

# Nature Tourism in National Parks: The Visitors' Perspective (a Case Study of the Zyuratkul NP, Russia)<sup>1</sup>

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**Abstract**—The paper presents a possible new concept of the management of tourism in protected areas in Russia, which includes researching the visitors' perceptions and their specific habits, as opposed to traditional "self-regulating" tourism. The survey method was applied to a sample of 319 respondents to establish the visitors' attitude toward the impact of tourism and the effect that impact has on their stay in the Zyuratkul National Park in Russia. The results confirmed a strong positive perception regarding the overall experience in the protected area. Specific habits of traveling, which testify about consistent models of behavior, were also indicated. No significant negative environmental impact of tourism was registered; however, the respondents were found sensitive to specific social influences (interaction with the local culture, quality of accommodation, the level of service provided, etc.). The most significant predictors of visitors' attitudes are gender and education, as well as certain patterns of behavior when traveling (means of transport, frequency of visits, and daily consumption). The results of the research provide useful information for creating future tourism policies, with the special emphasis on the analysis of visitors' opinions, as functional management guideline.

**Keywords:** visitors' perceptions, tourism impact, travel habits, Zyuratkul National Park, Russia

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## INTRODUCTION

The formation of national parks (NPs) is the most universally embraced method of conserving a natural ecosystem and cultural heritage for a wide range of human activities (Papageorgiou and Kassioumis, 2005). These areas play an important part in stopping biodiversity loss, preserving the naturalness and prettiness of the landscape, and the supply of ecosystem services. They also give chances for visiting, enjoying, feeling, and learning about nature and biodiversity, and thus contribute to human prosperity and environmental consciousness (Schägner et al., 2016). Over the past period, NPs and protected areas globally have become favored destinations for nature tourism and ecotourism, both of which are quickly turning into valuable segments of the international tourism industry (Deng et al., 2003).

Eagles and McCool (2002) claimed that tourism is always a critical element to take into account while establishing and managing the protected areas. Also, according to these authors, park tourism can be interpreted as "a massive and growing cultural, social and economic phenomenon" (Eagles and McCool, 2002, p. 39). For people living in urban areas, it is essential

to provide availability of recreational surrounding and to meet their environmental needs (Barros et al., 2013; Ngoka, 2013). However, enlarged claims for NPs have created a spectrum of broad impacts and increased the danger of their excessive use (Tretiakova et al., 2019a). It is well known that any form of tourism can produce negative impacts on the resources on which this activity depends. Therefore, to sustain tourism in NPs, it is essential to understand the potential effects of the expanding tourism sector on the natural and social environment and to identify future management priorities for this category of protected areas.

Academic attention has largely been focused on understanding visitor perceptions because this is of great importance to resource managers (Moore and Pooley, 2007). What visitors observe during their stay in the NPs or protected areas worldwide influences their overall experience. Therefore, information on visitor perceptions may be useful when defining maintenance priorities for allocating funds and resources. Visitors represent an important resource for gaining information about the level of existing impacts, adoptability of changes in a protected area, and the effects of management operations for their experience (Chin et al., 2000). This is particularly true in Russia where different types of protected areas [nature reserve (*zapovednik*), national park, nature park, etc.], with

<sup>1</sup> The article is published in the original.

special emphasis on NPs, have become increasingly popular destinations for nature tourism, both domestic and international. As expected, this development has influenced the proclamation and management of protected areas in Russia.

NPs in Russia are still considered a relatively new form of preservation of natural and cultural landscapes, although the first of them was declared in the 1980s. The appearance of NPs indicated not only a new conceptual course of preservation of unique natural complexes but also a new form of organization of human leisure and rest, namely, ecological tourism (Dzhandzhugazova, 2013; Trofimova and Kozlova, 2015). There are currently more than 40 NPs in Russia, with a tendency to increase this number, specifically in areas with the tradition of nature tourism. The Concept of the development of specially protected natural areas of federal importance called for the proclamation of another 20 NPs in Russia by 2020 (Ziry-anov et al., 2016).

Although the “self-regulating” tourism, that has been present for a long time in protected areas, remains impossible to fully overcome, the direction of development and creation of these territories has changed in modern Russia (Ziry-anov et al., 2016). The Federal Law On Specially Protected Natural Areas from 1995 defines two main functions of the NPs—environmental and recreational (Vasil’ev and Kotlyarova, 2017). In order to reconcile these objectives, management structures conduct various types of action, including the planning and organization of controlled tourism and preservation of distinctive natural and cultural network of the wider area (Trofimova and Kozlova, 2015).

The Zyuratkul NP is the well-known tourist destination of the Chelyabinsk Oblast, with plenty of nature-related activities offered to visitors. There are different tourist routes (walking, water, skiing routes, etc.), offering the visitors a unique experience and specific contact with nature. The routes are usually not of technical complexity and are suitable for organized tourism. The most popular routes are an eco-trail to the top of the Zuratkul Ridge, the Boiling Spring, the Uvan Fountain, and the Nurgush Ridge.

In spite of the growing importance of tourism to the Chelyabinsk Oblast, little is known about visitors’ perceptions of tourism impacts. Apart from the study (Tretiakova et al., 2019a, 2019b), no research has been carried out to examine the visitors’ attitudes and their habits during traveling to protected areas in this region. To fill this gap, this research aims to identify visitors’ perceptions of tourism impacts and the effect that impact has on their stay in the Zyuratkul NP. In addition, the relationship between different characteristics and behavior patterns of the visitors and their perceptions has also been analyzed. Researching the visitors and their specific habits may be the basis for the management of tourism in protected areas in Rus-

sia in the future, as opposed to the long present, traditional “self-regulating” tourism.

