







A Protected Areas Project in Natura 2000 Districts in the Eifel National Park

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LIFE+ 'Woodlands – Water – Wilderness': A Project on the Optimisation of FFH habitats in the Eifel National Park

The title of this LIFE+ project refers to its core themes and objectives: improving woodland and water habitats in three protected areas of European significance, so-called Natura 2000 districts, from January 2011 to March 2017. The areas are located in the Eifel National Park. They still have a largely natural character and contain protected habitats and rare flora and fauna. Traces of human utilisation nevertheless were

and still are visible. Conifers – not indigenous to the Eifel – provide evidence of former forestry. Streams had been straightened in places and weirs and pipes built in. The great density of wildlife in the area is an expression of a lack of natural enemies and impairs the growth of young deciduous trees.

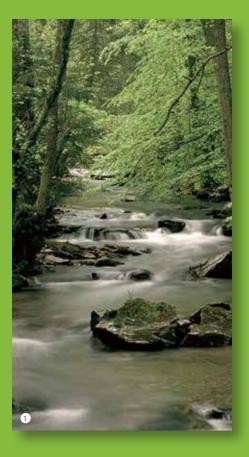
The project pursued the following objectives:

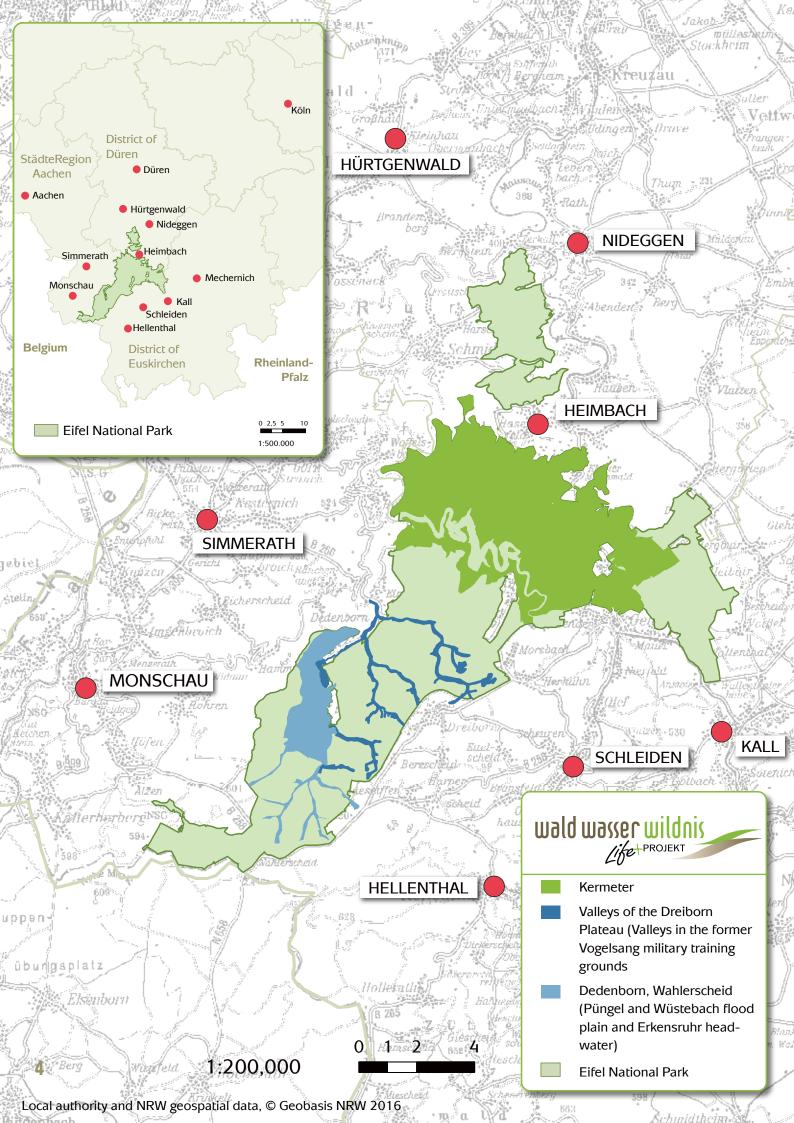
- To create end-to-end, dynamic, watercourses
- To expand natural deciduous woodlands such as moist forests and beech groves
- To expand biodiverse habitats created by man, such as mountain pastures
- » To colonise the stone crayfish
- To improve the living conditions for animal species meriting protection
- To create contiguous habits

Two strong partners from the region took up this challenge: the Eifel National Park Forestry Office and Aachen Cities Region Biological Station Association (Biologische Station StädteRegion Aachen e.V.). They were supported by the Rhine-Weser Federal Forestry Department, which looks after the state-owned areas of the Dreiborn Plateau and in the Kermeter uplands on behalf of the Federal Government. The Eifel National Park, created in 2004, still ranks as a park 'under development'. In such national parks renaturation measures can be tackled on a fairly large scale for 30 years. Thereafter three quarters of the area is to be left to itself.

