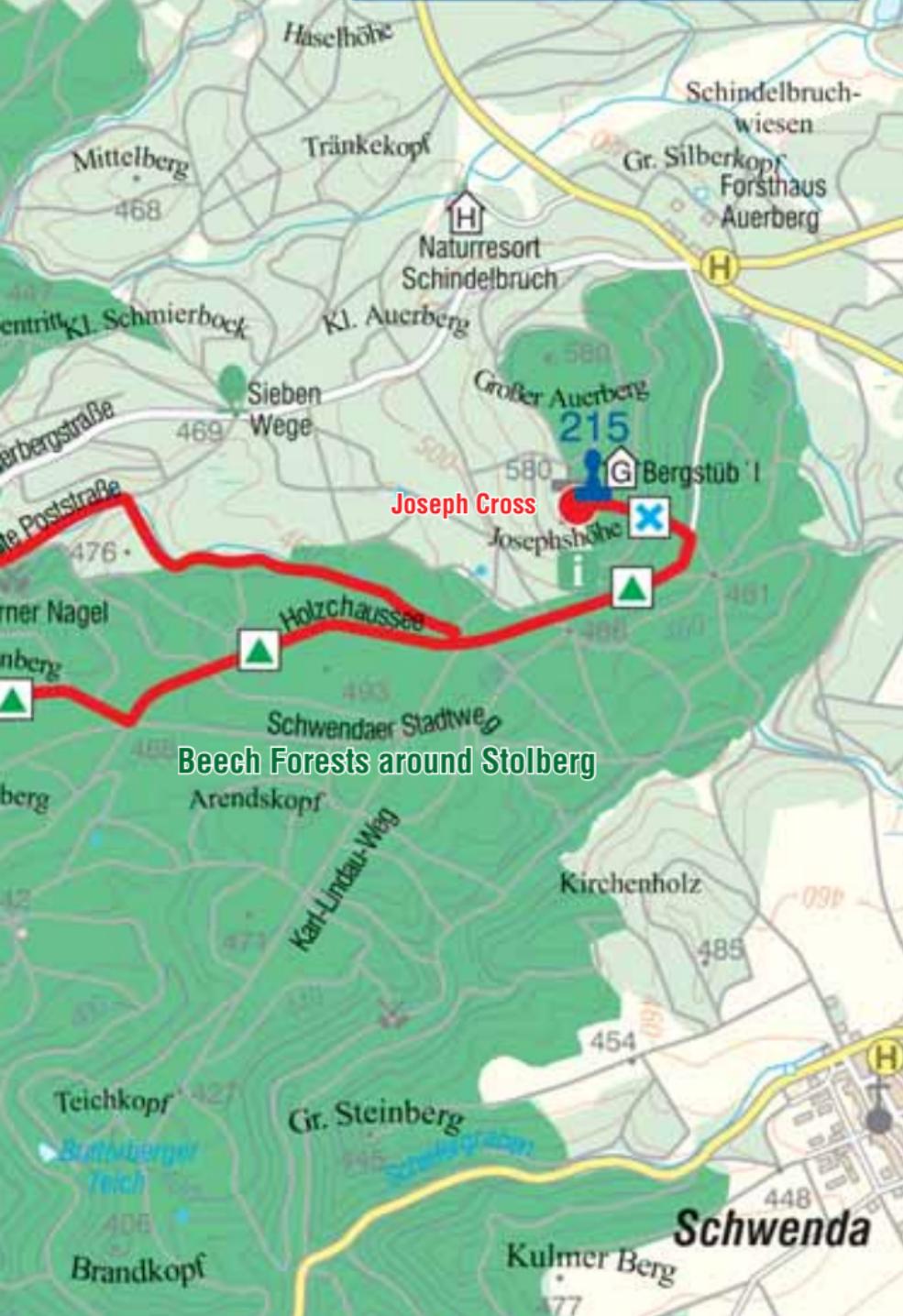
NATURA Tip 1 - Total length ca. 10 km

Harz Hiking Badge System checkpoints and stamps

Scale 1 : 35 000

0 0,5 1 km

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## Return to the Castle via Breitensteiner Stadtweg

