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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

43rd meeting
Strasbourg, 27 November - 1 December 2023

**REPORT
OF THE VISIT OF THE INDEPENDENT EXPERT
TO THE LÜNEBURG HEATH NATURE RESERVE
(Germany)**

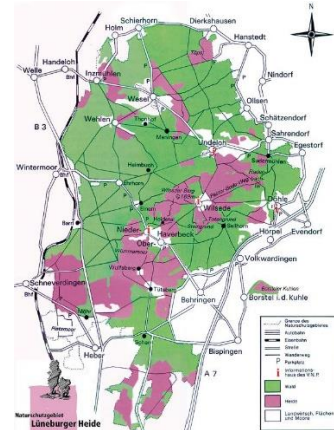
August 2022

*Document prepared by
Mr Maurice Hoffmann (Belgium)*

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¹ Photos are from the author of this report or from participants of the excursions; the photo of Black Grouse is extracted from internet and is of Mr. Gurtmann. Most figures were extracted from the introductory presentation of Marc Sander given on the 16 August 2022, on “Der VNP, 110 Jahre privates Engagement für den Naturschutz der Lüneburger Heide”



Scenic dry heathland-juniper landscape at Totengrund, Lüneburger Heide Nature Reserve

1. EDPA Lüneburg Heath Nature Reserve, general information

Name: Lüneburg Heath Nature Reserve (LHNR; Naturschutzgebiet Lüneburger Heide)

Location: Germany, Lower Saxony, several communities in Landkreis Harburg (Asendorf, Egestorf, Handeloh, Hanstedt, Undeloh) and Landkreis Heidekreis (Schneverdingen, Bispingen); it forms the core area of the more recently founded Naturpark Lüneburger Heide (1078 km²), and more or less coincides with the FFH (Flora-Fauna-Habitat Richtlinie, EU Habitat Directive Area) - Gebiet 70 of Lower Saxony (232,61 km²).

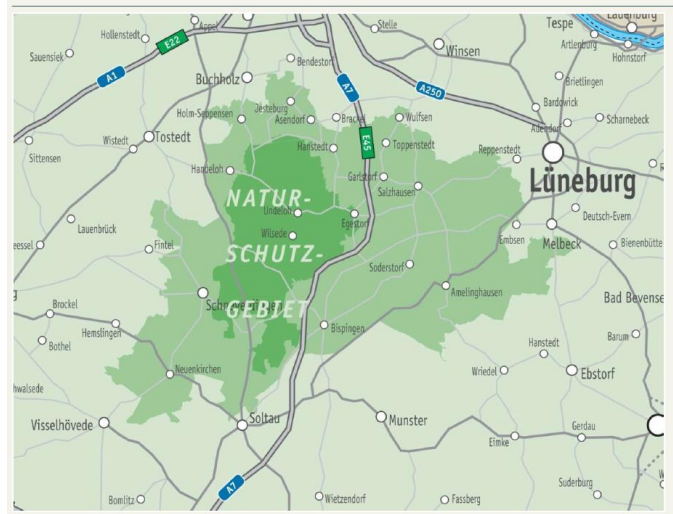
Area: > 234 km²

European Diploma for Protected Areas (code DE940003) since 27.10.1967

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Tel: +49 51 98 98 24 30

Internet: <https://www.verein-naturschutzpark.de/en/>
<http://home.t-online.de/home/verein-naturschutzpark>

Kerngebiet im Naturpark Lüneburger Heide (23.440 ha)



Managing Director: Marc Sander, also Managing Director of the Verein Naturschutzpark e.V. (VNP) and the VNP-Naturpark GmbH.

The original application for the European Diploma for Protected Areas was submitted in 1966 under the name “the Protected Landscape of the Lüneburger Heide”. The diploma was granted by the Council of Europe on 27 October 1967.

The Nature Reserve contains the largest remaining historical heathland area in Central Europe, and forms a relic of a formerly widespread landscape developed by heathland farming (deep stable culture) on nutrient poor sandy soils (“Heidebauernwirtschaft”). The origin of this manmade landscape is the use from Bronze Age onwards. The heathland dominated by *Calluna vulgaris* is characteristic of the Atlantic Biogeographic Region of Europe. It is characterised by its wide and open savannah-like occurrence in which several biocoenoses adapted to these special, nutrient-poor conditions co-exist or succeed one another in time. Besides, there exist some bogs of different types, old forests and brooks. A huge area was afforested with pines during the last decades of the 19th century (<https://eunis.eea.europa.eu/sites/DE940003>).

The extensive description of the area given by Fasel (2012) in the last appraisal report is generally still very accurate and does presently not need an update in the light of this report. For the most recent information, I refer to the cited website pages given throughout this text.

The Lüneburger Heide Nature Reserve (LHNR) was established in 1922. It is exceptional in a sense that the responsible Verein Naturschutzpark e.V. (VNP, founded on 23 October 1909) with its Stiftung (Trust) is a *private organisation* with over 3000 members. The LHNR comprises a large coherent area of appr. 23 400 ha, including the former British tank training grounds near Schneverdingen (the so-called Red Zones). The whole area comprises about almost 15 000 ha of forest, over 5 000 ha of heathland, almost 3 400 ha of agricultural land, 450 ha of peatland, a length of appr. 70 km of brooks, more than 100 stagnant waters, and 300 ha (1,5%) “urban area”, in small hamlets. The forest within the LHNR is one of the largest “Waldnaturschutzgebiete” (forest protection areas) of Germany. The property and leased areas of the VNP within the LHNR are 10 648 ha. 98% of the heathland area is owned or leased by the VNP. About 17% of the total forest area, 85% of the peatland and 15% of the agricultural surface is owned by the VNP.



Landscape at Wilseder Berg (169m), the highest point of the LHNR

2. Original justification for application for an EDPA for the Lüneburg Heath Nature Reserve

According to the EDPA application of September 1966, for the protected landscape Lüneburger Heide (Federal Republic of Germany), under the heading “Characteristics and justification for conservation”, the following justifications are given:

The reserve includes one of the largest areas (5 000 hectares) covered by Heather (*Calluna vulgaris*) in Northern Europe. It is grazed by flocks of downland sheep (Heidschnucke). It also contains large Juniper plantations and wide expanses of Heather (*Calluna vulgaris*). The extensive forests are chiefly pine but contain some vestiges here and there of oak and beech, or oak and birch woods of earlier times. The area is of considerable geological and zoological interest. It has been made into a national parkland and has now an international reputation as a holiday area.



One of the herded flocks of the local breed of downland sheep (Heidschnucken) grazing part of grass-dominated dry heathland.

3. The expert mandate

The period of validity for the European Diploma of Protected Areas for the Lüneburg Heath Nature Reserve expired in 2021. In accordance with the regulations, an on-the-spot appraisal was carried out in August 2022 in preparation of a ninth renewal of the Diploma. The Lüneburg Heath Nature Reserve (LHNR) was awarded the European Diploma of Protected Area (EDPA) by the Council of Europe (CoE) in 1967 for the first time

(27.10.1967). Renewals were assigned in 1971 (Expert report, Froment, 1971); 1976 (Plattner 1976); 1980 (Noirfalise 1980), 1985 (Plattner 1985), 1992 (Froment 1992), 1996 (Froment 1996), 2002 (de Molenaar 2002), and 2011 (Fasel, 2011). This ninth renewal was due in 2021 (10 years after the eighth renewal). Due to the Covid 19 pandemic, the visit could not be carried out, and was postponed to 2022. During the visit in 2022, the expert was not accompanied by people of the CoE-Secretariat.

The expert mandate consists of evaluating the intrinsic nature, ecosystem and landscape values, conservation status and management aspects of the reserve and its relations with the environment. The specific task of the expert is

1. Evaluation whether conditions formulated in the eighth renewal report were met with (2012-2021);
2. The level of fulfilment of the recommendation formulated in the eighth renewal report (2012-2021);
3. Advice on new or supplementary conditions for the ninth renewal (2022-2032);
4. Advice on new or supplementary recommendations for the ninth renewal (2022-2032).

