

Sumava National Park

(Czech Republic)

Report of the IUCN / WCPA Mission
22-25 September 2002

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REPORT OF IUCN / WCPA MISSION TO

SUMAVA NATIONAL PARK
CZECH REPUBLIC, SEPTEMBER 2002

Summary

The mission was very well organized by the CZECH Republic Ministry of Environment. Despite its limited duration of the visit, we saw a reasonable amount of problematic sites, listened to the comments and grievances of the 2 major groups of protagonists (NP administration and main NGOs) and give them a chance to express their opinion to most interested groups. The time with the local people was very short, and we had discussions only with the communes' mayors. A longer stay and more meetings would not have added much value to the mission; most problems and key issues were quite clear after the first day .

As we explained several times during the mission, our role was not to act as judges or referee nor to determine who is right or who is wrong. We tried to understand the problems, to analyze their causes, and to suggest measures to be taken in order to diminish the open conflict and to ensure a coherent management system supporting the conservation goals while limiting the negative impacts for the local populations. Measures proposed concern aspects of the management as well as the procedure for decision making, which should be significantly improved before a consensus can be reached. The problems have to be resolved among Czech partners, with the some help and advice from outside; it is not possible for external experts to bring final and permanent solutions.

We had a visit to the Park administration of Bayerischer Wald Nationalpark and we had a short talk with 2 Austrian foresters from the Church estate on the other side of the border.

Most participants were open in their views and opinions. The park administration has done its job very conscientiously, but in a typical forest management style, with a lack of guidance. The scientists offered a very valuable contribution, but we had the impression that their opinion has not been very seriously taken into consideration in the past. The NGOs have gathered a lot of very valuable information; their contribution revealed some very fundamental questions, like the real mission of the Sumava National Park, its classification according to IUCN classification, and the principles of its management.

The dialogue between the Sumava National Park administration and the NGOs is very difficult. A lot of personal attacks, relayed by the press, have seriously poisoned the atmosphere during the past few years. A climate of mutual trust has to be reconstructed with the help of mediator(s), which is likely to be a difficult challenge and take time before an acceptable consensus and a common strategy for the next 10-20 years can be negotiated, accepted and implemented.

The bark beetle problem has existed in the past; however, the possibility of an outbreak was completely overlooked by the scientific and conservation communities at the creation of the Sumava National Park. Some of the scientists present have recognized this, and are ready to reconsider some of their previous recommendations for the Park, e.g. the non-intervention principle, due to the extent of the problem and the threat for the surrounding zones (direct impact on commercial forestry, modification of local climate, water regime, etc.). This change of attitude is considered as treason by the NGOs.

There are substantial differences in the interpretation of the bark beetle population fluctuations. Foresters claim that the decline of the beetle population in recent years is a result of their interventions, while NGOs and several scientists think that this is due to the climatic conditions (cold weather); it is probably a combination of both which explains the recent decline. The prognosis for the consequences of a massive attack in Sumava are equally subject to different interpretation. The foresters foresee a major disaster for the whole area, including for large zones outside the park, in Austria as well. Whereas the other opinions consider that the population will drop once the food sources for the insect are exhausted, and that the situation will return to normal without any need for human intervention.

A Ramsar mission, with similar goals to our mission, took place on June 5-8, 2001, "to provide guidance on how best to deal with specific management problems related to the recent outbreaks of bark beetle populations". Although the mission was focused on only a small part of the Sumava National Park, the observations and conclusions of the report provide excellent background material and an extremely valuable contribution to identifying the key issues and some solutions. If the next steps are undertaken with participation of IUCN, it should be coordinated with the Ramsar bureau.

The mission recognizes that all parties have the common goal of having in the long term a natural forest (or as natural as possible given the history and the local circumstances), but that they disagree on the management principle and practices to achieve this goal. In order to stop the sterile dispute the experts would like to make the following recommendation:

- 1) To open a comprehensive public debate in order to develop a plan for the integration of the Park, including its management policy and objectives, into the regional context.
- 2) To instigate a formal consultation bringing together the Park administration, the national and local authorities, the scientific community, the main conservation NGOs and the local population, to establish long-term goal and short-term strategy for the National Park.
- 3) To set up a Park Council able to back-up and review the Park directorate in its decisions.
- 4) To confirm the long term objectives of the Park and to adapt the management plan accordingly.
- 5) To simplify and harmonize the zoning, into a single and coherent system of the different regimes (National Park zones, non-intervention zone, non-disturbance Biosphere Reserve Zones and Ramsar zone). In particular to reexamine the zoning and the management regimes, reducing the core zone to a few larger units with non intervention regime, surrounded by a buffer zone. Without these changes then the Park cannot qualify as an IUCN Category II protected Area.

Introduction

The management of Sumava National Park has been the source of dispute for several years between the Czech authorities, in particular the Ministry of Environment and the National Park Authority, the NGOs, the local authorities and even stakeholder from the surrounding countries (Germany and Austria).

In this conflict context, the NGOs called international organizations to intervene. A first mission was organized by the Ramsar bureau in June 2001; IUCN / WCPA agreed in principle to send a mission to help finding solutions and to provide experience made in other countries with management of National Parks – IUCN Cat II protected areas, and negotiated with the Czech Republic authorities on the terms of reference and the most appropriate timing.

Sumava National Park – Czech republic

ToR for the mission to Sumava NP in late September 2002

1. IUCN mission will provide information on PA management system,
 - concept of zoning,
 - management practices (esp. in IUCN Cat. II sites).
2. Questions to be addressed:
 - human interventions in Cat. II sites,
 - bark-beetle approach and management,
 - prevention of spreading of bark-beetle.
3. Outputs of the mission should be prepared in the form of a written report
4. Requirements to be fulfilled in advance:
 - relevant info submitted to IUCN,
 - 3 days mission, both GO and NGOs present, plus relevant local stakeholders,
 - adequate representation of stakeholders secured, programme for site visits known in advance
 - reimbursement of the costs for IUCN before the mission.

IUCN asked two independent experts Mr. Martin Solar (Slovenia) and Mr. Pierre Galland (Switzerland), both members of the WCPA – World Commission on Protected, areas to visit the Park, to meet the main stakeholders and to formulate recommendations for a future management of the national Park compatible with the respective IUCN management category.

The mission took place September 22-25, 2002; it included a short visit of the adjacent Bayerischer Wald Nationalpark (FRG).

Description of the bark beetle problem

Bark beetle - ecology of the species

Ips typographus L. is the larger European spruce bark beetle. *I. typographus* is found in Europe and northern Asia where it is a pest on Norway spruce, *Picea abies*. Males have 4 spines on the backend of each elytron (or 8 spines in total as these beetles have two elytra as do all beetles). Females look almost identical to males and for many years it was thought impossible to differentiate the sexes under the microscope without resorting to dissection of the genitals. It is possible to separate the sexes after some experience since males have a larger knob in the middle of the "face" than do females, and males have fewer (less dense) hairs on the pronotum than females. The pronotum is the area of the thorax just behind the head on the top of the body.