Measures carried out in the project:

The measures carried out in the project are presented on the following pages. 80 kilometres of watercourses have been optimised, seven hectares of new open land restored and the basis created on over 850 hectares for development towards deciduous woodland.





The Project Area

The LIFE+ 'Woodlands – Water – Wilderness' project was run in Natura 2000 areas located almost entirely within the Eifel National Park in the federal state of North Rhine-Westphalia.

The Natura 2000 areas



Kermeter (DE-5404-301)



Dedenborn, Püngel and Wüstebach flood plain and Erkensruhr headwater (DE-5404-303)



Valleys in the former Vogelsang military training grounds (DE-5404-302)

Apart from a few parcels of land, the sites in the project area are owned by the State of North Rhine-Westphalia or the Federal Republic of Germany.

What is LIFE+?

Life+ is a financial subsidy scheme run by the European Union. It funds natural environment conservation



and improvement projects. Projects aimed at the protection and conservation of natural habits and wild fauna and flora are financed in Natura 2000 areas with subsidies from the Life+ Nature programme.

What is Natura 2000? What are FFH areas?

Natura 2000 is a large network of protected areas in the European Union. The areas are protected on the basis of two European directives: the Birds Directive and



the Habitats Directive. The aim is long-term conservation of important habitats, flora and fauna and thus biological diversity in Europe. Together, the areas protected by both directives form the European Natura 2000 protected area network.



The Eifel's natural low mountain range streams

Depending on the slope and width of the flood plain, the streams of the Eifel wind through the countryside with varying degrees of force. The water is cool all year round. With shallow and deep, slow- and fast-flowing sections, they offer a habitat to both small and some larger animals. The stream beds covered with sand, shingle, stones, foliage and dead wood, but also overgrown with alders, offer them sanctuary, protection from the current and suitable places to lay their eggs. The flowing water ensures a constant dynamism in the stream: stones, pebbles, sand, leaves and dead wood get flushed along and deposited again in other places. From their mouth to their source, natural watercourses can be freely travelled along by stream life, a concept known as unhindered ecological passage. Deciduous woodlands naturally line the low mountain range streams of the Eifel. In flat valleys it is moist forests, while in narrow, steep V-shaped valleys beech groves extend right up to the banks of the stream.



A 'watercourse with aquatic vegetation' is the name given to the habitat meriting protection that was improved by the measures taken. Growing in these streams, for instance, is spring water moss.



Animals that can be seen with the naked eye and that live on the stream bed are generically called macrozoobenthos. They include insects, e.g. the stonefly genus *Perla marginata*.



The stonefly larvae live for a year or more in the water and then metamorphose into insects, which live for a short time longer on land.

The streams' condition before the project began

Prior to it being designated as a protected area, free passage along the watercourses in the National Park was lost as it was increasingly put to forestry and in many areas also military use. In many places damns for vehicle crossings were created in the streams and the waterway was led through pipes. Inside the smooth pipes the stream life got easily flushed away. At the end of the pipe there would be a 'drop', which prevented fish and other stream life from travelling upstream.

In some places the streams were dammed. From there, warm water and mud used to get into the watercourses. Typical stream structure and thus small habitats vanished through the fact that streams got re-routed and straightened and their banks and beds stabilised. Planting the meadows with non-indigenous conifers also changed the conditions for life in the stream.



As here at the Sauerbach, watercourses were previously dammed in order, for example, to trap the sediment that got into the streams as a result of military use.



Canalisation, such as here next to the Helingsbach stream, used to dissect the valleys of the 'Dreiborn Plateau' and also disturbed the entire water drainage and impacted on the flood plains.



This stream had been straightened and stabilised with stones.

Streams free of barriers from source to mouth

When the project started, there were numerous canalisation pipes under woodland tracks and dams. In the current 'under development' National Park it is already possible to do without numerous tracks. In many areas nature is already being left to itself and a few are no longer accessible to visitors in order to create sanctuaries for animals. It has therefore been possible to take out many canalisation

pipelines, not replace them and remove the tracks. Large dams in narrow valleys have also been liberally cleared away in order to give space to the dynamism of the stream. Where the track and pathway plan does still provide for crossings, stepping stones for hikers or bridges for vehicles, such as bicycles, emergency vehicles or forestry machines, have been created, adapted to the use concerned.



On Helingsbach stream, dam and canalisation pipes were removed and a wooden bridge put up for hikers, cyclists, riders and emergency vehicles.



