INTRODUCTION

Forests have constituted an important part of landscape since time immemorial. European woodlands have been directly influenced by human activities for at least 8000 years (Szábo, 2010). In the beginning of the 21st century, still more people want to spend their leisure time in nature, especially in forested areas. Forests and woodlands are part of the environment suitable for tourism and recreation; a forest setting is attractive for many activities (van Der, 1990; Font, Tribe, 2000). Outdoor settings for recreation, with no trees either close up or in the background, are very sporadic, and just few tourist activities cannot take place in a forest environment (Font, Tribe, 2000). Mráček (1975) points out that the development of recreation in forests depends on several factors, including the distance to the forest from the settlement units, the ability to travel to the forest by public or private transport, the type of forest, and, of course, the cultural and economic maturity of the nation. The significance of natural areas and forests for recreation has increased consistently over the recent decades and particularly protected areas have often attracted tourists “like a magnet” (Güll et al., 2006; Drábková, 2011). Törn et al. (2009) conclude that nature-based tourism in protected areas has increased and diversified dramatically in recent decades. According to the Food and Agriculture Organization of the United Nations (FAO, 2011), 4% of the total forested area in Europe used to be located within formally established protected areas. Excluding the Russian Federation, this figure then rose up to 12%.

While tourism has become an undeniable fact of modern life and an important means of stimulating economic growth, its negative impacts are discussed by environmentalists, researchers, and natural resource managers, especially in the fields of forestry, agriculture, and wildlife (Kuvan, 2005). The need for research in this field was accentuated by Törbidoni (2011), who stated that achieving and maintaining an appropriate balance between conservation and use of natural areas for recreation, sport, and tourism is not an easy task, and any information that can be obtained is necessary and welcome. Given the call for understanding the tourism market’s attitude and preferences for the natural and traditional cultural environment, there is a clear need for the application of comprehensive surveys to collect primary data to access such preferences (Mercado, Lassoie, 2002).

The still scarce data about forest visitors’ preferences in the Czech Republic evoked the realization of the present case study.

Supposedly the most common reasons for staying in the forest should be relaxation and mushrooms and/or berry picking. Another hypothesis to be confirmed or refused herein concerns the general public’s ability to distinguish between the forest itself and the level of forest management in the protected landscape area. The acquired data are expected, among other things,
to determine preferences for different types of forests and to answer the following question: What would the forest which respondents want to visit look like?

MATERIAL AND METHODS

Methods

With respect to the specificity of the task, usage of any already existing materials was not possible because of their lack. An on-site questionnaire was chosen as the most suitable research method. The final version of the questionnaire was created after consultation with the management of the PLA Blaník and it contained twelve closed questions and two open-ended questions.

Data collection took place within 2009–2010, during weekends as well as weekdays (5 days in total). Criteria for selecting respondents were changed in accordance with the current visitation rate on particular inquiry days. In general, the criterion included asking every third person passing through. The target group for this survey included anybody reaching the top of Velký Blaník hill, because regardless of whether he/she lived nearby or not, each person could be considered a tourist. As recommended by Di sm an (2009), a sociologist, the questionnaires were filled out without the presence of the interviewer. This means that the respondent took the questionnaire away and then brought it back completed (Drábková, 2010).

Study area

As mentioned above, the survey was held in the PLA Blaník (41 km²) located in the region of Central Bohemia, south of Prague. The data collection took place on the memorable hill, Velký Blaník, which lies in the heart of the study area. The area belongs to our most frequently visited natural reserves (Ložek et al., 2005) with many attractive tourist trails. The area is interwoven by a network of well-marked hiking trails that lead the visitors to attractions (Han e l, Klau dy s, 2011). Han e l (2012, pers. comm.) emphasized the importance of a good selection of the study area location with respect to the rate of visitation (e.g. nearness of a larger town, good accessibility by car, bus or train).

RESULTS

During the study, 267 people were approached in total out of which 242 filled in the questionnaires. The response rate made over 90%, which is a relatively high number. Other authors using on-site direct questioning of tourists stated lower response rates, e.g. K a l i v o d a et al., 2010 (ca. 88%) or M e r c a d o , L a s so i e , 2002 (ca. 85%). Di sm an (2009) mentioned that in many countries a response rate over 50% is considered successful. In the present case study, completion of the questionnaire took approximately 7 min.