The above-mentioned questions were answered departing from the Resolution [CM/ResDip\(2012\)5](#) on the renewal of the European Diploma of Protected Areas awarded to the Lüneburg Heath Nature Reserve (Germany), adopted by the Committee of Ministers on 20 June 2012 at the 1146th meeting of the Ministers' Deputies.

Die Kulturlandschaft erhalten



Die Lüneburger Heide ist durch **Menschenhand** entstanden. Der VNP hat es sich zur Aufgabe gemacht, diese Landschaft zu erhalten und zu entwickeln. Neben den weiten Heideflächen gehören Moore, Wälder, landwirtschaftliche Nutzflächen, Teichflächen aber auch Gebäude zu den prägenden Bestandteilen der Lüneburger Heide.

In seinen **Wäldern** arbeitet der VNP nach dem Motto: „Naturschutz durch Nutzung!“. Dazu gehören eine kahl-schlagfreie und an Zielstärkennutzung orientierte Wirtschaftsweise sowie ökologisch und ökonomisch stabile Dauerwaldgesellschaften. Auch die Erhaltung und Pflege von **Hutewäldern**, die zur Viehmast genutzt wurden, von **Stühbüschen** und **Hofgehölzen** aus knorrigen Eichen und Buchen hat für den VNP eine große Bedeutung.

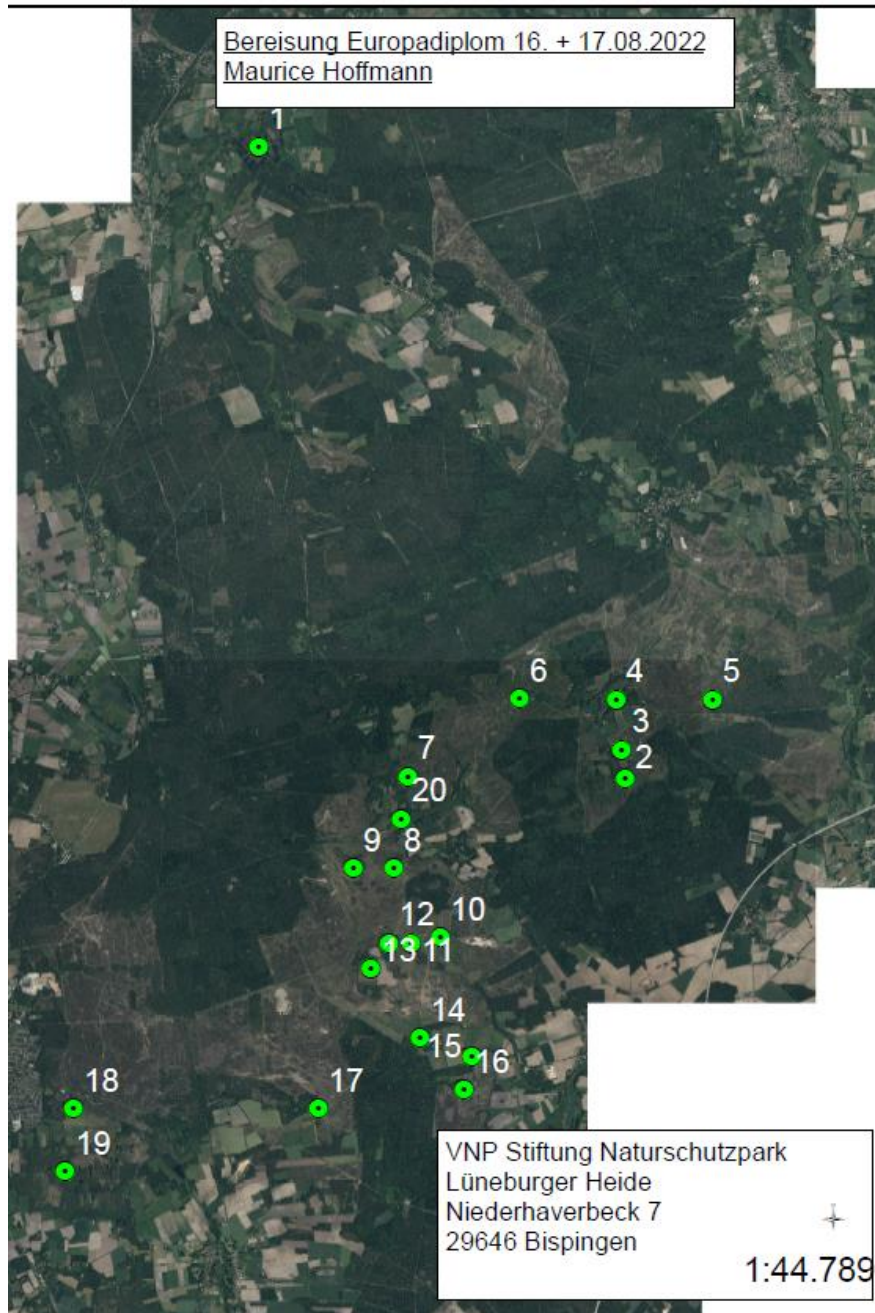
VNP-eigene **Acker-** und **Grünlandflächen** werden durch den Landschaftspflegehof Tütsberg bei Schneeverdingen bewirtschaftet. Hof Tütsberg ist Mitglied im Anbauverband BIOLAND. Dies bedeutet z. B. Verzicht auf chemische Düngung oder künstliche Beregnung.

Auf den Ackerflächen werden regionaltypische Sorten wie Buchweizen, Sandhafer oder Roggen angebaut. Wegen des Verzichtes auf Pestizide können auch Ackerwildkräuter wachsen, die die Blütenvielfalt der Landschaft bereichern

One of the signboards in the LHNR, explaining perfectly what the Lüneburger Heide is all about.

4. Report of the expert visit

4.1 Visited locations



The field visit to LHNR was organised on 16 – 17 August 2022. I thank Heike Brenken for her substantial input for this chapter.

Field excursions, lunches, dinners, and meetings were organised by Marc Sander, managing director of the LHNR, and his colleagues of the VNP who did a meticulous job in giving me all explanations during, before and after the visit. Further details on the programme are given in the overview below. I refer to the cited websites below for further information on the locations and on the LHNR in general. I am very grateful to the people of the LHNR for their skilful and very much enjoyed company during my short stay.

Purpose of every stop, and location names	
16.08.2022	1 Holmer Teichlandschaften (Holmer pond landscape with peaty pioneer vegetation)
	2 Steingrund/Totengrund (scenic landscape of dry heathland with Juniper scrubs)
	3 Magerrasen Eichenwiese (nutrient-poor grasslands / Oak meadow), part of ÖkoKult project
	4 Schulbauernhof Wilsede (education farm Wilsede)
	5 Wald- Heide- Übergangsbereiche Döhler Führen (forest-heathland gradients, Döhler Führen)
	6 Wilseder Berg (viewpoint and characteristic heathland-juniper landscape, Wilseder Berg)
	7 Ackerwildkrautschutz Schulandacker (arable weed protection project Schulandacker)
17.08.2022	8 Magerasenrevitalisierung Suhorn (restoration of nutrient-poor grasslands Suhorn)
	9 Heidepflegemanagement Suhornhütte/ Wümme (heathland management Suhornhütte/ Wümme)
	10 Twieselmoor Offenlandpflege durch Heidschnuckenhaltung (Open landscape management with Heidschnuck sheep, Twieselmoor)
	11 Project ÖkoKult
	12 Wulfsberger Stüh und Birkwildschutzprojekt Lüneburger Heide (Black Grouse protection project Lüneburger Heide)
	13 Reeteindeckung historischer Treppenspeicher Wulfsberg (thatched roofing of historical (farm) buildings, Wulfsberg)
	14 Landschaftspflegehof Tütsberg (Eco-historical landscape care farm, Tütsberg)
	15 Großviehbeweidung Brunau (Large herbivore grazing project, Brunau)
	16 Heidebauernwirtschaft Benninghöfen (heath farming facilities, Benninghöfen)
	17 Offenlandpflege durch Ziegen in Bockheber (Landscape management with goats, Bockheber)
	18 Moderner Schnuckenstall Schäferhof (recent/modern sheep stable infrastructure, Schäferhof)
	19 Morrenaturierung Pietzmoor (bog restoration, Pietzmoor)
	20 Abschlussessen Gasthaus Haverbeckhof (Closing Dinner Haverbeckhof with local authorities)

16 August 2022

9.00 Introduction

An extensive introduction was given in the VNPs Headquarter at Niederhaverbeck 7, 29646 Bispingen. The office building and the adjoining workplaces were shown. where the VNPs own architects and craftsmen (carpenters, roofer, electrician) work to maintain the VNPs own real estate including several listed buildings.