## LITERATURE REVIEW

Perception is a vital part of using and experiencing natural areas by visitors. The personal benefits gained from a visit to a protected area are the crucial element in societal acceptance and the approval of parks and protected areas and their management (Bushell and Eagles, 2007). Visitors to these areas are increasing, so research of perceptions could become a useful tool for secluding visitor types, which consequently contributes to successful future management (Fennel, 2001).

Researches analyzing visitors’ perceptions have commonly examined the type of impacts perceived by people or the effect that impact has on visitors’ experiences (Deng et al., 2003; MacKay and Campbell, 2004; Moyle et al., 2012). Keeping in mind the broadly confirmed importance of the visitor’s responses and support, scholars have investigated in detail their perceptions of different types of tourism impacts—environmental (Petrossillo et al., 2007; Prishkin, 2003), socioeconomic (Manning et al., 2000; Merchan et al., 2014; Sayan et al., 2013), and economic (Mason, 2003). Specific research considers how visitors perceive their contribution to the impacts that result from tourism (Alessa et al., 2003; van Winkle and MacKay, 2008).

Research has proven that environmental impacts of tourism often create significant concern among visitors. Visitation to protected areas can result in the presence of garbage and erosion along the walk-trails, as well as damage to natural vegetation (Chin et al., 2000). Prishkin (2003) investigated the awareness of tourists about the impact of individual marine-based and terrestrial-based activities in a coastal area and concluded visitors perceived each activity to be less harmful than definitions by the author. Petrossillo et al. (2007) found respondents of the marine protected area most sensitive to beach crowding, road traffic to parking lots, local economic development, and solid urban waste production.

Perceptions of crowding and noise in NPs and other protected areas are often the main topic of studies dealing with the socio-cultural impacts of tourism. Sayan et al. (2013) suggested that differences in visitors’ perceptions of crowding were highly determined by their nationality. Mershan et al. (2014) revealed that noise pollution is indiscriminately affecting nature soundscapes of investigated protected area (specifically human voice, aircraft, and road traffic noise). According to (Tretiakova et al., 2019), the visitors are particularly sensitive to the presence of noise in a protected territory and garbage production in public areas.

Visitors’ perceptions of tourism impact and their behavior are usually affected by demographic and

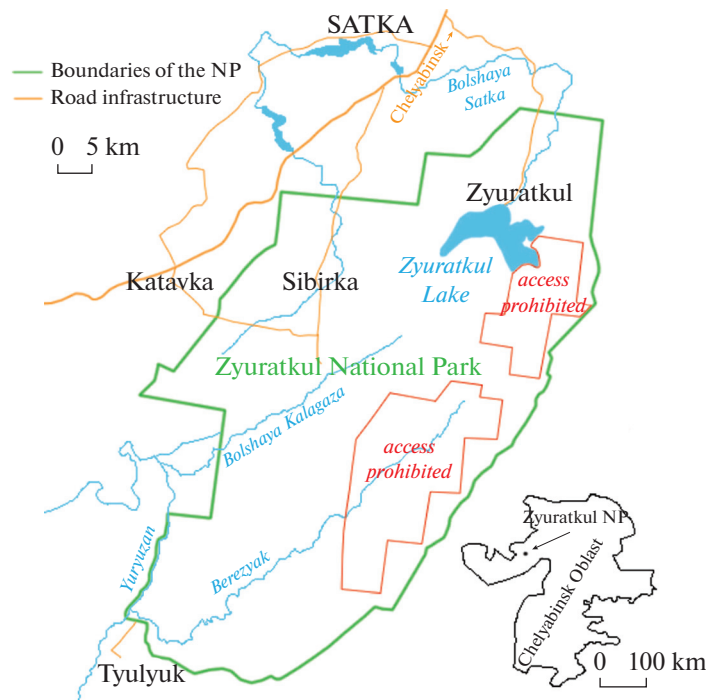


Fig. 1. Location of the Zyuratkul NP.

socioeconomic differences between the individuals, which has been proven in various studies. Priskin (2003) indicated perceptions were influenced by gender, age, and education level. For instance, the more educated respondents found most activities to be more damaging than those with lesser education. Women and younger visitors perceived the activities as more harmful, also. Alessa et al. (2003) found that visitors whose individual ranks on the knowledge assessment were higher were more likely to engage in depreciative behaviors than less knowledgeable visitors. In (van Winkle and McKay, 2008) it was confirmed that past experience was a useful variable in explaining differences in perceptions of tourism impacts at the destination. Similarly, Tretiakova et al. (2019) revealed the most significant variable affecting environmental perceptions is the frequency of visits. These authors suggested repeated visits to a NP create more critical perceptions. According to (Milanović Pešić et al., 2020), visitors' perceptions are influenced by their age and education. This research also confirms that visitors with higher daily expenditure are prone to more critical attitudes.

In light of the foregoing considerations, the following research hypotheses are presented:

*Hypothesis 1 (H1).* The visitors are sensitive to various impacts of tourism.

*Hypothesis 2 (H2).* The visitors' perceptions are significantly moderated by sociodemographic factors affecting the intensity of perception.

*Hypothesis 3 (H3).* Specific patterns of behavior affect the visitors' perceptions.