Here a hiking trail crosses the watercourse. In the past the stream was crossed over a high dam, today via stepping stones set into its bed. Aquatic animals are able to go around the stones.



If access routes went over a stream, what was often used was sections of reinforced concrete.

Ponds - Barriers and habitat in one



Many streams ran though former sediment collecting, fire water or fishing ponds. Such backwaters are not passable by creatures living in the watercourses. Amphibians and dragonflies, on the other hand, have taken over the ponds as their habitat. These new biotic communities were taken into account when thinking about removing or remodelling a pond.



On the Sauerbach stream, once the dam was removed and diggers had dug out the mud, natural watercourse structures soon formed again.



Where for wildlife conservation reasons it was desirable to retain ponds, the stream was led through a so-called 'bypass channel'.



Another solution was to create multiple small pools for amphibians and dragonflies beside the watercourse freed from the backwater.

Momentum in the stream promotes diverse structures



A few watercourses in the project area had been repositioned on the edge of the valley or straightened. Stream beds and banks were made solid. In order to undo such impairments, all that was done in

the main was to create conditions in which the watercourses can develop naturally. The advantage in the Eifel National Park is that no consideration has to be given to any forms of water resource development, meaning that the stream's natural momentum can be allowed and utilised.



In this sensitive moist district the stones were freed and removed by hand. 'Mountain Woods Project' volunteers and Biological Station staff helped with the task.



The stream was guided with minimal outlay out of a concrete gully at the valley's edge into the former stream bed in the middle of the valley.

.....



In straightened sections dead wood was introduced in order to help processes of momentum in the watercourse.

Fish monitoring

The composition of species and ages of fish is especially suited to assessing the closeness to nature of Central European watercourses, as fish rely on complex habitat structures. The condition of the fish fauna was therefore recorded before and after the measures taken. The studies showed that fish fauna profited where barriers to free passage had been removed. They provided evidence for the first time of bullhead in three watercourse sections and brown trout in a section previously without any fish. Brown trout of varying ages and also in significantly greater numbers are now also being seen upstream of the former barriers.



Using electrofishing, all the fish in one research stretch of stream were caught, the species identified and ages determined. The fish were then released again.

The bullhead (*Cottus gobio*), which is protected by the Habitats Directive, profits in particular from the watercourse measures, as it has no swim bladder. It moves across the stream bottom using its fins and is therefore unable to overcome even the smallest of weirs.



Deciduous woodlands in the Eifel National Park

The Eifel was once a heavily forested region, in which deciduous trees were naturally predominant: growing on the mountain ridges were copper beech woods, on warm southern and western slopes sessile oak woods, on cold, damp northern slopes ravine woods and along low stream banks moist

woods such as alluvial and bog forests.

The deciduous woodlands that once characterised the natural landscape are now only partially present. As a result of farming and the great demand for timber, the Eifel was almost completely deforested in the early 19th century. At that time, the Rhineland and Eifel became owned by the Prussians. From around 1850, they began a process of afforestation with spruce. Later, on areas of dry land, Douglas firs and other non-indigenous trees for use as timber were also planted.

In the Eifel National Park the woods are closely intertwined with numerous watercourses, moist woodland beside and around the sources of streams and beech groves alongside streams in V-shaped valleys. Foliage and wood from the forests incorporated into it are important elements in the stream habitat. Many insects, whose larvae live in the water and get flushed downstream, fly upstream to lay eggs on the bank. Dark spruce forests extending right to the stream bank hinder their flight. Needle mulch ruins the streams.

As part of the LIFE+ 'Woodlands – Water – Wilderness' project, various measures were used to create the conditions across over 850 hectares for a development of deciduous woodlands appropriate to the location. The aim is to create habitats protected by the Habitats Directive, such as acidic soil beech groves, woodruff beech groves, ravine forests, alder and ash alluvial forests and bog forests.

Macrozoobenthos monitoring

The macrozoobenthos is the biotic community of stream life living on the bottom of the watercourse and visible to the naked eye. Included in it are planarians, stream amphipoda and larvae of dragonflies, mayflies, stone flies and caddis flies. The macrozoobenthos represents a good indicator of any changes in the watercourse. The biotic community in selected stretches of streams was examined in the project before and after the measures were taken. The results showed that where conifers alongside the watercourse have been removed, the wildlife of the macrozoobenthos has recovered. Specialists were able to identify not only more species, but also more animals of any given species. Evidence was found again even of animals that react susceptibly to acidification of the water, e.g. caused by needle mulch.



After removal of the spruce trees, mayfly larvae, e.g. of the genus *Baetis alpinus*, which are susceptible to acid, are now again found in the direct vicinity of the watercourse.



