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Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP)

Group of specialists - European Diploma for Protected Areas

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KARLŠTEJN NATIONAL NATURE RESERVE (Czech Republic)

RENEWAL

Expert report by
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Document established by the Directorate of Culture and Cultural and Natural Heritage The European Diploma for protected areas was awarded to the Karlštejn National Nature Reserve (Czech Republic) for the first time in 2000.

The Secretariat did not accompany the expert on his visit to the reserve.

Appendix I reproduces Resolution (2000) 15 concerning the award of the European Diploma. In Appendix II the Secretariat presents a draft resolution for possible renewal.

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I. Introduction

In order to discuss the first renewal of the European Diploma for the Karlštejn National Nature Reserve in the Group of Specialists on Protected Areas, we present in this report the conclusions of the on-the-spot appraisal, carried out on 11-12 August 2004 and formulate some draft recommendations.

We sincerely thank the management staff of the National Nature Reserve for the well organised site visits, the talks and meetings with several invited experts, stakeholders and the press. Especially Mr Michael Pondelicek, director of the reserve, assisted by Mr Tomas Tichy and Pavel Sprynar, have illustrated their personal knowledge on the historical development and nature values of the reserve, their management experience and their greatest involvement with the area as part of the Bohemian Karst landscape park.

Other persons will be mentioned under the appropriate paragraphs.

A special word of thanks to Tomas Tichy for his great efforts in almost permanent simultaneous translation.

Programme:

10.08.04	arrival at Karlštejn, stay at Golf Course Lodge
11.08.04	meeting at NNR centre with the reserve director, management staff and administration
	full day visit to the reserve along walking trail around St. John under the Rock (Svatý
	Jan pod Skalou)
	discussion at educational centre
	visit of Karlštejn Castle
12.08.04	further field visit in surrounding landscape park, incl. caves and quarries
	meeting in Srbsko with local municipalities' mayors or representatives and NGO's
	press interviews
13-14.08.04	two days private field visits in the NNR and the surrounding landscape park
15.08.04	departure to Brussels

During the introductory meeting in the office at Karlštejn, we met a number of the small NNR staff (11 employees in total; about 50 volunteer rangers assisting in monitoring and education tasks).

An overview was presented of the geological, geomorphologic and palaeontological interests of the area. Special attention was paid to the biodiversity and the position of the NNR in the framework of the Czech NATURA 2000. This Network has been prepared with the help of the NNR staff and is subject to broad consultations with different authorities and the public. Some specific species and habitats occur, which necessitates the designation of this area under the Habitat directive. (The final regulations of this protection status are written in the cadastre).

A LIFE-funding project is prepared in cooperation with NGO's. Nature education will be developed at a new centre (see further) but at present depend on the NNR staff.

The visit to the Karlštejn Castle, guided by the Museum director, was most relevant in order to understand the historic background of the whole region and to discuss the way in which the integration of cultural tourism with nature education and recreation could be envisaged.

The meeting with local representatives of municipalities, the quarry industry and the NGOs working in the field of biodiversity monitoring and nature education illustrated the engagement of the participants to improve the position, functions and quality of the reserve where possible.

The press published some detailed and positive articles with interviews of the director and the expert.

After the official visit, we stayed during two more days as a private initiative in order to experience the biological features and values of the reserve and surrounding protected landscape in more detail and to assess the use of the area by visitors.

II. Summary review of nature values (and management results)

During the field visits, we have been informed about the great importance of the geological diversity and geomorphologic and palaeontological interests of the reserve and the Bohemian Karst Landscape Park.

We further observed the most representative habitats and discussed the nature quality, the aims and relevant management choices in the reserve as an integrated part of a forestry and conservation strategy. These elements are also described in the application form and the evaluation document for the European Diploma (expert report Mr Daniel Daske, January 2000).

The annual reports of the reserve approve the efforts made by the director and the NNR management team to give reasonable follow up of the recommendations. The information presented in these reports is of high value and allows a fair follow up the results of monitoring, research and management. Also the administrative and legal aspects are adequately summarised.

Therefore in this appraisal report we pay most attention to environmental changes and planned developments concerning the reserve and its surroundings, rather than describing details of the internal biological aspects of flora, fauna and habitats. Some aspects of important ecological processes to be restored are highlighted.

A. Site location and overall characteristics:

The Czech Karst is situated SSW of Prague and was declared as a 'protected landscape area' (PLA) in 1972 and covers over 128 km², from Radotin (from the outskirts of Prague City) in the east to the town of Beroun in the west (district of Beroun).