## STUDY AREA

The Zyuratkul NP was declared in 1993 and it is administratively located in the territory of the Satkinsky district of the Chelyabinsk Oblast (Nazarenko, 2009). The Park is located in the highest mountainous part of the Southern Urals, with a total area of 88.3 thousand ha and a length of 49 km in the North-South direction, and 28 km in the West-East direction (Figure 1). The relief of Zyuratkul NP is mountainous, strongly dissected by valleys of the rivers. Among the numerous mountain ridges: Zyuratkul (1175 m), Suka (1195 m), Urenga (1139 m), Yagodny (1205 m). The Nurgush Ridge dominates the landscape with the highest point of the entire park and the whole Chelyabinsk Oblast—Mount Bolshoi Nurgush (1406 m) (Kusova, 2018).

The most striking hydrological object in the area of NP is the Zyuratkul Lake. The origin of the lake is erosional-tectonic, and it is the highest mountain lake in the Urals. This is the only lake in the Chelyabinsk Oblast, located on the western slopes of the Ural Mountains at an elevation of 724 m a.s.l. (Kusova, 2018; Tcaicin, 2009). In the past, the area of the lake did not exceed 6 km<sup>2</sup> with a maximum depth of 1.7 m. In 1898, the dam was built to ensure timber rafting, and later, in 1942 the construction of the hydroelectric power station began, so the area of the reservoir

increased to 13.5 km<sup>2</sup>. In 1949 the hydroelectric power station was commissioned and dismantled in 1978.<sup>2</sup>

In its present state, the lake stretches from west to east and is surrounded by the Zuratkul, Urenga, Nur-gush, and Moskal ridges, and Mount Lukash. The volume of the reservoir is 79.9 mln m<sup>3</sup>, with a maximum depth of 12 m and a coastline length of 29 km. The lake belongs to the group of flowing lakes, with a large catchment area. The water is clean and has low mineralization compared to other lakes in the mountainous area of the Chelyabinsk Oblast. Various rivers and streams flow into the lake, among which are the largest: Bolshoi Kyl, Malyi Kyl, Devyatyi Kyl, and Chernyi Kyl. The Bolshaya Satka River flows out of the lake. Due to its beauty and suitable location in the valley of the mountains, the Zyuratkul Lake was declared a natural monument in 1961 (Tcaicin, 2009).

Specific natural conditions influenced the survival and development of a diversity of plant and animal life, with a significant percentage of rare species (endemic and relics). The area of NP is characterized by the presence of about 653 species of vascular plants, among which 13 endemic and 26 relics. More than 70 species are included in *The Red Book of the Chelyabinsk Oblast* and a couple of unique ones are listed in *The Red Book of the Russian Federation* (Kusova, 2018).

The protected territory is characterized by the vast areas of dark coniferous taiga and well-expressed altitudinal zonation. The lowest forest belt (650–850 m a.s.l.) includes the fir-spruce and mixed forests, as well as the birch and aspen forests. A subalpine belt encompasses subalpine spruce forests, birch, and birch-spruce woodlands, and subalpine meadows. Over a height of 1000–1100 m, vegetation is represented by the dominance of mountain tundra, stony placers, rocks, and, less often, alpine meadows. Of great interest are larch forests of pure composition, over 200 years old, stretching 15 km long in a narrow belt along the western slope of the Urenga Ridge.

The fauna of the NP is rich and varied, with the presence of species, which in many other places of the mountain-taiga zone of the South Urals either completely disappeared or are on the verge of extinction. Zyuratkul NP is inhabited by 43 species of mammals; 146 species of birds; 6 species of reptiles; 3 species of amphibians; and 17 species of fish. The invertebrates are represented by 7000 species of insects, 250 species of spiders, 50 species of mollusks, and 8 types of earthworms. One of the reasons for the creation of the NP was the need to preserve the local population of brown bears. Among the rarities of the park, there are golden eagle, otter, and 7 species of insects listed in *The Red Book of the Russian Federation*.<sup>3</sup>

<sup>2</sup> <https://zuratkul.ru/node/12879>. Accessed August 20, 2020.

<sup>3</sup> <https://zuratkul.ru/node/13013>. Accessed August 20, 2020.

The coast of Zyuratkul Lake is a unique archaeological site that has preserved a lot of object evidence of the development of human culture in the South Urals during the Mesolithic and later times. During the last 60 years of the 20th century, 12 archeological monuments were discovered here, all of them relating to the Stone Age—an epoch of Mesolithic and Neolithic times (8th–5th millennium BC).<sup>4</sup>

The territory of the Zyuratkul NP is located in a highly industrialized area. During the 18th century, when the Russian state was particularly in need of mining and industrial production, resource-rich mountain regions were attractive for fast urbanization and development. The Ural region, its eastern and southern areas were first to develop, and new cities were founded around the factories built. In 1734, the region numbered 40 factories that formed a settlement system, and by 1767, the number of factories had increased to 100. In the early 19th century, the city of Zlatoust became the center of Zlatoust Mining District, including the Zlatoust, Satka, Kusinsk, Artinsk, and Miass factories. Today, the management of the NP is in the old town of Satka, situated on the slope of the Southern Urals. Currently, Satka is a center for magnesia mining and processing (Blagovidova and Yudina, 2019).

As a direct consequence of the afford mentioned processes, nature has undergone a huge transformation and almost all the forests in the park are secondary today because all the woods have been cut down and the forest fund was totally depleted. Numerous mountain springs and rivers had dried up because of the felling, while deforestation continued until the formation of the NP in 1993. In addition to wood, peat was also mined in the territory of the NP (during the 1930s, peat extraction was carried out on the lake itself). To influence the future negative impacts on nature, management of the NP generates specific conditions for organized tourism development and increases the environmental awareness of visitors. Some of the most important tasks of Russian NPs, including the Zyuratkul NP, are creating conditions for regulated recreation and exploration of natural and historical sites with soft methods of nature management (Tretiakova et al., 2019). In this sense and by the ways of using the park territory, 3 different functional zones have been defined: reserve regime, regulated recreation, and limited economic activity (Tcaicin, 2009).

