Towards an effective visitor monitoring strategy for the Tatra National Park, Poland – a management perspective

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Introduction

The Tatra National Park (TPN) is one of the most heavily used National Parks in Poland. It attracts approximately three million visits annually (Czochanski & Borowiak, 2000). High visitation numbers, especially in the summer season are a great challenge for the National Park management (Zwijacz-Kozica, 2007). As the area belongs to the IUCN management category II, its primary objective is to protect natural biodiversity along with its underlying ecological structure and supporting environmental processes, and to promote education and recreation (Dudley, 2008).

The Tatra National Park has already a well-established monitoring program of fauna and flora, however in order to better understand the overall conditions in the area, there is still a need for more comprehensive information about the visitors. The park management aims to develop an effective visitor monitoring strategy and therefore in 2013 initiated a pilot project to operationalise that goal. The objective of this paper is to show the management perspective on visitor monitoring and to present the process of concept development gathered during the one-year pilot project.

Study Area

The Tatra Mountains are situated in Central Eastern Europe and are the highest range within the Carpathian Mountains. The elevation ranges from 900 to 2 655 m above sea level (Mirek et al. 1996). The total area of the mountain range comprises 750km^2, of which three quarters belong to Slovakia and one quarter to Poland (Mirek et al. 1996). Almost the entire area lies within the borders of two independently managed national parks: Tatransko Narodny Park in Slovakia and Tatrzanski Park Narodowy in Poland. This paper focuses on the Polish park.

Methodological Approach

In order to re-think the existing visitor monitoring in the Tatra National Park and to develop a new concept of gathering and utilizing data on NP visitors a working group composed of practitioners and researchers from several disciplines has been established. Figure 1 gives an overview of the planned activities leading to the final concept of visitor monitoring.

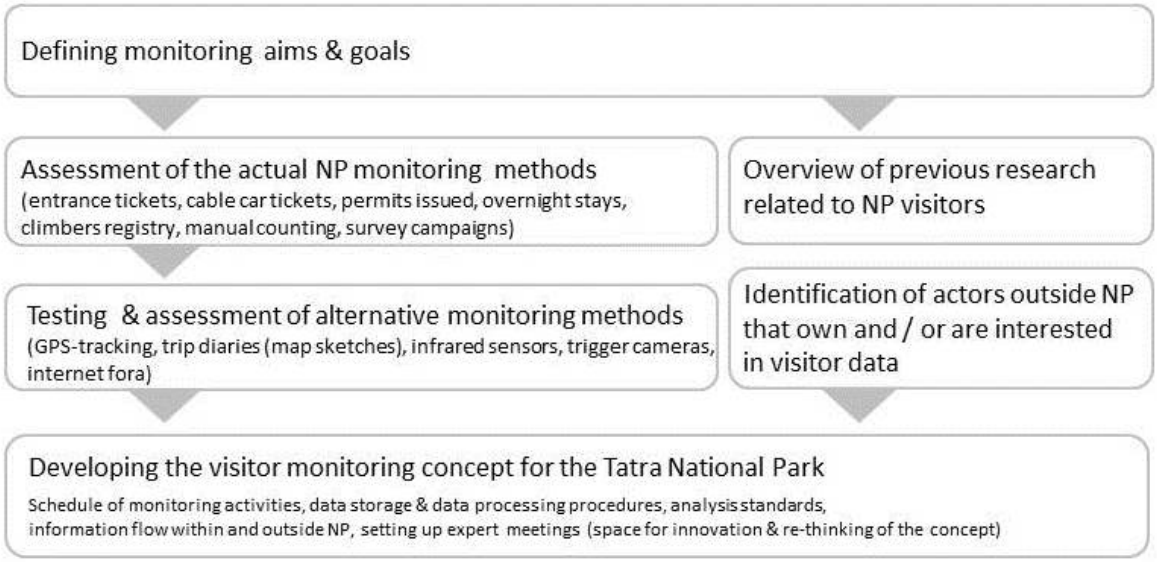

Figure 1. Overview of the process leading to the development of the new visitor monitoring concept for the Tatra National Park, Poland

A discussion of the monitoring goals was the starting point to the whole process. The NP is interested in general information on the visitors' spatio-temporal distribution as well as socio-demographic characteristics of different activity groups. Two major target groups of visitors have been identified at this stage: mass tourists and qualified visitors. This differentiation was very supportive while forming hypotheses on visitor behaviour, related natural and social conflicts as well as selecting relevant monitoring methods to study those contrasting visitor groups.

Further, the actually used monitoring methods in the NP have been assessed regarding their utility for NP management, efficiency and related costs. Records of sold entrance tickets have been reported to be the most expensive, but at the same time the most reliable method delivering information on visitor numbers at particular entry gates to the National Park through the whole year.

During the pilot project several additional monitoring methods have been applied in selected NP areas. In the summer season 2013 14 infrared sensors (Eco-counter), 10 trigger cameras were tested in the Czerwone Wierchy massif. Additionally, a survey campaign (structured questionnaires combined with analogue trip diaries) took place in Czerwone Wierchy (N=2106) and Kasprowy

Wierch (N= 8051) areas. In the summer season 2014 GPS-tracking of cable-car users is planned. The newly used monitoring methods will be assessed and considered for the development of the visitor monitoring concept for the Tatra National Park.

Additionally, the actors outside the National Park that own and / or are interested in visitor data will be encouraged to actively to join the visitor monitoring campaign.

Conclusions

The authors of this paper believe that re-design of the actual visitor monitoring strategy will be the first step towards gathering reliable and systematic data supporting further management decisions. The visitor monitoring concept will consist of a detailed schedule of monitoring activities, data storage and data processing procedures, analysis of standards, information flow within and outside the NP. Setting up regular expert meetings and/or participation of the NP staff in related events such as MMV-conference will be an important tool allowing adapting the concept and making place for innovative solutions.

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