The Karlštejn National NatureReserve (1547 ha) is situated north of the Berounka river and is one of the 18 nature reserves within this Czech Karst complex (total reserve area: 2072 ha). South of the river is the second NNR 'Koda'. Also 4 national nature monuments, 9 nature reserves and 4 nature monuments are designated in the Protected Landscape Area. (also called 'the Geological Paradise').

B. Abiotic apects: geology, geomorphology and hydrology ('geodiversity')

The Czech Karts PLA is a calcareous area with numerous karts characteristics unique from the viewpoint of world stratigraphy and the palaeontology of the older Palaeozoicum. It is called 'a geological paradise'. The NNR is mainly characterised by folded limestones based on Silurian and Devonian complexes of strata. The limestone plateau has an average altitude of ca 400 m. Its Karstic structure includes ridges, fissures, canyons and cliffs, some of which can be observed along the Berounka river, the southernmost limit of the reserve. Also typical for Karst regions are cavities, dolines and karst springs with underground watercourses and pure water sources (of historic or religious importance), present over the area.

The hydrology of the region is dominated by the Berounka river, which is the southern reserve limit and of which the interesting cliffs at some places are within the limits of the NNR. A big flood occurred in 2002 with water above 7m of the normal level, flooding all villages along both sides up to Prague.

This caused considerable pressure on water authorities to canalise and regulate the river, reinforce parts of the banks and dredge amounts of gravel to deepen the water course. Interventions from the NNR staff could reduce the shape and effects of these works at local basis.

These 'geodiversity' values are internationally recognised. A series of quarries surrounding the nature reserve also offer the opportunity to observe some of the geological structures, notably in some deep, old excavations and in some still active limestone quarries. A number of 400 caves is mentioned for the Czech Karst; some are managed and represent a well known recreational attractivity (e.g. Koneprusy Caves in Devon calcite rock).

Also for palaeontological reasons the area is recognised (Palaeozoic sites). In 1972 the Karlštejn area was declared: 'Stratotype of Silurian-Devonian strata border'. The popular fossil Trilobite is figuring in the logo of the PLA. The Council of Europe has paid special attention to this Geological Heritage.

C. Habitat diversity

The specific biogeographical value of the Bohemian Karst is a result of the absence of flora elements from the Alps and the Carpathians, while other limestone areas in central Europe have been influenced from those regions.

The most important habitat types are

- limestone vegetations
 - = several types of deciduous broad-leaved forests
 - (e.g. thermophilic Oak and Aok-Hornbeam types, Beech forest and rare White Oak forests)
 - = 'steppic' habitats with
 - xero-thermophilous nonforest vegetation (calcareous grasslands, mostly in small patches)
 - 'steppic' forest (mostly young spontaneous woods overgrowing grasslands)
- riparian habitats along the Berounka and its small tributary river valleys
- rock outcrops (natural or former quarries) with rocky grassland
- calcarious tuff formations along part of the small creeks in the forests (the walking trail is to be corrected in order to avoid these rare habitats, although very attractive to the public, but conservation priority must prevail on recreation

List of European Habitats in Karlštejn NNR according to the results from complete area mapping in 2001-2004

Priority	Code	Habitat name
habitat		
	3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation
	3270	Muddy river banks with <i>Chenopodion rubri</i> p.p. and <i>Bidention</i> p.p vegetation
*	40A0	Continental deciduous thickets
	5130	Juniperus communis formations on heaths or calcareous grasslands
*	6110	Rupicolous calcareous or basophilic grasslands (Alysso-Sedion albi)
	6190	Rupicolous pannonic grasslands (Stipo-Festucetalia pallentis)
*	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates
		(Festuco-Brometalia)
	6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine
		levels
	6510	Extensive hay meadows of the plain to submountaine levels (Arrhenatherion,
		Brachypodio-Centaureion nemoralis)
*	7220	Petrifying springs with tufa formation (<i>Cratoneurion</i>)
	8150	Medio-European siliceous scree
*	8160	Calcareous scree of hill and montane levels
	8210	Chasmophytic vegetation of calcareous rocky slopes
	8230	Pioneer vegetation on siliceous rock surfaces (Sedo-Scleranthion nebo Sedo albi-
		Veronicion dillenii)
	8310	Caves not open to public

	9130	Asperulo-Fagetum beech forests
	9150	Medio-European limestone beech forests (Cephalanthero-Fagion)
	9170	Galio-Carpinetum oak hornbeam forests
*	9180	Tilio-Acerion forests of slopes, screes and ravines
*	91E0	Mixed ash-alder alluvial forests of temperate and boreal Europe (Alno-Padion,
		Alnion incanae, Salicion albae)
*	91H0	Pannonian white-oak woods
*	9110	Euro-Siberian steppe oak woods

D. Important species

Most plant species are to be found flowering in spring; also for birds the most interesting breeding period was over, so this site visit came rather late. Nevertheless, we have observed several interesting species, illustrating the importance of the NRR in its bio-geographic context.