## METHODOLOGY

The research used a survey method. The survey was conducted during the summer months in 2018, in the area of the Zyuratkul NP. While preparing the questionnaire, the specific methodological procedure for

<sup>4</sup> <https://zuratkul.ru/node/13017>. Accessed August 20, 2020.

the analysis of indicators of sustainable tourism<sup>5</sup> was used. In cooperation with the NP management, the survey was adjusted for the area covered by the analysis, and the sample sites within the park were identified through discussions with park management staff. The authors used the questionnaire model related to the satisfaction of tourists with different aspects of their visit to the protected area. To test several dimensions of the perceptions, a mixture of alternative questions and statements was applied during the research.

The sample consisted of 319 respondents in total, of which 124 were male and 195 were female. The interviewers (researchers of the South Ural State University, Institute of Sport, Tourism and Service) mostly approached respondents near tourist attractions and invited them to participate in the study, while explaining, in short, the subject and the purpose of the research. If they agreed to participate, the interviewer read the questions clearly and entered the answers from the respondents in the questionnaire. Following the common practice in this type of research (Brankov et al., 2019a; Jojić Glavonjić et al., 2019), the visitors were told that their involvement was anonymous, and they were encouraged to answer truthfully.

The questionnaire comprised three sections: visitor and visit characteristics, activities undertaken, and perceptions of issues. The first section of the questionnaire was designated to obtain socio-demographic information (gender, age, marital status, education) as well as the visitors' habits during traveling (reason for visiting NP, repeated visits, length of stay, daily consumption, type of transport). This part of the questionnaire consisted of nine questions. The second part investigated activities visitors participated in during their stay in the Zyuratkul NP and the sites they visited.

The third part of the questionnaire focused on visitors' perceptions. Respondents were asked to identify impacts they observed by using the Likert-type scale (with a scale ranging from 1 to 5) for answering the questions. This section comprised perceptions of the overall experience (enjoying the experience, variety of experience); sociocultural impacts (road infrastructure, accommodation, service staff and services provided, local cuisine, local culture and souvenirs, quality of food), and the environmental and ecotourism impacts (the presence of noise, garbage and built areas, overall cleanliness, platforms, natural sites, natural environment, identifying oneself as an eco-tourist and the additional pay for ecotourism activities). There was a total of 20 variables in this segment formulated in the form of statements. These types of perceptions were already used in the literature for analyzing

the attitudes and habits of the visitors in Russian NPs (Tretiakova et al., 2019a).

Data analysis involved using descriptive statistics (frequency, central tendency), as well as the chi-square ( $\chi^2$ ) test. The collected data were processed using SPSS and Excel programs. The strength of the relationship between the category variables was determined by using Cramer's (V) coefficient.

The objective of the analysis was to identify elements that affected the creation of attitudes towards a different aspect of staying in a protected area. The results can be practically used for the guidance of future tourist policies and the formation of development programs that would be coordinated with the needs of the visitors.

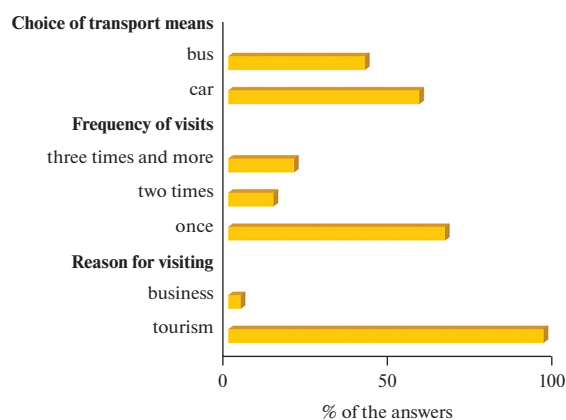
### VISITOR AND VISIT CHARACTERISTICS

Prosperous management of tourism in protected areas depends on knowledge of both visitor and utilization characteristics (Chin et al., 2000). In this research, males slightly dominated within the sample of tourists surveyed (61.1%). A large proportion of the visitors were aged up to 40 years (76.8%), which confirms the findings of previous studies (Chin et al., 2000; Ecotourism ..., 1998; Petrosillo et al., 2007; Sivalioğlu and Berkoz, 2012; Tretiakova et al., 2019) indicating visitors of the NPs and other protected areas tend to be younger than the general population. Out of the surveyed respondents, 69.9% have a university degree, 23.8% have a college or technical secondary school degree, while 6.3% of the visitors are characterized by secondary or primary education. The unmarried visitors accounted for 46.1% of the sample, while the share of the married respondents (20.1%) or married respondents with children (33.8%) was significant but somewhat smaller.

Regarding visitors' habits during traveling, those using a car dominate to a certain extent (58.3%), although visitors who arrive by bus are also numerous (41.7%) (Fig. 2). The accessibility of a certain space is indicated by the type of transport visitors choose and it is important to stimulate environmentally friendly ways of transport to respect the principles of sustainable development of tourism. To minimize the impacts, it is of utmost importance to look for an alternative to conventional transport that is less harmful to the environment (cycling, rail transport, public transport, etc.). Data show that these types of transport use less energy per passenger, resulting in reduced pollution and noise.<sup>6</sup> However, due to the large area and considerable distance of the Zyuratkul NP from the city emissive centers, the car is still the main vehicle for tourist arrivals to this area.