This beetle, as many other so-called aggressive bark beetles, also introduces fungi that help paralyse the tree's ability to produce resin that is used by the tree to repel the beetles when they are trying to bore into the tree (called attacks). The beetles must attack a standing tree in large numbers to insure that enough fungi are introduced to kill the tree before it can produce resin and repel/kill the beetles. This species and many other bark beetles use aggregation pheromone to attract more individuals of the same species to the tree for the purpose of killing the tree and for mating. In *I. typographus*, two chemicals (methyl butenol and cis-verbenol) comprise the aggregation pheromone that is produced by the male (females produce some cis-verbenol). The pheromone attracts both sexes. The attracted males want to join the attack and secure an area for his and several female's young, while the females want to find a male-dug hole and room (called "nuptial chamber") beneath the bark where she can begin a tunnel in which to lay eggs along the sides. *Ips typographus* in gallery with eggs in phloem layer, nuptial chamber at right. The tunnels are excavated only in the thin phloem layer just under the thin bark of Norway spruce. The phloem layer is only about 2-4 mm thick in Norway spruce and is rich in sugars and nutrients since this is the layer that transports photosynthate (sugars/amino acids made by photosynthesis) from the needles to the roots. In all species of *Ips* there are several females (from 1 to 4) that join the single male in his nuptial chamber. The male seems to regulate the number of females joining him in his nuptial chamber since more than 4 will cause too much competition among the larvae. The male blocks the entrance tunnel with his spiny elytra and keeps other males from stealing his burrow and also attempts to keep out predators and parasites eager to lay eggs in his young. The females dig the egg tunnels (one tunnel per female) away from the central chamber for 10 or more centimeters, laying eggs on each side of the gallery. Her eggs are enormous compared to her body, when compared to human size her eggs are about the size of a watermelon! Yet in her short egg-laying life (about 3 weeks) she may lay more than 50 eggs. Since there is a 1 to 1 (male:female) sex ratio of larvae and emerging adults, this means that many males never have young during their lifetime.

Bark beetle and Protected Areas

Bark beetle is in general public mindset considered as a forest pest which has to be exterminated. This kind of thinking dominates in people's mind especially because of traditional, more than a hundred year old forest strategy and determination about the spruce bark beetle. The spruce bark beetle is normally settled in weakened coniferous (spruce) tree

forests. The forest weakness mostly appears due to draught, high temperatures, because of important injuries (biotic and abiotic) and especially in last twenty years because of air pollution. Forestry profession anticipates and implements the extermination of bark beetle in different ways: immediate felling and gathering of attacked trees, spraying with insecticides, installing of piled up trees (bark, branches, piles) and burning them or for example installing of piled up trees traps with feromon baits. **From forestry point of view these measures are professionally accepted and can be performed in managing forests outside of protected areas.**

However, in protected areas especially in natural reserves, national parks and natural monuments (I, II and III IUCN category) the relation to this situation is different. In the field of the protection of nature we do not talk about natural disasters or catastrophes but simply events (for example snow, wind, avalanche), but they are simply mentioned as events. These events are usually caused by natural circumstances. The presence of spruce bark beetle is very similar. Weakness of trees is caused by natural circumstances which are beside air pollution natural origin. That is the reason why we claim that even excessive presence of bark beetle is in some way natural process. Among the objectives of protection and management in natural reserves, in central territory and also in zones known as non – intervention zones of national parks there is also assurance of undisturbed natural processes. According to these starting points and IUCN directives for protection and managing of protected areas, the national parks managers have to assure the circumstances of minimum 75% of central territory. The only acceptable activity in central territories of national parks concerning spruce bark beetle is permanent monitoring, research and possibly installation of piled up traps with feromon baits which serve especially for monitoring.

Immediate felling or even clear cut and sanitation of points in central territories with spruce bark beetles are not acceptable measures.

In case of potential forest endanger in protected areas caused by spruce bark beetle it is reasonable that the manager perform the measures only in peripheral (buffer zone) territory outside the zones known as non – intervention zones. Cultivation of forests and tree species adapted to the habitat, performing of treatment in the forest in case of felling (in peripheral territory) and performing of forest regulation while felling (putting branches in layers, debarking – piling the logs and tree-stumps) and immediate removal of logs are convenient measures.

Bark beetle in Sumava National Park

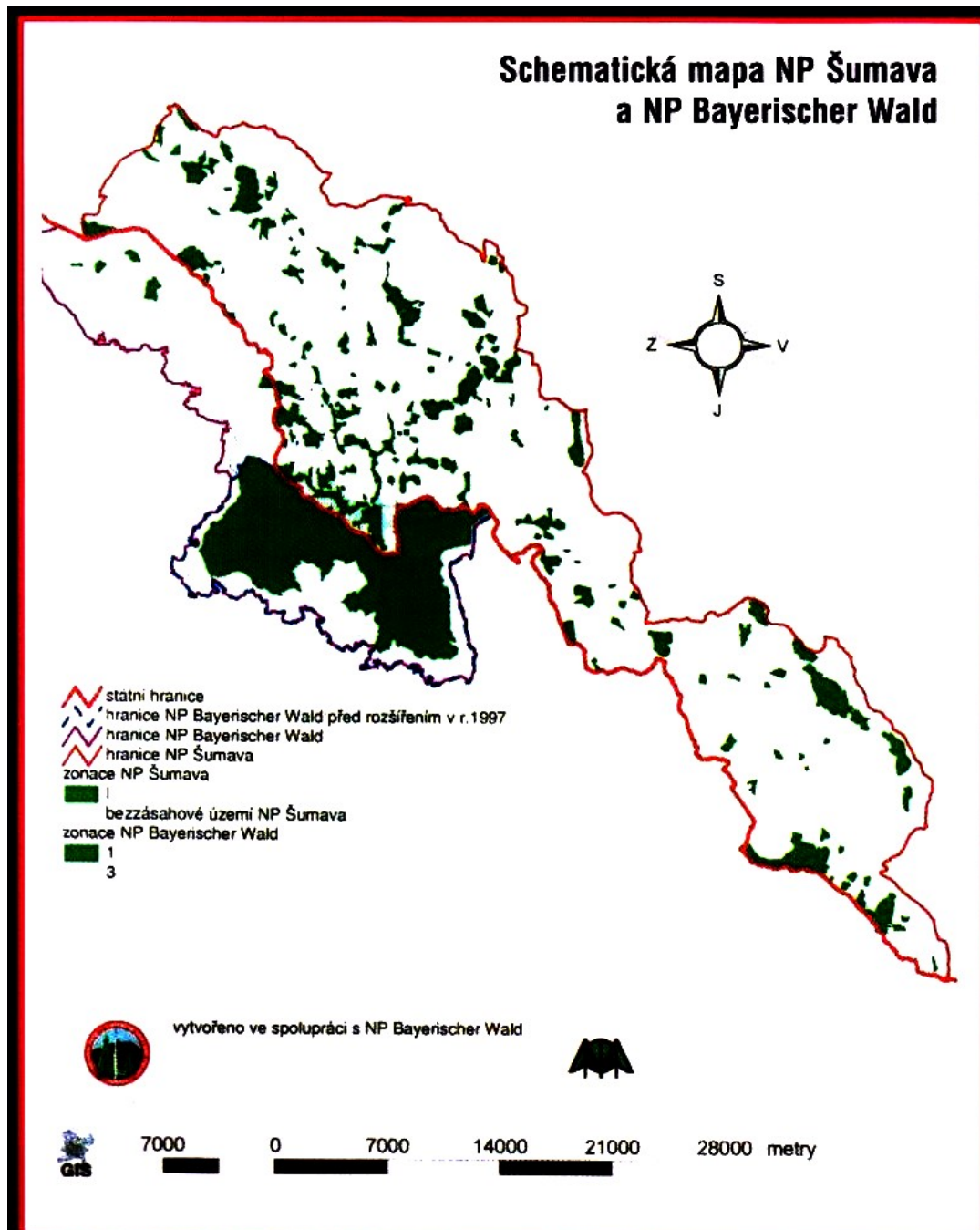
The bark beetle problem is not new in the region; historical records show that it has always been a part of the ecosystem. However, several factors have increased the scope of the problem in the late 1990s and in the first years of the 21st century:

- Forests largely transformed into Spruce monoculture, often even-aged.
- Most of the forest have been planted, probably with clones not especially well adapted to the cold, wet high altitude conditions.
- Stress to the trees induced by the general atmospheric pollution of recent decades.
- Explosion of bark beetle population in the 1990s in Bayerischer Wald Nationalpark following a few wind falls and the management policy of complete non-intervention in the core zone.
- Geographical situation of Sumava National Park to the East of Bayerischer Wald Nationalpark, which means that bark beetle emigrate rapidly from Bayerischer Wald Nationalpark into Sumava National Park, carried by the predominant West winds

- High density of wildlife (roe and red deer) which prevent the growth of broad leaved trees without protection.

Short presentation of the Park

A schematic map of Sumava National Park and Bayerischer Wald Nationalpark with their respective zone 1 (core areas) shown below (Map 1).



Sumava NP, together with the German NP Bayerischer Wald and the Austrian part of the Sumava Mountains, are key components of Central Europe's largest continuous forest area.

Sumava NP hosts unique complexes of peat-bogs and waterlogged spruce forests, partly designated as a Ramsar site, with outstanding ecological value. The area includes fragments of old-growth forests which are the last of its kind in Central Europe. Furthermore, Sumava NP is home to many species of high ecological significance, among them lynx, black grouse and endemic fauna.

Both Sumava National Park and Bayerischer Wald Nationalpark have been the object of a massive attack of bark beetle since the mid-1990's. Although this is not a new phenomenon for the region according to historical records, it seems that this attack was especially strong. Several factors combined to lead to the dramatic results that can be seen today: the forest surfaces are presenting almost pure stands of Norway spruce (*Picea abies*) in very large areas, probably the selection of fast growing ecotypes less adapted to the harsh mountain climate and the poor soils and therefore more subject to physiological stress, the constitution of even-aged forests for commercial purposes and the occurrence of severe wind breaks in the 1990's.

In Sumava NP, intervention has taken place according to a pattern which is difficult to understand for external observers. Even some of the highest locations in the very centre of the Park along the border have been clear-cut. In some cases, the trees have been removed, in other cases they have been debarked and left on the spot. Cutting the trees, even the dead ones, definitely affects the micro-climate and the water regime. In some places, heavy machinery was used, leaving significant scars in the soil and understory vegetation. The debarked trees take a much longer time to decay, and they do not offer a ground base for the seedlings (i.e. nursery log effect); the regeneration is thus hindered and the circulation of deer is much easier, leading to much greater damage. All broadleaf seedlings, natural or planted, must be protected in order to survive.

This situation had lead to a strong intervention of NGOs, protesting against the tree cutting in the National Park, and especially in the central part along the border. Many years of dispute, protests in the field (people chained to the trees to prevent their cutting) and fighting via the media has lead to a completely locked situation, especially between the Park administration, essentially foresters, and the NGOs. The foresters stick to their new management plan, which proposes a very complicated and partially unclear zoning, and to their mission of "protecting the forest", whilst the NGOs demand to respect the non-intervention principle in the central zone, but without proposing any alternative to protect the surrounding territories. Both sides would like to have in a long term a more or less natural forest, much more diversified (mixed conifers – broadleaved forest), with a variable age structure, but strongly disagree on the way to achieve this goal. NGOs accept easily a total decay of the forest, while foresters would like to contain the bark beetle attacks in order to protect the Park and the surrounding (commercial) forests.

Value of the area

The Sumava National Park – Bayerischer Wald Nationalpark complex constitutes a large and compact area of forests unique in Central Europe, and therefore should be preserved and as much as possible should return to natural forest. Permitting natural processes of forest ecosystems is highly neglected in many regions of the world and particularly in Europe; Sumava and its adjacent region could constitute a living laboratory for such processes. This might require some heavy (and costly !) intervention and need a very careful planning process agreed upon by forest conservation specialists and local people. However, the whole area has been used in the past, and the species composition, as well as the age structure, have been profoundly modified. The forest management in sense to get different (more mixed and resistance) climax forest will take several decades. The classification into the IUCN Protected Area Management Categories is therefore not easy; the ideal conservation objectives, like a complete non-intervention strategy, have to recognize the local and regional context, particularly in relation to the role of forest around the Park, which provides an important source of income to local communities. Such implementation can not be a solution until clear aims and objectives of the protected area have been agreed.

