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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

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**REPORT**

**ON THE SPOT EXPERT APPRAISAL OF THE  
KARLŠTEJN NATIONAL NATURAL RESERVE  
(CZECH REPUBLIC)**

4-5 June 2019

*Document prepared  
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## 1. BACKGROUND

The Karlštejn National Nature Reserve (Karlštejn NNR) was awarded the European Diploma for Protected Areas (EDPA) by the Committee of Ministers of the Council of Europe on 21<sup>st</sup> June 2000 (Resolution ResDip(2000)15) and renewed for two periods of five years on 15<sup>th</sup> June 2005 (Resolution ResDip(2005)5) and 16<sup>th</sup> September 2010 (Resolution CM/ResDip(2010)5). The latter Resolution renews the EDPA until 20 June 2020, attaching the set of conditions and recommendations to the renewal that are listed and discussed at the end of the respective chapter.

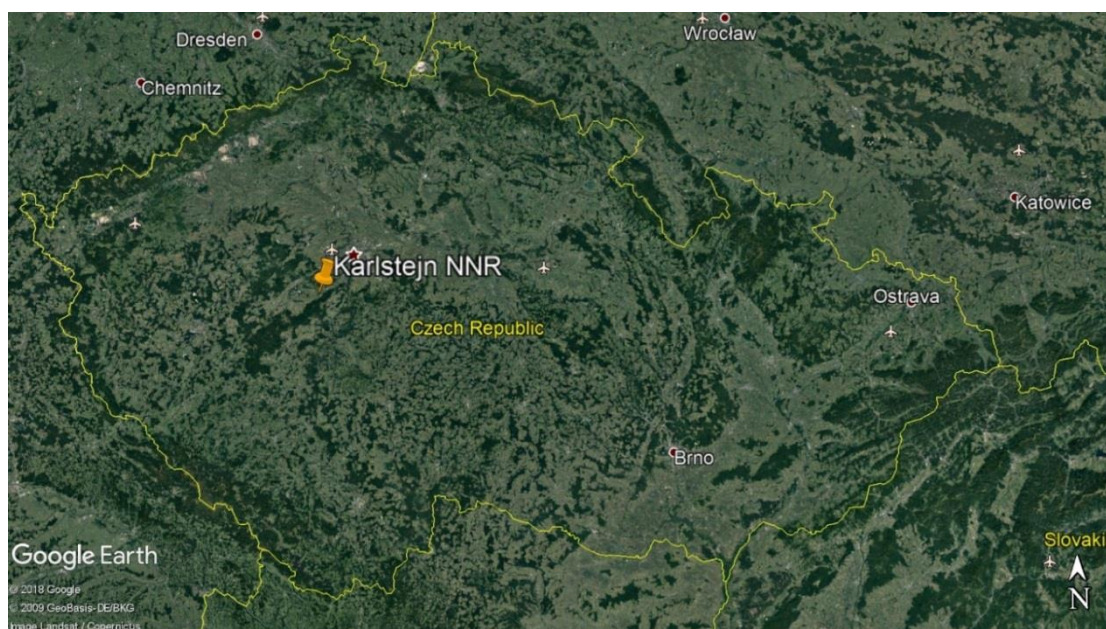
Bílé Karpaty Protected Landscape Area (Bílé Karpaty PLA) was awarded the EDPA by the Committee of Ministers of the Council of Europe on 21<sup>st</sup> June 2000 (Resolution ResDip(2000)13) and renewed for two periods of five years on 15 June 2005 (Resolution ResDip(2005)7) and 16<sup>th</sup> March 2011 (Resolution CM/ResDip(2011)1). The latter Resolution renews the EDPA until 20 June 2020, attaching the set of conditions and recommendations to the renewal that are listed and discussed at the end of the respective chapter.

The aim of this report is to summarise the results of the on-the-spot appraisal visit to the Karlštejn NNR. During the visit any changes in the reference situation were evaluated and the respect for the conditions and recommendations attached to the renewal of the award in 2010 were monitored, all with a view to the renewal of its EDPA in 2020. The appraisal visit was performed between the 3<sup>rd</sup> and the 7<sup>th</sup> June 2019 by Ana Rainho, as an independent expert. The Secretariat of the Council of Europe was not represented.

The visit followed roughly the original draft programme (see Annex I), with slight adjustments. This programme gave the expert the opportunity to informally meet and discuss diverse management issues with different stakeholders.