<sup>5</sup> Indicators of Sustainable Development for Tourism Destination: A Guidebook. World Tourism Organization, Madrid, 2004.

<sup>6</sup> Indicators of Sustainable Development for Tourism Destination: A Guidebook. World Tourism Organization, Madrid, 2004.



**Fig. 2.** Visitors' habits during traveling to the Zyuratkul NP.

The visitors were also questioned about the number of visits to Zyuratkul NP. Most of the tourists recorded only one visit (66.1%), while those who visited this protected area twice are at 13.8% and three or more times—20.1%. When it comes to the main reason for visiting, the minimum number of tourists came for business reasons (3.8%), while the highest percentage of the respondents (96.2%) arrived at this NP as tourists (Fig. 2).

To reduce the impact on the natural environment, specific types of accommodation for visitors have been built in NPs in Chelyabinsk Oblast. Travelers are usually settled in so-called “shelters,” whose design is inspired by the use of traditional building methods applied by local craftsmen in the area (Tretiakova et al., 2019a). There are also numerous guest houses located in the villages of Zyuratkul, Sibirka, and Tyulyuk. These buildings are made of wood and generally do not occupy a large area, to fit into the natural landscape. Another type of accommodation is present in the camping areas of the NP. Hotel accommodation for visitors of the Zyuratkul NP is provided in the town of Satka, as well as different types of private accommodation. Results of the research confirmed that the visitors evenly opted for all the mentioned types of accommodation—camp (20%), shelter (25%), hotel (27%), with the largest number staying in private accommodation (28%).

To examine the relationship between socio-demographic variables and visitors' habits (repeated visits, length of stay, and type of transport) during traveling, a chi-square test was used and the influence between variables is interpreted by the Cramer (V) coefficient. A statistically significant relationship was revealed between the marital status of the visitors and the number of visits to the Zyuratkul NP ( $\chi^2 = 12.428$ ,  $p = 0.01$ ). Among respondents who are married and with children, there is a tendency of multiple visits to the NP, while over 70% of the unmarried population recorded only one arrival in the NP. Cramer's coeffi-

cient value (0.14) suggests low correlation strength between the variables. A statistically significant relationship was also detected between the gender of the visitors and the type of accommodation they stayed in ( $\chi^2 = 9.327$ ,  $p = 0.02$ ). Over 65% of the surveyed visitors to hotels and shelters were women, while men opted more evenly for the accommodation options offered. Similar to the previous case, Cramer's coefficient value (0.17) suggests low correlation strength between the variables.

The second part of the questionnaire investigated activities visitors participated in during their stay in the Zyuratkul NP and the tourist sites and places they visited. When asked to comment on this issue, the largest number of visitors stated they hiked during the stay within the protected area (82.1%) (Fig. 3). Other activities participated in by more than half of the respondents all related to the enjoyment of nature and included mountaineering (75%), relaxing (75.8%), and observing wildlife (50.2%). These activities are highly dependent on the quality of the natural environment, suggesting visitors to Zyuratkul NP specifically seek the natural qualities of the area. A smaller part of the visitors took part in the excursion (29.2%), participated in the sports events (21.3%), hunted, or fished (8.2%), or took part in the environmental campaign (6.9%) or the conference (7.8%).

Research reported (Moore et al., 2000) also found hiking to be the most common activity undertaken by tourists to Bako NP in Borneo. These results also correspond to the findings of Tretiakova et al. (2019) on visitor activities in the Taganay NP in Russia.

Regarding the sites, visitors had the opportunity to visit during their stay in the Zyuratkul NP the analysis showed that the most visited localities (attractions) were: Zyuratkul Ridge (89.6%) and Zyuratkul Lake (87.5%). These two sites are parts of a 5 km long and popular eco-trail. Some segments of this route are covered with wooden flooring. This was done not only to preserve the vegetation cover but also because these sections are prone to waterlogging, especially in spring and autumn. To a lesser extent, the respondents visited the Moose House “Sohatka” (19.4%) (a rehabilitation center for the moose who have suffered from the activities of poachers) and the Forest (Uvan) Fountain (13.2%). The minority of the visitors have visited other ridges in the area of the NP and the villages located in the territory of the NP (Sibirka) or at its boundaries (Katavka) (Fig. 4).

## VISITORS' PERCEPTIONS

Perceptions of the visitors related to different experiences they went through during the stay in the protected area were examined to identify possible indicators for future monitoring and developmental strategies. Nineteen variables were taken into consideration in relative terms, regarding their influence (the mean

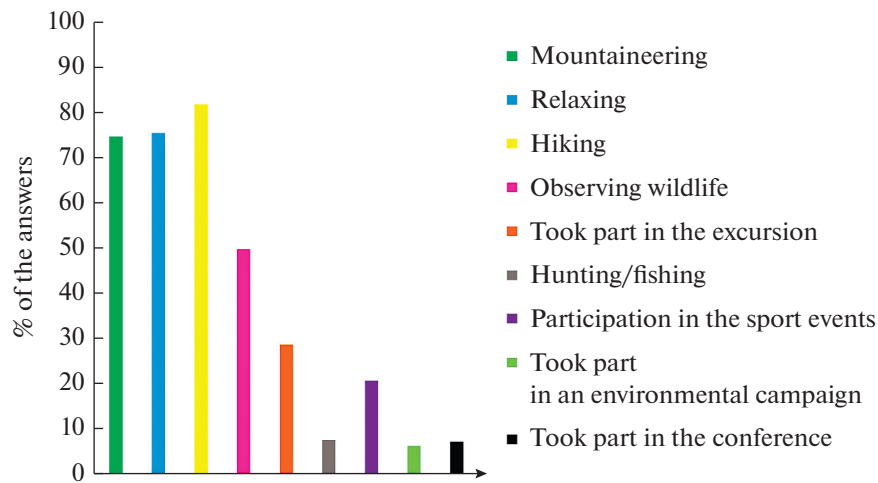


Fig. 3. Visitors' activities in the Zyuratkul NP.