Frequency of the visits to forest

The first question was about how often (on average per year) the respondent goes out into the forest. The most frequent answer was ‘1–3-times per month’ (29.8%). The second most common answer was ‘once a week’ (25.6%). Even though the survey was held in the forest and it was not possible to get there without passing through the forest, one respondent marked the absence of time, poor traffic accessibility, distance between forest and home, I do not want to walk alone, another reason. This means that

Table 1. Frequency of forest visits

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4× and more per week</td>
<td>19</td>
<td>7.9</td>
</tr>
<tr>
<td>2–3× per week</td>
<td>30</td>
<td>12.4</td>
</tr>
<tr>
<td>1× per week</td>
<td>62</td>
<td>25.6</td>
</tr>
<tr>
<td>1–3× per month</td>
<td>72</td>
<td>29.8</td>
</tr>
<tr>
<td>6–11× per year</td>
<td>44</td>
<td>18.2</td>
</tr>
<tr>
<td>Less than 5× per year</td>
<td>14</td>
<td>5.8</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td>100</td>
</tr>
</tbody>
</table>

Fig. 1. Reasons why respondents do not go into the forest as often as they wish
‘never’. For more information about the frequency of forest visits, including a chart containing the rate of answers by percentage, see Table 1.

The second question concerned satisfaction with the frequency of forest visits. The majority (55.2%) of respondents marked ‘satisfied’, while only 0.8% marked ‘unsatisfied – I am in the forest more often than I wish’. The remaining 44% answered ‘unsatisfied – I wish to be in the forest more often than I am’. Respondents who marked the last answer were asked to indicate the reason why they do not go into the forest as often as they wish (with the possibility of choosing more than one reason). As given in Fig. 1, the main reason was ‘lack of time’. Also, ‘distance between the forest and home’ and ‘I don’t want to walk alone’ seemed to be important. Under ‘another reason’ respondents included for example ‘I’m a pensioner and I can’t breathe well’, ‘family obligations’, ‘laziness’, ‘I don’t go out in wintertime’, and ‘a small child is not capable of long-distance walking’.

Reasons for the visits to forest

The next question focused on the importance of reasons for forest visiting. Respondents were asked to describe, using a numbering system, how important were the particular reasons for them personally. To determine the importance of each reason, a scale from 1 (the most important) to 5 (absolutely unimportant) was used in this study. In accordance with the hypotheses, results showed that the most important reasons for going into the forest were ‘beautiful nature or pleasant relaxation’, as well as ‘healthy air’. These reasons were marked as the most important or important. Interestingly, the reasons like ‘I like to watch or to photograph wild plants or animals’ and ‘picking forest fruits, mushrooms or medicinal plants’ exhibited very different levels of significance. The results also showed that ‘wood, cone or other fuel collection’ had no large importance for many people while ‘hunting’ was the least important for almost 2/3 of respondents. For a better idea, see Fig. 2.

Under ‘other’, the following reasons were given:
- Walking the dog (9 times)
- Tourism or trip (4 times)
- Sport or movement in the forest (4 times)
- Horseback riding (3 times)
- Job (3 times)
- To find a calm place (3 times)
- Peace of mind for clearing the head
- I feel good in the forest
- I prefer it to other entertainment (cinema, theatre)
- Collection of decorative items, such as cones, beech-nuts, etc.
- Breaking away from bustling city life
- Observation of relationships between individual systems (e.g. marsh, meadow, forest, rubble, etc.)
- Jonáš camp or other event by this organization
- Children are safe from vehicles here
- Entomology
- Meditation on the Supreme Personality of the Godhead, Sri Krishna
- Relaxation with friends

Choice of the route

The subsequent questions explored whether the forest environment had any significance for the tourists. Respondents were asked: ‘When planning your trip, do you choose tourist routes depending on whether they pass through the forest?’ The results were as follows: ‘yes’ (43.1%), ‘sometimes’ (40.6%), ‘I don’t know/I don’t care’ (9.6%), and ‘no’ (only 6.7%).

Preferences for the forest structure and shape

Another question ‘What kind of forest do you seek for most frequently?’ was separated into two parts:
(1) according to the composition of tree species, and
(2) according to the ease of passage and visibility.

According to the composition of tree species, the majority (48%) preferred mixed forest, 35% answered ‘I don’t know/I don’t care’, 15% chose coniferous forest, and only 2% of respondents chose broadleaved forest.