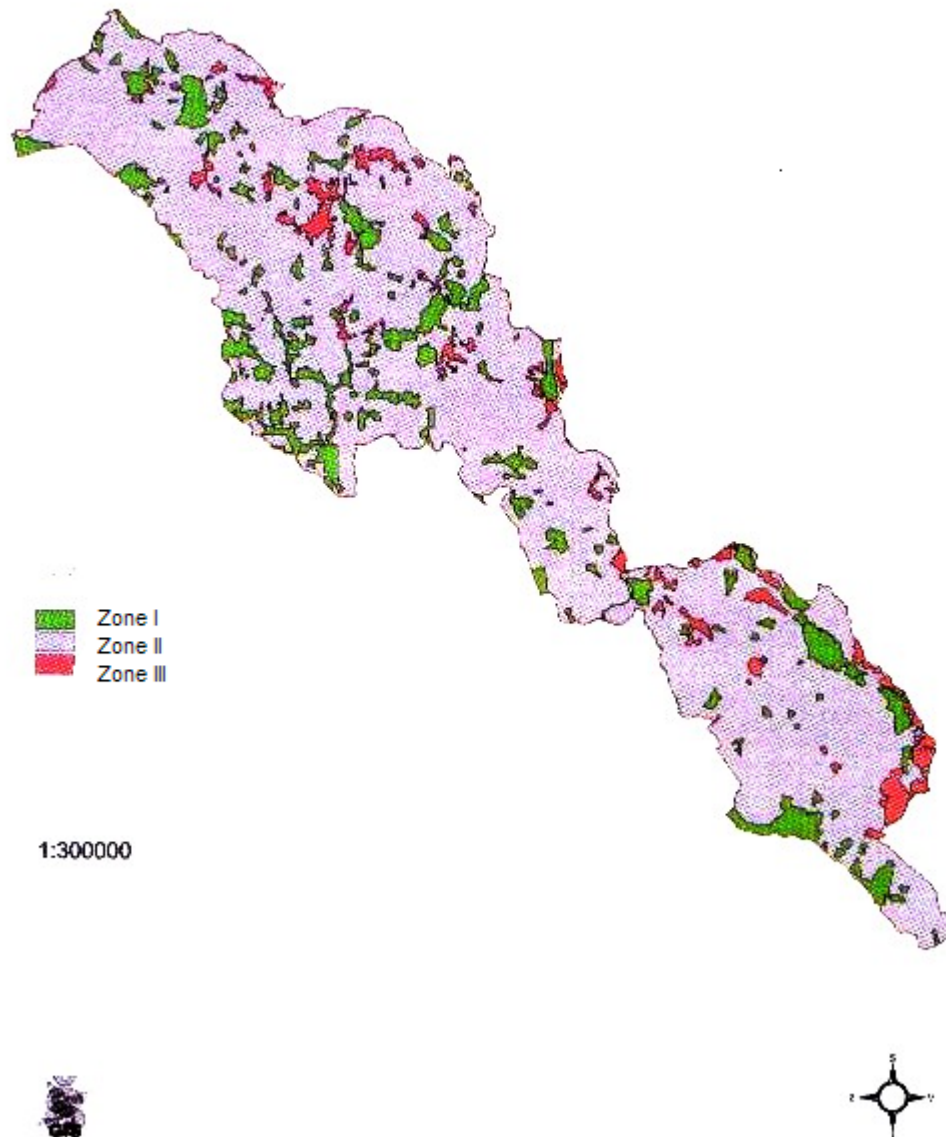
Applying strictly the Czech National Council Act on the Protection of Nature and Landscape, Sumava should not be a National Park, because it should be a "Extensive territory, unique on a national or international standard, a considerable part of which are natural ecosystems or ecosystems little effected by human activities....". The Park should be considered as an IUCN Category IV or V ; however, its "downgrading" at the national level by changing its status of National Park would most certainly be disastrous for the conservation of this very valuable area. The long-term objective of return to a natural ecosystem, if really implemented, should be sufficient to justify maintaining the Park in cat. II.

The chapter on National Parks from the Czech National Council Act on the protection of Nature and Landscape No 114/92 (February 19, 1992) is attached at Annex 1.

Main issues

The major issue, mentioned by many participants who joined the mission, is the current **zoning**. It was prepared in 2000 within the new Management Plan established for the period 2001-2010, and adopted with effect from 1 January 2001 by the Ministry of Environment. The change for the 1st zone from 54 fragments totalizing 15'400 ha to 9'000 ha divided in 135 fragments in the latest version makes its implementation almost impossible (cf. Map 2 and 3). Simply the marking on the ground (required by the CZ law) and the clear delimitation of the plots are extremely difficult; obviously it has already lead to many conflicts between foresters and NGOs, fighting about the allocation of a few trees to zone 1 or 2. This type of zoning is typical from a forest management point of view, but does not enable fulfillment of the mission of a large PA. IUCN Category II requires that processes must be allowed to occur undisturbed. Consequently, the incorporation of Sumava National Park into this Category makes it necessary to establish a large, coherent and undisturbed core zone.

Šumava NP Zonation



Map 2: Zonation of SNP according to the management Plan (2000)

