

Study on the capitalization in a tourism purpose of the zoo-pastoral heritage of the protected areas Natura 2000

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Abstract This paper presents the geographic and functional zoning of the site of Community importance Sighișoara – Târnava Mare. The typology presents current and potential visitor experiences. The zoning is part of the recreation and tourism zoning based on natural and human heritage and data from local administration. We are interested if in all these areas if an important goal is the exploitation for tourism of the zoo-pastoral heritage (sheepfolds and pastoral arrangements, customs and traditions, foods and crafts.). Zoning for tourism and recreation should take into account not only existing infrastructure and offers, but also the potential in directions that government wants to stimulate, considering them to be in harmony with the conservation objectives of Natura 2000. The case study is made in Natura 2000 site Sighișoara – Târnava Mare. There are made recommendations in three different ways: preserving traditions, land and natural resources use, tourism and recreation.

Key words

tourism, recreation,
pastoral, objectives

For a protected area of the size and the degree of human intervention like the Natura 2000 Sighișoara - Târnava Mare, the zoning in terms of recreation and tourism -also management zoning- has to be done in a different way from the national park protected areas, nature reserve or scientific reserve. Categories of protected areas whose management system is closest to that of the Natura 2000 site Sighișoara - Târnava in terms of recreation and tourism are natural park and biosphere reserve.

For this reason the procedure of implementation of zoning for recreation and tourism followed the Strategy of Visiting proposed in the Danube Delta Biosphere Reserve specially designed for large natural areas and development needs in local communities, according to the study "Zoning for recreation and tourism in the RBDD - Part of the strategy of tourism and visitor management." [1]

Particular attention is paid to the way in which the exploitation in a turistic way of the zoo-pastoral heritage it is done. It is known that the counties Sibiu, Mureș and Brașov have as a characteristic huge surfaces of natural meadows and grasslands that are valued with the help of ruminants. [2, 4]

Material and Method

To collect information necessary for the analysis of the current situation of the visitors from the site have been used the following methods and information sources: questionnaires sent to local

authorities within the protected area; consultation with tour operators and NGOs involved in projects to promote sustainable tourism and development, bibliographic documentation of: Management of National Land Plan - Section VI tourist areas (Sibiu, Mures and Brasov counties), statistics from The County Directorates of Statistics Sibiu and Brasov Mures; Master plan for the field of tourism in Sibiu County, Development Strategy for Brasov County, current situation analysis, Chapter 4 - Tourism, culture, heritage, sport; Development priorities of Mures County 2007-2013 - Priority III Tourism Development

Results

Studied protected area zoning for tourism and recreation is based on two fundamental premises:

1. compliance with the requirements and objectives of preserving natural values
2. identifying and stimulation of opportunities for sustainable development of local communities

Central point (hub - an English term) is an access point within the region that can focus and direct the flow of visitors in certain areas depending on their preferences, the type of experience that they want, the information, infrastructure and services available. The philosophy of this concept is to attract people to live, to gain a personal experience regarding the site visit and spend money - starting from access points to the central destination. The main focal points identified are: Sighișoara, Dumbrăveni, Moșna, Agnita, Saschiz

Cornatel / Hosman, Cincsor / Cincu.

The typology of current and potential visitor experiences

Slow experience versus fast experience:

Abovementioned zoning study adopts three core principles:

1. Respect for conservation areas
2. Promotion of the slow tourism
3. Zoning for fast tourism experience

Table 1

Typology of current and potential visitor experiences [9]

Type of experience	Average length of stay	Resources consumption	Positive impact on local communities	Negative impact on the environment
Slow	Over 2 nights	Low	High	Low
Fast	Under 2 nights	High	Low	High

The geographic zoning

From historical point of view, the whole area of SCI Sighisoara Tarnava Mare was part of the Saxon Nobility of Transylvania, along with numerous small fields Hungarian nobles who composed the Alba de Jos County .

Considering multiple criteria - geomorphology, the predominant natural habitats, landscape, historical and current administrative division of cultural differences - were established four areas for tourism and recreation:

- 1) Sighișoara - Târnava Mare - Moșna area
- 2) Saschiz - Bunești area
- 3) The Hârtibaciului Valley area
- 4) Agnita - Brădeni area

These zones for tourism and recreation consider more this geographic and cultural unity and less the actual limits of the administrative unities, which sometimes are arbitrary. The borders between the areas must be seen as flexible, because some of the natural and cultural features of one zone can be founded also in another one.

1st Area: Sighișoara - Târnava Mare – Moșna

Situated mainly in the north and north-west of the Highland Hârtibaciului, area wich has the soils formed on favorable rocks for the forest vegetation. All the valleys have the main flow direction south-north being tributaries to the Târnava Mare river. Due to the geological substratum, the relief is more kneaded, with narrow valleys, with steep slopes.