In accordance with the ease of passage and visibility, the majority (44.4%) marked forests ‘without undergrowth’, 36% chose ‘I don’t know/I don’t care’, and the rest (19.6%) chose forest ‘with undergrowth (herbs, brush, etc.)’.

The next question asked tourists where they prefer to travel. More than 4/5 of respondents (exactly 83.8%) selected ‘to forests with variety, such as small meadows, clear cuts, glades etc.’ while 11.2% chose ‘I don’t know/I don’t care’. Only 5% marked ‘to forests which are almost monotonous or change very little’.

**Foreknowledge of the area protection level**

The next question asked: ‘Do you know which level of protection covers the area we are now in?’ In this case respondents could choose from more than one answer. Questionnaires were completed within the PLA Blaník as well as in the Natural Reserve (NR) Velký Blaník. Many respondents (almost 73%) correctly marked ‘PLA (protected landscape area)’, whereas nobody chose ‘NP (national park)’ (Fig. 3).

**Further questions focused on foreknowledge of the forest management**

Further questions focused on foreknowledge of the forest management, specifically if people had some knowledge of intensive forest management, nature oriented forestry, or of the meaning of the term constantly sustainable forest management.

The first two questions were dealt with two differently managed forests encountered (seen) by the visitors at the place. In both cases over a half of respondents marked ‘Forestry interventions take place here occasionally’. The correct answers were: ‘The forest around the view-tower on Velký Blaník hill is retained for spontaneous progress – foresters don’t interfere here’, and, concerning ‘the forest around the parking area: it is intensively forestry managed’ (Klaudys, 2012 – pers. comm.). For a full breakdown of participants’ answers see Table 2.

**Foreknowledge of the level of study area protection**

![Fig. 3. Foreknowledge of the level of the study area protection](image-url)
The next question asked: ‘Why, in your opinion, are the fallen, old, rotting trunks left in the nature reserve?’ A total of 82% of respondents chose ‘To demonstrate nature oriented forestry – they have purposely been left in here’, while 10.5% did not know, and 7.5% selected ‘They demonstrate forester’s bad work – he didn’t make logging in time’.

An open-ended question ‘What does the term ‘constantly sustainable forest management’ mean?’ brought interesting results. The answers were numerous and varied, and can be divided into three groups: (1) right answers, the respondent wrote something in accordance with the real meaning of the term (its definition by the UNO is given in Discussion part), (2) wrong answers, the respondent wrote something inaccurate, and (3) the respondent wrote down that he/she did not know. There were 195 answers in total, out of which: 110 (56.4%) were correct, 63 (32.3%) were wrong, and 22 respondents (11.3%) confessed that they did not know.

Proposals/suggestions

The last question before asking for demographic data was an obvious one: ‘Do you have any proposals or suggestions for us?’ Only 39 respondents answered something else than ‘I don’t know’ or ‘I have no any proposals or suggestions’. Expectedly, there were many miscellaneous answers. Many proposals and suggestions were concerned with rubbish in the forest; wishing cleanliness would be maintained along with natural management. Other proposals were concerned with bikers on hiking paths, beauties of Czech nature, and, last but not least, the visitors’ behaviour in forests.

DISCUSSION

The results of the present survey show that the majority of respondents (nearly 1/3) go to the forest 6–11 times per year. More than half of them were satisfied with the frequency of their forest visits. Not surprisingly, the most common reason for staying in the forest was relaxation (especially enjoying nature). This fact is in agreement with Kearsey’s (2000) statement that visitors come to the back country to find natural, scenic beauty and to enjoy the outdoors. Conversely to our hypotheses, picking forest fruits, mushrooms, or medicinal plants was not a unilaterally important reason. Gül et al. (2006) argue that forests which offer various opportunities for recreation, including picnicking, trekking, cycling, ecological tours, fishing, and so on, have psychological and physical benefits for people. According to Kearsey (2000), viewing or hoping to view wildlife has been ascribed 1/3 of the overall value of forest for recreation.

Another very important finding of the present research is that 83.7% of respondents at least sometimes choose a tourist route depending partly on whether it passes through the forest. Torbidoni et al. (2005) mentioned that trail choice is basically determined by the degree of accessibility and difficulty, as well as the popularity of the place, the beauty of the scenery, and recommendations by the staff and that studies showed accessibility and satisfaction to be critical factors in visitors’ trail choices. Accordingly, Font, Tribe (2000) also consider forests a part of the countryside enjoyed by visitors. Kuvan (2005) summarized that forests as a key resource for recreation and tourism are an integral component of the tourism product together with accommodation, transport facilities, and service infrastructure and that it is widely recognized that the dominance of natural attractions plays a significant role in the competitiveness of the tourist destinations.