Marc Sander, Head of VNP, explained in a detailed and extensive presentation, the history of VNP, its structure and its major aims, ownership in NLH, financing of conservation projects.

<https://www.verein-naturschutzpark.de/vereinsstruktur/>



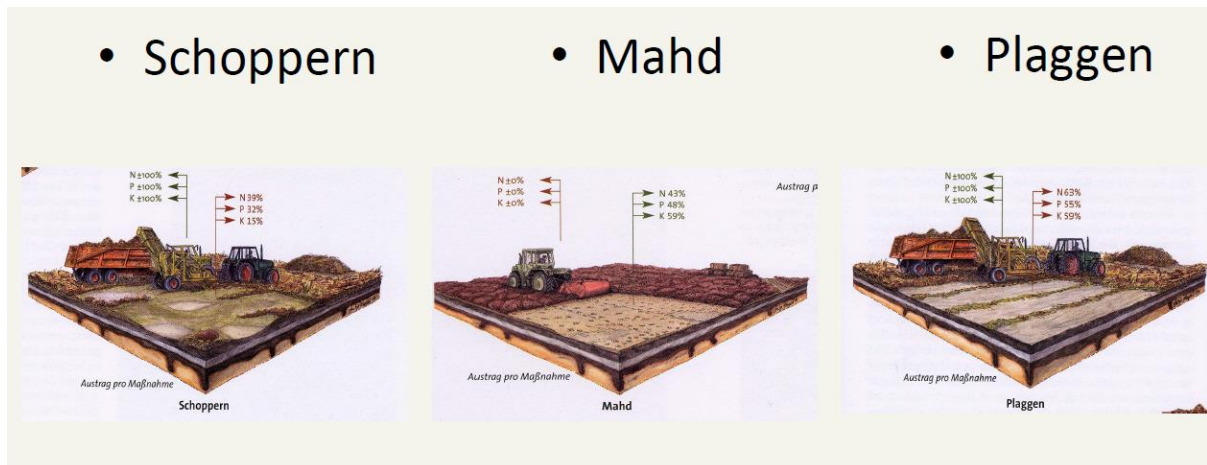
13.00 Lunch Break

Lunch was served in the VNP's own Hotel "Landhaus Haverbeckhof", Niederhaverbeck 2, 29646 Bispingen. The VNP's own Hotels, Cafés and Restaurants serve menus made from regional products e.g. meat from sheep and cattle used for grazing heathland habitats.

<https://www.haverbeckhof.de/>

14.00 Field trip

In the afternoon the northern half of LHNR was visited. Several locations were shown and heathland management techniques explained by Dirk Mertens, ecologist and head of the VNP's landscape management department.



First stop was at „Holmer Teiche“, Holm, Inzmühlener Straße, 21244 Buchholz, an area with historic carp ponds and populations of highly endangered wetland species and birds including sea-eagle and osprey.

Dirk Mertens explained management techniques to restore dykes and ditches and told us about the principles of ecological fish farming.

https://www.sandlandschaften.de/de/projekt_des_monats/2022-02_holmer_teiche/index.html

<https://www.verein-naturschutzpark.de/heidepflege/>

In Wilsede, the central village of NLH, we visited “Eichenwiese” an area with experiments to restore species-rich grassland. David Walmsley from Leuphana University Lüneburg explained the research project “ÖkoKult” and first results achieved.

<https://oekokult.de/>



We also explored VNPs Pupils Farm „Hilmershof“, in Wilsede 1, 29646 Bispingen in the afternoon. Johannes Buhr, Manager of the Pupils’ Farm, showed us buildings and farm animals of Hilmershof. He explained who are the guests and sponsors of Hilmershof and what is the pedagogic concept of the farm.

<https://www.verein-naturschutzpark.de/umweltbildung/#schulbauernhof>



Matthias Pantelmann, forest official and head of VNPs forestry department, showed us different kinds of historic and modern woodland habitats and explained the VNPs strategy to create very open and light pine-oak woodlands. Mr. Pantelmann, Mr. Mertens and Mr. Walmsley also emphasized the importance of woodland – heathland fringes for migrating species and indicated conservation methods to provide more ecological corridors in NLH.

<https://www.verein-naturschutzpark.de/heidepflege/#methoden>



17 August 2022

During part of the day, we were accompanied by Prof. Werner Härdtle and Prof. Thomas Kaiser, chairman of the board of the VNP “Stiftung Naturschutzpark Lüneburger Heide”. Prof. Kaiser is the author of the overall management plan of the LHNR, which was under development at the time of the appraisal visit. The management plan is expected to be made public in the first half of 2023, but was unfortunately not yet officially available for this appraisal report.

One of the first stops on 17.8.22 was „Landschaftspflegehof Tütsberg“, VNP its own farm at Hof Tütsberg, 29640 Schneverdingen.

<https://www.verein-naturschutzpark.de/landwirtschaft/>

<https://www.oekolandbau.de/bio-im-alltag/bio-erleben/unterwegs/demonstrationsbetriebe/demobetriebe-im-portraet/niedersachsen/landschaftspflegehof-tuetsberg/>



Andreas Koopmann and Heike Brenken explained history and principles of traditional heathland farming, gave insight of fundamentals of modern ecological farming and presented special conservation methods to preserve endangered segetal species.



Buckweed cultivation



Galeopsis segetum

We visited one of VNP its own flocks of Grey-horned Heathland Sheep (Graue gehörnte Heidschnucke) and a herd of “Dülmener Pferde” a highly endangered German Pony breed.

Andreas Koopmann and Heike Brenken explained management techniques to preserve grassland habitats and focused on the use of grazing animals in heathlands, grasslands and woodland-fringes.



Grau gehörnte Heidschnucke



Dülmener Pferde

Josefine Schön, shepherdess (she is one of 12 shepherds, herding the Döhle herd), explained the use of sheep (and goats) in heathland management and addressed problems raised by the increasing population of wolves in NSG Lüneburger Heide and its surroundings.



Grazing/browsing goats in a dry grass-dominated heathland.

Lunch break was held at “**Hotel Hof Tütsberg**” owned by VNP and run by its own Ltd (Limited Liability Company; GmbH in German).