More than 800 plant species have been inventoried, some of them critically endangered (4), strongly endangered (11) or endangered (21); even one endemic species occurs here: *Sorbus eximia*. The threatened Austrian dragonhead (*Dracocephalum austriacum*) is a flag species for this area.

Fauna elements are well known and offer a rich variety.

- the Malacofauna is studied in detail, with >100 species (of which 2 endemics: *Chondrina avenacea* and *Trichia unidentata bohemica*)
- the Entomofauna lists are impressive and include many species typical for central Bohemian region
- (not less than 1390 Butterfly species occur in the Protected Landscape Area)
- some rare or critically endangered amphibians, birds and other vertebrates are also typical for this Karst region reserve, thus being of utmost relevance in a national and transboundary context.

E. Landscape

The landscape geomorphology is dominated by the Berounka river and two small tributaries (Bubovicky Creek and Lodenice Creek), cutting the limestone plateaus and karstic hills, resulting in a varied relief.

The northern part is mainly wooded, with some rock outcrops, e.g. the famous Svaty Jan pod Skalou (St. John under the Rock), cliffs along the Berounka and old abandoned quarries (Mala Amerika = Small America inside and Velka Amerika = Large America near Morina Village just outside the reserve); smaller parts are in agricultural use with fields and grasslands.

The southern landscape outside the NNR is more open with locally some vineyards in terrace cultivation, fields and smaller lots of forests and grasslands. The largest NNR here is Koda (southwest of Srbsko). A golf course has been established S of Karlštejn, from where a nice view on the castle is offered; although natural characteristics of the region are taken into account in the management, this golf course is difficult to fully integrate in the scenery.

Active cement industry using limestone as raw material is creating big artificial moon-like craters in this central Bohemian landscape and comes close to the nature reserves of Karlštejn and Koda. This industry covers the surroundings with whitish dust, causes disturbances and changes in hydrology and risks to destroy archaeological values. In earlier decades, industry near the Town of Beroun was responsible for SO² emissions (braun coal burning, steel industry) causing serious pressure on ecological habitat quality. This has now decreased substantially, since some factories closed down and others started to use emission filters.

Nowadays industrial companies support nature conservation and environmental projects.

Abandoned quarries are to be considered as potential restoration sites for dry calcareous grasslands or wet marsh vegetations. Near Koda and the Koneprusy Cave (Lom na Kobyle) a part of the site is well managed for restoration of grassland vegetation.

F. Cultural heritage

Historically the limestone landscape has a long tradition of human settlement and exploitation, dating back to the Middle Stone Age era; caves were used since Mesoliticum indeed and the first farmers settled in the Neoliticum. So the area has distinct archaeological importance as well.

The knowledge of landscape history and land use changes is important as a basis for sound contemporary ecological management, as many semi-natural ecosystems have existed for centuries under traditional land use, resulting in a rich variety of open non-forested habitats that depend on grazing with herds of herbivores (sheep, goats, cattle). Also the history of forestry ('planned' since Maria Theresia or earlier) is important as a background for conservation.

For scenery reasons and also to make some geological patterns more visible, at many places cutting of spontaneous forestation is desirable.

III. Field visits: ecological aspects and effects of changes in the areas

A. Svaty Jan pod Skalou (St. John under the Rock)

A historic small settlement and place of tourist interest, with some historic monuments and a cave-church with source (first settlements 6-10.000BC). The Svatojanska kolej (St. John's College - dr. & Mrs. Fellner) pays attention to the educational potentials of the site, including environmental education for pre-school ages. The college *ecocentre* called "Kavyl" after the Czech name for stipa grass, a flag species on the surrounding termophilous grasslands, is being constructed in a historic building (part of old monastry). Also workshops for foresters are organised. The *ecomuseum project* will pay attention to the nearby forest with nature trail, the limestone quarry and the Arnica cave; scientific nature programmes are planned as well as work with children and their parents (following Christian principles with water as a central symbol). This museum will work closely together with the NNR and therefore is very important from social point of view (education towards sustainable ecotourism?).