The moist mixed deciduous wood-lands of low mountain ranges are the ideal habitat for the fire salamander (*Salamandra salamandra*). It is a wanderer between the aquatic and terrestrial worlds: the larvae live in mountain streams, while the adult animals live in the deciduous woodland.

Measures taken during the project

Removal of conifers – even over large areas

Prior to the creation of the national park, dense pure stands of similarly aged spruce had been planted along the watercourses. These were gradually removed, with the soils of the flood plains being protected by ropes. The last removal over an area of more than a hectare took place in 2014. The areas of cleared land were then largely left to natural reforestation.

Young beech trees under a spruce awning

The copper beech – a 'shade tree genus' – germinates and grows as a sapling particularly well in the shade of other trees. It can therefore be planted within cleared spruce stands. In the project region stands were underplanted with non-indigenous conifers across the whole area or with groups of copper beech trees. As of a certain age, copper beech is able in appropriate locations to put all other trees in the shade and push them back.

Girdling not felling

Instead of felling and removing conifers, they were alternatively caused to die off by 'girdling'. The standing dead wood enhances the biotope ecologically: diverse small structures and habitats develop, not least as a result of the fact that, varying by genus, the trees individually die off and decompose very differently. The girdling is done 'by hand'. There is no longer a need to use any timber-harvesting vehicles that would have to drive through, for example, remote or very wet areas.



On the flood plain of the Wüstebach the spruce trees were removed from the whole area without driving over it. The aim is for a moistforest to be able to develop here again.



The planted beech trees grow in the shade of the spruce. The objective here is a richly structured woodland dominated by beech and concomitant tree types.



In the girdling process around 40 centimetres of bark is removed from the lower part of the trunk all the way around. Running within the bark are supply channels for nutrients, which get cut by the girdling process. The tree dies off, still standing, within two to five years.

Copse monitoring

On defined stretches, so-called transects, the genus of copses present – both inside and outside of sapling enclosures – was determined, their height estimated and the amount of damage from wild animals recorded. The studies showed that deciduous copses gained significantly in height only inside the sapling enclosures. If there are seed trees in the surrounding area, it is particularly possible for genera to grow free of damage within the enclosures that outside of them get badly attacked, e.g. sycamore, rowan, durmast and common oak.





For structure enrichment across the area and as a dead wood reserve for adjacent streams some individual trees were left and 'girdled' in 'desprucing areas' as well.

Sapling enclosures act as deciduous woodland breeding grounds

Fencing in areas cleared of conifers and opened up to the sun has proved a successful method of encouraging deciduous woodland in places where there is a lot of wild game. The seeds of various different types of indigenous deciduous tree can be introduced either by animals or – if there are any in the surrounding area – by seed trees. Thirty enclosures, each around half a hectare in size, were therefore created during the project.

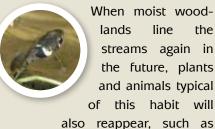
In some cases a few sycamore wild-lings were planted to systematically encourage this conco-mitant tree genus of beech woodlands. The aim is that in future there will be a natural spread from these areas of different deciduous tree species, such as sycamore, copper beech, rowan, aspen, downy birch, willow and hazelnut.



Protected from being damaged by game, birch and other pioneer trees grow tall inside the sapling enclosure. The pink-flowering woodland willowherb also profits from the fence. Outside of this, it and the deciduous copses get badly attacked by wild animals.

Rewetting the flood plains

The stream flood plains were drained by drainage channels centuries ago in order to be able to use them for forestry and agriculture. What disappeared as a result was not just bog and alluvial forests, but with them also numerous plant and animal species typical of this habitat. As part of the LIFE+ project drainage channels were closed up again in order to offer a site to genera such as alder, willow, poplar, ash and birch.



marsh marigolds, grass snakes and woodcock.



Multiple earth walls, one behind the other, closed off the drainage channels again. As a result, the water remains in the area and the flood plains become wet again - ideal conditions for the development of moist forests.

Stopping natural regeneration to encourage deciduous woodland

Spruce and - on dry sites - above all Douglas fir copses, both of which are non-indigenous to the Eifel, multiply rapidly of their own accord. Their numerous seedlings are capable of swamping the growth of deciduous trees. One area that would be affected by this, for example, is the dry slopes of the Kermeter uplands, which are covered in old oak trees, but where over the long term Douglas firs would probably dominate. On the more moist sites in the south of the National Park, if no countermeasures are taken, the spruce rapidly spreads through socalled natural regeneration. For this reason young conifers are being pulled up or cut down and deciduous tree regeneration, which is weaker against competition, thus given an advantage.



The self-germinating conifers are cut down using brush saws and thus cleared away.