Figure 9: Zonation of the biosphere reserve, 1990



Figure 10: Zonation of Šumava NP, 1993-1995

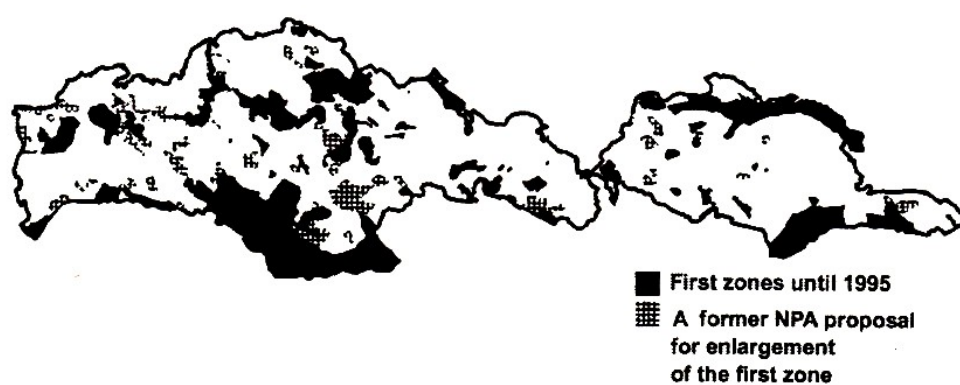
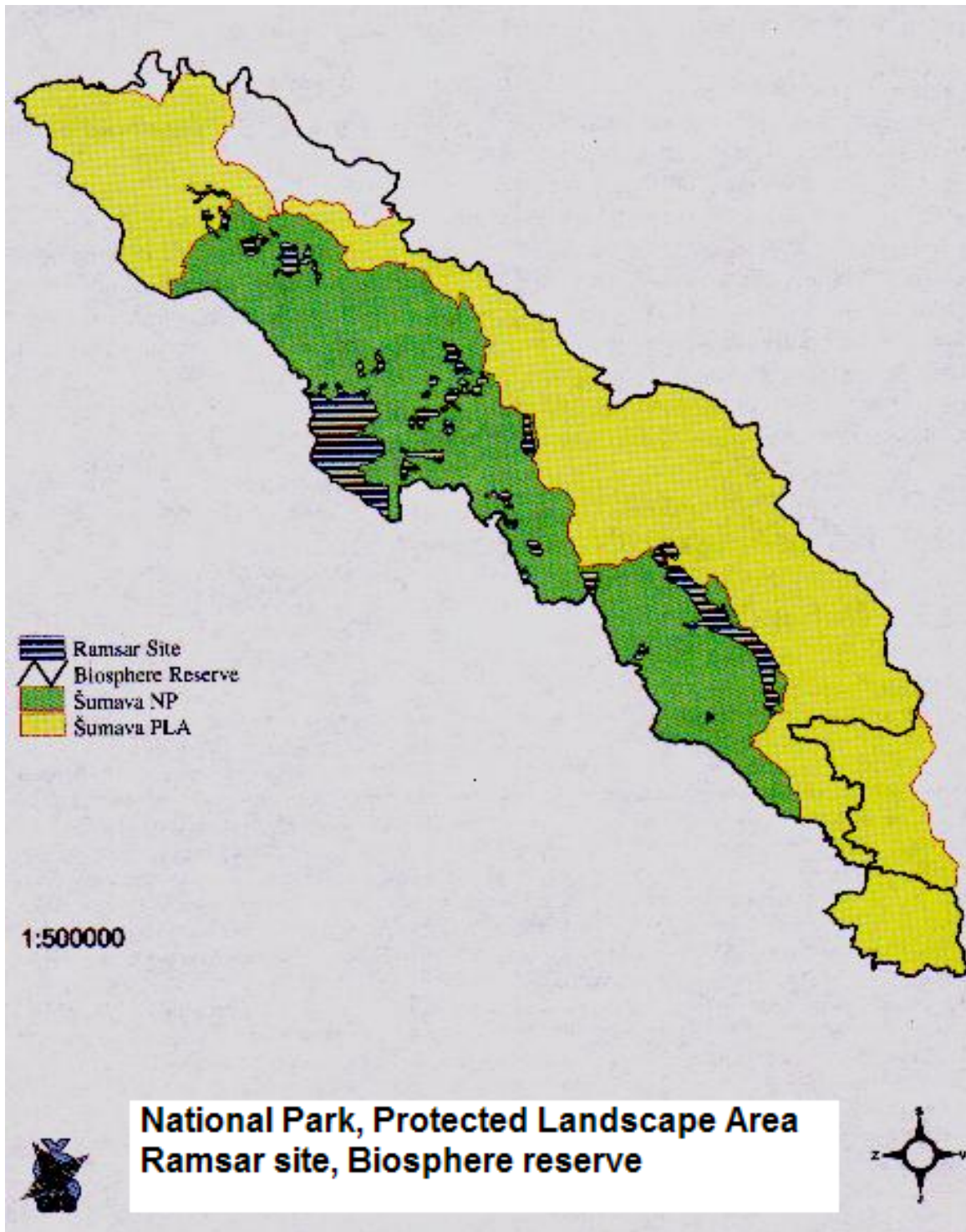


Figure 11: Zonation of Šumava NP since 1995



Map 3: Zonation of SNP before and after 1995; zonation of the Biosphere Reserve 1990 (documents provided by Hnutí DUHA)

Sumava National Park is surrounded by a large Protected Landscape Area (Cf. Map 4). At the international level, the Park is recognized as a **Biosphere Reserve** and a **Ramsar zone**. The Ramsar zone is fragmented as well, whereas the zoning of the Biosphere Reserve is to be clarified, or more probably completely redesigned . Neither of these 2 "labels" is properly and efficiently used, either for conservation purposes or for promotion of the area, among tourists for example.



Map 4: Protected areas categories of SNP

The system of zoning with different layers of protection overlapping partially was very difficult to understand for the participants to the mission. Even for some of the experts, such as the President of the NP council, some issues were unclear. Thus it is impossible to have an open and transparent management, and to communicate its principles and practice to the ordinary citizens. Having intervention with heavy machinery, leaving permanent scars in the landscape, in a "non disturbance" area (= off limits for the visitors) is very difficult to accept!

Answering a specific question, the new Deputy Minister of the MoE (Protected Areas) is ready to put the zoning on the table for discussion if necessary. Even the Park administration, which considers the MP (adopted by the MoE with effect from 1 January 2001) as a final document on which the management has to be based for the next 10 years, has admitted that if the MoE wishes , they will reconsider the zoning.

The **Management Plan** itself is a good basic document; the long term objectives are quite clear (horizon 2030-2050), and has the agreement of all parties (transformation of the pure spruce forests into "natural" mixed forest wherever the ecological conditions make it possible). However, the short and mid-term objectives, and the strategy to achieve these objectives, is a complete mess. Long term objectives are in case of forestry management in discordance with the short term aims and with the praxis which is used in Sumava NP. On top of the very complicated zoning and the fragmentation of the 1st zone, there is another layer of protection consisting of the so-called "non-intervention" zones, which do not match with the zones 1 and 2a. Achieving the goal of having a predominantly mixed, close to natural, forest is impossible without massive intervention; the actual pure spruce forest do not have the seed source and the open spaces allowing for natural growth of broad leaves species, with the exception of mountain ash. Moreover, the actual pressure of wildlife does not allow seedling growth without individual protection. The desired transformation would need opening up the canopy, plantation of seedlings and protection against wildlife, which is not really compatible with a IUCN Category II Protected Area.

Hunting and game management is hardly mentioned in the MP, in spite of its essential role regarding forest regeneration, in particular in the survival of broad leaf trees seedlings in areas predominantly occupied by spruces. By the meaning of the managers of the Sumava NP forest rejuvenation with broad leaves is almost impossible because of the wildlife grazing. The keeping of game species is not managed on a commercial basis, but is part of an overall management strategy aimed at the protection of the landscape and biodiversity. The main focus is on the active regulation and control of populations of large ungulates (mainly deer species) in the absence of their main predators (wolf, bear).

"Hunting in traditional sense is not carried out in the Sumava National Park. The care of animal species which are ranked as game species from a hunting point of view and the respective legislation has a specific position in Sumava National Park and is subordinate to the overall concept and purpose of the Park". (Management Plan).

The rest of the chapter is very vague and basically gives the Park administration complete control and freedom to organize hunting, providing they can justify the control of the populations.

The Park administration confirmed that hunting is permitted in the Park, under their control. We would expect that the processes of forest transformation would require a quite significant reduction of the game population and their strict control for 1-2 decades, or very costly protection measures.

The main problem we have found is that mentioned hunting activities according with management objectives are taking part also in non-intervention zones. From that fact we can conclude that there is almost no surfaces without any intervention.

The **intervention principles** and procedures are probably determined internally by the Park administration, and are probably not clear and transparent for the outsiders. Protocols with complete record of bark beetle population variations, level of attacks and monitoring of intervention procedures are obviously difficult for the people outside of the Park administration, in particular to the NGOs, to access. Thus there has been a lot of misunderstanding, mutual accusations and complete distrust between partners. Also the interventions with heavy machinery in the Core zone and in "non disturbance (closed to visitors) areas" does not give a very positive image of the Park managers and was considered as totally unacceptable by the NGOs.