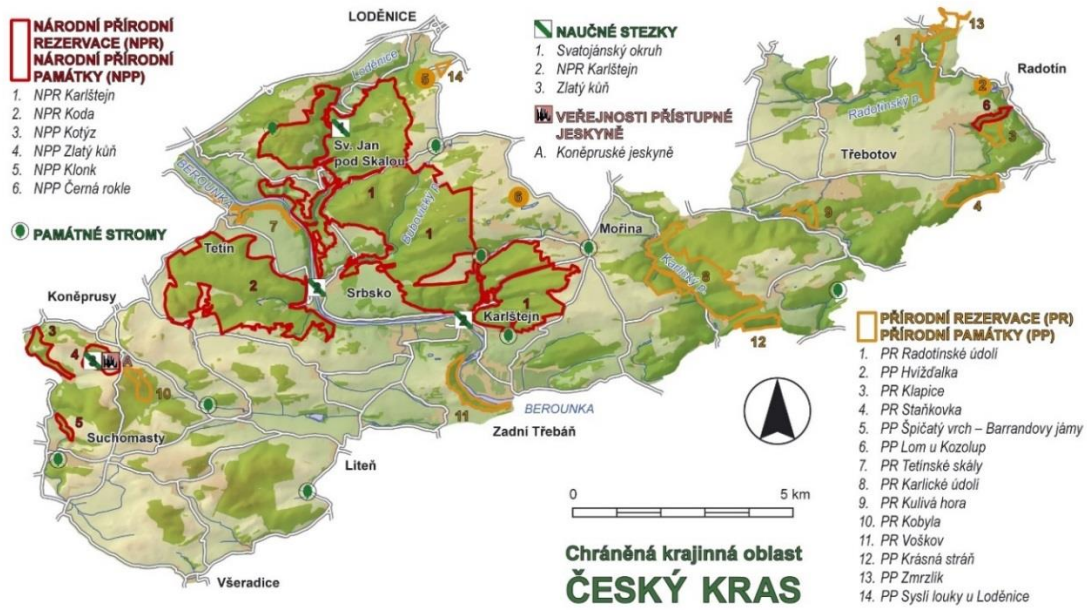
## 2. INTRODUCTION

Karlštejn NNR is an area of *ca.* 1556 ha, gazetted in 1955, located in the central area of the Czech Republic, near Prague (Figure 1). It is part of a larger protected area, the CHKO Cesky Kras (Protected Landscape Area of Czech Karst)



**Figure 1.** Location of the Karlštejn NNR in the Czech Republic (Landsat/Copernicus ©2018 Google).

The Protected Landscape Area of Czech Karst (PLA-CK) was established in 1972 through an order of the Ministry of Culture. Aiming at protecting the country values, appearance, characteristic features, natural resources and forming a balanced environment, this area of *ca.* 129 km<sup>2</sup> encompasses 18 nature reserves and monuments declared for the protection of specific unique values within the PLA-CK (Figure 2). The Karlštejn NNR is located north of the Berounka river and surrounded by the municipalities of Karlštejn, Srbsko, Morina, Bubovice and Svatý Jan pod Skalou (Saint John under the Cliff; Figure 3).



*Figure 2. Map of the Protected Landscape Area of Czech Karst (PLA-CK) depicting all the nature monuments and reserves included in the area. The Karlštejn NNR is delimited by a red line and identified by the number one (map available at <http://ceskykras.ochranaprirody.cz/charakteristika-oblasti>).*



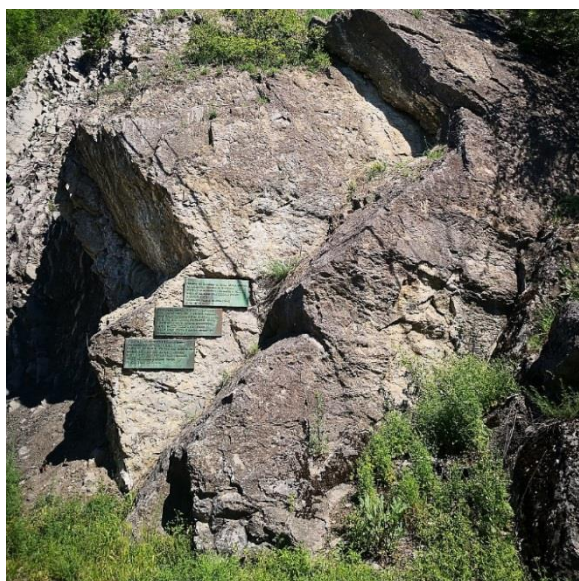
*Figure 3. Current limits of the Karlštejn NNR outlined in dark yellow (©ProtectedPlanet 2014-2019; Landsat/Copernicus ©2018 Google).*

### 3. APPRAISAL

#### 3.1 European interest

##### *Landscape interest*

As mentioned before, the Karlštejn NNR is integrated in the PLA-CK, the largest karst formation in the country. It belongs to the central part of the Barrandian basin, formed by series of Silurian and Devonian strata. As mentioned in the Karlštejn NNR application and in previous appraisal reports<sup>1</sup>, most of the Karlštejn NNR lays on folded limestone with formations that play a significant role in global stratigraphy and is unique in terms of international palaeontological research on the Palaeozoic era. Many of the Silurian and Devonian strata in the area (visible due to natural causes or due to human interventions, like quarries) form important profiles and world-renowned palaeontological sites. The Budňany Rock within the Reserve is a Klonk-type auxiliary profile of the global stratotype (Figure 4).



**Figure 4.** Silurian-Devonian auxiliary type section (parastratotype) at Budňanská skála (Budňany Rock) near Karlštejn. The excavation of Budňany Rock (right) shows wrinkled layers of the highest Silurian and the oldest Devonian. These marine sediments were deposited here about 380-420 mi years ago.

Additionally, many caves are considered important archaeological sites, particularly those with Palaeolithic and Neolithic remains. Karst formations containing important osteological material belonging to the Pleistocene and Holocene fauna were also found.