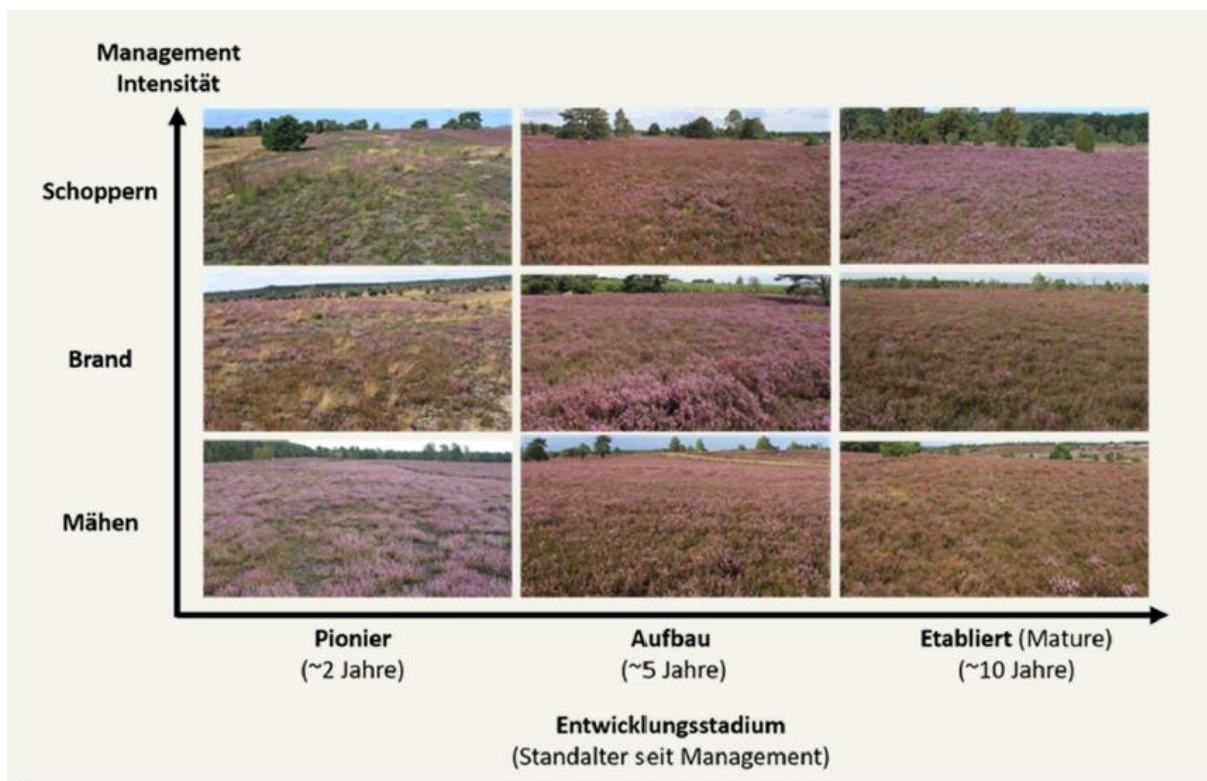
<https://www.tuetsberg.de/>

ÖkoKult-Projekt

In the afternoon of 17th August, Professor Werner Härdtle of Leuphana Universität Lüneburg took part in the field trip and gave a short outdoor-lecture on “ÖkoKult”, an extensive joint research project financed by the Federal Ministry of Environment and the Federal Ministry of Research and Science.

He explained the ecological problems caused by climate change and anthropogenic nitrogen import. He addressed the function of nitrogen and phosphorus as plant nutrients and the effects of different heathland management techniques on nutrient levels.

<https://oekokult.de/>

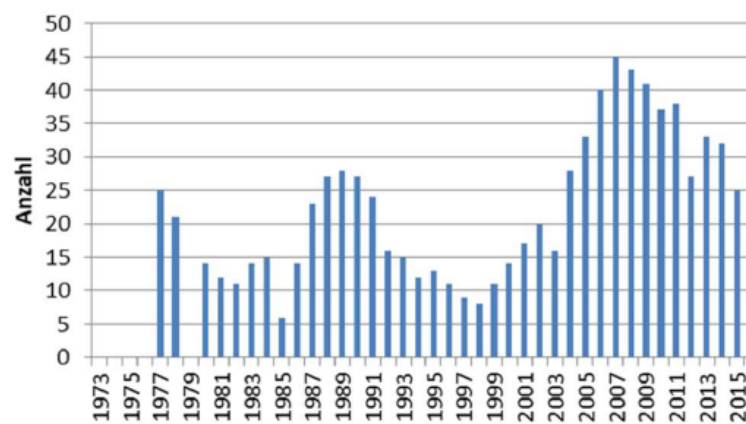


Dirk Bruschkat, VNP's professional hunter, explained the “Black grouse Project” a project run by VNP and the Lower Saxony association of hunters to preserve the highly endangered Black grouse (*Tetrao tetrix*).

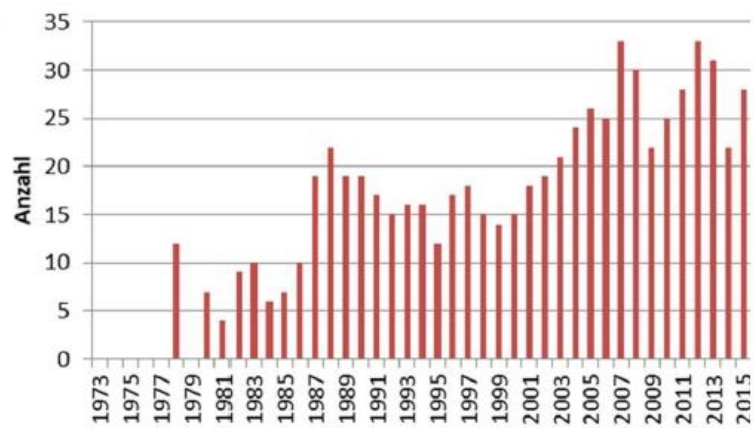
<https://www.verrein-naturschutzpark.de/sab-projekte/>



Birkhähne



Birkhennen



In the late afternoon we visited Pietzmoor. Stefan Wormanns, head of the department for reserve management, gave a short note on bog restoration in general and management work carried out at “Pietzmoor” a large bog on the western fringe of NSG Lüneburger Heide.

<https://www.verein-naturschutzpark.de/sab-projekte/#pietzmoor>



Dinner with local representatives

The programme ended with a dinner with local representatives of Landkreis Heidekreis, Landkreis Harburg, the Naturpark Lüneburger Heide, the mayors of Bispingen, Schneverdingen and Hanstedt, a representative of the local land owners and the president of the VNP.

4.2 Questions raised during and after the visit

During the stay there was insufficient time to answer all remaining questions, that were important to come to solid conclusions on the existing (dating from 2012) and new recommendations. Heike Brenken took the lead in delivering these answers. She and her colleagues answered the questions as extensively and accurately as possible. Many of these are helping with judging the way VNP dealt with the EDPA recommendations of 2012, and what new recommendations are to be considered. Below, an overview is given of the questions and answers. Some of the answers will come back in chapter 6.

1. The report of 2011 reported on changes in ownership in the NLH in the preceding period; what changes appeared since the appraisal report of 2011?

Since 2011, VNP received 14 donations of real estate from private landowners. Most of the donated land is located at least partially in LHNH (approx. 310 ha) or in other reserves, that are important for the habitat network (approx. 10 ha). Approx. 370 ha are situated in surrounding communities. This land was partially under contract for term leases before it was donated.

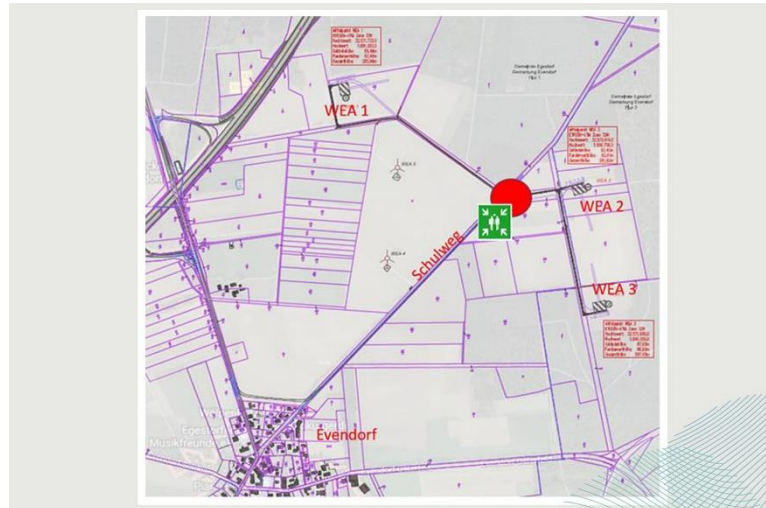
VNP bought approx. 105 ha of land in the Lüneburger Heide Nature Reserve since 2011. The land was partially under contract for term leases before it was bought.

2. What's the state of affairs of the management plan and the remaining steps that need to be taken to have an implementable management plan?

The management plan is not finished and work is still carried out by <http://www.kaiser-alw.de/> landscape architects.

