

Forest lookout tower visitor data in the Covid epidemic periods: what the numbers tell

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SUMMARY

The Covid epidemic between the spring of 2020 and the summer of 2021 showed that there is an increasing demand for various forms of forest-related tourism. Number of visitors in forests broke records in certain places: 32 million visitor days were registered in 2020 in Pilisi Parkerdő Ltd. alone. In this article we present data originated from the automatic visitor counters placed on certain forest lookout towers. Processing the data, we can get an insight of the number and distribution of hikers in each period. As a result of the research, forest managers can learn more about the popular tourist destination, furthermore, knowledge is gained about the motivations and needs of forest tourism participants. Based on this, public welfare investments that meet real demands can be planned in a cost-effective manner. Ideally, the results achieved can bring satisfaction to all actors involved in forest tourism. On the demand (visitor) side, targeted and needs-tailored developments increase the experience factor of the time spent in the forest. On the supply (forestry) side, knowing the motivations makes the performance of public welfare tasks more efficient, which ultimately contributes to the improvement of the sector's image.

Keywords: Forest tourism; visitor numbers in forest areas; opportunities of forest tourism; demand and supply side of forest tourism

INTRODUCTION

The 21 Hungarian state-owned forest holdings that manage more than half of the domestic forest stands in Hungary, are responsible for forest public welfare facilities, too. The most visible and one of the most popular forest public welfare investments are forest lookout towers across the country. The lookout towers in the operation area of Bakonyerdő Zrt., which is the subject of the study, were typically placed in the most visited forest blocks. Therefore, we examined the trend of visitor numbers during the Covid epidemic waves, moreover, we also studied how the trend changed after the epidemic waves.

The Covid epidemic between the spring of 2020 and the summer of 2021 revealed an increasing demand for various forms of forest-related tourism, in general. To the greatest extent, the so-called one-day destinations, mostly close to the big cities, have seen the greatest increase in the numbers of attendance (Benkhard, 2021). Based on the data of specific measurements, 32 million visitor days were calculated in the area of Pilisi Parkerdő Ltd. in 2020 (Pilisi Parkerdő Zrt., 2020). The blatantly high number is of course due to the proximity of the capital (10–40 km), which makes these forests very attractive for citizens. Calculated data can provide an outlook on the national situation. Using empirical methods, it can be said that the number of forest visitor days in the country is close to 60–70 million per year (own estimation), which means that every Hungarian citizen spends an average of 6–7 visitor days in the forests. This data should be treated cautiously, since regular forest visitors imply the bulk of the visitor days. It follows from the above-mentioned deduction that one of the most difficult questions in the field is: how many people actually participate in forest tourism?

MATERIALS AND METHODS

Forest tourism refers to attractions and activities that relate to forest environments (Bachinger, 2022), nevertheless, Hungarian Central Statistical Office (KSH) does not directly measure the demand side of forest tourism. Similar categories are entertainment, relaxation, sightseeing and nature walks, so these data serve as the basis for the demand analysis. Nature walkers are hard-to-count, almost invisible participants of tourism, because most of them cannot be registered due to their special activities. They are also outside the scope of official statistical data collection, so they remain invisible to the system. Many of the tourists do not go to the exhibition sites, moreover, they use few services suitable for measuring traffic. For example, they often go hiking, but they don't use public transportation, or they don't go to a restaurant or bar every time. An accurate survey is made difficult by the fact that the duration of stay in the area usually does not exceed 24 hours, so they do not use accommodation, either. There is no other reliable "technique" to register hikers than on-site counting and questionnaires, which is an extremely human resource-intensive and time-consuming work, but this method still provides the most reliable data (Joó, 2020).

The annual reports of the national park directorates also contain data suitable for analyzing the demand side of forest tourism. 62.3% of those who visited the territory of the Balaton Uplands National Park in 2017 took a forest walk or hiked in the forest. Among the services, educational trails and visitor centers were used by 48.3% of those who came here, and 34.6% participated in a guided program (own calculation based on BFNPI, 2018).

By analyzing the data of the automatic visitor counters placed on the lookout towers, we can get an insight of the number and distribution of hikers in each period. Data of the counters are presented here through the courtesy of Bakonyerdő Ltd., which is the legal