Although this area has been used by humans since prehistoric times, it is considered that the Reserve has retained its original landscape character and is thus considered one of the most typical areas of the Czech Karst. Most of the area of the Reserve is covered with native hornbeam (*Carpinus betulus*) and sessile oak (*Quercus petraea*) and forests (habitat 9170 under the Habitats Directive - Figure 5). Southern slopes with shallow soil are occupied with Pannonian woods with downy oak (*Quercus pubescens*; priority habitat 91H0) while the plateaus are covered with steppe oak woods (91I0), also a priority habitat. The traditional management of all these forests have been subject to during centuries allowed the maintenance spots for both plant and animal species dependent on open forest. The Norway spruce (*Picea abies*), native from mountainous areas, the black pine (*Pinus nigra*), native to southern Europe and west Asia and invasive black locust (*Robinia pseudacacia*), native to northern America still cover a small part of the reserve. The karstic character of the region favours the occurrence of other priority habitats under the Habitats Directive such as is the case of the rupicolous calcareous grasslands (6110) and the very fragile petrifying springs with tufa formation (7220).

<sup>1</sup> Kuijken E. 2005. Karlštejn National Nature Reserve (Czech Republic). Report of the appraisal visit for the renewal of the EDPA.

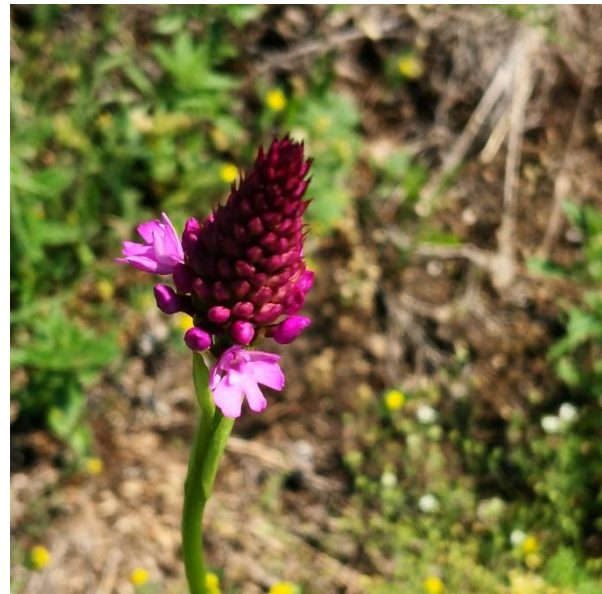
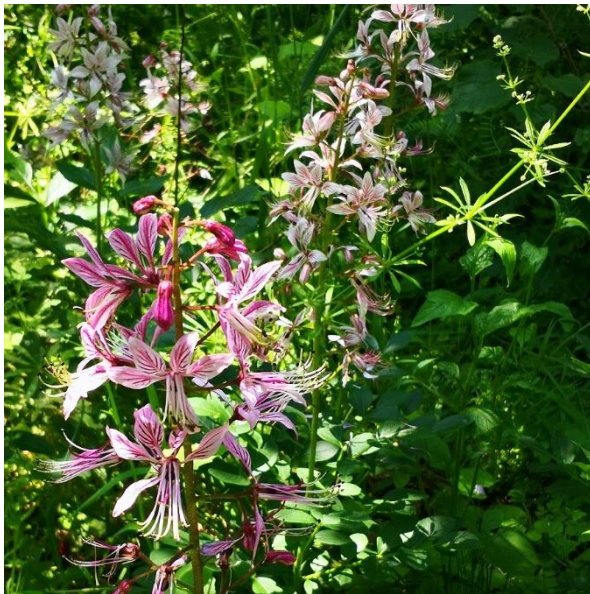


**Figure 5.** The oak-hornbeam forest (left) and steppe oak woods (right) are two important habitats in Karlštejn NNR landscape

### 3.2 Biological heritage

#### *Floristic interest*

The flowering season was clearly over by the time of the appraisal visit and it was thus not possible to see the more than 800 plant species inventoried in the Karlštejn NNR. It is nevertheless worth mentioning the Austrian dragonhead (*Dracocephalum austriacum*) – flagship relict species in the reserve – occurring in rocky outcrops. Some other species were observed, like Lady bells (*Adenophora liliifolia*), occurring in forest clearings and some orchids, namely the Pyramidal orchid in the grasslands (Figure 6).

