

## Visitor Management in the Wilderness Area Dürrenstein, Lower Austrian Kalkalpen

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**Abstract:** With its approx. 2.400 ha, the wilderness area Dürrenstein lies in the south-western part of Lower Austria in the northern Kalkalpen. The primary objective of this protected area, which is aiming at being recognised as Category I of the IUCN guidelines (Eastern part: Ia – strict nature reserve and Western part: Ib – wilderness area), is the sustainable protection of this region. However, as according to the said guidelines, human disturbance in the wilderness area must be minimised, yet educational opportunities (for Ia) and the well-being of visitors (for Ib) are part of the criteria for the mentioned categories, there could be potential conflicts between nature protection objectives and the activities resulting from an educational and recreational obligation (visitor management and guidance). As part of the LIFE project carried out for the establishment of the wilderness area, visitor surveys were made. They showed that the area around the Dürrenstein was mostly a regional recreation area. The number of visitors has remained widely the same in the last 50 years despite slight fluctuations. An increase in the level of popularity of the protected area, following the Category I recognition, could alter the situation. A possible consequence of a larger number of visitors would be the effect on habitats i.e. a disturbance of the wild animals living in the wilderness area. In particular hoofed game, red deer, deer and chamois but also rare birds such as capercaillie or black grouse could be affected. The result of increased disturbance is species extinction or in the case of hoofed game (forest)ecological damage, which cannot be tolerated in such a small wilderness area. In order to counteract the negative effects of a positive visitor development in the wilderness area, appropriate standards must be set for visitor management. For this, measures for visitor guidance should not only be applied inside the wilderness area, but also partly in its forefield. Only thus may the demands of nature protection on an effective visitor management be met. Therefore, basic – from the point of view of the protected area management, very moderate – principles were fixed for the wilderness area itself:

- Visitor information on the protection objective
- Monitoring of the development of the recreational use
- Gentle guidance instead of orders (marked trails)
- Discussion of arising utilisation conflicts with all parties concerned.

### INTRODUCTION

The “Wilderness Area Dürrenstein” with its 2.400 ha ensures the sustainable protection of a probably unique area in Central Europe, considering its “naturalness”. This special natural area lies in the south-western part of Lower Austria, on the southern slopes of the Dürrenstein massif and near the Lower Austrian-Styrian border.

Its situation off larger housing development areas, the relatively low level of development and the decision taken already by Albrecht Rothschild in the 19<sup>th</sup> century to remove parts of the present protected area from use and thus keep it for the descendants, provide favourable conditions for the creation of a category I protected area following the IUCN criteria.

The realisation of a project as part of the EU-LIFE Nature Development Programme was the onset for the creation of this for Austria unique

protected area. The objectives of this nature protection project were in particular (see Gossow, 2001):

- Securing areas by declaring it protected nature area;
- Establishing the first wilderness area of this kind following the IUCN criteria in Austria and setting up an efficient protected area management;
- Undisturbed development of primeval forests with at the same time improvement of the state of conservation;
- Taking stock of all habitats and species listed in the appendices of the Fauna-Flora-Habitat Directive or the Birds Directive, and as a result, drawing up a management plan. As an additional basis for the management plan, studies of the recreational use and the visitor

flow were made (see Gossow, 2001 and Muhar et al., 2001).

Because of the natural conditions and the way the property is distributed, the area will be divided into two sub-areas according to the IUCN criteria. The eastern area owned by the Rothschild family would be recorded as category Ia – “strict nature reserve”, whereas the western part belonging to the Österreichische Bundesforste AG would be declared protected area category Ib – “wilderness area”. Both categories have in common the aim of sustainable protection of an area, i.e. the development of natural processes based on the principle of non-intervention, respectively reduced intervention. Therefore any measure that does not serve the purpose of stabilising a nature-orientated balanced situation is forbidden. Thus because of the relative smallness of the “Wilderness Area Dürrenstein” a hoofed game management still needs to be carried out. However, because of the nature-orientated objectives, this game regulation cannot be assimilated to common hunting.

The main difference in both categories lies in the fact that in a wilderness area (Ib) the recreational use is of great importance, whereas in the strict nature reserve, access is only foreseen for scientific or educational purposes (IUCN & EUROPARC Federation, 2000). Management inside the individual areas has to be differentiated accordingly. The actual paragraphs in the IUCN guidelines (IUCN & EUROPARC Federation, 2000) state the following:

Ia – Strict nature reserve:

“To secure examples of the natural environment for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded.”

Ib – Wilderness area:

“To provide for public access at levels and of a type which will serve best the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for present and future generations”.