B. Nature trail St. John under the Rock: changes in land-use and vegetation cover

Part of a 15 km long signposted trail has been walked crossing different types of habitats, reaching the top of the St. John's rock and following the small brook down to Srbsko.

A number of most interesting vegetations and plant species were observed, indicating the historical development of the forests: e.g. the original 'Mittelwald', coppice forest of 40y stands, Hornbeam a.o.. The grasslands on dry calcarious soil, however, are overgrowing with spontaneous shrub and forest species by lack of management. Before World War II there were 4 farms with 4000 sheep grazing the area and helpers were paid with coppice wood. This abandoned system now causes the disappearance of extremely species rich grasslands and of the coppice regime itself. In the growing up forest, decreasing light condition and increasing litter cause the loss of the exposed xerophilous vegetations and the typical undercover of coppice woodlands. Old grown beech and oak forests have more natural structure and are important habitats for forest biodiversity. In dry years, the seedlings of woody species on rocky steppes are not surviving and this slows down the vegetation succession; the management of these dry steppic habitats on rocky slopes normally requires manual removal of trees and shrub. Clearing of overgrown places is needed on a larger scale, combined with restoration of calcareous grasslands in old quarries. Findings of new localities with rare species such as orchids and rare beetles prove the potentials for such restoration and the success in short time.

The forest composition is varying following the soil conditions and is the result of historic forestry management. The mixed broadleaved stands are mainly oak (45-50%), beech (10%) and hornbeam, maple and lime (10%). In wet parts ash is dominant, but this tree species shows very dynamic regeneration and now dominates large sites, also dryer ones, reducing the original species diversity. In our view this illustrates the lack of forest grazing. Some management practices were illustrated. In forest perspective natural evolution can conflict with artificial plantations. The spruce, indeed, are

decreasing as a result of fungi infections, but this does not cause conflicts in the nature reserve management

In the NNR, the policy of gradually reducing the area of former conifers, spruce and larch stands (5-10%) and restoring them to native wood is accepted. Near the Karlštejn Castle, the historic black pine forest (plantation of this species was stimulated by Emperor Joseph) is decreasing as well. In total, 60% of the forests in the region are administered by the state enterprise 'Forests of the Czech Republic'; only 2% of the area is owned by the 'Agency for Nature and Landscape Protection of the Czech Republic and the NNR management must take into account some forestry regulations. On the other hand, the principles of nature conservation in the Protected Landscape Area forests are bindingly codified in the 'Conservation Plan for PLA Bohemian Karst' and they are applicable for new forest planning. Each new forest management plan must take into account conservation plan for each particular nature reserve, including Karlštejn NNR. All the forests inside the Karlštejn NNR are designated as "forests of special purpose" – in this case the nature conservation function is the highest priority in the forest management.

The recreational aspect of the trail was discussed: mountain bikes do not cause too much disturbance, but horse riding is more problematic. Motorised vehicles are forbidden.

The information signs and explanatory schemes put along the trail need to be renewed, some of them still dating from the 1970's. At some places shelters (forest huts) were built for hikers. Parts of the nature trail come along the small Bubovicky Creek and unfortunately destroy the most vulnerable wet places near a little 'waterfall', where calcareous tuff vegetations were to be found (Habitat Directive Annex I Priority Habitat type!). Some interesting ferns and Amphibian species occur here and may not longer be disturbed. In other parts of the reserve, rock climbing can cause disturbance and needs stricter regulation and control.

In dry years (such as 2003) sometimes fire is caused by negligence of visitors, but does not damage the reserve.

C. Visit to the Karlštejn Castle and information centre at Karlštejn village

Under guidance of the director, ing. Jaromir Kubû we visited the famous Castle, founded by King Charles IV in 1348 with the aim to safeguard crown jewels and holy relics.

This monumental and well restored building (with reconstruction works still in place) is the main attraction of the village, with yearly 250.000 visitors (47% foreigners). The organisation of the guided tours is in the hands of a 20 person staff and 60 students.

We discussed the possibility to better and actively inform the public about the surrounding protected landscape area and the NNR, which is at the doorstep of the Castle. Since 1996, one room of 100m² is designated to be restored for a joint exhibition about nature and culture. From there visitors could be guided by folders and maps towards the adjacent nature reserve walking trail network.

The actual tourist information centre in the village is only a restricted (and commercial) initiative. Although functioning actively, it does not respond to actual standards of nature visitors centres.