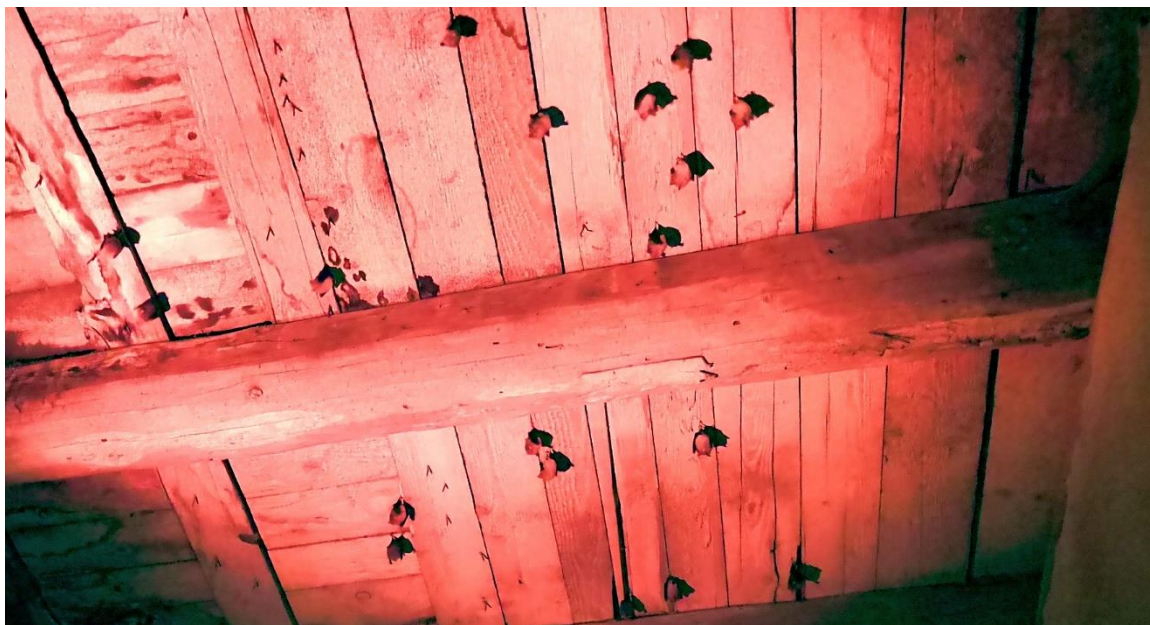


**Figure 6.** The flora is striking, particularly in the grasslands, featuring several orchid species among which the dittany (*Dictamnus albus*, on the left) and the pyramidal orchid (*Anacamptis pyramidalis*, on the right).

#### *Faunistic interest*

Once again it was not possible during the appraisal visit to observe most of the species occurring in the area, besides a colony of lesser-horseshoe bats (*Rhinolophus hipposideros*) in the monastery of Saint John under the Cliff (Figure 7) and the large richness of butterflies, particularly in the rocky grasslands near some abandoned quarries. Some other species of bat are known to occur in the Karlštejn NNR, namely the greater mouse-eared bat (*Myotis myotis*), Brown Big-eared Bat (*Plecotus auritus*), Serotines (*Eptesicus serotinus*)

and the common pipistrelles (*Pipistrellus pipistrellus* and *P. pygmaeus*). Also, worth mention are the over 100 species of molluscs and the large number of species of butterfly and beetles reported for the area, including the stag beetle (*Lucanus cervus*), a species protected both by the Habitats Directive and the Bern Convention. Other endangered species listed in the area are the great crested newt (*Triturus cristatus*).



*Figure 7. Colony of lesser horseshoe bats (Rhinolophus hipposideros) in Saint John under the Cliff (Svatý Jan Pod Skalou).*

**Conclusion:** Karlštejn NNR is not a pristine area, but there is no doubt about its importance for the conservation of biological diversity and significant evidence of the Earth's history at European level. The area includes several of the habitats protected by the Habitats Directive and it harbours several species protected under the Bird and Habitats Directive and breeding sites for species protected under the Bern Convention. Not less important is the world uniqueness of the karst formations and paleoethological remains in the area.

### 3.3 Conservation measures

#### *Legal protection status and zoning*

The Karlštejn NNR is fully embedded in the larger PLA-CK, where other smaller natural reserves and monuments are included. Within the Reserve, there is an area – Doutnáč – that is considered a non-intervention area and where vegetation is left with no deliberate human intervention.

#### *State of conservation of the main species and their habitats*

Declines in the population of the Austrian dragonhead (*D. austriacum*), the flagship species of the reserve are reported. The population of this species declined due to the drought observed in the region for several years. This species is closely surveyed for almost 15 years, and currently, it is reduced to 20% of the original population. There is however a good seed bank, ensuring conditions for the population to recover in the appropriate weather. The Institute of Botany of the Academy of Sciences just started ex-situ conservation plan in co-operation with botanical gardens and Nature Conservation Agency. It was not possible to compile detailed information on the state of conservation of other main species present in the area, but several habitat management strategies are on-going aiming at maintaining or increasing biological value of the reserve.

The Norway spruce (*P. abies*), a non-native species planted in the area is now covering only a small part of the reserve, together with other production and invasive species like the Black pine (*P. nigra*), European larch (*Larix decidua*) and black locust (false acacia). The Agency for Nature Conservation working together with the Forests of the Czech Republic state company were able to reduce the area occupied by these species from 15% cover, 30 years ago, to 5% now (Figure 8). It is worth mentioning that according to the information provided these species occupy 70% of the forested territory outside the protected area.



*Figure 8. Tree stumps left after Norway spruce removal at Doutnác.*

Some parts of the forest in Karlštejn NNR are now subject to coppicing (Figure 9). The restoration of this traditional forest management practice is becoming more common all over central and eastern Europe, as it represents one of the oldest forms of organised and sustainable management and use of forests and its disappearance has been associated to a decline in biodiversity in the Czech Republic<sup>2</sup>. Short term results on recently restored coppices showed positive effects on species and/ or functional diversity of various taxonomic groups<sup>3</sup>.



*Figure 9. Forest area identified for coppicing with trees already marked for cutting down.*

<sup>2</sup> Hédl R. (2018). Historical Coppicing and its Legacy for Nature Conservation in the Czech Republic. In A. Unrau, G. Becker, R. Spinelli, D. Lazdina, N. Magagnotti, V.N. Nicolescu, P. Buckley, D. Bartlett, P.D. Kofman (Eds.), *Coppice Forests in Europe* (pp. 151-155). Freiburg i. Br., Germany: Albert Ludwig University of Freiburg.

<sup>3</sup> Vild, O., Roleček, J., Hédl, R., Kopecký, M., & Utinek, D. (2013). Experimental restoration of coppice-with-standards: Response of understorey vegetation from the conservation perspective. *Forest ecology and management*, 310, 234-241.