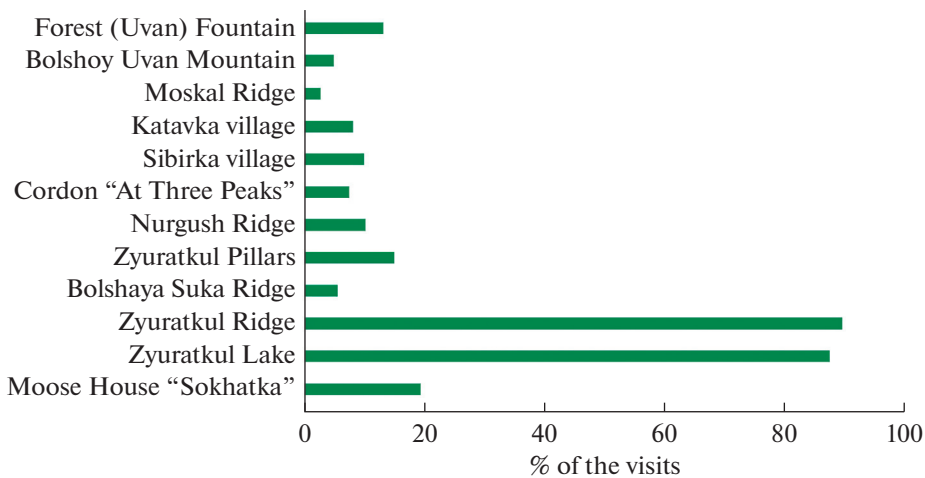


Fig. 4. Sites visited by respondents in the Zyuratkul NP.

value of 3.5 and higher revealed a positive perception, 3.4–2.5 neutral perception, and a value ranging between 2.4 and 1 showed a negative attitude) (Table 1).

Regarding overall experience, the vast majority of visitors (95.6%) enjoyed their stay in Zyuratkul NP, while most of the respondents (70.2%) claim NP provides a variety of experiences. This suggests that despite lower (but above neutral) satisfaction with the diversity of experiences offered in the protected area, visitors are generally very satisfied with their stay. This is easily explained since visitors tend to rate their complete recreational experiences highly because of the essential satisfaction originating from being at leisure rather than at work (Daniels and Marion, 2006).

The specific segment of the questionnaire was related to sociocultural impacts of tourism and the effect those have on to the quality of visitors' stay in

the protected area. Asked to give an opinion on the state of the roads and signage, 79.3% of the visitors agreed those made travel easy. Respondents also commented about the quality of accommodation. Many comments were positive (55.8%) regarding this question, but there was a significant number of those with the neutral opinion (29.8%) or stated the contrary (13.4%). The opinion of the visitors is divided when it comes to the level of service provided and the competence and helpfulness of the service staff. To the claim: "The level of service provided was high" 57% responded affirmatively, while the significant part of the visitors was neutral (27.3%), and the minority did not agree with this statement (15.7%).

A special aspect of staying in a NP is related to contact with the local population and getting to know the local culture. The visitors were first asked to respond the following statement: "I had a good experience involving the local culture." The largest number of the

**Table 1.** Visitors perceptions of the Zyuratkul NP

	Impact item	Mean	SD
<i>Overall experience</i>	Overall experience	4.6	0.6
	Variety of experiences	3.9	1.1
<i>Sociocultural impacts</i>	State of roads and signage	4.2	0.9
	Quality of accommodation	3.5	1.1
	Level of service provided	3.5	1.2
	Competency of service staff	3.6	1.2
	Experience involving the local culture	3.6	1.3
	Availability of souvenirs and crafts	3.7	1.2
	Opportunities to enjoy local cuisine	2.9	1.5
	Quality of food	2.9	1.5
	<i>Environmental and ecotourism impacts</i>	Noise	2.2
Garbage in public areas		2.8	1.4
Messy appearance of built areas		2.4	1.3
Cleanliness of the destination		4.3	0.8
Condition of natural sites		4.3	0.8
Accessibility of natural sites		4.3	0.8
State of viewing platforms		4.3	0.9
State of natural environment		4.2	0.9
Eco-tourist recognition		3.9	1.2
Willingness to pay extra for ecotourism activities		3.6	1.4

respondents agreed (61.2%), however, some had neutral (18.8%) or the opposite (20%) opinion. Regarding the availability of good souvenirs and crafts, 62.1% of the visitors agreed to the statement offered. A specific situation is present when it comes to the experiences of visitors related to local cuisine. Only 34.8% confirmed they had a good opportunity to enjoy local cuisine and 37.3% agreed with the statement: “*The quality of food was good.*” As is often the case in protected areas (Brankov et al., 2019a), this could be an indication that tourism has a weak impact on the local community in terms of personal involvement in this industry.