On the bank a Dennert-fir historical marker informs us about mineral deposits and mining history. Then we head steeply uphill. We continue onward past the Alfredstieg trail on our right. We take a right turn further up the hill and follow a forestry road for 850 m. Somewhat hidden in a left-hand curve, the Kantenweg trail branches off. This is the old road to Breitenstein. For centuries the iron-clad wheels of heavy wagons cut into the rock here. Later, when the road in Grosse Wilde Valley was built, it became quiet between Zwisselberg Mountain and the castle. Red deer had peace and quiet once more. Now lynx have returned to this area. Along the trail we find the habitat-type of **siliceous rocky slopes with chasmophytic vegetation**. Brittle bladder-fern and various mosses grow in niches and crevices.



Kantenweg trail



Chapel in Stolberg cemetery



## To the Joseph Cross on Auerberg Mountain

Our second tour begins at Stolberg cemetery. The Chapel of Our Lady in the cemetery was built in the 15<sup>th</sup> century. LUDWIG RICHTER (1803 – 1884) immortalised it in his painting "Bridal Procession in a Spring Landscape". After passing the chapel we follow the signs marked with a green dot in the direction of Moorberg/Holzchaussee. We cross Kleine Wilde Creek and follow Moorberg road, which soon becomes an unpaved forestry road. On our right a creek bubbles its way down into the valley. After an athletic climb we come to a wide road through the forest. Turning left we follow it to the northeast. We are surrounded by **Asperulo-Fagetum beech forest**. "Ruuk!" Common ravens call loudly as they fly above the treetops. They are searching for carrion or the entrails left after field dressing. "Raetsch!" Eurasian jays call raspingly as they are roused to flight. They too belong to the family Corvidae. "Klee-eh" calls the black woodpecker, marking its territory.



## From the Joseph Cross Back to Stolberg

The grey-headed woodpecker and the shy black stork are also at home in the deep beech forests. The latter, with a little luck, can be observed on the Stolberg meadows, not far from town. At the next large intersection we follow the green-triangle markers to the left and hike along the Holzchaussee road for a while. This is a historical forestry road which was used to bring logs to the timber mill in the valley. The **Asperulo-Fagetum beech forest** transitions slowly into **Luzulo-Fagetum beech forest** at higher altitudes here. Through the trees we can already see the Joseph Cross. Via the trail to the tower, marked with a blue cross, which branches to the left from the Holzchaussee road, we climb to the peak of Auerberg Mountain (Checkpoint and stamp No. 215, Harz Hiking Badge System). From the viewing platform of the Joseph Cross we have a fantastic view of the other mountains in the Harz and those in the Kyffhäuser Range.



View to the Joseph Cross



Brauner Sumpf (Brown bog)

The return trip begins by following the tower trail and the Holzchaussee road once more, until we reach the Brauner Sumpf trail on the right, which leads toward Stolberg. Wet meadows lie on our right, some of which can be classified in the habitat type of **lowland hay meadows**. Here, depending on the season, we can find lady's smock, meadow buttercup and spotted St. John's wort. From Brauner Sumpf, Kleine Wilde Creek wends its way to Stolberg, where it joins the Grosse Wilde and the Lude to form the Thyra. Kleine Wilde Creek is lined by a **forest of alder and ash**. Water is piped from here up to the Joseph Cross. In the past it was transported up the mountain in tanks. On our way into the valley we are walking along the border of the Natura 2000 area. **Asperulo-Fagetum beech forest** stretches to our left. The trail is fringed with numerous huge, old sycamores. Through Zechen Valley, following Kleine Wilde Creek all the way, we soon arrive in Stolberg once more.