Šipoš, J., Hédl, R., Hula, V., Chudomelová, M., Košulič, O., Niedobová, J., & Riedl, V. (2017). Patterns of functional diversity of two trophic groups after canopy thinning in an abandoned coppice. *Folia geobotanica*, 52(1), 45-58.

Hédl, R., Kopecký, M., & Komárek, J. (2010). Half a century of succession in a temperate oakwood: from species-rich community to mesic forest. *Diversity and Distributions*, 16(2), 267-276.



Grazing is also being promoted in the area in order to reduce shrub encroachment and promote the richness of flowering plants in the meadows and grasslands. This measure funded by the European Agri-Environment Funds is already showing some results (Figure 10).



**Figure 10.** Controlled grazing by sheep and goats is being implemented in the area aiming at improving the habitat to non-dominant flowering species. On the photo on the right is Mr Rumler, a local farmer involved in this measure, showing the results of different grazing regimes.

**Conclusion:** The legal regime of protection of the Karlštejn NNR complies with the EDPA requirements. The little information collected on the state of conservation of the main species suggests that their status is adequate, but further information from monitoring would be welcome. Nevertheless, the current management seems to be focused in preserving or increasing the biological value of the Karlštejn NNR.

## 4. MANAGEMENT

### *Management plan for the area*

The current management plan (2017-2025) aims at (a) preserving the natural values; (b) leave important part of ecosystems to natural development and (c) preserve or restore valuable ecosystems developed under long-term human management. It also defines the following priorities: (a) important part of forest stands should reach age, species and spatial composition close to their natural state, and (b) important part of forest stands should reach coppiced standards, similar to the conditions they were kept in the past due to long-term human management, in order to create conditions to species that need more open and sunny habitats.

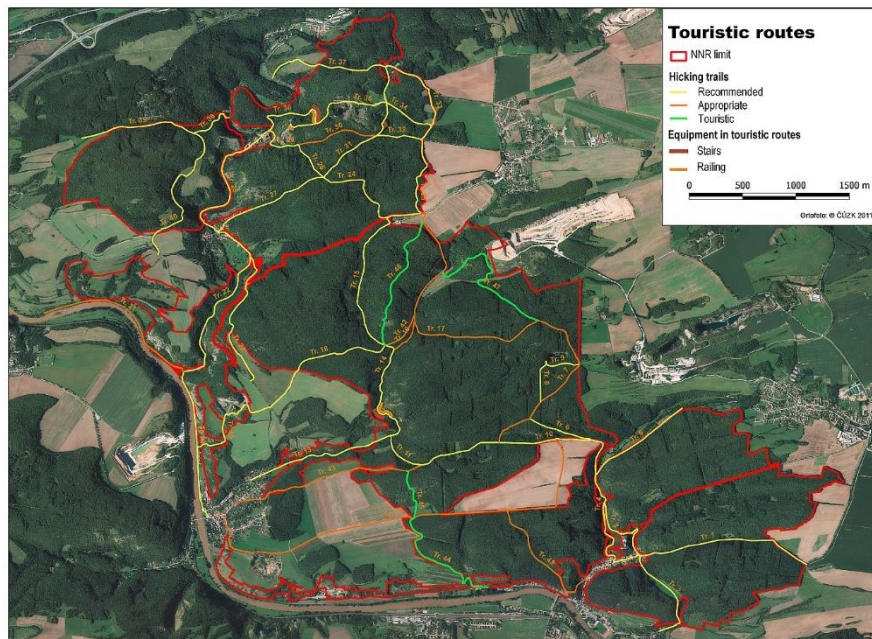
### *Institutional arrangements*

The Agency for Nature Conservation and Landscape Protection of the Czech Republic (NCA-CR) is the responsible body for the management of the Karlštejn NNR. The NCA-CR is a governmental body established by the Ministry of the Environment. It was established on March 1995 as a successor of the former Czech Institute for Nature Conservation. The main aim of NCA-CR is to protect and conserve nature and landscape on the whole territory of the Czech Republic.

In the Karlštejn NNR the NCA-CR works in collaboration with the Forest Management Institute, within the forested areas. The Regional office responsible for the PLA-CK includes a staff of nine people, four of which work half-time. The area has no paid or even volunteer rangers. Some retired people sometimes do some ranger activity, but there is no real presence in the field.

The Karlštejn NNR includes some infrastructures, among which a back-office in Karlštejn and a field station, that is frequently rented to visitors, scouts and other groups. There is a network of off-road hiking

and trails covering the Reserve (Figure 11). The most visited trails have several information panels along the way (Figure 12).



**Figure 11.** Network of touristic routes covering the Karlštejn NNR (adapted from the Management Plan of the Reserve).



**Figure 12.** Signposting in two of the major trails of the reserve: St. John's circuit (left) and Douthác (right). Notice the inclusion of the EDPA logo on the signpost on the right.

### **Financial management**

The current budget seems to be enough for the expenses at the time, but there is some fear of future reductions. Sometimes the budget is not easily accessible due to administrative difficulties, causing some balance issues, but otherwise it seems adjusted. Further funding may become necessary in the near future for the acquisition of all equipment necessary for the new House of Nature currently being built in the PLA-CK, making it possible to visit the centre and the nearby caves. The House of Nature is a project with educational purposes, funded by the NCA-CR (state budget) but owned by the Czech Caves (also state body).