Indicator species of mountain pastures







Centaurea nigra

Hieracium pilosella

Phyteuma nigrum

Indicator species of mountain pastures and mat grass meadows







Briza media

Meum athamanthicum

Lathyrus linifolius

Low-nutrient indicator species







Betonica officinalis

Polygala vulgaris

Rhinanthus minor

Vegetation monitoring

In order to track the areas' development, all plant species in the marked areas were recorded and an assessment made of the proportions in which they occur. The studies on open land showed that three years after the transfer of grass cuttings the species that have settled include the typical mountain pasture, mat grass and low-nutrient indicator species shown here. The areas are developing positively into the desired habitats with a few already fulfilling the specified criteria.

Traditional farming creates biodiversity



shrubs or trees. There emerged a multitude of herbs that require light. Without man-made fertiliser, the meadows could previously only been mowed once or twice and all the pastures fed were small herds of cattle. The mixed flora that thus emerged attracted a multitude of insects, which in turn provided food for lots of species of bird. As farming methods intensified, such areas became unprofitable in many places and were planted with spruce. Over a third of the area of the national park, in what is known as the 'management zone', nature conservation measures take place continuously. As part of the project, seven hectares of open land were restored in this zone. The aim is for habitats protected by the Habitats Directive, such as mountain meadows and mat grass, to be able to develop here.

Mountain meadows and mat grass

Mountain meadows encompass biodiverse, extensively utilised mountain grassland of medium nutrient supply. On low-nutrient sites they cross over into mat grass, which thrives on shallow, very poor-quality soils. These grasslands are characterised by short vegetation rich in herbs.

Both habitats are distinguished by the presence of certain species of plant. Some of these so-called 'indicator species' occur both on mountain meadows and areas of mat grass. Other species, so-called 'low-nutrient indicators', are typical of non-fertilised, low-nutrient soils and are likewise characteristic of these habitats meriting protection.

Old man-made biotopes helping to conserve nature

In many areas of the project area the spruce stands extended to the edge of streams. In the course of the renaturation of these stream valleys, the spruce trees were removed in order to facilitate natural development of riparian woods and shrubland. In a few areas the conditions were created for the development of biodiverse open land, such as mountain meadows and mat grass. Forestry mulchers were used to clear spruce stumps so that the areas could later be mowed. Then cuttings mown from biodiverse 'donor areas' were spread. The seeds of herbs and grasses then fell on them and germinated. After a few years, new biodiverse biotopes emerged in this way for lots of birds, butterflies and other insects. These are being regularly mowed or grazed.



Forestry mulchers pulverise the spruce stumps and simultaneously cultivate the soil: creating the seed bed for sewing the grass cuttings.



Open land rich in blossom attracts many species of butterfly, such as the small heath (Coenonympha pamphilus).



Replacement breeding and stocking the streams



The crayfish are spawned in the breeding centre.



The females carrying eggs are kept separate.



In order to avoid any rivalry, the animals are offered hiding places.



Before stocking the stream, the animals are acclimatised to its water temperature.



Young stone crayfish are released into their new habitat.



At one summer old, the fish are between one and three and a half centimetres long.

Colonisation in the streams

The stone crayfish – an endangered species

Cool streams with high oxygen content are the natural habitat of the stone crayfish. This indigenous species of freshwater crayfish is found all over Central and Southeast Europe. The low mountains of North Rhine-

Westphalia mark the northern border of its geographical spread. The species is in danger of dying out here, with the only place where it is still found being the Siebengebirge mountain range. The species is protected by the Habitat Directive. There is a ban in the European Union on letting stocks decline.

It can be assumed that the watercourses in today's Eifel National Park were once inhabited by indigenous freshwater crayfish. By virtue of their location and characteristics the streams in the project area represent potential habitats for the stone crayfish.

Colonisation attempt

As any natural colonisation of the watercourses in the Eifel National Park can be ruled out, the LIFE+ 'Woodlands – Water – Wilderness' project initiated through colonising stone crayfish a contribution to the preservation of this indigenous freshwater crayfish species. Initially it was attempted through mating to get sufficient animals to stock the streams. This failed due to a lot of eggs dying and fry not surviving moulting. The fry for the stream stocking were ultimately obtained by taking egg-carrying females from the nearest stable source and keeping them in a breeding centre up until the eclosion of their offspring.

From 2014 to 2016, around 200 fry were released into the wild each autumn. The stocking took place on two different watercourses. The original aim of stocking three different waterways in three consecutive years with 300 animals each could not be achieved during the project period. Even though the LIFE+ project has finished, the national park management is, however, continuing the colonisation.

Publications and PR work





An international freshwater crayfish conference pooled the expertise of specialists from 7 nations, providing a valuable boost for the conservation project in the national park.