The **local communities** are relatively poor; the border areas have been favored in the past, but simultaneously their original population has been replaced (a lot of people with German roots emigrated or were refugees) by people from other areas (fear of the "independence of mind" of the local people).the rest of this paragraph are recommendations and should be dealt with separately. A project for regional development, including all the communities, should be initiated by the local mayors, supported by the Park administration as well as the regional development agency. Such a project could set up a mechanism of regional (or municipal) forum, such as what has been established for example in Bulgaria around the Central Balkan National Park.

The Park structures, and in particular the **Council of the Park**, do not properly and efficiently operate. The Council's composition, with for example all the communes' mayors, does not allow this body to play a role of guidance to the Park administration. The selection of the other members by the Park administration itself does not allow the scientific community to be represented by the best and most relevant experts and the council to express independent opinions

Main difference in the situation in Bayerischer Wald Nationalpark compared with Sumava National Park

The Bayerischer Wald Nationalpark had been affected extremely severely by bark beetle attacks during the last decade. Some of the spruce high mountain forest are dead over more than 90 % of the land surface. In the core zone of the old part of the Park, the non-intervention strategy is strictly applied – dead trees are left standing until broken or upturned by the wind.

Experience from Bayerischer Wald Nationalpark, with a large and compact core zone surrounded by a buffer zone "protecting" the surrounding forests, is extremely valuable, but direct translation of the conclusions for the management of Sumava National Park must be done in a critical manner, taking into consideration the differences in ecological, geographical and socio-economical conditions between the 2 countries.

The way of handling the situation was very different in the 2 Parks; while Bayerischer Wald Nationalpark has adopted the principle of "non intervention", at least in the large core zone, Sumava National Park has adopted an intervention approach even in the core zone. A large part of the trees in the core zone of Bayerischer Wald Nationalpark (over 90%), especially the pure spruce forest at higher elevation along the Czech border, have been destroyed.. The trees have been left standing, and a very good regeneration is taking place with very dense seedlings. It is likely that the seed source is the few remaining living trees, which should be the most resistant, and therefore the best adapted genotypes to the local conditions. The dead trees, partially upturned or broken and lying on the ground, offer a protection against wildlife damage.

A crescent shape zone, surrounding the untouched core area, is carefully monitored and spot intervention takes place as soon as a preliminary level of attack is registered (= buffer zone or sanitary belt). The trees are cut and removed. It has to be noted that the buffer zone is located at lower elevation, and therefore is colonized by mixed forest (not pure spruce stands). It is also to the NW, which means that the bark beetle is transported by the wind into Czech Republic, and not towards the buffer zone and the surrounding commercial forests.

NB: some concession to that principle had to be made in order to allow the recent enlargement of the Park. The park direction has ordered strong interventions (small size clear cuts) to stop the spreading of bark beetle and to protect the surrounding forests; this was a condition to the recent extension of the Bayerischer Wald Nationalpark to the NW.

In Bayerischer Wald Nationalpark, the zoning is relatively simple, with a large core area in one block, surrounded (except along the CZ border) by a buffer or sanitary zone, in which the Park administration intervenes immediately when a bark beetle attack is detected. In the core area, there is really no intervention, and if the view of many ha of completely dead trees, mostly still standing might be choking, a very good regeneration is taking place. In all stands the NP administration had counted a few % of adult trees still alive, probably the individuals best adapted to the local conditions, which provide a source of seeds as well as prevent the free moving of the wildlife.

The clear and simple zoning makes the communication concerning the goals of the Park and its management significantly easier, reducing the risk of public opposition against the Park. Also the buffer zone is mainly situated at lower elevation, and therefore is mainly colonized by mixed forests, less sensitive to massive attacks of bark beetle.

It is clear that a part of Bayerischer Wald Nationalpark is actively managed, and that in particular strong measures are taken to prevent the spread of the bark beetle to the surrounding areas. The observation network and the bark beetle warning system is extremely efficient, allowing quick and efficient intervention on small surfaces.

Bayerischer Wald Nationalpark has a relatively long history, and is accepted as a NP by the local population as being part of their environment.

Recommendations

The management of Sumava National Park has to be based on a MP with practical, feasible and concrete management recommendations largely accepted by the local stakeholders. It is necessary to elaborate such a document in the frame of a **broad participatory process**. The preparation and the coordination of the document's drafting should be entrusted to **an external (neutral) consulting firm**, based on documentation provides by the Park administration and other competent bodies. The park employees have a good training in forest management, but do not have the overview on natural resources management, natural processes, internal standards for protected areas and socio-economic background that are essential for a NP management plan preparation (see also the chapter on the Park council below). The first step should be a large consultation with the communes on and around the Park territory, the specialized NGOs and the scientific community.

A real and professional **communication strategy** is lacking. Both sides have been fighting through the media, which is usually a guarantee for deformation of the arguments, truncated and out of context citation and a rising of verbal violence. The current conflict situation requires obviously the intervention of a **neutral moderator**.

The coordination with the 2 neighboring countries should be reinforced, and a **common management strategy** should be defined, serving as a guideline for the Sumava National Park management plan. The integration of the local communities from the 3 countries into the process of decision making concerning the Park and its management should be implemented, possibly with a transboundary inter-municipal forum.

The recommendation at this stage can be divided into 5 categories:

- Technical measures to resolve the fragmentation of the core zone.
- Status of the Park, its long term goals and level of intervention.
- Procedure for decision making, participatory processes and management structure.
- Involvement of local communities; potential regional development in and around the Park.
- Improvement of communication in and around the Park.

Technical measures to resolve the fragmentation of the core zone

The main goal is to reorganize and simplify the zoning and to integrate all the levels of protection into a single coherent system.

1. Revision of the NP zoning: the zone 1 (core zone) must be reorganized in a few compact blocks (less than 10) with clear conditions – basically non intervention – and ground marking, according to the law. The big blocks should be established for at least 20-30 years, with some flexibility in the application of the management principles; in case of emergency, marginal changes to the zoning and/or light intervention might take place but only after discussion with an executive scientific / management committee. Clear criteria for zoning should be elaborated.
2. Original transition process (as described in management plan) and transformation of zone II areas into core zone areas should be significantly accelerated in order to cover 30 to 40 % of the NP within the next 3 to 5 years.
3. As a principle, the zone 1 should be non-intervention area; a small part (1-2 blocks) could be designated as research areas for comparing a limited and well targeted

intervention regime with similar non-intervention plots. In any case a performance monitoring scheme must be set up.