### ***Relationship between the body responsible for the area and other stakeholders***

The most visible conflict in the area results from the requests of house construction or enlargement in the nearby municipalities. Prague is only half an hour away from the reserve and the number of people moving to this region rises steadily. This is increasing the pressure at the borders of the NNR even if there are very few buildings inside the reserve. Landscape character and eventual conflicts are assessed within the reserve boundaries, this analysis is however not always well accepted by the bordering municipalities (although some municipalities are in partial or even full agreement).

Some issues also arise from an inappropriate behaviour of some tourist on trails that cross sensitive areas. Also, some problems due to trampling by bikers that use hikers' trails and areas with tufa formations that is particularly sensitive.

### ***Research and monitoring programmes***

A long-term research on coppiced forest is ongoing with the collaboration of the Research Institute for Landscape and Ornamental Gardening, Department of Forest Ecology, with the results of the first 10 years of monitoring recently published<sup>4</sup>. The effects of grazing (entangled with the effects of draught and climate change) on the vegetation is also being studied in the area, using two localities with 24 plots divided in 2 groups - one is grazed, the other is covered in order to exclude any effect of grazing. In the vicinity of the reserve there is also ongoing paleontological research and research on the accumulation of molluscs in tufa substrate<sup>5</sup>.

Some Natura 2000 species, namely the Austrian dragonhead (*Dracocephalum austriacum*), Lady bells (*Adenophora liliifolia*) and Lady's-slipper orchid (*Cypripedium calceolus*), have all identified populations visited every year, with the evaluation of their number, phenology, damages and biotic and abiotic factors affecting them in order to evaluate each species' conservation status.

There is also a national-wide programme for monitoring each Natura 2000 habitat type. This programme includes sampling sites across the country – 50 for each habitat type – that are visited in a 5- or 10-year cycle (adjusted to Art. 17 Reports). There are around 10 of such sampling sites within the NNR. Vegetation is also mapped in the area in cycles of 10 years. Some selected bird, amphibian and reptile species are also monitored.

### ***Natural resources management, including water resource***

Water management is included in the management plan of the NNR – one chapter is dealing with water but mostly with streams, ponds and wetlands. Underwater systems are a complex situation in water management, as they are poorly known. Although there are some exceptions, like the case of the spring in the Monastery of Svatý Jan pod Skalou, the spring system is also poorly known. Drilling water wells is subject to an authorization by the office.

### ***Use of renewable energy systems***

Besides the use of biogas, there was no other observable use of renewable energy systems.

**Conclusion:** The management of the Karlštejn NNR is ensured by the Agency for Nature Conservation and Landscape Protection of the Czech Republic in collaboration with the Forest Management Institute. The Management Plan, in force until 2025, seems to be well adjusted to the requirements of the area including a solid set of objectives and management policies focusing biodiversity protection and restoration.

<sup>4</sup> Unar P., Janík D., Adam D., Hort L., Král K., Šamonil P. and Vrška T. (2016). Douthnac – Spontaneous development during 2005-2015. *Folia Forestalia Bohemica*, 27: 60pp.

<sup>5</sup> Hlavac, J. (2006). Molluscan succession from Holocene tufas in the Czech Karst (Czech Republic). *Geologica Carpathica Bratislava*, 57(5): 405.

Suchý, V., Zachariáš, J., Tsai, H. C., Yu, T. L., Shen, C. C., Svetlik, I., ... & Machovič, V. (2019). Relict Pleistocene calcareous tufa of the Chlupáčova sluj Cave, the Bohemian Karst, Czech Republic: A petrographic and geochemical record of hydrologically-driven cave evolution. *Sedimentary Geology*, 385, 110-125.

### *Uses and socio-economic activities*

No fields are farmed inside the NNR; former fields were converted to pastures or meadows. The number of visitors in the region is high but not necessarily inside the reserve, as they concentrate in the nearby municipalities, particularly in Karlštejn and Svatý Jan pod Skalou. There is a train every half hour from Prague and hiking trails within the area (see Figures 11 and 12) but most visitors come by car. No active quarries exist presently within the limits of the Reserve, only one operating nearby. Abandoned quarries are common (ca. 30 in total) but they seem to be left to regrow the native vegetation and some tunnels are currently used as bat roosts. Forestry seems to be the main socio-economic activity in the area. This is however a low production forest due to the poor soils and low water availability and it seems not to be a high priority area for forestry purposes. It seems however to be important that the nature conservation goals within the forest area are well defined and assumed also by the Forest Management Institute. Important is the current trend of human population increase in the urban areas bordering the Reserve. The proximity to Prague makes this area very attractive to urban development and there is an increased pressure for licensing new buildings and renew and enlarge existing buildings just at the border of the reserve (even if outside its limits).

Some activities of environmental education are taking place in some schools of the reserve, providing children the opportunity to enjoy all the benefits of living close to a Reserve. A long-term cooperation between the Administration of the PLA-CK and the association ZO ČSOP Nyctalus (<http://www.nyctalus.cz/cz/>) facilitates the organisation of educational events conserved with bat conservation (Figure 13). This association also assists with winter bat monitoring in the PLA and helping in potential conflicting situations like the presence of bat colonies in buildings.



**Figure 13.** Photo on the left: Mrs. Dagmar Zieglerová and Markéta Sasínková of the Association Nyctalus after the visit to the bat roost in the Svatý Jan pod Skalou Monastery. Photo on the right: Some of the materials distributed by this association during educational events.