The Natura 2000 protected area is located wholly within the Geopark Harz • Braunschweiger Land • Ostfalen, which was created in 2002. More precisely, it is in the area defined as Landmark 10 of the Geopark. Europe's second largest Geopark is characterised by its remarkable geological diversity and its rich mining history. Natural and man-made rocky outcrops, cliffs and show mines open windows into the history of the Earth. As one of the organisations responsible for the Geopark, the Regionalverband Harz oversees the southern section of the Geopark. Together with other Geoparks in the European and Global Geopark Network, under the auspices of UNESCO, it pursues collective goals, including the protection of geological heritage, the promotion of regional development through supporting sustainable tourism and the provision of contemporary environmental education. Brochures about the various Landmarks provide a comprehensive depiction of the Geopark.



Slate outcrop, Auerbergstrasse



Stolberg "diamonds"



## The Volcano Near Stolberg

At 579 m ASL, Auerberg Mountain is a widely visible landmark in the Geopark. It differs markedly from the other peaks in the Lower Harz Mountains. In the Permian, during the Variscan orogeny, the range was raised out of the sea and molten material welled up from the depths. Auerberg Mountain was an active volcano which brought molten rock to the surface. Rhyolite, the cooled and solidified volcanic stone, today forms the dome of Auerberg Mountain. When the molten stone cooled to 550 °C, what are known as "Stolberg diamonds" were formed. These "diamonds" are in reality orthoclase, a kind of feldspar, a silicate mineral. They are clearly visible because the grains are significantly larger than other minerals in the rhyolite. Sometimes, after heavy rainfall, they are hydraulically eroded out of the rhyolite. They may then be found along the edge of the trail.



## European Beech

### *Fagus sylvatica*

In large areas of Germany, including the Harz Mountains, the European beech is the naturally predominating tree species. Only in extremely wet, dry or steep locations is it rare or absent. At altitudes above 800 m in the Harz Mountains European beech is replaced by spruce as the predominant species. Only very sparse ground cover can prosper beneath the dense canopy formed by European beech in summer. Beech forests containing trees of varying age, especially those containing a high proportion of dead wood, provide habitat suitable for hundreds of animal, plant and fungus species. Energy-rich beechnuts are an important winter food for many forest animals. Beech trees and humans have a long shared history: "Buchstabe", German for a letter of the alphabet, comes from the word "Buchenstäbe", a beech stick or baton, on which runes, the Germanic script, were inscribed.



European beech blossoms



White wood-rush inflorescence



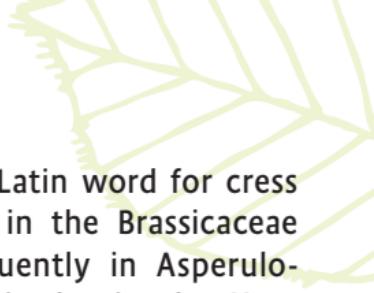
## White Wood-rush

### *Luzula luzuloides*

This member of the order Poales is among the inconspicuous plants found in beech forest in summer. White wood-rush prospers on poor, acidic soils at higher altitudes in the Harz Mountains and in exposed, rocky locations. It grows in shaded or half-shaded positions and is common in species-poor beech forests. In order to distinguish white wood-rush from other grasses, we have to look or feel more closely: on the outer edges of its leaves are fine, light-coloured hairs. It blooms from June to July, producing white single flowers. These occur in a paniculate inflorescence, known as an anthela. Seeds may be spread by the wind or by ants, which are attracted to the nutritious seeds with their attached elaiosomes.



## Toothwort *Cardamine bulbifera*



The genus name Cardamine is the Latin word for cress and alludes to toothwort being in the Brassicaceae family. Toothwort occurs more frequently in Asperulo-Fagetum beech forests at higher altitudes in the Harz Mountains. From April to June up to ten white-to-light violet blossoms shine out in each inflorescence. Its brown propagules are conspicuous, sitting on the stem below the axils. These resemble small onions (German: Zwiebel), hence the German name "Zwiebel-Zahnwurz". The propagules have an asexual reproductive function. If they fall from the parent plant and germinate, they produce a new plant which is genetically identical to the parent. Toothwort can also spread via its rhizomes. The rootstalks that form this way are shaped like teeth, hence its name.