D. Visit to the twin nature reserve Koda with adjacent limestone quarry and Koneprusy cave

The conflicting industrial open mining pits activity at the border of protected areas (the same north of Karlštejn NNR near Bubovice) need specific regulations in order to prevent further disturbance. There are already agreements of restoration of abandoned parts of the quarry with regrowth of native vegetation types (grassland, shrub, young forest).

The visit to the Koneprusy caves was impressive and illustrative for the positive way in which visitors are also introduced in the original landscape and nature value aspects around this cave site and in the Koda reserve. This is in contrast to the industrial mine scenery at close distance to the south.

Nature education efforts, however, could still be improved here as well, but this should require more means.

E. Further private visits to the NNR and adjacent old mining sites 'Velka and Mala Amerika'

Spending two more days as private 'holiday' in the area, we could visit more remote parts of the reserve and witness the importance of the network of walking trails for visitors. Especially the recreational pressure in the NNR at the abandoned deep quarry 'Mala Amerika' was visible, with wild camping, rock climbing and free entrance of small caves. Especially the bigger 'Velka Amerika' at the edge of the PLA near Morina is a well known touristic attraction, with spectacular views of the canon-like quarry. We also visited the active limestone quarry near the village of Bubovice. This area penetrates the limits of the NNR. A small pond and wetland (U Boubové) along the upper part of the Bubovicky Creek, unfortunately, is situated just outside the NNR but offers interesting habitats to many plant and animal species.

IV. Meeting with representatives from municipalities, private companies, NGO and press at Srbsko

Ample discussion was organised by the NNR director at the village of Srbsko in several shifts, with participation of local authorities and mayors, private companies and firms, NGOs, and the press.

Following persons or organisations attended the meeting (not complete list):

Mayor of Beroun Town: Mr Jiri Besser

Mayor of Bubovice village

Mayor of Karlštejn village

Mayor of St. John-under-the-Rock (Mr J. Sevcik)

Dept. Director of the Protected Landscape Areas of the Czech Republic: Mr P. Moucha

Forests of the Czech Republic – state company – head of regional authority

Mining Company (owner of the Amerika quarries)

Berounka River Basin Authority

Head of the Administration of Karst Caves (Koneprusy Caves)

Research station of Viticulture (dr O.M. Jandurova)

St. John's College (Svatojanska kolej) – director Mrs Fellner

St. John's Ecocentre – director Dr Fellner)

Doc. ing. Vladimir Svihla (Cesky Kras hydrologist)

Mallorn – environmental NGO

Society for the Development of the Czech Karst - NGO

Czech Union for Nature Conservation (not officially represented here)

'Pulsatilla', Prague (id.)

Ruzek (zoologist NNR)

Karlštejn hunting organisation (Mr Moucha)

Press: 2 newspapers

Discussed problems were of great relevance to the management of the PLA and the NNR, taking into account the environmental conditions of the region, the social backgrounds and the viewpoints about increasing attention for nature education. The role of the European Diploma as a moral recognition of the reserves' specific values was stressed and specific actions or future strategies were lively discussed. The most important conclusions are translated into the draft recommendations.

Following items were tabled

- sustainable ecotourism and recreation
- water management and purification plants
- infocentre at St. John under the Rock
- nature conservation needs more investments and state support for education
- physical planning (zoning) is important to stop further mining expansion in the PLA
- military areas when abandoned can be problematic in protected areas?
- abandoned quarries 'Amerika' ownership and safety problem with unofficial public access
- Berounka river authority: restoration actions or further calibrations after the big flood of 2002: EIA?
- active participation of Forest company in education and management at ecological basis

- discussion on forest grazing restoration with sheep and goats herds
- the importance of volunteers in monitoring, research, education etc. (great diversity of NGOs)

V. Nature Management aspects and follow up of the European Diploma recommendations (2000)

The annual reports of the reserve discuss the changes in legislation and regulation as far as management tools is considered (e.g. relations forestry and nature legislations). Changes in the boundaries or property are announced by a donation of land owned by the Lomy Morina mining company. The Karlštejn NNR is considered as part of the transregional functional forest bio-centre according the Econnect concept.

Mapping of the reserve is conducted in the framework of NATURA 2000 for the designation and protection of priority habitats and species; agricultural parts outside the strict reserve have to be included. Here an increased restoration of grasslands (use of horses) offers positive potentials for calcareous vegetations and the restoration of the European Suslik population.

From the site visits and discussions, we learned that the management plan has not yet been finalised and presented to the Minister for approval. Most elements are already brought together for Natura 2000.