**Conclusion:** Not many uses and socio-economic activities within the Karlštejn seem to be effectively damaging the physical, natural and biological integrity as well as the geologic values of the protected area. It is however necessary to pay close attention to the urban development in the nearby villages.

### *Connectivity of the area*

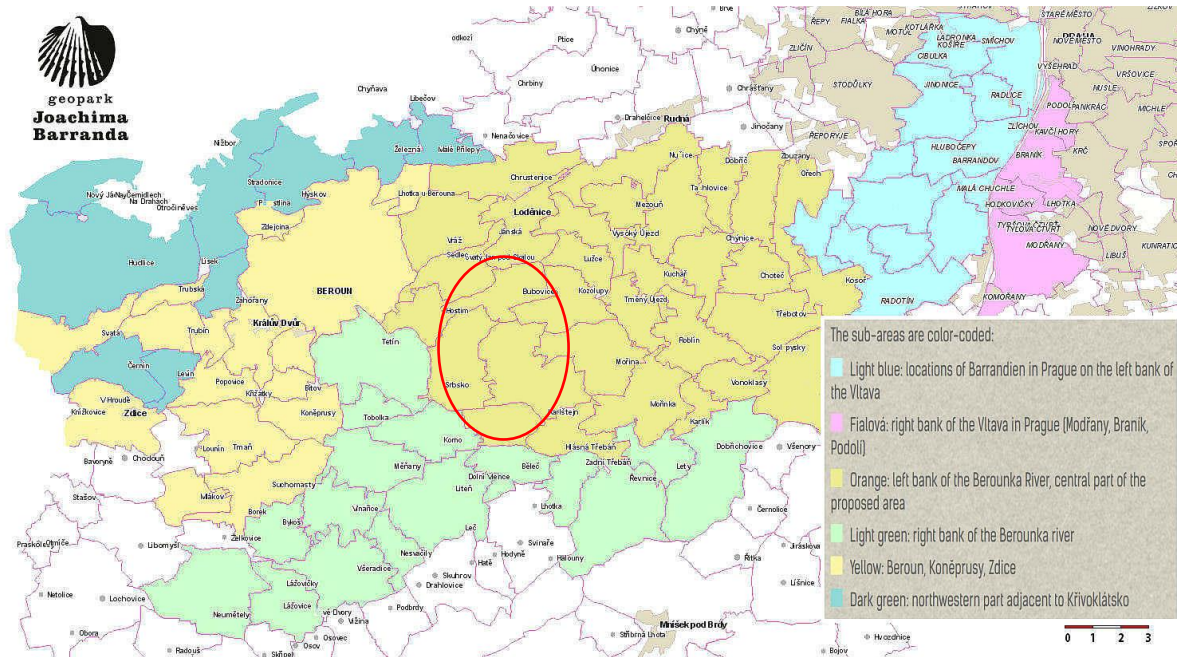
#### *Ecological connectivity with other areas*

There seems to be no major issue of connectivity within the Karlštejn NNR. Its integration in the larger PLA-CK and the proximity of the Koda National Nature Reserve (on the opposite side of the Berounka river) should ensure some ecological connectivity in the area.

### *Other forms of recognition awarded to the area of certification of protected areas*

At the National level the area is classified as Natural Reserve and integrated in a Protected Landscape Area (IUCN category V). Together with the nearby Koda NNR (vd. Figure 2), it forms the Karlštejn – Koda site of Community importance, designated under the Habitats Directive (code CZ0214017).

The Karlštejn NNR is also included in the area candidate to a National Geopark - The Joachim Barrande Geopark (Figure 14). The Barradian Geopark Candidacy for National Geopark was approved by the National Geopark Council in spring 2018.



**Figure 14.** Preliminary indicative map of cadastre of municipalities included in the Joachim Barrande Geopark territory. The area where the Karlštejn NNR is located is roughly indicated by the red oval.

## 5. IMPLEMENTATION OF THE CONDITIONS AND RECOMMENDATIONS

### *Recommendations:*

**1. Continue the restoration of non-forested areas of forest steppes and xerophilous calcareous grasslands through appropriate management; make funding available to conclude contractual agreements with the goatherds and/or shepherds in order to guarantee grazing, and thereby maintenance, in the long term;**

As mentioned above, grazing has been actively implemented in the area with the support of nature conservation and agri-environmental funds, aiming at the long-term preservation of biodiverse steppes and grasslands in the Reserve. The effort should however be continued in the future.

**2. Continue the restoration of the broad-leaved forests by gradually eliminating conifer plantations; in the interests of allowing natural regeneration, avoid reintroducing non-native game species such as mouflon or fallow deer;**

This recommendation is being implemented in the area. As mentioned before, the area covered with the Norway spruce and black pine was reduced by 10% during the last 30 years. Again, efforts to reduce the conifer plantations should be continued.

**3. Make it compulsory to draw up land-use plans (spatial development) and explore the possibility of reinforcing the special legal competences of the reserve's staff and other authorities responsible for nature conservation; also stimulate the establishment of regular consultation procedures with relevant local and regional authorities, scientists and NGOs;**

All the communes bordering the Reserve have already an urban plan, prepared in collaboration with the Reserve. Nature conservation participation in the process was strong. The more recent plans were

finished during the last 10 years. No changes are allowed without license of NCA-CR. The Reserve should evaluate the need to review the urban plans, if the housing pressure continues to increase.