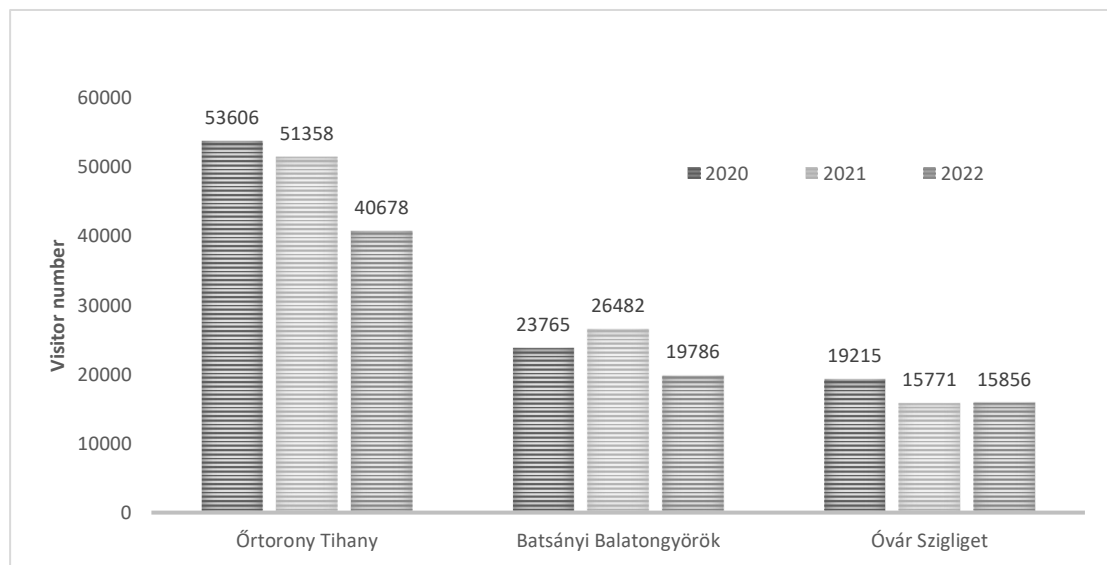
entity responsible for state-owned forest management is the Bakony Mountains. Automatic visitor counters are useful, cheap and simple data sources for forest managers as they provide data without expensive and cumbersome live labor (Cessford et al., 2002). Data collection and data storage are cloud based, so presentation of the data is automatic and immediate. Inhibitory factors of the devices, such as point-like operation, exposure to weather and the necessary provision of mobile internet service availability are not negligible (Kisfaludi, 2017). Nevertheless, data of the automatic visitor counters are valuable because counters register visitor movements directly created in the forest area, which are difficult to measure by other means, and which really fall within the scope of forest tourism. In the operation area of Bakonyerdő Ltd., visitor counting devices has been installed in six lookout towers. The tools of three of the six were in continuous operation during and after the Covid epidemic (Órtorony – Tihany, Batsányi – Balatonyörök and Óvár – Szigliget lookout towers), so their data are suitable for comparison. These towers are

located relatively far from entry points and thus short visits (not covered by forest tourism) can be filtered out. At the same time these sites are very popular among tourists, which traditionally have a large forest tourist traffic. It is important to mention that the accessibility of the examined lookout towers was ensured even during the epidemiological emergency periods, no physical closure was introduced, that is why these count points are considered appropriate for the topic.

RESULTS AND DISCUSSION

The growing popularity of healthy lifestyle, the possibility of active leisure time in nature and the experimental factor of forest hikes have directed attention to the forest areas (Benkhard, 2018). The forest lookout towers have already become the permanent destinations of various tour recommendations, articles and posts, promising an easy-to-access, experiential excursion, thus their popularity has peaked in 2020 (*Figure 1*).

Figure 1. Yearly visitor numbers of the three forest lookout towers examined



We collected spring, summer and year-round visitor data of the years 2020, 2021, 2022, and compared them. Covid emergency periods and the preventive measures introduced during them, of course, have an impact on visitor numbers. The first emergency period has been the most significant in this respect, since a complete lockdown was in place for a certain time.

Looking at the year 2020, it can be said that during the Covid epidemic waves, due to the lack of foreign guests and domestic guests arriving only for one day, the number of participants in tourism in general has decreased by about half. However, in the area of forest tourism, which is part of active tourism, we have experienced something completely different. In 2020, based on visitor data from the lookout towers, there was

also a decline in the spring months (*Figure 2*) during the first epidemiological emergency period: this was when there were the fewest visitors compared to other years.

However, the total number of visitors in summer months was the highest in 2020 (*Figure 3*), moreover, the annual total number of visitors was the highest as well in 2020 (*Figure 1*), with one exception: Batsányi lookout tower, year-round data, where 2021 was the maximum. Subsequently, the cumulated visitor numbers of the three lookout towers in 2021 are barely noticeably less (-3.1%), while in 2022 they are significantly (-21%) below the figures of 2020, which supports the national trend (record number of visitors in 2020) also in the operational area of Bakonyerdő Ltd.