Secretary of State Horst Becker learning about the stone crayfish colonisation.



Guided tours acquainted interested parties with the issues being addressed.





Habitat Protection is Species Protection

The aim is that over the long term species benefiting from the measures taken in the project will include the following Natura 2000 species:



Violet copper butterfly (Lycaena helle)



European bullhead (Cottus gobio)



Black stork (Ciconia nigra)



Brown long-eared bat (Plecotus auritus)



Eurasian beaver (Castor fiber)



Wildcat (Felis silvestris)



Looking to the Future

After the project has finished, the Eifel National Park management will continue to pursue and drive on the development of the Natura 2000 areas. For the most part the areas will be left to themselves, unless their development into the aimed-for habitats is at risk. Then, action will

be taken in accordance with the general parameters of the national park plan on the basis of 'as a little as possible, as much as necessary'. In order to enable further tracking of the development of the habitats and species, some of the scientific studies are being carried on.

Low mountain range streams

The watercourses are being left to develop naturally. The watercourse structure is able to improve itself further through processes of its own momentum. Over the long term, a moist forest will develop again alongside the streams. Dead wood will increasingly play a supporting role in this. The development of the macrozoobenthos and of the fish is to be followed as an important indicator group for the watercourses.

Stone crayfish

The stone crayfish conservation project is being continued. The aim is for the species to become indigenous again in three streams in the national park.

Deciduous woodlands

As in the natural world, moist woodland and beech groves are able to develop on areas cleared of conifers. The multiplication of spruce by seeds from the surrounding area is being monitored, with action being taken only if the development objectives are at risk. Otherwise the areas are being left to themselves.

The removal of tracks is having a positive effect on species such as wildcat and black stork, which need large – contiguous and undisturbed – woodland areas.

The sapling enclosures will be dismantled after around ten years. The beech groves' concomitant tree species, such as sycamore, will by then have developed to such an extent that they are no longer at risk from damage by wild animals. The deciduous trees can then spread out from there into the surrounding woods.

After around ten years, space will be created for the copper beech trees that have been planted in cleared conifer stands by once again removing or girdling conifers.

How badly the copses on the study areas created get damaged by wild animals, which copses continue growing and whether the desired woodland habitats develop is being tracked beyond the end of the project as well. This monitoring is important for deciding whether further control measures are needed, e.g. the removal of young conifers.

Open land

The meadows are being regularly mown so that plant species typical of the habitat grow on them. No fertiliser is being used, in order to encourage plants that need low-nutrient soil. How the make-up of species develops going forward is being watched by the vegetation monitoring programme.

Wilderness

The development measures in the Eifel National Park, including its Natura 2000 areas, are set to be completed in 2034. What will then apply on two thirds of the areas is 'let

nature be nature', as in all other national parks globally. 'Wilderness' is able to develop in the Eifel National Park in the sense that natural momentum is being permitted across large, contiguous areas and undisturbed natural cycles can arise wherever possible.



Publicity work in a major conservation area: demands and opportunities alike

A LIFE+ project in the Eifel National Park: that is a challenge. Around 800,000 visitors come to the large conservation area each year to hike, cycle or find information in the exhibitions at the five national park gateways. The high visitor numbers place particular demands

on the way in which the nature conservation measures are communicated, but also creates the opportunity to reach a large audience.

An image full of character

The first challenge was the design: the relationship with the Eifel National Park had to be recognisable in all PR products, with both project partners and project sponsor seeing themselves reflected in them. A corporate design drawing on the national park enabled the association with the conservation area to be seen, while also letting the project appear as something stand-alone. Mascot 'Vuurtje', a fire salamander, was christened in a naming contest at a celebration to mark the 20th anniversary of LIFE. It is designed to appeal to young visitors and stands for the interlinking of deciduous woodland and low mountain stream habitats.

Arousing curiosity and giving information

Interactive models and games on the subject of streams supplemented a poster exhibition and together with a button badge machine made the LIFE+ project stand attractive at events. Information about the project supplements the permanent exhibitions at the national park gateways: data was incorporated into the 3D landscape model already installed in all gateway buildings, thus visualising project content and progress. All five films produced during the project are shown in the film screening room. The project team and film producer reached the final of the EU Commission's Natura 2000 Awards 2015 with one of these films, which was produced in a workshop with junior rangers.

Generating acceptance

The extensive measures, which often lasted for months, tested the patience and understanding of many a neighbour and visitor. The public, and also project champions such as woodland guides and certified national park hosts, were provided with information early on, in order to generate acceptance of the project. Before the measures began, the project was presented via a website and flyer and in numerous talks, press articles, radio reports and TV items. A noticeboard on the site explained every measure visible from the path under the heading 'What's going on here, then?'.

