

41 Changes of tourism under impact of COVID-19 pandemic in Stołowe Mountains and Karkonosze Mountains National Parks, south-western Poland

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National parks are important tourist destinations because of their high bio- and geodiversity values that enable outdoor activities and leisure in natural environment. This is vibrant issues because the COVID-19 pandemic restrictions have limited leisure in natural environment. This presentation highlights the outcomes of the survey conducted on visitors behaviour and motivations during national park visits at the time of the COVID-19 pandemic in 2020. The research was conducted in two mountain national parks located in south-western Poland, i.e., Stołowe Mts. National Park (SMNP) and Karkonosze National Park (KNP), both located in the Sudety Mountains along the Polish-Czech national border. The study identifies intentions of visitors' behaviour change in comparison with the 'pre-COVID-19' period, i.e., 2017-2019. The study aimed to determine the factors that influence the mountain national park

visits. Specifically, the surveys were used i) to assess spatio-temporal changes of visitors, distribution in two national parks, including changes in seasonality of tourism and frequencies of main tourism attractions sight-seeings; ii) to characterized changes in motivations and behaviours of park visitors during the pandemic period in comparison to the 'pre-COVID-19' period.

Material, methods

The research was conducted during the European COVID-19 pandemic period, i.e., from April to December 2020. The surveys were collected remotely using electronic questionnaire-based data collection of visitors' motivations and behaviour. The visitor flow data were acquired via infrared Eco-counters sensors in SMNP (Rogowski 2020) and entrances fees basis during the period 2017-2020.

| MONTH (THOUSAND VISITORS) | STOŁOWE MTS. NATIONAL PARK | | | KARKONOSZE MTS. NATIONAL PARK | | |
|------------------------------|----------------------------|--------------|---------------------|-------------------------------|----------------|---------------------|
| | 2019 | 2020 | Change 2019/2020 | 2019 | 2020 | Change 2019/2020 |
| JAN | 3.9 | 18.5 | +381.5% | 114.1 | 113.2 | -0.8% |
| FEB | 9.4 | 17.7 | +88.5% | 138.2 | 125.6 | -9.1% |
| MAR | 15.3 | 9.5 | -38.1% | 57.6 | 28.3 | -50.8% |
| APR | 58.9 | 6.1 | -89.6% | 84.4 | 2.8 | -96.7% |
| MAY | 140.8 | 60.6 | -57.0% | 169.8 | 66.3 | -61.0% |
| JUN | 128.2 | 112.9 | -11.9% | 200.6 | 154.2 | -23.2% |
| JUL | 168.5 | 244.8 | +45.3% | 320.7 | 372.1 | +16.0% |
| AUG | 209.9 | 230.2 | +9.7% | 376.7 | 376.0 | -0.2% |
| SEP | 89.0 | 121.2 | +36.2% | 181.9 | 253.7 | +39.5% |
| OCT | 61.7 | 56.0 | -9.2% | 116.9 | 117.6 | +0.6% |
| NOV | 23.2 | 25.7 | +10.5% | 39.3 | 39.9 | +1.5% |
| DEC | 10.6 | 11.6 | +9.5% | 60.9 | 48.0 | -21.2% |
| YEAR | 919.3 | 914.8 | -0,5% | 1 861.1 | 1 699.5 | -8.7% |

Table 1. The comparison of monthly amounts of visitors recorded by infrared sensors in the Stołowe Mts. National Park and Karkonosze National Park in the pre-COVID period (year 2019) versus the COVID-19 period (year 2020).

Results

Annual number of visitors in both national park has a little change between the pre-COVID period (year 2019) versus the COVID-19 period (year 2020) (Table 1). However, monthly amounts of visitors during the COVID-19 period were lower than in the previous years (2017-2019). The highest decrease of visitors was noted in April and May, i.e., during the implementation of a complete lockdown in Poland. The highest increase of visitors between the pre-COVID and the COVID-19 period was noted in July and September. Furthermore, the highest numbers of visitors were recorded in July and August, i.e., during high summer season period, when lockdown was not present (Tab. 1).

A total of 936 (i.e., 540 women, 396 men) questionnaires were received from the two national park visitors. In total, 40.3% of respondents (n = 337) indicated that the pandemic has impacted their visits to both or individual national park. However, majority of respondents, i.e., 59.7% (n = 559), indicated that the pandemic has not affected their plans to visit the national parks. The pandemic had the biggest impact on visitors' choice on source of gastronomic services. 18.2% of respondents (n = 170) confirmed that they have changed their choices on gastronomic services. The pandemic had the smallest impact on visitors' plans modification on tourists attraction choices. Only 15.6% of responders (n = 146) indicated that the pandemic has induced changes in their choices of tourist attractions visits. The surveys revealed that the pandemic had the smallest (i.e., 12.5%, n = 117) impact on the responders choices on the accommodation service.

Visitors' surveys enabled to distinguishing three groups of visitors with different impact of pandemic on their behavior:

1. High fear (n = 16.9% of responders), perceives the severity of the pandemic in choices of tourists attractions, accommodation and gastronomic services,
2. Low fear (n = 23.4% of responders), with changes in behaviour were related in choices of tourist attractions or accommodation or gastronomic services;

3. No fear (n = 59.7% of responders): The visitors in this group has indicated that the pandemic has not changes they overall behaviour related to national parks visits.

Conclusions

The main outcomes from the research are:

1. During the COVID-19 pandemic the seasonality of the visitors flow in both national parks was changed. The length of the high season has decreased by two months during the pandemic and the highest tourist load was observed in July and August 2020. Whereas, an increase in low-season duration was observed and that season has lasted five months, i.e., from November 2019 to April 2020. Additionally, a delay in spring mid-season was observed and that season was noted from May to June 2020.
2. Visitors behaviour in the year 2020 has changed in comparison to the pre-COVID-19 period. The frequency of visits in both national parks has decreased but the length of the stay has increased. Most frequently reported type of visit in both national parks were related to family visits, that have used an individual accommodation facilities. An increase of visits to the secondary-order tourist attractions was observed during the pandemic. At the same time, a decrease of visits in the main tourist attractions in both national parks was noted.

Follow-up

The outcomes of this study can be used by park managers in order to create a sustainable tourism in the post-COVID-19 pandemic period. Furthermore, the outcomes of this study can supply the local policy makers in adjusting the local economy and regulations to the post-pandemic period.

References

Rogowski 2020, <https://doi.org/10.1007/s11629-019-5965-y>