**4. Improve signposting, notably by translating the texts into English, and possibly into German, and by displaying the European Diploma logo on the signs**

Some improvements are observable, namely by the inclusion of the EDPA logo in some of the new signposts (Figure 14). The efforts should however be continued, particularly in making available some information to foreign visitors, as only one of the visited signposts – the one near the entrance of Karlštejn castle - contains information in English (Figure 15).



**Figure 15.** New signposting in the Reserve: In Srbsko, near the Serbian bridge (on the left) and in Karlštejn, near the main entrance of the Karlštejn castle. Noticeable is the EDPA logo in both the signposts.

**5. Stimulate the development of high-quality visitors' centres and organise environmental education for the wider public; encourage local authorities to disseminate information on the merits of the nature reserve and its position in Europe in appropriate places (such as railway stations, camping sites, municipal halls, museums, etc.);**

During the last seven years there has been some developments on the project “House of Nature”. This visitors’ centre is to be built near Konepruske Caves, in a geologically remarkable area of the ‘Kotyz and Zlaty kun’ national natural monument above the Certovy schody quarry. It will have a larger scope than that of the Reserve, as it will be focusing on Bohemian karst. All plans and permissions are in place, and the House of Nature should be finished in the next 3 years. It will be built with National and European funds. Information points will be installed in the NNR. These will work as reception for visitors to the NNR providing information on the values and what to visit.

**6. Ensure that the necessary budget and resources are available for the manifold functions and operational tasks of the reserve's staff, including administration, research, surveillance, education and training, as well as habitat management.**

The current budget seems to be adequate, but the staff shows some reserves for the future, as the possibility of budget reduction and cuts in personal and salaries was mentioned. The reduction of National Funds and EU funds is also feared, in particular as the House of Nature will represent a challenging support for the PLA-CK.

## 6. CONCLUSIONS AND REMARKS

Taken in consideration all that was observed and discussed during the appraisal visit it is recommended to renew the European Diploma of Protected areas to the Karlštejn National Nature Reserve until 20 June 2030. It is also recommended that the current Recommendations are kept with slight adjustments, as their continued implementation maintains all the relevance:

1. Continue the restoration of non-forested areas of forest steppes and xerophilous calcareous grasslands through appropriate management; make funding available to continue contractual agreements with the goatherds and/or shepherds in order to guarantee grazing, and thereby maintenance, in the long term;
2. Continue the restoration of the broad-leaved forests by gradually reducing conifer presence in the Reserve;
3. Continue to implement nature-based solutions and management in the face of climate change, ensuring the recovery of native tree species in the forested areas, the installation and adequate management of permanent grasslands or the restoration of the natural floodplains within the Reserve, among others.
4. Ensure that human and related construction pressure remains compatible with the natural values and conservation objectives of the Nature Reserve;
5. Evaluate the need to review the land-use plans of all municipalities and explore the possibility of reinforcing the special legal competences of the reserve's staff and other authorities responsible for nature conservation; also stimulate the establishment of regular consultation procedures with relevant local and regional authorities, scientists and NGOs;
6. Improve signposting, notably by including some information in English or German, and by displaying the European Diploma logo on the signs;
7. Stimulate the development of high-quality visitors' centres and organise environmental education for the wider public; encourage local authorities to disseminate information on the merits of the nature reserve and its position in Europe in appropriate places (such as railway stations, camping sites, municipal halls, museums, etc.);
8. Ensure that the necessary budget and resources are available for the manifold functions and operational tasks of the reserve's staff, including administration, research, surveillance, education and training, as well as habitat management.

## **7. ANNEXE 1 - DRAFT AGENDA FOR VISIT TO ASSESS THE EUROPEAN DIPLOMA FOR THE KARLŠTEJN NATIONAL NATURE RESERVE AND BÍLÉ KARPATY**

### **Sunday June 2 evening**

- pick-up at the Prague airport by Mr Pojer, head of Bohemian Karst office
- transfer to the hotel in Karlštejn

### **Monday June 3**

- Morning
  - short meeting with the staff at Karlštejn office
  - field excursion to forest steppes and pastures near Srbsko
- Afternoon
  - visit of Svaty Jan pod Skalou village
  - hike to the Rock above former monastery
  - meeting with the Mayor, Mr Boucek
  - visit of former Sain John (Svaty Jan) monastery attic with summer colony of *Rhinolophus hipposideros*

### **Tuesday June 4**

- Morning
  - visit of forest kindergarten in Bubovice
  - meeting with local NGO
  - visit of newly revitalized wetlands
  - meeting with Forest representatives of the Czech Republic
  - visit of Doutnac Hill non-intervention area
- Afternoon
  - meeting with local farmer Mr Rumler, example of dry grassland grazing
  - meeting with Mr Moucha, representative of local gamekeeper fellowship, founder of the protected landscape area
  - transfer to Prague by train

### **Wednesday June 5**

- Morning
  - transfer on the train to Luhacovice in Bile Karpaty (5 hours)
- Afternoon
  - discussion about management of Bile Karpaty with the staff of the nature conservation office
  - transfer to Mala Vrbka, meeting with the Mayors
  - accommodatin in Mala Vrbka

### **Thursday June 6**

- Morning
  - visit of the environmental centre in Nova Lhota
  - presentation of educational and information activities
  - meeting with farmers
- Afternoon
  - visit of Zahrady pod Hajem or Certoryje Rezerve with dry grasslands and orchards

### **Friday June 7**

- Morning
  - transfer to Prague (5 hours)
- Afternoon
  - flight to Lisbonne