3. Any information on the state of affairs concerning the windmill infrastructure in or in the vicinity of the EDPA, would be appreciated. In what way is this considered a major issue for the NLH-management, of the landscape, of the (migratory) species, ...?

During the last years a large new windmill park was erected at Evendorf, northeast of NSG Lüneburger Heide close to the A7 motorway, 50 km south of Hamburg.



<https://www.rwe.com/der-konzern/laender-und-standorte/onshore-windpark-evendorf/>

The three windmills can be seen from many sightseeing points within the nature reserve.

The proposed wind park “Borsteler Kühlen” which might spoil the scenery of the eastern part of the nature reserve severely, is still listed in the regional planning concept of Landkreis Heidekreis (regional planning body). Right now, there is no investor interested to carry out the project and to follow the planning procedures.

4. Please, give an overview of the measures taken by the NLH management concerning climate change and/or fire.

Climate change is a major issue of the joint research project ÖkoKult. In cooperation with Leuphana University Lüneburg, VNP developed a new landscape management machine to extract surplus moss layers in *Calluna vulgaris* dominated biotopes. The moss layer contains a surplus of anthropogenic caused nitrogen and it also inhibits the generative reproduction of *Calluna vulgaris*. The generative reproduction is very important to allow *Calluna vulgaris* to maintain a wide genetic variety to adopt better to climate change.

The research team of Prof. Härdtle also carried out “assisted migration” experiments with *Calluna vulgaris* seedlings from different climatic regions in Germany. This experiment is one of the very few open-land assisted migration projects carried out worldwide.

The forestry authority of the state of Lower Saxony has established a fire protection system which consists of remote sensing by planes and manned lookout points. The Lüneburger Heide Nature Reserve is part of this fire protection system.

VNP owns two slurry spreaders which are used to carry fire-fighting water.

5. How did you deal with the recommendation on the use of Dülmener Pferde?

Unfortunately, there is still no kind of subsidy by the state of Lower Saxony to support active breeders of the highly endangered Dülmener Pferd.

6. How do you deal with tourism in the NLH?

VNP is not directly involved in tourism management. Tourism management is organised by private organisations such as Lüneburger Heide GmbH, <https://www.lueneburger-heide.de/>.

or the Tourist Information centres run by the local communities. VNP operates two Hotels and several restaurants in its own “VNP Naturpark GmbH” (Ltd., limited liability company) mainly to sell products from its own sheep flocks and grazing cattle to guests.

VNP also runs several small museums and other environmental education centres to explain the ecological value of the reserve to tourists.

7. How do you deal with the increasing Wolf threat for the Heidschnucken? Are there potential problems with other newly arriving or increasing carnivores (Red Fox, Golden Jackal, ...)?

VNP has suffered several attacks of wolves on sheep and horses used in heathland management. They try to protect the animals grazing on fenced pastures with a better type of fences, so called “wolf-proof” fences. But grants for fencing materials are limited and the work to erect fences and maintain them is extremely costly.

Completely unsolved are the problems that arise from wolves attacking flocks of sheep, which are herded in the traditional way by shepherds in the open, unfenced heathland. Livestock guard dogs cannot be used in NLH as they are too dangerous, given the high number of tourists and their dogs, visiting the grazing grounds every year.

See also: Jay, M. von Korff, Y., Hartmann, J., 2019. Report DE-3. Fact finding mission 3, Lüneburger Heide, Germany (July-November 2019). Service contract for the establishment of additional regional/local platforms on coexistence between people and large carnivores, suggesting to install a stakeholder platform on wolf issues.

The existence of Golden Jackals in NLH is confirmed by sightings and camera traps. The Hunters’ association of Lower Saxony started a monitoring programme on golden jackals. Until now, there are no data about population sizes of Golden Jackals in Lower Saxony.

8. How are you addressing invasive alien species (in general, and specifically with the species mentioned by Europe in EU Regulation 1143/2014 on Invasive Alien Species)?

Raccoons², **Nutria**³ and **Common Raccoon Dogs**⁴ are hunted regularly by local hunters. During the last years, the populations of raccoon and raccoon dog increased. In NLH raccoons are a threat to ground and tree nesting birds as well as to amphibians.

Nutrias cause severe problems with ditches and dykes, e.g. at Holmer Teich carp ponds. Nutrias also destroy reed mace vegetation and cause problems with the stability and water quality of ponds, e.g. at Döhle in the northeast of the reserve. Landkreis Harburg (northern part of NLH) encourages hunters to hunt Nutria by paying grants for every culled specimen. Nutrias can be hunted all-season.

Another invasive species causing problems to the local bird populations is the **Egyptian goose**. Egyptian geese are very aggressive towards other ground breeding birds and eject other birds from their former territories. Egyptian geese are broadly hunted by local hunters.

At Holmer Teiche, a historic carp pond estate, **Blaubandbärblinge** (Blue-Banded Gudgeon; *Pseudorasbora parva*) were introduced and affect negatively the water quality (e.g. increasing suspended material). This fish species is listed in the EU Regulation 1143 on Invasive Alien species.

“Spätblühende Traubenkirsche” (Rum Cherry; *Prunus serotina*) causes a lot of problems in heathland management. The invasive species colonizes *Calluna vulgaris* habitats and blocks important migration

² *Procyon lotor*, is a mammal native to North America. In Europe, this invasive alien species is since 2016 included in the list of Invasive Alien Species of Union concern (the EU Union list).

³ *Myocastor coypus* is a large, herbivorous, semiaquatic rodent. Originally native to subtropical and temperate South America, it has since been introduced to North America, Europe, Asia, and Africa, primarily by fur farmers).

⁴ *Nyctereutes procyonoides* is a small, heavy-set, fox-like canid native to East Asia. Named for its raccoon-like face markings, it is nonetheless most closely related to foxes. Common raccoon dogs feed on many animals and plant matter.

routes between open heathland and woodlands. Volunteers dig out single Rum Cherry specimens. Large occurrences are cleared mechanically with skid loaders by specialised landscape constructors.

There are several other small populations of invasive plants such as Sachalin-Staudenknöterich (Giant Knotweed; *Reynoutria sachalinensis*), Japanischer Staudenknöterich (Japanese Knotweed; *Fallopia japonica*), Spiersträucher (Bridewort species; *Spiraea spec.*), which are cut down or extracted to prevent expansion.

During the excursion on 16 August also Blueberry (*Vaccinium corymbosum*) was found in the forest close to the scenic landscape of the Totengrund, and mentioned as an increasing invasive alien plant species.



Vaccinium corymbosum (Blueberry), invading forest sites

VNP started to work on a database listing habitats of invasive species.

9. How is the monitoring of species, taxonomic groups, and environment organised in the NLH? Do you use scientifically sound/statistically correctly underpinned methods, standardisation of methods allowing comparison/compatibility with other areas?

VNP does collect data of a wide variety of species and groups in its own databases. Due to the problems addressed in question 16 below it is still not possible to implement most of the data in the national database of Lower Saxony.

Unfortunately, there is still no public financial support for a general monitoring work. VNP has to carry out most of the monitoring work with the assistance of volunteers or students collecting data for their university projects.

Not all methods used by VNP are scientifically underpinned and standardised. Nonetheless, within the ÖkoKult research project, Leuphana Universität Lüneburg did a lot of scientifically underpinned studies such as PhD thesis which will be published soon.

10. How are you dealing with or planning to deal with groundwater extraction from the NLH, given the ever-growing problem of drought due to climate change and farming?

During the last years “Hamburg Wasser” applied for a “Bewilligung” which is a “non-revocable concession”, license or permission in German law, to extract an average of 18,4 Mio cubic meter of groundwater in the FFH-area Lüneburger Heide for 30 years.

In 2019 the regional water authority in charge “Landkreis Harburg” granted “Hamburg Wasser” a “gehobene Erlaubnis” which is a revocable concession with restrictions in terms of German law. Landkreis Harburg also lowered the delivery volume to 16,1 Mio cubic meter on average. The extraction rate of 18,4 cubic meter applied by Hamburg Wasser can only be used in particular years with exceptional circumstances.