The PLA Administration finished the proposal of Karlštejn -Koda Natura 2000 site and its public assessment already in July 2004. The Ministry of Environment and the Government is now responsible for the legal declaration.

The annual reports mention progress in several projects concerning flora and fauna monitoring and management, the further development of the regional 'Agenda 21' on water regime and waste water treatment, the hiking paths network with shelters, and the educational aspects (eco-centres). Also supervision from administrative and practical ('rangers') point of view is reported (e.g. illegal camping).

Special efforts have been taken for the information of the public (newspapers, magazines, media, brochures etc., part-time education officer for two years), but figures on the number of visitors for the reserve proper are not clear, as they mix up with single-day tourists visiting the Castle and St. John under the Rock (resp. 400.000 and 120.000 per year). Finally attention is paid to research and publications.

The conclusion of the NNR staff is that the Diploma encouraged the acceleration of some processes, such as the establishment of eco-centres and agreements with mining companies. This is of utmost importance in view of the location of the protected area at the doorstep of the capital of Prague and its outstanding heritage values.

The follow up of the recommendations (Resolution Dip (2000)15) formulated at the time of the Diploma award has positively contributed to the management of priority biodiversity values and the restriction or abandonment of activities adverse to nature and landscape heritage. We highlight some results in the order of the comments in the report 2003:

- 1. restoration of broadleaved forest, fauna and flora is in progress where possible
 - forest management aims restoration of native stands
 - dredging of the Berounka river and artificial renewal of its banks after the big flood was reduced near the reserve, but still the water authorities are not convinced that for these activities an official Environmental Impact Assessment is compulsory when a Natura 2000 pSCI is considered or influenced.
- 2. the management plan is still not finalised and reviewed but basic data and elements are available
- 3. funding of 460.000 CZK and resources from forestry (for the removal of non-native conifer stands) are insufficient, so a decrease of personnel at the reserve staff will be necessary; a LIFE-project application is prepared

- 4. better regulation of mining activities in the neighbourhood of the reserve is being developed with positive agreements between mining companies and the reserve authorities on specific parts of the area to be included in the reserve, or other measures (e.g. bat colonies protection).
- 5. the item of town and land use planning to be brought in balance with the NNR is still a matter of concern, although progress is made. Up to now the former Beroun District Office marginalized the concern of nature conservation in land use decision-making. Since the year 2003 this power was delegated to newly re-established Regional Offices (in this case Office for Central Bohemian Region) and the concern of nature conservation was more stressed. However, the Office of the Beroun Town is sometimes still neglecting some matters of nature and landscape conservation.
- 6. positive development on the aspects of environmental education is reported; some agreements on visitors information centres are worked out with municipalities and especially the restoration of a historic building for the establishment of a training and visitors centre in St. John under the Rock will be finalised at the end of 2004
- 7. restriction of open air recreational activities seems to be difficult, but folders, maps and tourist guides have been distributed to public aiming more respect for nature, but the control by rangers is not yet sufficient
- 8. the recommendation on the 'acceptance' of Lynx by hunters has been embraced to discuss hunting activities; hunting as a regulation of 'excessive levels' of wild game is contradictory to the desired grazing of some forests to maintain more open structures in favour of steppic vegetations
- 9. the sewage system in Karlštejn was completed in 2003 and is part of an approach for the Berounka micro region
- 10. creating more formal ties between the NNR authorities and the Karlštejn Castle director was recommended; the common presentation at the Castle of both culture and nature in one room is still not completed; the small information centre near the car park of the village is functioning as a classic tourist shop and does not fulfil the educational potentials that the Castle can offer.

VI. Conclusion

Being informed through the annual reports and the experience of the on-the-spot appraisal, including site visits and discussions with the reserve staff and many stakeholders -both officials and NGOs- we strongly advise the Council of Europe through the Group of Specialists on protected areas to renew the European Diploma for the Karlštejn National Nature Reserve. A number of recommendations from the past had positive results, some others are still a matter of follow up and are taken again in the list that follows.