## METHODS

Various scientific research activities were undertaken as part of the LIFE project “Wilderness Area Dürrenstein”. Game ecological and ornithological studies were particularly relevant for visitor management. But an assignment on “Recreational use and visitor management in and around the wilderness area Dürrenstein” was also given to the Institute for Landscape Conservation and Spatial Planning at the University of Agriculture in Vienna. Simple but effective methods were applied to record visitors. With the help of the staff of the protected area administration and the forestry administrations, the following tasks were undertaken to record the number of visitors:

- Counting of visitors in the project area,
- Counting cars on the car parks and
- Examination of the summit- and mountain refuge logbooks.

Besides these systematic data recordings, surveys were also made on site. For this, interviews were carried out both with tourists and local actors. Based on these findings and on the conclusions resulting from them, some basic principles for visitor management were developed (Muhar et al., 2001).

## EXAMINED AREA AND CURRENT VISITOR FLOW

### *Area of unspoilt nature*

As already mentioned, the wilderness area Dürrenstein lies in the south-western part of Lower Austria, near the Styrian border, embedded in the Natura 2000 area of “Ötscher - Dürrenstein”. The actual primeval forest Rothwald with its approx. 460 ha of primeval virgin forest lies on the south-east drop of the 1.878 m high Dürrenstein. Dachstein chalk and dolomite are geologically dominant. Climatically, with an average temperature of 3.9° C a year and a yearly precipitation of over 2.000 mm, it is a cool, sub-Atlantic climate. The dominant forest population of the protected area consists of a spruce-fir-beech forest with various combinations of tree types. Depending on the exposure, the tree limit is made of sub-alpine spruce forests, beech forests or a mountain pine belt, the Latschen.

Regarding the fauna, almost all Alpine species are represented, besides the brown bear, a very important species (Aste & Gossow 1996) and the lynx typical species like deer, chamois, snow hare, all Austrian types of grouse, golden eagle, peregrine falcon, white backed woodpecker but also common viper and Alpine newt, as well as rare xylobiontes such as the “Alpenbock” should be pointed out (Amt der Niederösterreichischen Landesregierung 2001).

The species, which due to their way of life could be under pressure without an adequate management, particularly with a change in the number of visitors, and for which the population, respectively the forest-game structure, could be at risk will be briefly characterised below.

### Hoofed game (deer, roe deer and chamois) (Völk & Wöss, 2001)

The three above-mentioned hoofed game species have at least parts of their habitats inside the wilderness area Dürrenstein and have so far been hunted there. The management of hoofed game in the vicinity of the protected area influences of course the number and the retention period inside the borders of the protected area. Retention period, size and disturbance of hoofed game populations from hunting and in particular from visitors are,

besides habitat quality, the factors that determine the use and habitat structure of hoofed game (e.g. damage caused by browsing animals) in an area.

Grouse (capercaillie, black grouse, hazel grouse and rock ptarmigan) (Wöss, 2001)

Within the borders of the wilderness area there are appropriate habitat structures for all four Austrian grouse types (see also Klaus 1991). This means that the wilderness area provides habitats for capercaillie, black grouse, hazel grouse and rock ptarmigan. Whereas the capercaillie population is dependent on the hinterland because of the size and the structure of the protected area, this natural jewel is of great importance for the rock ptarmigan and in particular for the black grouse.

Large birds (black stork, golden eagle, peregrine falcon and eagle owl) (Leditznig & Leditznig, 2001)

The wilderness area together with the surrounding Natura 2000 area of "Ötscher-Dürrenstein" is of over regional importance particularly for the black stork but also for the peregrine falcon (Hagemeyer & Blair 1997). Golden eagle and eagle owl populate the area in varying density. These rare birds were hunted over decades, centuries even, and were brought close to

extinction. This is why especially these animals are very sensitive to any kind of disturbance.

*Visitors*

As part of the LIFE project, visitor surveys were carried out in the whole of the Dürrenstein massif under the authority of Prof. Dipl. Ing. Dr. Andreas Muhar. The results show that the Dürrenstein is a local excursion mountain with a relatively small trading area regarding visitors (see figure 1.). Naturally, there have been variations in the number of visitors during this time, but no significant changes over the whole period. This means that, contrary to the spectacular mountain destinations in the Central Alps, there has been no increase in the touristic use (Muhar et al., 2001).

One of the reasons for this "extensive" use could be that there is no public path, no road leading to this mountain and no lift or skiing slope fragmenting nature. For the individual sportsman, the "touring" one, there are no attractive runs on offer either. So far the actual protected area has only been marginally used by holiday-makers. This is partly due to the relatively bad accessibility following the realities of the natural environment, and also to the sometimes restrictive measures of the landowners. The lack of tourist infrastructure also contributes to it.