In 2021, Hamburg Wasser filed a lawsuit at „Verwaltungsgericht Lüneburg”, the regional court in charge. On 7 October 2021 “Verwaltungsgericht Lüneburg” has dismissed the claim of Hamburg Wasser. The extraction rate will be limited to 16,1 Mio cubic metre on average and the “gehobene Erlaubnis”, the revocable concession, was not demurred by court. “Verwaltungsgericht Lüneburg” also stated, that the studies and data handed in by Hamburg Wasser for the concession-procedure are sufficient and meet the current standards of ecological monitoring of ground water extraction. Verwaltungsgericht Lüneburg also dismissed claims of landowners and the environmental initiative “Landesverband Bürgerinitiative Umweltschutz” against the concession given by Landkreis Harburg.

The court permitted an appeal because of the fundamental questions linked to the concession-process. On 1st December 2021, Hamburg Wasser gave notice of appeal at Verwaltungsgericht Lüneburg. Hamburg Wasser states that it is absolutely necessary to them to get a “Bewilligung” which is a “non-revocable concession”, license or permission in German law and not a “gehobene Erlaubnis” which is a revocable concession with restrictions in terms of German law. The lawsuit will be carried on.

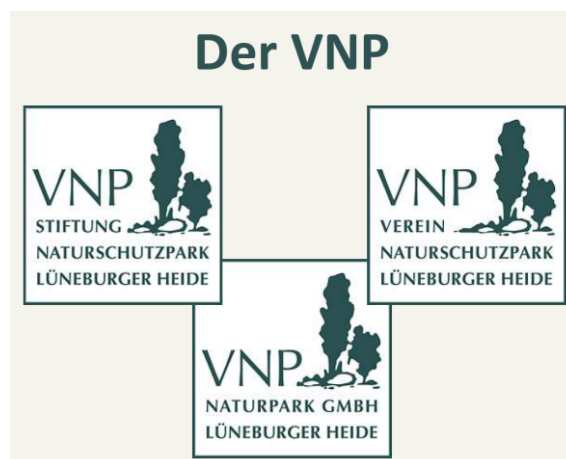
11. How does the triple organisation structure with the “Verein”, the “Stiftung”, and the “GmbH” work, and what are the advantages/necessities of this structure?

VNP was founded in 1909 as a volunteer organisation in the legal construction of a German “Verein” (association or society). During the first decades VNP was run mainly by volunteers. During the last 50 years the real estate of VNP, its professional staff and the projects taken part in increased extremely.

In 2002 the members of VNP decided to establish a “Stiftung” (trust, foundation) to safeguard VNP’s properties, especially the real estate owned in the LHNR. The trust now operates in all kinds of nature conservation work and preservation of monuments and runs the environmental education centres. It employs most of the people involved in the management of the LHNR.

VNP Naturpark GmbH (limited liability company) is in charge of the hotels, restaurants, car parks and photovoltaic power plants owned by VNP. A separate limited liability company had to be established as a separate part of VNP for economic and fiscal reasons. The ‘Stiftung’ has 72 employees, the ‘Verein’ has 1 employee, and the ‘GmbH’ has 58 employees.

<https://www.verein-naturschutzpark.de/vereinsstruktur/>



12. How did you deal with the specific recommendation on implementing a ranger's structure?

There is still no sufficient public funding for a professional ranger service in the Lüneburger Heide Nature Reserve. VNP employs nine rangers who are paid as part-time members of staff or work as volunteers unsalaried.

13. What is known about the fungi (taxonomically and functionally) in the NLH?

Jörg Albers, volunteer member of the German Mycological Society has done several surveys on fungi. <https://www.pilze-deutschland.de/mitarbeiter/portrait/186>

A list of fungi species he found in NLH was published by VNP on page 256 of this publication: <https://www.verein-naturschutzpark.de/wp-content/uploads/vnp-schriften-004-naturschutzgebiet-natur-und-kulturerbe-teil1.pdf>

14. What is the general attitude within the VNP on spontaneous development as opposed to deterministic management, is there interest in the (partial) implementation of the Rewilding Concept?

Within the Lüneburger Heide Nature Reserve, VNP proposes the concept of the “historical cultural landscape” and focusses on a “deterministic management” with elements from traditional agriculture, forestry and sheep husbandry to maintain the open heathland vegetation.

The forestry authority of the State of Lower Saxony which is in charge of several thousands of hectares of woodland within the reserve and outside implements rewilding concepts and owns several plots of “Naturwaldparzelle” without active management work. The forestry authority proposes that 10% of its woodland is brought to wilderness soon.

<https://www.landesforsten.de/schuetzen/urwaelder-von-morgen-2/>

15. How does the cooperation with other important management players work (Klosterkammer, Lower Saxony State, private owners, ...)? Are these included in the management plan under construction?

A cooperation contract between VNP and Klosterkammer Niedersachsen will be signed soon. VNP will carry out the monitoring of bats and birds in some of the woodlands owned by Klosterkammer Niedersachsen in FFH-area 230 "Garlstorfer und Toppstedter Wald" which is situated northeast of LHNR.

VNP cooperates with lots of private landowners within the reserve and employs farmers to carry out practical nature conservation work e.g. clearing of heathlands from unwanted shrubs such as *Prunus serotina*, *Pinus sylvestris*.

The forestry authority of Lower Saxony established its own FFH-Management plan for the woodlands in LHNR that are owned by the state. There is no cooperation between VNP and the forestry authority concerning FFH-Management plans and practical conservation work in state woodlands.

16. What are the problems in the integration of databases of the Lower Saxony authorities and the NLH; how can these be solved in order to obtain added value (win-win) for both?

There are still severe methodological problems with the public species database of the State of Lower Saxony which make exchange of ecological data complicated. The database NIWAP is difficult to handle and it is not possible to include shape-data into its files.

https://www.nlwkn.niedersachsen.de/naturschutz/tier_und_pflanzenartenschutz/arten_erfassungsprogramm/arten-erfassungsprogramme-39254.html

The nature conservation authority of Lower Saxony plans to actualise the red list of mammals (actual edition is from 1991!) within the next two years. As one part of the work done on the red data lists the NIWAP Database will be remodelled, and a new data interface will be introduced.

5. Conditions and recommendations formulated in the last (8th) diploma renewal decisions of 2012

Last (8th) renewal recommendations, 2012. Resolution CM/ResDip(2012)5
<p>Following the suggestions of the expert Michael Fasel, which he expressed in his appraisal report of 21 November 2011, the Committee of Ministers in its Resolution CM/ResDip(2012)5 on the renewal of the European Diploma of Protected Areas awarded to the Lüneburg Heath Nature Reserve (Germany) (adopted by the Committee of Ministers on 20 June 2012 at the 1146th meeting of the Ministers' Deputies), gave the following 13 recommendations to the (8th) renewal (no conditions were formulated):</p> <ol style="list-style-type: none"> 1. Pursue a reduction, or at least a limitation to no more than the current amount, of the concession of ground-water extraction and co-ordinate the ground-water extraction for irrigation on farmland technically and quantitatively with the activities and infrastructures of Wasserwerke Hamburg; carry out additional studies and monitoring in order to collect more information about the influences of all kinds of water extraction on species and ecosystems; and simulation modelling should be undertaken for all factors possibly influencing the groundwater level, the soil, the streams, the different types of vegetation including forests, the biotopes of red-list-species, and the natural dynamic of the whole ecosystem; 2. Pursue political recognition of the VNP's Lüneburger Heide Nature Reserve (NLH) and increase the public funding to the same level as that provided to Federal Nature Parks; 3. Reconsider the ongoing practice of agricultural funding and pursue recognition of all types of heathland cultivation and all heathland restoration activities as a kind of 'greenland cultivation' with the same amount of funding, especially during the EU-funding period 2013-2020; 4. Pursue the continuation of funding for the rearing of the "Heidschnucke" (Heathlandsheep) by Lower Saxony and the Federal Republic and recognise the "Dülmener Pferde"(Heathland horses) as worthy of subsidy by the rear-premium of Lower Saxony; 5. Develop a concept for connecting the large heathlands areas east and west of Wilsede by an ecological corridor; 6. Pursue restoration of streams, their associated wetland biotopes and their buffer strips; 7. Reduce areas with cultivation of energy-crops to a level that does not affect the nature reserve's flora, fauna, groundwater and the scenic attractions; 8. Continue ecological forest management and convert monocultures of spruce into mixed forests including oak (<i>Quercus</i> spp.); 9. Ensure that existing scientific data are included and respected in regional planning processes and also ensure that negative impacts on the nature reserve from outside the area's boundary are prevented; before licensing a wind farm, or any other project in the neighbourhood of the reserve, carry out sufficient and detailed studies taking into account the formulated VNP recommendations; 10. Complete the database of Lower Saxony concerning FFH-Species so that all species existing in the reserve are listed and considered in regional, national and federal planning procedures; 11. Create suitable ecological corridors between the nature reserve and the black grouse biotopes outside the reserve without endangering infrastructures such as wind turbines; 12. Realise the concept of buffer zone areas with a high protection status in the neighbouring areas of the nature reserve; 13. Establish a corps of rangers (Naturwacht).