Where will I find things?

A comic about the project is available at the national park gateways.

The website www.wald-wasser-wildnis.de/en/ is still online and with it everything there is to know about all aspects of the project.

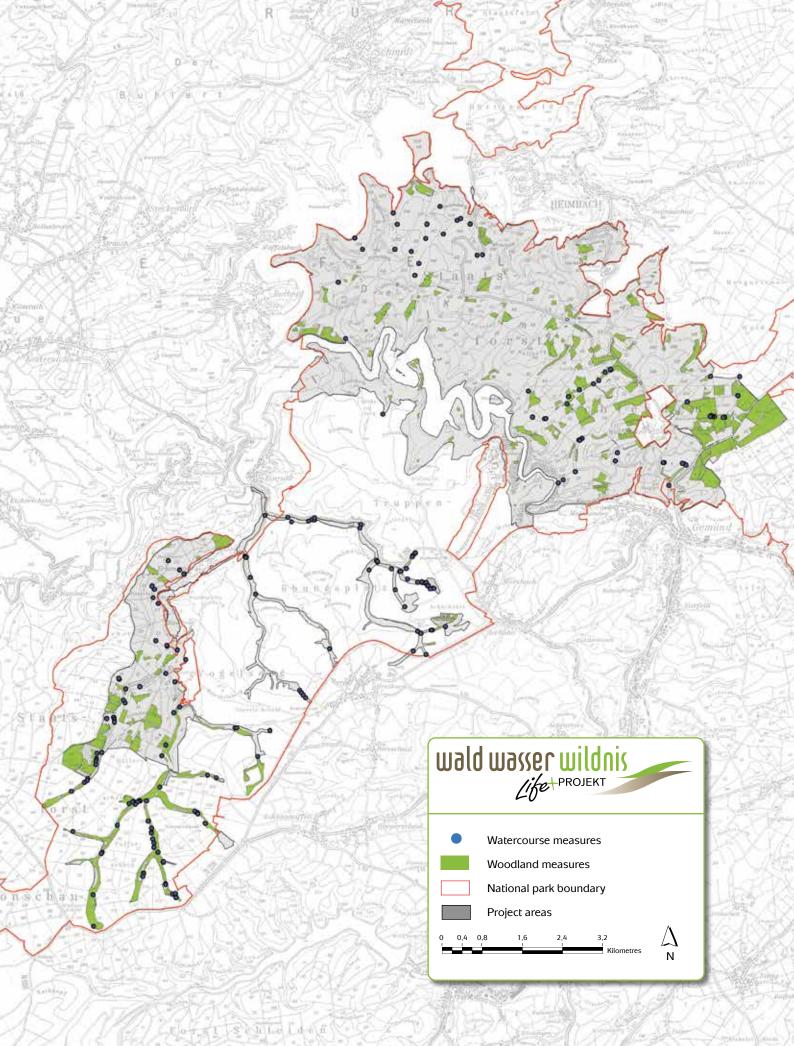
A themed hiking routecan be found in the Aachen Cities Region tours app.

Publications are listed on the website in the download section.

The exhibition can be hired out from the Eifel National Park's wilderness workshop.

The accompanying educational leaflet supplements the exhibition and is available as a download on the website.

The five films can also be found on the 'Eifelbiostationen' channel on YouTube.



At a glance



Measures taken

- Over 100 barriers to passage taken out and 12 backwater areas remodelled or removed.
- Stabilisation and straightening removed from 15 sections of stream.
- » Around 100 drainage channels sealed up.
- Dead wood introduced to streams over a total of more than one kilometre.
- Around 150 hectares of conifer stands thinned out for underplanting.
- Opper beech trees planted in over 90 hectares of thinned-out conifer stands.
- Over 120 hectares of pure conifer stands cleared, conifers removed from 30 hectares of mixed deciduous and conifer stands and around 110 hectares of conifer stands girdled across the whole area.
- Woodland development areas enriched with dead wood over more than 100 hectares.
- Young stands of non-indigenous thicket cleared away over an area of 490 hectares.
- Spruce stumps over seven hectares mulched and hay spread on them as seed.
- 30 sapling enclosures created.
- Over 10 kilometres of forest track removed.
- Nearly 600 young stone crayfish released into watercourses.
- A project leaflet, a website, five films and a comic produced.
- An exhibition for hiring out, complete with stream model, fishing game and accompanying educational booklet designed.
- Visitor information provided via 5 noticeboards on the site, a hiking route as an app and depiction of the project in the national park gateways' landscape model.
- Over 20 (specialist) publications and 30 press releases published.