From the feedback on the question about foreknowledge of the level of the study area protection, it is evident that visitors were well informed about ‘large areas of specially protected areas’, i.e. PLAs and national parks together. Conversely, many tourists did not know the difference between ‘small specially protected areas’. Therefore, they were not able to recognize if they were in a small protected area or not.

Considering the constantly sustainable forest management, it is clear from the survey that tourists in the PLA Blaník were very well informed – more than half of them answered something in accordance with the definition of the sustainable forest management given by the General Assembly of the United Nations: “Sustainable forest management is a dynamic and evolving concept aimed to maintain and enhance the economic, social, and environmental value of all types of forests, for the benefit of present and future generations. It is characterized by seven elements, including: (i) extent of forest resources; (ii) forest biological diversity; (iii) forest health and vitality; (iv) productive functions of forest resources; (v) protective functions of forest resources; (vi) socioeconomic functions of forests; and (vii) legal policy and institutional framework” (Convention on Biological Diversity, 2009). Szabó (2010) stated that the driving forces behind the choices between various management forms are deeply rooted in society, and they have had and continue to have a huge impact on forest structure and consequently on species composition. Exploring and analyzing these driving factors not only allows for a better understanding of current forest ecosystems but also helps develop forestry management techniques that can function in a sustainable manner in current socioeconomic conditions.

The survey also uncovered that many respondents perceived the terms ‘sustainable forest management’ and ‘nature oriented forestry’ as synonyms. Tahnainen et al. (2001) also met problems with respondents’ knowledge of forestry terms and stated that when seeking attitudes toward different kinds of forest management activities verbally, the
forest terminology may be unfamiliar to respondents. Therefore, the interviewer’s selection of words may contribute, either consciously or unconsciously, to the attitudes of the respondents.

We were grateful to survey respondents for their proposals and suggestions. As accentuated by Torbido et al. (2005), not all visitors’ expectations or needs can be met. Assuming that not all visitors have the same expectations and interests, it is important to provide different recreational opportunities in an attempt to satisfy all demands (Múgica, De Lucio, 1996).

CONCLUSION

A more precise understanding the visitors’ preferences and opinions, e.g. how often they go to the forest and why, how they perceive different types of forest, and what they think about forest management, is a necessary information tool for planning in the area. Besides other information sources, it could reinforce finding an appropriate balance between conservation and reasonable development of tourism in protected areas. Forest tourism and recreational activities need to be put in the context of other uses of the forest in order to assess their compatibility or conflict (Font, Tribe, 2000).

But there are still not enough studies on public opinion of forests. Among other authors, Mercado, Lassoie (2002) emphasize the necessity of more research and working with the public to help them understand the importance of the sustainable development in modern society. Šišák (2011) mentions the necessity to improve communication between the forestry sector and the public, to support education and objective information about the real socio-economic conception of forest functions and their financing.

Further surveys should follow to prove the validity of the present study, and these surveys should continue to be taken in larger areas. Knowing which type of forest visitors mainly look for in attractive environments of protected areas and what kind of activities they want to enjoy there is of paramount importance to the possibility of adjusting the forest management techniques. This study could be used as an example for other areas exhibiting similar (natural and cultural) conditions. Hopefully the findings from this research in PLA Blaník might be applicable to other Protected Landscape Areas in the Czech Republic.

REFERENCES


Hanel L (July 9, 2012 – pers. comm.)


Klaudys M (January 25, 2012 – pers. comm.)


Šišák L (2011): Forest visitors’ opinions on the importance of forest operations, forest functions and sources of their financing. Journal of Forest Science, 57, 266–270.


Received for publication on March 13, 2013
Accepted for publication on October 30, 2013

Corresponding Author:
Ing. Alena D r á b k o v á , Ph.D., Czech University of Life Sciences Prague, Faculty of Forestry and Wood Sciences, Kamýcká 129, 165 00 Prague 6-Suchdol, Czech Republic, phone: +420 725841377, e-mail: drabkova@fl.d.czu.cz