Toothwort



Alpine Newt



## Alpine Newt *Ichthyosaura alpestris*

In and around the clear waters of the numerous mountain streams and ponds that criss-cross the forests here, we can find the alpine newt. They can grow to sizes of 10 cm and more and, due to their orange underside, can be easily distinguished from the palmate newt, with which they often share the water. During breeding season the males develop a particularly striking colouration in order to impress females: a shimmering blue back with black spots on their flanks and mid-dorsal crest. After their eggs have been deposited in standing water, alpine newts often return to the land and develop less conspicuous, camouflaging colouration. During the day they rest, remaining well-hidden under tree stumps and leaf litter. At night they hunt for earthworms and beetles. Larvae remain in the water until metamorphosis. In autumn the alpine newt goes into hibernation.



## Black Stork *Ciconia nigra*

In contrast to their white cousins, the rare black stork is a furtive resident of semi-natural and mature broadleaf forests. The species, protected under the EU Birds Directive, actively seeks the peace and seclusion of these forests. Wet meadows, streams and ponds complete the black stork's habitat. They don't just hunt in the streams and ponds, but also use them for extended baths. Their diet includes fish, amphibians, reptiles and small mammals. The black stork seeks out strong beech or oak trees and branches for its huge nests. In March they return from their overwintering locations to the Harz Mountains to breed. In August, when the chicks are fully fledged, they begin their flight back to Africa. In comparison to their cousins, the white stork, which are popular throughout the country, folk beliefs often ascribed negative qualities to the black stork.



Black Stork



Black Woodpecker



## Black Woodpecker *Dryocopus martius*

The black woodpecker's preferred habitat is extensive forests. Its red crown contrasts distinctly with its otherwise black plumage. In spring, during the breeding season, the "kree kree kree" of its flight call or the "klee-eh" of its territorial call can be heard from far and wide. The black woodpecker requires a very old, thick and branch-free tree trunk for its nesting hole, which can be up to 80 cm deep. Generally, they carve out a new nesting hole each year. Stock doves, edible dormice, European pine martens and many species of bats and bees, among others, are thankful for this, later making use of the holes themselves. The black woodpecker gives them a "foot in the door" in the forest. The black woodpecker also leaves behind distinct traces as it searches for wood-dwelling beetle larvae, ants and wood wasps to eat. The tunnels these insects make in rotting wood are laid open with powerful blows from the woodpecker's beak. The resulting chips and splinters can be found on the forest floor.



## Chaffinch *Fringilla coelebs*

The chaffinch is the most common breeding bird in European forests and parks. With the exception of a few individual birds chaffinches leave the Harz Mountains in late autumn. They migrate to the southwest, the females moving further south than the males. The males return earlier, however, and occupy their territories from the beginning of March. If the previous year produced an especially large amount of beechnuts, up to 100,000 chaffinches and bramblings will rest in the forests of the Harz Mountains. Of the species of finch that breed in Germany, only the chaffinch regularly feeds on beechnuts. This is what gave this popular songbird its German name (beech = Buche; chaffinch = Buchfink). In the Harz region there is great affection felt for the chaffinches song. At the event known as "Finkenmanöver", held on Pentecost, keepers of domesticated chaffinches crown the best singer among chaffinches that are today bred solely for competitive singing.



Chaffinch



Brown Long-eared Bat



## Brown Long-eared Bat *Plecotus auritus*

The extensive broadleaf forests of the Harz Mountains provide optimal habitats for 19 species of bat. Caves and disused mine shafts throughout the Harz region are of national importance as overwintering locations. All species are protected under the Habitats Directive. The brown long-eared bat can pin its conspicuously large ears back during flight. Nevertheless, the quietest of noises made by prey, as well as ultrasonic calls, can still be heard. Its broad wings allow it to manoeuvre acrobatically in flight. The brown long-eared bat hunts in broadleaf and coniferous forests, preying on insects in the treetops as well as in the understorey. Suitable holes in trees are used by the females as nursery roosts. Females gather together in these to give birth. The brown long-eared bat overwinters here.