6. Measures taken to look after the recommendations of the last renewal (2012)

This chapter is largely based on the EDPA Annual reports (with focus on the Annual report of 22/12/2022) for the period between the last and the pending renewal. In general, I experienced the consecutive annual reports as fairly complete and elaborated. The authors did a good job in reporting on the measures that were taken to

comply with the recommendations written out in the renewal Resolution CM/ResDip(2012)5. Therefore, I repeat the consecutive recommendations, and largely copy the actions taken. If necessary, I add experiences based on the actual visit in August 2022.

Recommendation 1 - Pursue a reduction, or at least a limitation to no more than the current amount, of the concession of ground-water extraction and co-ordinate the ground-water extraction for irrigation on farmland technically and quantitatively with the activities and infrastructures of Wasserwerke Hamburg; carry out additional studies and monitoring in order to collect more information about the influences of all kinds of water extraction on species and ecosystems; and simulation modelling should be undertaken for all factors possibly influencing the groundwater level, the soil, the streams, the different types of vegetation including forests, the biotopes of red-list-species, and the natural dynamic of the whole ecosystem.

During the last years “Hamburg Wasser” applied for a “Bewilligung” which is a “non-revocable concession”, license or permission in German law, to extract an average of 18,4 Mio cubic meter of groundwater in fauna-flora-habitat area Lüneburger Heide for 30 years.

In 2019 the regional water authority in charge “Landkreis Harburg” granted “Hamburg Wasser” a “gehobene Erlaubnis” which is a revocable concession with restrictions in terms of German law. Landkreis Harburg also shortened the delivery volume to 16,1 Mio cubic meter on average. The extraction rate of 18,4 cubic meter applied by Hamburg Wasser can only be used in particular years with exceptional circumstances.

In 2021 Hamburg Wasser filed a lawsuit at „Verwaltungsgericht Lüneburg”, the regional court in charge. On 7 October 2021 “Verwaltungsgericht Lüneburg” has dismissed the claim of Hamburg Wasser. The extraction rate will be limited to 16,1 Mio cubic metre on average and the “gehobene Erlaubnis”, the revocable concession, was not demurred by court. “Verwaltungsgericht Lüneburg” also stated, that the studies and data handed in by Hamburg Wasser for the concession procedure are sufficient and meet the current standards of ecological monitoring of ground water extraction. Verwaltungsgericht Lüneburg also dismissed claims of landowners and the environmental initiative “Landesverband Bürgerinitiativen Umweltschutz” against the concession given by Landkreis Harburg.

The court permitted an appeal because of the fundamental questions linked to the concession process.

On 1st December 2021 Hamburg Wasser gave notice of appeal at Verwaltungsgericht Lüneburg. For Hamburg Wasser it is absolutely necessary to get a “Bewilligung” (an approval) which is a “non-revocable concession”, license or permission in German law and not a “gehobene Erlaubnis” (elevated permission) which is a revocable concession with restrictions in terms of German law. The lawsuit will be carried on.

Recommendation 2 - Pursue political recognition of the VNP’s Lüneburger Heide Nature Reserve (NLH) and increase the public funding to the same level as that provided to Federal Nature Parks.

Programmes and funds for nature conservation provided by the EU and the Federal State of Lower Saxony are still extremely difficult to apply to for non-profit organisations such as VNP. Application procedures are highly complicated, lengthy, costly and fraught with risk.

An example for the high risks non-profit organisation have when taking part in public agro-environmental schemes is the “segetal species-problem” was illustrated in last year’s report (2021).

In 2020, VNP was accused by “Landwirtschaftskammer Niedersachsen“ (the supervisory authority in charge of agro-environmental schemes in Lower-Saxony) of “illegal sowing” of endangered species. VNP had carried out experiments in cooperation with Leuphana University Lüneburg to promote the population of endangered segetal species on arable fields owned by VNP by spreading of topsoil, not of seeds!

Landwirtschaftskammer Niedersachsen has cut the grants for the agri-environmental programme for arable fields of VNP for several years. VNP filed a lawsuit against the decision of Landwirtschaftskammer Niedersachsen. Unfortunately, by the end of 2022 there is still not even a date for the beginning of the lawsuit!

Recommendation 3 - Reconsider the ongoing practice of agricultural funding and pursue recognition of all types of heathland cultivation and all heathland restoration activities as a kind of ‘greenland cultivation’ with the same amount of funding, especially during the EU-funding period 2013-2020.

Until 2022 it was very difficult to receive funding for heathland habitats as part of the subsidies paid by the EC for agriculturally used land. Until 2022 VNP had to count each tree on its several thousands of hectares to make sure, that less than 100 trees grow per hectare heathland, being the difference between being recognised as heathland or forest! VNP appealed to the minister of agriculture of Lower Saxony, Mrs. Otte-Kienast, for a

more ecological and economical approach to apply for agricultural funding in heathlands. The ministry of agriculture promised a new regulation in the Lower-Saxony guideline for agricultural payments, at the beginning of 2023.

Recommendation 4 - Pursue the continuation of funding for the rearing of the “Heidschnucke” (Heathlandsheep) by Lower Saxony and the Federal Republic and recognise the “Dülmener Pferde” (Heathland horses) as worthy of subsidy by the rear-premium of Lower Saxony.

VNP calls for an equal treatment of active breeders of rare breeds in all German federal states when new EU programmes are set up in the next period of financing.

Recommendation 5 - Develop a concept for connecting the large heathland areas east and west of Wilsede by an ecological corridor.

The Management plan for the FFH-Area Lüneburger Heide, which is now in planning process, contains several 100 m broad corridors in woodlands to link open heathland habitat.



Recommendation 6 - Pursue restoration of streams, their associated wetland biotopes and their buffer strips;

In 2022 several ground owners were asked for permission to carry out restoration work in the streambed and along the banks of Dierkshauser Bach. Freyerser Moor (a bog which is part of the larger Pietzmoor-Komplex) was cleared of unwanted trees and shrubs to reduce evaporation and enhance exposure to light. Drainage ditches were banked to reduce water loss. On the eastern fringe of Freyerser Moor a further parcel of land was bought by VNP. This plot is vital for further bog restoration schemes. The drainage ditches in this parcel of land will be dammed up during the next years.

Recommendation 7 - Reduce areas with cultivation of energy-crops to a level that does not affect the nature reserve’s flora, fauna, groundwater and the scenic attractions.

In order to promote and increase the attractiveness of so-called agri-environmental measures, VNP wishes significantly higher subsidy rates. Otherwise agri-environmental schemes cannot compete with the highly profitable cultivation of energy crops.

Recommendation 8 - Continue ecological forest management and convert monocultures of spruce into mixed forests including oak (Quercus spp.).

In 2022 the forestry department of VNP converted 5 ha of coniferous forests into mixed forests with Oak trees as main species combined with Lime trees and European Silver Fir at the fringes of the woodlands. On 18th of March 2022, Oak trees and other deciduous trees were planted in Sahrendorf in cooperation with Volksbank Lüneburger Heide a local bank.