For this reason arable lands are underrepresented as hedges, are arranged in patches at the base of hill slopes in the floodplain (major riverbed) of streams, especially on the lower valleys.

The forests are very well represented compared with the rest of the protected areas . Here are the most common the glade of pubescent oak forests (*Quercus pubescens*) with herbaceous vegetation xerofilă the existence of this habitat type is possible because of strong sloping hill slopes, sometimes with

an inclination of 45 ° and southern exposition , the high incidence of the sunlight allows the installation of this habitat. At the Criș there is the Oak Nature Reserve (11.9 ha), but the glade of pubescent oak forests of this type are well represented also on the valleys Stejareni, Malancrav, Noul Saxon and Floresti. [5,6]

Also due to the relief on the rivers with deep ravine are protection forests unexploited by the forestry, with very low anthropogenic interference with natural character very heterogeneous in terms of tree species and age, also also with a good vertical stratification. These forests have a great ecological value as for many animal species such as large carnivores *Ursus arctos* (brown bear) also *Canis lupus* (wolf).

Of bird species of Community interest here is well represented the species *Ficedula parva* - Small Flycatcher. Woodpecker species richness is an indicator of the ecological value of forest habitat in these forests were recorded 9 of the 10 species of woodpeckers in Romania. Due to the mosaic of open and forest habitats, the alternation of open and wooded areas, the area is very rich in species of nocturnal raptors (eg *Asio otus* - Long-eared Owl, *Strix aluco* - small owl, *Strix uralensis* - large owl , *Bubo bubo* - eagle) and diurnal (*Buteo buteo* - common buzzard, *Pernis apivorus* - Hornets Nest, *Accipiter gentiles* - pigeon hawk, *Accipiter nisus* - sparrowhawk).

On the deforested slopes of the hills are present in large proportion of grassland habitats (grasslands and especially hay) from the xerophile to the mesophilic, with varying degrees of coverage with shrubs and trees and great floristic richness.

In the flooded valleys area, especially on the upper course, there is characteristic vegetation, wet hayfields presented here are particularly rich in flora, including many species of orchids such as *Epipactis palustris* - marsh grove, *Orchis militaris* - Poroina, *Gymnadenia conopsea*, *Listeria ovata*, *Orchis morio*,

Orchis morio v. White, Neot nidus-avis, Orchis tridentate, Cephalanthera damasonium (white). The vegetation characteristic of wetlands is well represented by the species *Crex crex* (Corncrake).

As natural attractions in this area can be visited with non-motorized transport natural reserve "Secular Oaks from Breite, Sighisoara" Soft Oak natural reserve from the Criș the meadows of Saes and Apold. In this area, the villages with fortified churches are present mainly on the middle and upper valleys away from the wide main corridor Târnavei Great Valley, where advancing past the invading armies also migrating tribes. For this reason a large number of villages are well preserved architectural, suffered less inadequate recent changes

2nd Area: Saschiz - Archita - Bunești

Situated in the north-east of Hârtibaciu Plateau, covering the north-east of SCI Sighisoara - Tarnava Mare and partially the SPA Hârtibaciu Plateau, overlapping the interfluvium between Tarnava Mare and Olt. The geological substratum is mainly sarmatian (in the northwestern area appearing also the Pannonian), predominantly sand with intercalations of sandy clay, clay and marl in the north-eastern region, and clay in the central and southern part of the substrate where the rocks are totally free groundwater. Sandstone concretions are extremely numerous in the Saschiz City. At Bunești (on the way to Viscri) appear kidney form trove (unique in the territory SPA-SCI). In Saschiz gravitational landslides occur glimee rock type. Soils in Area 2 look mosaic also are represented by the podzol argillic soil and podzol brown also sometimes pseudorendzine leachates.

Unlike Zone 1, are much higher altitudes, especially in the northern part of this area, up to 838 m (Pietris Hill).

This area is balanced in terms of the ratio of open and forest habitats. In the forest as tree species predominates the beech wood, *Fagus sylvatica*, due to high altitude, especially in the northern part. Also the beech tree appears also in the forest meadows, with the oak tree.

Meadows with old trees in the area include most oaks with circumference exceeding 4,70 m from all SPA-SCI territory, accompanied by hornbeam, beech and linden tree (Bunești) which are also seculars. In the pastures and hayfields in the area are present rare plants such as Shepherd's trumpet (*Gentiana ciliata*) in Saschiz and Beia-arch, and small mountain iris (*Iris ruthenica*) to Bunești and Mesendorf. Orchids are also present, such as *Orchis morio* in Viscri, Bunești and Mesendorf. [7]

The richness of bird species is very high here, but unlike the Zone 1 due to alternation of forest and open wider areas of the south (Bunesti area), is well represented the species *Aquila pomarina* - Lesser Spotted Eagle. Also on the alluvial lanes on the valleys open in Bunesti is well represented the species *Lanius*

minor - butcher bird.