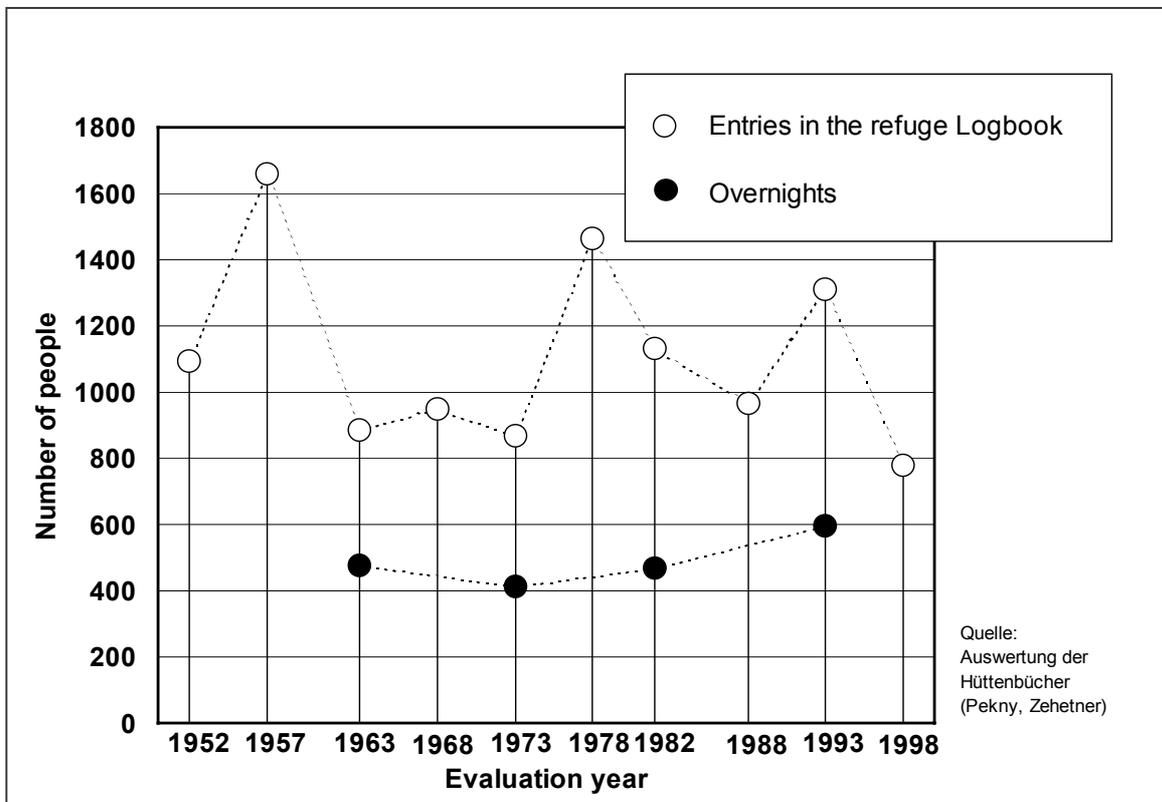


Figure 1. Evaluation of the refuge books over the last 5 decades

## VISITOR MANAGEMENT IN THE WILDERNESS AREA

A certain amount of demands are being made of visitor management. These result from the IUCN guidelines (see introduction), the requirements of nature and species protection, the basic legal framework (forestry, hunting and nature protection law etc.) and finally from the regional resp. local realities or claims. Thus, the task of the future protected area management should be to develop a concept from all the submitted requests and documents, which would firstly meet the requirements of nature protection and secondly also offer visitors the opportunity to use the wilderness area in the most environmentally friendly way. All protected area managements, such as e.g. those of the Austrian or international national parks (see e.g. Donau-Auen, 1999 or Parks Victoria, 1998), are confronted to this "Gordian knot".

Consequently, the demands made of visitor management for the wilderness area Dürrenstein are listed below. At the end of this chapter, some basic principles for visitor guidance in the wilderness area are given, which will however have to be developed and compiled more in detail.

### *General expectations of the protected area administration from visitor management*

Due to the increased popularity of the wilderness area following the LIFE project and a possible international recognition, an increase in the number of visitors is to be expected.