Recommendation 9 - Ensure that existing scientific data are included and respected in regional planning processes and also ensure that negative impacts on the nature reserve from outside the area's boundary are prevented; before licensing a wind farm, or any other project in the neighbourhood of the reserve, carry out sufficient and detailed studies taking into account the formulated VNP recommendations.

VNP is very concerned about planning procedures of Deutsche Bahn (DB) – German Railway to build a new High Speed rail track between Hamburg and Hannover parallel to the A7 motorway on the eastern fringe of LHNR. The proposed corridor for the new rail track would block important migration routes for Black Grouse between the nature reserve and the military exercise grounds further east.

Recommendation 10 - Complete the database of Lower Saxony concerning FFH-species so that all species existing in the reserve are listed and considered in regional, national and federal planning procedures.

In 2022 members of staff of VNP charted more than 20.000 areas with endangered species and registered the data in VNP's own database. There are still severe methodological problems with the public species database of the State of Lower Saxony which make exchange of ecological data complicated.

Recommendation 11 - Create suitable ecological corridors between the nature reserve and the black grouse biotopes outside the reserve without endangering infrastructures such as wind turbines.

See actions taken under recommendation 9.

Recommendation 12 - Realise the concept of buffer zone areas with a high protection status in the neighbouring areas of the nature reserve.

Unfortunately planning procedures to declare “Camp Reinsehlen” (an area west of LHNR) as FFH-Habitat no. 157 were still not finished in 2021/22. Camp Reinsehlen is a former British military exercise ground that contains large dry grasslands. It is very important to safeguard Camp Reinsehlen and link its habitats with those in LHNR to create a larger network of dry grassland habitats.

Recommendation 13 - Establish a corps of rangers (Naturwacht).

There is still no sufficient public funding for a professional ranger service in the Lüneburg Heath Nature Reserve.

Other information - Maurice Hoffmann, expert mandated by the Group of Specialists on the European Diploma for Protected Areas visited the Lüneburg Heath Nature Reserve on the 16 and 17 August 2022. Mr. Hoffmann visited the VNP's headquarter and was shown all institutions of VNP such as Landschaftspflegehof Tütsberg (ecological farm), several sheep flocks, Hillmershof (pupils farm), Dat ole Hus (open air museum), Heide-Erlebnis-Zentrum (visitor centre). We had long and intensive discussions with Mr. Hoffmann about ecological and administrative problems in the nature reserve such as windmills, extensive building sites in the neighbourhood of the nature reserve. Scientist of Leuphana University Lüneburg explained Mr. Hoffmann the joined research project of VNP and the University, called Ökokult <https://oekokult.de/news/>

7. Have recommendations been met with?

During the visit, a lot of attention was given by the managers of LHNR to the measures that were taken to comply to the best possible extent with the recommendations given in 2012. My general appreciation is that they meticulously tried to take care of the recommendations as far as was possible within their own power. If recommendations were not (entirely) fulfilled, this was rather due to lack of financial means, lack of cooperation with players in the wider surroundings of the LHNR, than of neglect or lack of willingness of the LHNR management. I explicitly wish to congratulate them for the job they are delivering. During the visit, it also became clear that the local communities (represented by the respective mayors of Bispingen, Schneverdingen and Hanstedt) are very much in favour of the LHNR, appreciate the added value of the reserve for their community, and seem to support the management of the LHNR wholeheartedly. Better cooperation with authorities beyond the local communities is another matter; here a lot of progress can still be made.

8. Conditions and recommendations for the ninth renewal period

Given the great effort put into complying with the recommendations, and given the generally positive and well-kept situation of the EDPA, I have no reasons to formulate conditions for the renewal of the EDPA of LHNR. Recommendations partly confirm the earlier recommendations, and are updated, some additional recommendations and suggestions are added.

Recommendation 1 - Further continue the reduction of the concession of ground-water extraction and co-ordinate the ground-water extraction for irrigation on farmland technically and quantitatively with the activities and infrastructures of Wasserwerke Hamburg; permanently monitor the ground water situation of the entire Lüneburg Heath Nature Reserve using a ground water monitoring network in order to evaluate changes in the eco-hydrological situation due to water extraction, climate change (changes in seasonality of rainfall and atmospheric humidity); use of ground water modelling is recommended to simulate the impact of all factors possibly influencing the groundwater level, the surface waters including streams, the different types of vegetation including forests, the biotopes of red-list-species, and the natural dynamics of the whole ecosystem;

Recommendation 2 – Strengthen political recognition and increased structural funding of the Lüneburg Heath Nature Reserve also beyond the local level, and continue increasing the public funding to the same level as that provided to Federal Nature Parks; secure funding for a permanent group of employed rangers (Naturwacht).

Recommendation 3 – Continue ensuring appropriate funding for the rearing and maintenance of the “Grau gehörnte Heidschnucke” and of the “Dülmener Wildpferde” by Lower Saxony and the Federal Republic;

Recommendation 4 – Implement the broad corridors in woodlands meant to link open heathland habitat, as foreseen in the Management plan of the Natura 2000 sites overlapping with the Lüneburg Heath Nature Reserve; assess the possibility of creating suitable ecological corridors between the Lüneburg Heath Nature Reserve and the black grouse biotopes outside the reserve;

Recommendation 5 - Pursue the restoration of streams, their associated wetland biotopes and their buffer strips; maintain the efforts to safeguard the diversity of typical landscapes associated with the historical “heidepotstalsystem”(deep stable culture, so-called "Heidebauernwirtschaft"); further elaborate the on-going and future management projects in light of historical agro-pastoral land-use habits; develop modern, efficient and effective schemes to mimic to the extent possible these historic techniques;

Recommendation 6 – Continue reducing areas with cultivation of energy-crops within and beyond the borders of the Lüneburg Heath Nature Reserve to a level that does not affect the nature reserve’s flora, fauna, groundwater and the scenic attraction; continue the efforts to maintain, restore or create segetal plant communities, given the mere biodiversity richness and agro-historical value of these ever rarer appearing plant communities in Europe;

Recommendation 7 - Continue ecological forest management and convert monocultures of spruce and pine into mixed forests including native tree and scrub species; expand whenever possible spontaneous deciduous forest development in the forested areas according to the rewilding concept, but carefully monitor the succession in order to detect and avoid further coniferous tree expansion;

Recommendation 8 – Continue including scientific experiments in regional planning processes and also ensure that negative impacts on the nature reserve from outside the area’s boundary are prevented; carry out sufficient and detailed studies taking into account the recommendations formulated by the Verein Naturschutzpark before licensing a wind farm, or any other construction project in the neighbourhood of the reserve; continue the intense cooperation with scientists and support scientific research programmes within the boundaries of the Lüneburg Heath Nature Reserve, in order to further underpin the management with evidence-based arguments;

Recommendation 9 – In close cooperation with the Lower Saxony authorities, continue the efforts to merge the extensive internal data with external data available (e.g. the database of Lower Saxony concerning Natura

2000) so that all species occurring in the reserve are recorded and mapped to ensure they are considered in regional, national and federal planning procedures; consider outsourcing the development of a data exchange system that will ensure the compatibility of both systems ;

Recommendation 10 – Assess the feasibility of creating buffer zones in the neighbouring areas of the Lüneburg Heath Nature Reserve with a high protection status in order to mitigate the effects of disturbances on the core zone;

Recommendations 11 – Continue monitoring invasive alien plant and animal species thoroughly, in order to implement appropriate management measures that minimize their presence and impact on the native species in the Lüneburg Heath Nature Reserve; implement to the extent possible the recommendations of the Standing Committee to the Bern Convention regarding invasive alien species; strengthen national and international cooperation in the field of invasive alien species;

Recommendation 12 – Consider setting up a participatory stakeholder platform to address issues associated with the presence of Wolf in the broader area, and to define consensual measures that are feasible, effective and fundable to deal with the potential impact of this carnivore species that is protected by European legislation; strengthen national and international cooperation to identify good practices for dealing with this species.