4. The non-intervention zone(s) should be surrounded by a "buffer zone" or "sanitary belt", where: (1) ad hoc intervention in order to prevent the spreading of bark beetle, and to reduce the damage to an acceptable level, and (2) intervention facilitating the transformation into a mixed forest would be executed
5. Other categories of protection should match with the zoning, especially the non-intervention zone. Ramsar zone should be identical to 2 to 3 of the core area blocks; Biosphere Reserve zoning should also be equivalent to NP zoning (Zone 1 = core area, rest of the Park = buffer zone, landscape PA = transition zone).
6. Access for the public and for different activities should be rechecked for the non disturbance zone.
7. Wildlife population and hunting has to be addressed to allow a natural regeneration of the forest, including growth A strict policy regarding the control of wildlife populations - no winter feeding, hunting plans for the areas outside of the Park coupled with a comprehensive monitoring scheme - has to be applied; depending upon the actual population density, direct intervention within the Park might be temporarily necessary to allow a regeneration of broad leaved or mixed forests. Ideally, condition should be created allowing the natural return of large carnivores ensuring a long term control of ungulates populations.
8. Coordination with Bayerischer Wald Nationalpark is a must (and probably with Austrian foresters as well). However the ecological, historical and socio-economical differences must be considered when establishing a common management scheme.

Fundamental discussion about the Park's status, long term goals and the level of intervention

1. A basic discussion about the status, long term objectives and categorization of Sumava National Park should take place. This discussion should be put into the broader context of the NP system at the country level, possibly linked with a revision of the Nature Conservation Act. The Park has a role to play in the Central European context: it constitutes, together with Bayerischer Wald Nationalpark the largest protected forest block of the region. The Park has different objectives corresponding to the respective perspectives of the different groups of users (conservation community, local population, foresters, scientists, etc.). The objectives should be clarified and clearly subordinated with no ambiguity or confusion in the objectives?.
2. The Sumava National Park should keep its status of a National Park in the Czech Republic, but its categorization according to the IUCN system should be carefully reassessed. Moving into another Category according to the national law would mean a real weakening of its protection and an open door for all kinds of intervention. On the other hand, the attribution to category IUCN IV or V would much better fit with the reality and not change significantly the value of the area.
3. Clear principles on the level, type and location of intervention for the next 20-30 year period should be elaborated and discussed in a large public debate, at the national as well as at the local level. The procedure of preparing and accepting Management plan must be clear written and respectable. The role of the professional bodies, government (ministry), local or regional authorities, NGOs, local inhabitants and public in common should be defined by this procedure.

Procedure for decision making, participatory processes and management structure

1. The Park management structures have to be reassessed; the role, functioning and modalities for members nomination to the Park Council should be clarified. No member should be chosen by the Park administration itself. Clear ToR should be drafted.
2. A smaller executive management committee should be established to oversee the Park management; members should be available for ad hoc meetings on very short notice if / when unexpected problems occurs or non programmed interventions are urgently needed. Members should NOT be chosen by the Park administration. This body should probably have a representative of the local communes, and as permanent guests representatives of the Bayerischer Wald Nationalpark and from Austria.
3. A larger role should be played by the scientific community, including specialized (and highly qualified) NGOs. The scientists should advise on the Park monitoring and develop models for the Park development and the ecosystem functioning. Ideally an independent scientific advisory board should operate for all of the NPs of the Republic, with ad hoc working groups for specific issues (e.g. bark beetle, etc.). As a principle, discussion on technical management issues should not be through the media.
4. A clear and positive role should be given to the NGO community, especially to the locally established organizations and on the Park Council. A kind of MoU should be signed between the NGOs and the Park administration.

Involvement of local communities; potential regional development in and around the Park

1. As a principle, local "ownership" of the Park should be promoted. Currently local communities perceive the Park as a constraint, imposed from above and managed with little possibilities for them to intervene; a passive attitude ("waiting syndrom") derives from this situation.
2. Local communities should be as much as possible involved in the decision making processes. They should be on the democratic basis (somehow elected) members of the Park Council. Regional working groups on specific issues, like ecotourism, transportation, policy for hiring NP staff, etc. should be established. The NP administration should be coordinating these activities and a limited financial support should be provided by the Park.
3. The possibility of developing a regional project development to be submitted to the EU for financing should be seriously studied. Limited funds and, probably more important, external expertise should be provided. The regional development agency should coordinate the preparation of a project; the government should provide the necessary expertise either through local experts or by asking foreign experts with relevant experience with similar projects.

Improvement of communication between Park administration, local stakeholder and the general public.

1. A communication strategy should be established and implemented, ensuring a better understanding of the goals of the Park and its significance as a natural area for the

future generations. Involve NGOs during the drafting of the strategy and use their network for delivering to the public.

2. Present bark beetle gradations as “natural or passive restoration”. The calamities lead to break-down of mainly even aged forests and forest stands with artificial compositions. The new forest, developing by natural regeneration, will be more close to the natural forest structure.
3. Communicate clearly all park management measures, particularly in relation to forest management, to local people as well as to land owners bordering the NP in Czech Republic, Austria and Germany;

Summary of the "Tour de table" among participants to the mission

M. Niggemeyer / WWF Austria observer:

The conflict lies in the past. All have a common goal: National Park which allows a dynamic forest development. The core zone / non intervention area must be enlarged; the bark beetle problem has to be addressed

T. Stanek / MoE Forest protection

Remaining forest must be protected against bark beetle; if not, the Park would lose its function and there would be major economic losses.

The needs of the communes must be taken into consideration.

F. Krejci / NGO, former deputy Park director

Than for the mission. Main issue: incorporation of NP into cat II UICN. Not convinced by the splitting and reduction of Zone 1. Suggest big islands zone 1 with buffer zone around.

Negotiation: use the large potential from inside and outside the Park

J. Blaha / NGO Hnutí Duha

Happy that the mission takes place – hope it will help to find solution.

Main issue: zoning – non intervention zone. Need to reassess the mission of the Park; some functions might be fulfilled by other Pas also.

General impression: good, although he disagree with some statements; everybody could express his opinion

J. Pokorný / Academy of Sciences

8-10 years ago nobody had expected this calamity, therefore the management did not consider this issue. Major changes took place during the last 7 years. Complete non-intervention would lead to breakdown of the whole ecosystem. Question: how much can we allow ? Consequences on water regime, CO2 balance, microclimate.

Need for better communication; refuses any professional discussion through media.

M. Böhm / Inspectorate MoE

Observation based on the activities following the law, thus somewhat different view.

Differences in vision appeared when bark beetle started. → conflict of opinion concerning the solution

Need consensus on Zone 1; would welcome expert opinion to find a solution.

P. Stloukal (?) / MoE

Main issue: how to deal with conservation issues outside the Park. The problem has a human origin (artificial forest composition). The transformation of this forest into a mixed forest is a unique experience → limited use of experience from abroad.

The question is not enlargement / reduction of zone 1, but how to implement the forest procedures. Procedures from Bayerischer Wald Nationalpark must be adapted.

R. Mrkva / Professor of forestry

Would appreciate finding solution among experts, not via media.