Environmental and ecotourism impacts have been analyzed in a particular part of the survey. A specific segment of these impacts referred to the registration of noise and the presence of garbage within the NP. Visitors mostly did not register the noise (65.5%) or a messy appearance of built areas (55.5%), as something disturbing them in the NP, however, a significant number (38.5%) was bothered by the presence of garbage in public areas.

In general, visitors have a very positive opinion about the state of the environment in the NP. Most of the visitors (86.2%) consider this destination as “clean” and the state of the natural environment as good (85.9%). Viewing platforms are considered to be clean and well maintained by 83.7% of the visitors. A large share of the respondents considers the natural sites to be in good condition (87.5%) and easily acces-

sible (87.8%). Two questions in the questionnaire were related to ecotourism. To the claim: “*I consider myself an eco-tourist,*” the largest number of visitors answered affirmatively (68.4%), while 18.7% was neutral. To identify a potential market for sustainable tourism, visitors were asked to comment on the following statement: “*I would be willing to pay extra for ecotourism activities (birdwatching, visiting ecosystems, mountain hiking, etc.)*.” Half of the respondents (59.2%) were willing to pay extra for these activities, that acknowledging that recreational ecosystem services in the NP were not a free good. In spite of that, Onwujekwe et al. (2005) warn that the expressed willingness to pay should be compared with the actual willingness to pay, to reduce the bias in valuation surveys. A significant part of the visitors (23.8%) was not willing to spend extra funds.

To determine whether there are statistically significant differences in the distribution of perceptions of the visitors by specific sociodemographic, socioeconomic, and other characteristics (gender, age, education, marital status, daily expenditure, repeated visits to NP, and modes of transport used) for the mentioned statements the chi-square test was used, which analyses the differences between observed and expected frequencies (Table 2).

Of all the analyzed variables, a correlation is found between the gender structure of respondents and the claims about the cleanliness of the viewing platforms



**Table 2.** Differences in visitors' perceptions

Visitors' perceptions	Variable	$\chi^2$ ( $p$ -value)	Cramer's V coefficient
State of roads and signage	Education	0.041	0.142
State of viewing platforms	Gender	0.016	0.161
	Education	0.021	0.155
Competency of service staff	Daily Expenditure	0.029	0.130
Experience involving the local culture	Transport	0.050	0.137
Cleanliness of the destination	Gender	0.038	0.143
Eco-tourist recognition	Repeated Visits	0.026	0.132

( $\chi^2 = 8.315$ ,  $p = 0.016$ ) and the whole destination ( $\chi^2 = 6.409$ ,  $p = 0.038$ ). In both cases, the men were more critical than women. Cramer's coefficient values in both cases (0.161 for the first and 0.143 for the second claim) suggest low correlation strength between the variables. In addition, a link has been detected between the education of the respondents and the attitudes about the state of roads to NP ( $\chi^2 = 5.949$ ,  $p = 0.041$ ) and the viewing platforms in this protected area ( $\chi^2 = 7.680$ ,  $p = 0.021$ ). In both cases, the respondents with a higher education level (university) were prone to confirm these statements at a higher percentage than others. Cramer's coefficient of correlation of variables (0.142 and 0.155) testifies to the low correlation strength.

The daily consumption of the respondents also plays a significant role in shaping their attitudes. A statistically significant relationship was found between this variable and the claim that service staff was competent and helpful ( $\chi^2 = 10.806$ ,  $p = 0.029$ ). Visitors who spend the most on a daily basis in a significant share supported this claim (64% of the positive responses) compared to those who spend less. This goes in favor of what is very often confirmed in practice—the staff is the kindest and pays the most attention to those who spend a lot. The relationship between the visitors' experiences involving the local culture and the type of transport they used to come to the NP was ascertained ( $\chi^2 = 5.949$ ,  $p = 0.050$ ). One-quarter of the visitors who came by bus to the NP responded negatively, which testifies to the fact that the use of a private car allows a more detailed tour of the sites and a better understanding of local culture. In this case, Cramer's coefficient of strength is 0.137, indicating a small correlation between variables.

Visitors who came more than once tended to give more negative answers to the claim: "*I consider myself as eco-tourist*" compared to those who visited the NP only once ( $\chi^2 = 11.087$ ,  $p = 0.026$ ). This is explained by the fact that a larger number of visits affects a better understanding of the space and thus the formation of critical thinking (Tretiakova et al, 2019).

## DISCUSSION

Although Chelyabinsk Oblast is one of the most developed industrial zones of Russia, some authors emphasize the importance of overcoming the prevailing stereotypes according to which this is an exclusively industrial area (Tarhanova, 2008; Zakomaldina, 2017). Various resources for the development of tourism, especially in protected areas, encourage the transformation of this territory, from a historically established industrial space to a modern multifunctional area, where tourism should be given a proper place. Blagovidova and Yudina (2019) suggest that the development of urban space today is closely related to the formation of specially protected natural areas in this region.

This research was undertaken to explore visitors' perceptions of tourism's impact on the NP they visited, as well as their specific patterns of behavior during traveling. In general, a strong positive perception regarding the overall experience in the Zyuratkul NP is registered. Specific habits of traveling, which testify about consistent models of behavior, are indicated as well—most visitors recorded only one visit to the NP, come for tourist reasons, and use a car as the main mean of transport for arrival. The results confirmed visitors use both traditional types of accommodation (hotel, private accommodation) and those that are specific for NPs of this area (shelters, camps). Tretiakova et al. (2019a) point out that compared to primary types of accommodation, shelters and camps do not provide sufficient comfort but allow visitors to connect with nature in the deepest sense. If the principles of sustainable tourism development are to be respected, the use of alternative means of transport for arrival and accommodation structures that comply with the principles of environmental protection should be encouraged through adequate tourism policies.