## Hazel Dormouse *Muscardinus avellanarius*

The nocturnal common dormouse lives in open, mixed forests in the Harz Mountains. This member of the family Gliridae is strictly protected under Annex IV of the Habitats Directive. It is similar in size to the house mouse, but its fur is a yellow- to reddish-brown. It clammers agilely around the understorey during the night. The smallest of our native dormice hunts insects and searches for berries, buds or hazelnuts in the bushes and shrubs. Characteristic, almost perfectly-round holes in hazelnut shells provide clear evidence of the presence of common dormice, which are extremely difficult to directly observe. During the day the common dormouse sleeps in a nest-like drey of grass and leaves in a tree or bush. They also use nest boxes and abandoned woodpecker nesting holes as day-quarters. From November to April they hibernate in frost-protected burrows or tree stumps.



Hazel Dormouse



Doe with fawn on Kantenweg trail



## Red Deer *Cervus elaphus*

A red deer stag appears on the coat of arms of Stolberg. Anyone who spends time hiking in the extensive beech forests around Stolberg will understand why. Otherwise shy red deer can often be observed here. In autumn, above all during the hours of twilight, their impressive rutting roars reverberate through local forests. The roars of the stags serve both to initiate mating and to warn off rivals. Stags have widely-branching antlers, which are sought-after trophies. These are shed each year and grown anew. Their diet consists of bark, beechnuts, small saplings, bushes, herbaceous plants and mushrooms. Overpopulation of red deer can lead to distinct changes in the species composition of trees and herbaceous plants in a forest. As a result of constant grazing, young trees look like bonsai until they finally grow beyond the red deer's reach and can put out higher branches.



## Overview map



### Special Protection Areas (SPA) and Sites of Community Importance (SCI)

	External borders of the Harz/Saxony Anhalt and Harz/Saxony-Anhalt (Mansfelder Land) Nature Parks
	Site of Community Importance
	Special Protection Area
1	SPA and SCI area Beech Forests around Stolberg NATURA Tip 1
2	SPA and SCI area Broadleaf Forest between Wernigerode and Blankenburg NATURA Tip 2
3	SCI area Selke Valley and Mountain Meadows near Stiege NATURA Tip 3
4	SCI area Bode Valley and Broadleaf Forests on the edge of the Harz Mountains near Thale NATURA Tip 4
5	SCI area Spaltenmoor, east of Friedrichsbrunn NATURA Tip 5
6	SCI area Burgesroth and Broadleaf Forests near Ballenstedt NATURA Tip 6
7	SPA and SCI area Upper Harz NATURA Tip 7
8	SCI area Poelsfeld Gypsum Karst Landscape and Breiter Fleck in South Harz NATURA Tip 8
9	SCI area Brumm Valley near Quedlinburg NATURA Tip 9
10	SCI area Gegensteine and Schierberge near Ballenstedt NATURA Tip 10
11	and further NATURA Tips in Lower Saxony





Founded in 1995 and with its headquarters in Quedlinburg, the Regionalverband Harz is a non-profit association. Its full members include the administrative districts of Goslar, Göttingen, Harz, Mansfeld-Südharz and Nordhausen, as well as the World Heritage-listed city of Quedlinburg. In addition, it is supported by well over 100 sustaining members, including local authorities, clubs and other associations, as well as businesses and entrepreneurs. The Regionalverband Harz is committed to the protection and development of natural and cultural treasures in the Harz Mountains region, spanning the borders of Lower-Saxony, Saxony-Anhalt and Thuringia. The publications of the Regionalverband Harz encourage the public in learning to read the landscape. The Regionalverband Harz is the trustee of the nature parks in the Harz Mountains and, together with its partner association in Königslutter, responsible for the UNESCO Global Geopark Harz • Braunschweiger Land • Ostfalen.



## NATURA 2000 in the Harz Nature Park

In this project the Regionalverband Harz pursues the aim of spreading awareness of the Sites of Community Importance and the Special Protection Areas (Natura 2000 areas) in the Harz region. Along with the series of brochures, the Natura 2000 Harz Information Centre, located in Stolberg Castle, also informs the public about Natura 2000 in the Harz Mountains region. In addition there are information boards located throughout the Natura 2000 areas.

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