Main question: human intervention; some level is needed. What we saw in Bayerischer Wald Nationalpark is endangering the surroundings; protective measures in CZ have prevented major disasters

He would personally have no problem with complete disintegration of Spruce forests, but fears for consequences at ecosystem level. → necessity to fight bark beetle in case of warm weather. Change from Spruce to Mixed forest is easier in living forests.

F. Krahulec / Dir. Institute of Botany

An intensive expert discussion did not take place. Recognizes 5 problems:

1. Fragmentation of zone 1 – no clear boundaries
2. Criteria definition
3. Following the criteria
4. Unclear criteria for introduction of species
5. Communication between Park administration – scientific community

L. Miko / New deputy minister MoE (PAs)

Problems came on the table; welcomes IUCN mission and hopes it might help. Is convinced enough information are available and have been provided to for an opinion. Looks for concrete findings, not "diplomatic" soft report.

Must differentiate short term, long term objectives and management practices.

Must clarify the role of State (balance between local expectations and conservation)

Hopes that the mission can trigger a fundamental discussion at expert level; communication must improve, external moderator is needed.

Parks has too many boundaries / zones / regimes. Where to localize management regimes ?

Think in term of controlling → be very practical.

J. Martanova Forester – Park administration

Took part to park creation; lesson learned: not easy to set criteria for zoning easily explained to laymen. Park is looking towards the extension of zone 1 – but one cannot forget the interest of the region and its expectation from the Park. 11 years is a short time !

V. Zatloukal – Deputy director

How to find balance between nature protection – socio-economical questions. Appreciate the mission which tried to find a non political process; he stresses on process, because a solution cannot be found at once.

Today they work like a "fire brigade" on the way back after the outbreak of bark beetle.

Zoning: the first zone might look small, but this is due to map scale ! Administration needs time to achieve auto-regulation and to come back to fulfillment of criteria for zone 2. Middle term concept is clear for NP administration.

Agree with Dr Pokorny about large scale consequences – see Bayerischer Wald Nationalpark experiences and effect on water regime.

I. Zlabek NP Director

Reduction of zone 1 was decided after long discussion with MoE; large scale negotiation, then decision by the minister.

From what we heard in Bayerischer Wald Nationalpark, we can see that there is a common ground for management.

In conclusion, and noting that the zoning is the key issue for most participant, P. Galland asked the deputy-minister if the Czech Authority would be ready to reopen the question of the zonings, or if the plan adopted last year was to remain valid as it is for the whole period (2001-2010).

The deputy-minister answered that he is personally ready to reopen the discussion if necessary. The Park administrator considers the existing document as binding, but they estimate that the discussion must go on" and they will follow the ministerial instructions.

M. Solar noted that all have a common goal for the park, but there are divergences on the way to achieve it and about the best instruments to achieve it.

Meeting with the municipalities of the Park region

A few questions were addressed to the commune representatives in order to get a feeling about their attitude towards the Parks and other actors.

Note: The same answers were sometimes given by several municipal representatives; we have kept them to give more weight to such statements.

How do you like the Park ?

- One has to fight against bark beetle; generations of foresters have fought and they would like the Park to "look good".
- The integration of zone 2 into zone 1 is desirable
- Future is not transparent; the communities have big surfaces for which they don't know what to do.
- There was some signal for a reduction of the Park; they would oppose.
- The whole region had been influenced by human activities; the local people do not want to return a few centuries back. They wish to live and work in the region in "normal" conditions (schools, communication, social conditions, enough jobs, etc.)
- The NP should offer a demonstration that it is possible to live WITH nature.
- Importance of historical factors: The Park is issued from the will of the communes. Its legal protection has important economic consequences. The Park constitute one of the largest wooded zone in Central Europe – it must be preserved but local jobs must be maintained.
- People were in favor of the Park but have problems with the restrictions.
- The bark beetle problem was presented in a dubious way. One problem is the public use of the area. Local people disapproved the demonstration with people chained on trees. On the other hand, bark beetle problem is much worse in other areas !
- Communes wishes radical measures against bark beetle. The State has put a very large territory under protection, regardless of the job opportunities for local people.
- Unclear chapters in the law induced difficult negotiations, but one find always a solution !
- The majority is in favor of conservation, but the State should provide compensations !
- Loss is sometime considerable for the communes; the Park should demonstrate that people can live with nature and survive !
- Bark beetle treatment in zone 1 is necessary, because of the proximity of private properties.
- Forests should function as forest, not to die back !

In summary, local commune representatives are not against the Park, but would like to have some insurances of conserving jobs and enjoying "normal" life in the Park area.

Relations with NGOs:

- NGOs do not like when communes collaborate with the Park
- Journalists have increased the conflicts

- They want to collaborate and discuss with experts from the region who were born here !
- They have accepted the NGOs presence at the negotiation, but it turned against them

Relation with national authorities

- Expect amelioration in the new conservation act.
- Environmental questions should be discussed with the Prime minister
- Communication significantly improved last year – but one can always do even better !
- There seems to be a lack of communication at the highest level
- The public participation should be in the new law
- Problem with income tax: the parliament is not ready to compensate for damages / losses
- Commune have less income (no property taxes in the Park)). There are possibilities of grants, but commune must provide matching funds (which they do not have).
- They cannot establish infrastructure in zone III – profits are limited to a few groups of people.

NB: the Park is in a former border area; most inhabitants have been "imported" into the area in the communist time, in order to replace local people, considered as too close to the west. There were restrictions of access to the border zone, but also compensations for the local people.

There is no regional organization of municipalities and apparently no regional forum. They do not have the capacity at the commune level to write development project proposals. The Park should establish a local association and assist the local communities to prepare concrete proposals for regional development, together with the Park. For this, the Park need some regional developments specialists with strong socio-economic background, and help from the government to have access to international funds (EU ?)

Conclusion

In conclusion, we would like to thank all the persons present for their constructive fair participation to the discussions.

The Czech authorities have provided the logistic support for the mission which was very well organized, making best use of the 3 days in the field. The National Park administration and the NGO Hnutí DUHA have provided an excellent and very comprehensive documentation. The Bayerischer Wald Nationalpark administration has presented a very good overview of the situation in the adjacent Park and provided a top level documentation.

We were very pleased to acknowledge that all pursue the same goal of long term conservation of the Sumava National Park, despite sometime strong divergences on the actual measures to be taken in order to achieve this it.

We hope that our modest contribution will help to re-establish or improve the dialogue between the concerned partners, leading to a consensus on a future management compatible with the conservation objectives of a National Park. We would like to thank Roger Crofts and David Sheppard (IUCN) for their comments and suggestions concerning the report.

Pierre Galland & Martin Solar
January 2003

Annexes

- List of participants
- Chapter **National Parks** – Czech National Council Act

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Abbreviations: MoE: Ministry of Environment, MoA – Ministry of Agriculture, NPS – National Park Shumava, AS CR Academy of Science of the Czech Republic