Project information

Project title: Optimisation of FFH Habitats in the

Eifel National Park

Short title: LIFE 'Woodlands - Water - Wilderness'

Project

Project code: LIFE09 NAT/DE/000006

Project period: January 2011 to March 2017

Budget: 4.174.582 Euro, half financed by the

EU and half by North Rhine-Westphalia

Coordinating grant recipient:

Nationalparkforstamt Eifel im Landesbetrieb Wald und Holz Nordrhein-Westfalen

Associated grant recipient:

Biologische Station StädteRegion Aachen e.V.

Results

- Near-natural streams were freed along 80 kilometres of any barriers preventing passage by fish or other stream life. Flood plains were made wet again and fine sediment deposits in streams reduced.
- 500 hectares of land were prepared for the development of near-natural alluvial woods and beech groves and around 350 hectares of existing deciduous woodland improved.
- Mountain meadows were created over 7 hectares.
- Contiguous woodland areas were created and made tranquil for species that are sensitive to disturbance, such as wildcat and black stork.
- The foundations were laid for a self-multiplying stone crayfish population.
 - Visitors, project area neighbours and people interested in conservation were kept informed.









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The owner of the valleys in the former Vogelsang military training grounds Natura 2000 area and of parts of the Kermeter uplands is the Federal Republic of Germany. The areas are managed by the Federal Institute for Real Estate, represented by the Rhine-Weser Federal Forestry Department.









Many people have helped!

It was only through the active help and great commitment of a multitude of people that it was possible to run the project successfully. They all deserve our sincere thanks.

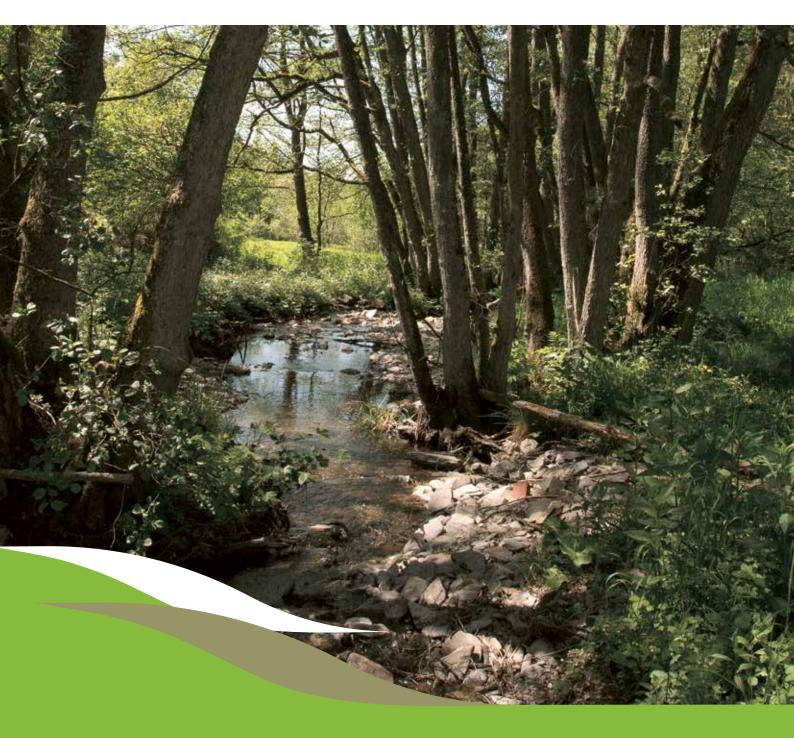
We were particularly helped by:

- Menning Walter, former Director of the Eifel National Park, who supported the project for five years.
- From the Eifel National Park Forestry Office the national park regional managers, the staff of the timber workshop, the Research and Documentation departments, Central Services, Sovereignty, Communications and Experience Nature.
- Euskirchen District Authority, including the Local Nature Conservation Agency, District Hunting Agency, Local Water Authority, Local Soil Conservation Authority and the Road Traffic Agency
- The Aachen Cities Region, including the Local Nature Conservation Agency, District Hunting Agency, Local Water Authority and Local Soil Conservation Authority
- Düren District Authority, including the Local Nature Conservation Agency and Local Water Authority
- The Schleiden, Monschau, Heimbach and Simmerath National Park Local Authorities
- North Rhine-Westphalia Road Construction Division (Landesbetrieb Straβenbau Nordrhein-Westfalen)
- The North Rhine-Westphalia Roads Division
- The Eifel-Rur Water Board and enwor energie & wasser vor ort GmbH
- Cologne Regional Government, including Departments 3 and 5
- Jülich Research Centre
- Interns and mountain woods project volunteers
- Staff of the practical nature conservation division of Biologische Station StädteRegion Aachen e.V.









Further information

www.wald-wasser-wildnis.de/en/

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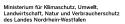
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