Figure 2. Visitor numbers of the spring months (March, April and May)

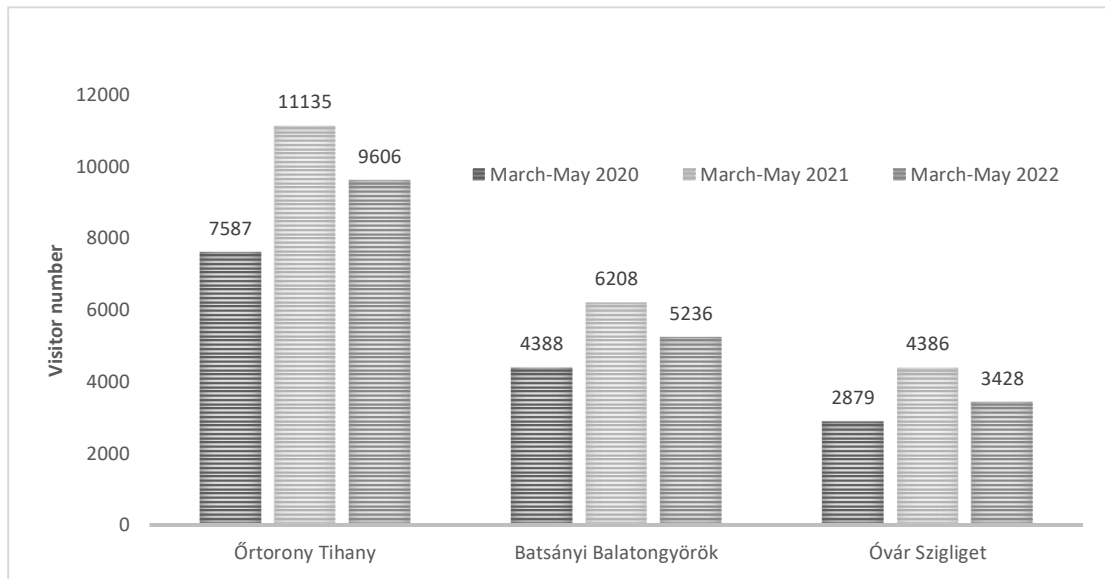
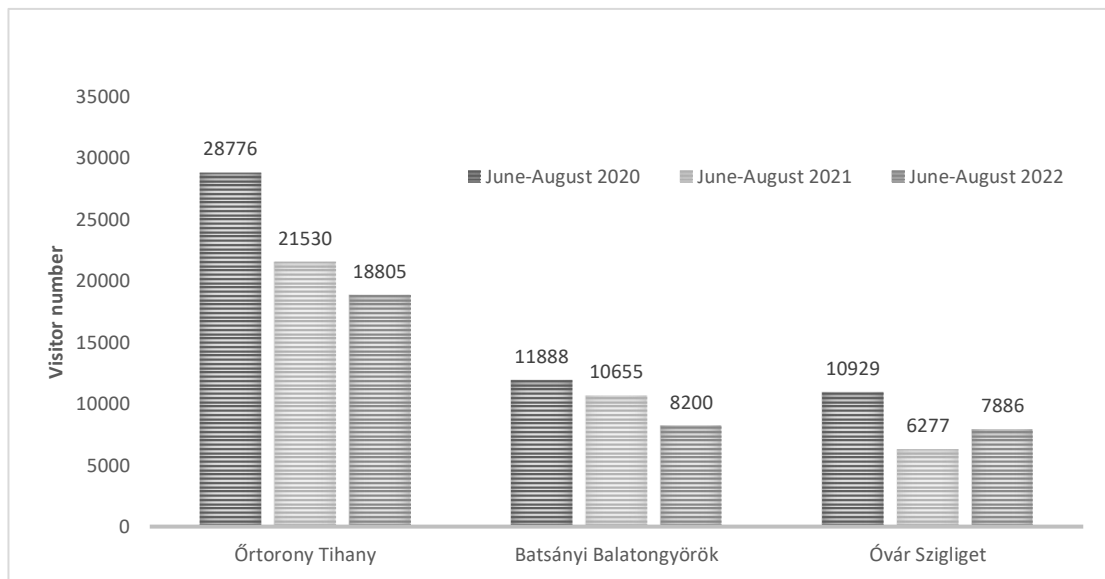


Figure 3. Visitor numbers of the summer months (June, July and August)



CONCLUSIONS

Summing up the data, we conclude that in 2020, there was a surprising dichotomy. Of the three years studied, the most visited summer months and the overall year 2020 had the highest number of visitors, while the spring months (i.e., the part of the year that fell on the Covid emergency period) had the fewest visitors. This was clearly due to the temporary introduction of lockdown. The upward trend in visitor numbers during the first year of Covid (2020) stopped as early as the following year. In 2021, the numbers decreased barely noticeably, but in 2022 they fell sharply (Figure 1). Possible explanations may include:

1. New entrants to active tourism did not remain regular forest hikers after 2020.
2. For the greater part of 2022, it was already possible to travel to most countries with less restrictions or without restrictions, so foreign trips postponed for two years due to Covid took place at this time, at the expense of domestic holidays and day trips to the forest.
3. The weather extremes of 2022 (warmth, drought) scared away forest visitors.

The reasons are complex, finding the concrete answers requires further research which we plan to carry out in 2023, in the Bakony area (visitor counting and questionnaire).



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