Nevertheless, the primary objective of visitor management should not be a quantitative increase of the number of visitors, which need not automatically be considered as negative, but rather a qualitative improvement of the offers and as a result also a guidance of the expected visitors. A high quality offer for tourists that is characterised by appropriate guidance measures also allows for an increase in the number of visitors and with it for a better acceptance of such an ambitious nature protection project. The management concept should ensure understanding for nature and for the measures taken to protect it not only from the local population but also from foreign visitors.

Thanks to visitor management the core zones of the wilderness area should become increasingly unburdened. At the same time those looking for recreation should be orientated towards the less sensitive border zones of the protected area, or even towards the areas surrounding the wilderness area. One particular measure would be the realisation of a "show" or "diversion primeval forest" not foreseen in the LIFE project. Such a forest, which would be comparatively easy to access and, from a natural environment point of view, less delicate, could contribute significantly to relieve the actual protected area without withholding anything from visitors. At the same time, the request for recreation

and education would also be met. This means that an essential task of an efficient and integrated visitor management should be to provide sufficient information and thus visitor guidance in the forefield of the protected area.

To achieve this, the already available infrastructure should be used accordingly. For example, the so-called "Ybbstalerhütte" (refuge) on the border outside the wilderness area could be taken into account as an already existing excursion destination. A large part of the trails leading up to the Dürrenstein summit go past this station. Because of its central location this refuge would be very well suited as a starting point for excursions or for holding information events. The integration of this touristic "fixed point" into an integrated visitor management would not only relieve the wilderness area but also meet the expectations of the tourist boards and the municipalities.

### *Special requests from the specialist groups*

#### Demands made to visitor management by game biologists

In order not to drive hoofed game away from the open areas outside the forest, a controlled recreational use should be carried out. This measure also allows reducing the shooting of hoofed game in the wilderness area. Visitor guidance should at least not lead to an increase in the vegetation use in the forest area due to the disturbance of wildlife.

#### Demands made to visitor management by ornithologists

The biggest danger for grouse and rock ptarmigan could come from an increasing and uncontrolled use following tourist interests. "Modern" recreational activities such as hiking or snowshoeing in particular can be considered as potentially important disturbances. Golden eagle, eagle owl and black stork use very large territories, resp. roaming fields and therefore the wilderness area with its 24 sqkm is too small to ensure the protection of these birds. The wilderness area should thus be the starting point for an extensive visitor management, which should result in a widespread quietening of the breeding areas and partly of the feeding areas.

#### Demands made to visitor management by the region and tourism

The very high nature protection value of the area is indisputable. However there is a demand for at least a qualitative plus of visitors through a wider choice of (marked) trails and a specific visitor programme such as excursions. From a tourist point of view, the wilderness area should therefore become part of a widespread tourism concept and with this, participate in adding to its value.

#### Legal requirements

Two issues must be considered in particular. For the area in category Ia – Rothwald, access is generally prohibited according to the regulation for

nature protection areas. Thus, every access requires an approval from the competent authorities. Also according to the regulations of the ABGB (civil code) (par. 1319 and 1319a) the question of liability must be cleared. Any damage that could be caused to participants in an excursion on official paths by e.g. falling branches or suchlike will have legal repercussions. For this reason, one of the requirements of visitor guidance must be that any risk should be reduced to a minimum.

### *Concepts*

As it appears from these rather diverse demands the future protected area administration will be confronted with some conflicts. Nature, as already mentioned several times, is the highest priority. All other measures must be taken under this assumption and subordinate to this objective.

The Dürrenstein area is touristically not so developed yet that visitors could represent major threats for the wilderness area. However, in order to be able to react in time to any changes, the project leaders set up the following very moderate basic principles for visitor guidance:

- Informing visitors about the need for protection through information boards or leaflets. The organisation of excursions also contributes to increase visitor information and acceptance. Acceptance is thus encouraged both with visitors and the local representative bodies.
- Monitoring the development of recreational use and reacting to any changes.
- Gentle guidance instead of prohibition (marked trails). This gentle guidance already exists due to the difficult spatial realities and partly because of the general legal conditions.
- Discussing any arising utilisation conflicts with all people concerned.

This strategy could only be developed because of the very positive initial situation of the touristic aspect only playing a minor role in this area. Nevertheless, depending on the different categories, the areas are being treated in a different way. The main flow of visitors and thus visitor management are found in the periphery of the protected area and in the category Ib protected area. In the category Ia area (Rothwald) there will be no access for recreational purposes. Only visits in the form of small, yearly-organised excursion groups could be envisaged.

The question of liability is a problem. In order to keep the risk as low as possible, the marked and authorised network of trails will only be displayed very sparingly, provided this measure is in accordance with the protection objectives.

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