From a cultural standpoint, the area benefits from the presence of two historical monuments on the UNESCO World Heritage list: Saschiz and Viscri.

3rd Area. Central Area (Agnita - Brădeni – Jibert)

Located in the central portion of the plateau Hârtibaciu and the two Natura 2000 sites. Fertile soils are formed here. Are rich in humus but sometimes present excess moisture under the pastures. Pastures and meadows are rich in plant species (eg *Orchis morio*, *Adonis vernalis*, *Salvia nutans*, *Succisa pratensis*) and have a high fertility (as evidenced by the presence of legumes).

The characteristic relief of the area is small slopes hills very opened, sunny valleys,. Due to impervious clays in this area are best represented wetland habitats such as ponds with an area of 171 ha in Brădeni. At the sites, only here wetland birds protected species are present such as *Botaurus stellaris* - bittern, marsh, *Ixobrychus minutus* - dwarf heron, *Ardea purpurea* - red heron, *Aythya nyroca* - red duck and *Circus aeruginosus* - Marsh Harrier . [9] Due to small slopes and accessible terrain the arable lands are well represented in size, and forests cover a very small area, being present only in the upper third of the hills. Alternation of arable land and pastures, which are also well represented as surface make that also this area is very well represented and bird species of open habitats, eg. *Alauda arvensis* - skylark, *Anthus campestris* - Field fasa, *Sylvia communis* - silvia Field, *Sylvia curruca* - silvia small, *Saxicola rubetra* - torque - *Saxicola*, big whinchacker and the black whinchacker.

Functional zoning

Within each of the five geographical areas differ four functional areas correlated with internal zoning for the conservation of the protected areas:

Quiet zones

These areas contain valuable habitats or species that may be affected by human presence and will be defined by the management plan being developed. Visitor access to these areas is possible only on foot, limited groups, and in the company of a ranger or authorized guide.

Non-motorized access areas

They correspond roughly to all areas of natural and semi-natural habitats within the protected area, here are allowed excursions on foot, by bike, horseback or horse cart. It is not mandatory the presence of a ranger or guide, but it is recommended to follow marked trails or thematic routes maps.

Designed areas

Usually situated within communities or near main road arteries, in these areas there are special facilities for relaxation and leisure (hotels, campsites, picnic catering sport, parking etc.) access is allowed and motorized vehicles on public roads to access these destinations.

Zones for rapid experience

They are well defined areas and specially designed for rapid experiences such as motor sports, hunting and fishing, festivals and outdoor events, tourism weekend.

Conclusions

In all these areas an important goal is the exploitation for tourism of the zoo-pastoral heritage (sheepfolds and pastoral arrangements, customs and traditions, foods and crafts.). [3]

The seasonal Sheepfolds and the permanent facilities (eg sheds and households in Daia, dwellings in Floresti) can provide spaces for halting, rest and food for tour groups. Intersite Visitors can also participate in ongoing activities that take place at the fold in different periods (grazing, milking, cutting, preparing cheese).

Sheepfolds tourism development potential will vary depending on location (having the location near a tourist route with multiple objectives), quality and hygiene standards of the shepherds and the ability to provide an authentic experience for tourists by preserving indigenous breeds animals (sheep, cows, buffaloes, goats, pigs and sheep dogs), diversification of food preparations and minimum facilities in a traditional style (covered space, furniture, tools and shepherd items).

We believe that in the case of the analyzed site , the administration should consider the following issues:

1. Preserving traditions: organizing and promoting local cultural events, encouraging the formation of centers of local traditions, encouraging architectural style preservation by involving local planning commissions;

2. Land and natural resources use : following up the implementation of the auction specifications grassland, indirect assistance (Tarla gates, electric fencing), monitoring the quality of mountain grassland, forest management and forest adapt the pastoral limits, internal zoning provisions management plan, participate in the evaluation of wild hunt from the park area, following the lands used as meadow, local awareness about the importance and value of natural products (in whose production have not been use pesticides or other chemicals), information on collection methods and recycling.

3. Tourism and recreation: directing tourist access to the park depending the conservation interests, sanitation measures to reduce the negative impact of tourism on the environment, ensure adequate tourism infrastructure, designation and layout of campsites, parks, trails educational establishment, organizing a type of tourism specialized in different fields

(ornithology, botanic, forestry, geologic, etc.), monitoring tourism, the promotion of an civilized type of tourism, surveillance on the tourism activities.

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