VII. Draft recommendations

- 1. Intensify the restoration of non-forested habitats of steppic forests and xerophilous calcareous grasslands by specific management techniques (clearing, mowing open spots) in order to significantly enlarge the small patches with remainders of these priority habitats, also considering grazing of dry reserve areas and former quarries with herds of sheep and goat aiming the expansion of steppic vegetations
- 2. Continue the restoration of the broad-leaved forest types by reforming conifer plantations with spontaneous or artificial reseeding of native tree species and taking into account the different potentials depending on the soil types; in this regard also tolerate more natural browsing and grazing by wild mammals in order to maintain natural processes and forest dynamics; therefore reconsider the hunting practices and pressure in the reserve and its surrounding protected landscape area
- 3. Urge administrations to integrate efforts from conservation point of view concerning processes in physical planning, land use, water regulation and purification, mining and housing in order to reduce negative environmental pressures on the reserve and its surrounding protected landscape area, ensuring the draft of EIA-reports where necessary and considering special legal competences for the NNR staff and other conservation authorities to be reinforced; also stimulate the

- establishment of regular consultation procedures with relevant local and regional authorities, scientists and NGOs
- 4. Review the network of signposted nature trails in view of avoiding the destruction of vulnerable habitat types such as the calcareous tuff formations at the Bubovicky waterfall; also renew/modernise the information panels along the nature trail (including English and German summaries in view of the foreign visitors) and increase the printed information to visitors in order to guiding them and asking respect for the NNR regulations
- 5. Establish -as agreed- the joint exhibition and information room at the Karlštejn Castle on cultural heritage and nature values in the vicinity of this outstanding tourist resort; further foster close cooperation between the NNR staff and the Castle director in view of disseminating more widespread information on the nature reserve
- 6. Further stimulate the development of high quality visitors centres and organise nature education, including training at all ages and information of the public at large; also stimulate mayors and other local authorities to disseminate information at the suitable places (such as railway stations, camping sites, municipal halls, museums etc.) on the values of the nature reserve and its European position
- 7. Finalise the mid-term nature management plan for the reserve (10 years period) taking into account the outstanding palaeontological, geological, hydrological and biodiversity values as well as the requirements and priorities of the Natura 2000 designation in its biogeographic context;
- 8. Also include in the management plan the necessary measures considering education, river management, hunting and forestry activities in balance with nature; ensure strict regulation and control of outdoor activities such as rock climbing, horse riding, mountain biking, wild camping etc., only allowing 'wise use' where compatible with conservation values, potentials and needs
- 9. Ensure the necessary budgets and resources for the manifold functions and operational tasks of the NNR staff, including administration, research and monitoring, education and training, habitat management and patrolling; further motivate volunteers and stimulate NGO networking and cooperation.

APPENDIX I

COUNCIL OF EUROPE COMMITTEE OF MINISTERS

Resolution Dip (2000) 15 on the award of the European Diploma to the Karlštejn National Nature Reserve (Czech Republic)

(Adopted by the Committee of Ministers on 21 June 2000 at the 715th meeting of the Ministers' Deputies)

The Committee of Ministers, under the terms of Article 15.a of the Statute of the Council of Europe.

Having regard to Resolution (65) 6 instituting the European Diploma, as amended by Resolution (98) 29 on the regulations for the European Diploma of Protected Areas;

Taking into consideration the expert's report as presented at the meeting of the Group of Specialists for the European Diploma of Protected Areas on 21 and 22 February 2000;

Having regard to the proposals of the Committee for the activities of the Council of Europe in the field of Biological and Landscape Diversity (CO-DBP);

Having noted the agreement of the Czech government;

After deliberation,

Solemnly awards the European Diploma of Protected Areas to the Karlštejn National Nature Reserve in accordance with the Regulations for the European Diploma, as an outstanding example of a protected area, adjacent to a capital city, and possessing exceptional qualities with regard to both the geological, palaeontological and stratigraphic heritage and the wildlife heritage;

Places the aforesaid reserve under the patronage of the Council of Europe until 20 June 2005;

Attaches the following recommendations to the award:

- 1. Continue to restore the flora and fauna to the most natural state possible, by gradually eliminating conifers in favour of the original broadleaved species, by acquiring privately owned forestry plots and by purchasing cultivated fields for gradual return to pasture, so as to reduce soil pollution by pesticides, revitalise the cattle-rearing sector and foster the European suslik population. In the medium term, it is important to plan and initiate the rehabilitation of the Berounka river, whose current recalibrated state impairs the protected landscape as a whole.
- 2. Finalise the management plan, which seemed to be still in its early stages at the time of the appraisal visit
- 3. Guarantee the necessary resources to ensure that the reserve can operate properly.
- 4. Contain and reduce quarrying by better co-ordination between the operating companies and the reserve's administration; ensure that the limits on this activity are very clearly defined (area to be exploited, permission to begin and terminate quarrying operations) and impose a rehabilitation plan.

- 5. Take greater account of the reserve management's opinion with regard to urban planning in all matters concerning the extension of the built heritage and the creation of any new roadways.
- 6. Pay particular attention to environmental education, which should not be left to the director alone. Engage in discussions with a view to setting up an environmental interpretation centre, and consider its possible establishment at the Svaty Jan pod Skalou site.
- 7. Introduce stricter regulations for activities such as rock climbing, mountain biking, horse riding and rough trekking.
- 8. Accept the presence of the lynx, which is currently at a short distance from the reserve. Make the most of this event to reconsider the impact of hunting which, albeit limited, is still permitted.
- 9. Try to ensure that the burying of overhead cables and the installation of an underground sewage disposal system in Karlstein may serve as examples for other municipalities in the protected area. Endeavour to improve practical solidarity between the prosperous and the less well-off municipalities.
- 10. Foster more formal ties between the respective administrators of the reserve and of Karlstein castle, given that the two structures are closely connected and complement each other; in this regard, an information centre describing the reserve, installed within the castle, would be a positive step.

APPENDIX II

Draft resolution on the renewal of the European Diploma of Protected Areas to the Karlštejn national nature reserve (Czech Republic)

The Committee of Ministers, under the terms of Article 15.a of the Statute of the Council of Europe,

Having regard to Resolution (65) 6 instituting the European Diploma as amended by Resolution (98) 29 on the regulations for the European Diploma of Protected Areas;

Having regard to Resolution (2000) 15 on the award of the European Diploma to the Karlštejn national nature reserve;

Taking into consideration the expert's report as presented at the meeting of the Group of Specialists for the European Diploma of Protected Areas on 28 February and 1 March 2005;

Having regard to the proposals of the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP);

Renews until 20 June 2010 the European Diploma of Protected Areas awarded to the Karlštejn national nature reserve;

Attaches the following recommendations to the renewal:

- 1. Intensify the restoration of non-forested habitats of steppic forests and xerophilous calcareous grasslands by specific management techniques (clearing, mowing open spots) in order to significantly enlarge the small patches with remainders of these priority habitats, also considering grazing of dry reserve areas and former quarries with herds of sheep and goat aiming the expansion of steppic vegetations;
- 2. Continue the restoration of the broad-leaved forest types by reforming conifer plantations with spontaneous or artificial reseeding of native tree species and taking into account the different potentials depending on the soil types; in this regard also tolerate more natural browsing and grazing by wild mammals in order to maintain natural processes and forest dynamics; therefore reconsider the hunting practices and pressure in the reserve and its surrounding protected landscape area;
- 3. Urge administrations to integrate efforts from the conservation point of view concerning processes in physical planning, land use, water regulation and purification, mining and housing in order to reduce negative environmental pressures on the reserve and its surrounding protected landscape area, ensuring the draft of Environmental Impact Assessment-reports where necessary and considering special legal competences for the national nature reserve staff and other conservation authorities to be reinforced; also stimulate the establishment of regular consultation procedures with relevant local and regional authorities, scientists and NGOs;
- 4. Review the network of signposted nature trails with a view to avoiding the destruction of vulnerable habitat types such as the calcareous tuff formations at the Bubovicky waterfall; also renew/modernise the information panels along the nature trail (including English and German summaries for foreign visitors) and increase the printed information to visitors to guide them and request respect for the national nature reserve regulations;
- 5. Establish as agreed the joint exhibition and information room at the Karlštejn Castle on cultural heritage and nature values in the vicinity of this outstanding tourist resort; further foster close co-operation between the national nature reserve staff and the Castle director in view of disseminating more widespread information on the nature reserve;

- 6. Further stimulate the development of high quality visitors centres and organise nature education, including training at all ages and information of the public at large; also stimulate mayors and local authorities to disseminate information at appropriate places (such as railway stations, camping sites, municipal halls, museums etc.) on the values of the nature reserve and its European position;
- 7. Finalise the mid-term nature management plan for the reserve (10-year period), taking into account the outstanding palaeontological, geological, hydrological and biodiversity values as well as the requirements and priorities of the Natura 2000 designation in its biogeographic context;
- 8. Include also in the management plan the necessary measures to establish and maintain an equilibrium between education, river management, hunting and forestry activities and nature; ensure strict regulation and control of outdoor activities such as rock climbing, horse riding, mountain biking, wild camping etc., only allowing "wise use" where compatible with conservation values, potentials and needs;
- 9. Ensure the necessary budgets and resources for the manifold functions and operational tasks of the national nature reserve staff, including administration, research and monitoring, education and training, habitat management and patrolling; further motivate volunteers and stimulate NGO networking and co-operation.