Examination of visitors' perceptions confirmed a significant sensitivity to social influences, with certain effects of such an impact on the stay of visitors being registered. Specific concerns have been detected when it comes to the quality of accommodation, the level of service provided, and the competence and helpfulness of the service staff. A certain segment of visitors did not interact with the local culture, and most did not

have the opportunity to try the local cuisine products. This clearly indicates the need for local communities to be more closely involved in the tourism planning process, as evidenced by the results of previous studies (Brankov, 2019b; Jović Glavonjić et al., 2018).

According to the visitors, no significant negative environmental impact of tourism was registered in the NP. Respondents expressed high satisfaction with the overall cleanliness of the destination and the state of the natural environment. Although this perception indicates a high ecological value of the NP, the research has also recognized visitors' sensitivity to garbage production in public areas. This is consistent with some previous research of visitors' perceptions in NPs in Russia (Tretiakova et al., 2019a), where tourists identified the same type of the influence. Also, the fact that ecologically most preserved areas of Urals are under persistent stress of mass tourism (waste, treading the vegetation, cutting down of trees, etc.) should not be overlooked either (Ziryanov et al., 2016). All previously analyzed tourism influences confirm the H1.

Supported by the results of the study, it is obvious that perceptions of the visitors are affected by various socioeconomic variables (i.e., H2), as well as by the specific patterns of behavior during traveling (i.e., H3). The most significant predictors of visitors' attitudes are gender and education. This is following the earlier research suggesting demographic and socioeconomic characteristics of individuals influence their opinion (Deng et al., 2003; Petrosillo et al., 2007; Milanović Pešić et al., 2020). The choice of means of transport, frequency of visits, and daily consumption during the stay in the NP also determine the attitudes related to the impact of tourism. This is partially in line with the results of Tretiakova et al. (2019a), who emphasize that repeated visits to the Taganay NP affect the formation of more critical thinking among the visitors. Unlike different previous research (Priskin, 2003), age didn't influence perceptions of the visitors in this case.

## CONCLUSION

According to the classical ideas of the protection of wildlife, originated in the late 19th and early 20th centuries in Russia, the principle of non-intervention in the protected area has been accepted fundamental. Also, a shift in priorities towards the protection of the natural heritage from all economic activities, including tourism resulted in the formation of NPs lagging behind the recreational needs of people in the natural environment (Ziryanov et al., 2016). However, with the rise of urban expansion and the deterioration of the overall living environment, NPs have become target destinations for the large number of people seeking alternative places to meet their environmental needs. At the same time, new challenges arose for the management of NPs in Russia to harmonize their recre-

ational and protection function. In that context, various motivations of people spending time in NP, as well as their personal perceptions, ask for closer analysis from the wider academic community.

From the developmental and managerial points of view, various implications can be emphasized. This study has given information for NP managers on various impacts and connected standards that are observed by visitors. Social impacts of importance include different ways of interaction with the local culture (souvenirs and crafts, service provided, quality of accommodation, the level of service provided, availability of the local cuisine products). As such, potential indicators and standards that enable monitoring of these impacts are essential. The same procedure applies to environmental impacts, such as inadequate disposal of the garbage. Additionally, all the other impacts, for which no negative impact has been noticed by visitors at this point of time, can potentially become troublesome if visitors' satisfaction with them starts to decline. Therefore, it is important these influences are also included in future monitoring programs.

Since most parks and protected areas were established to adopt to some type of recreational use and promote visitor learning, these parks need visitor management strategy to ensure the optimization of opportunities to achieve these values and that such uses do not lead to unacceptable levels of negative impact (Eagles and McCool, 2002). As the interviews confirmed, the most popular visitors' activities are intensely connected to nature and the natural tourist values are the most visited attractions, so the formulation of visitor education strategies directed towards nature protection is desirable. In addition, it is essential to raise awareness of the fundamental values of the Zyuratkul NP among visitors and to increase and direct their behavior.

An increasing number of NPs in Russia, which were once marked by self-regulatory tourism, are now being organized for a combination of monitored recreational activities (hiking, cycling, mountaineering, etc.) (Tretiakova et al., 2019a). However, the long-standing conflict between nature conservation and self-regulating mass tourism in Russian protected areas remains to be a great challenge for management structures (Ziryanov et al., 2016). Due to this, more effective management is required to meet the recreational needs of visitors in a sustainable form. Their detailed contact with the local population is also recommended, to complete the diversity of experiences and get to know the traditional values of the region, which are an integral part of the tourist image of the NP. Being aware of what types of visitors are to use the territory of Zyuratkul NP is fundamental for future management policies and for ensuring public support for conservation goals. By realizing visitors' habits and opinions, NP decision-makers are prepared for activ-

ities the users will be willing to participate in. They are also in a position to estimate the need to potentially arrange some areas for activities of varying intensity.

It should be pointed out that the further validation of applied and similar methodologies in other regions is required since protected areas transform due to the development of tourism. The present research can be interpreted as a suggestion to compare this NP with other tourist destinations comprising similar conditions and features. This study was conducted at a specific point in time and in particular circumstances. Since tourist destinations experience various modifications through time, this results in visitors' perceptions to develop, and so future research should periodically investigate the connection between visitors' attitudes of impacts of tourism and destination transformations. To explore the evolving nature of visitors' perceptions, Brankov et al. (2019b) propose a longitudinal approach to tourism development studies, by carrying out a subsequent study in a few years.

There is a number of limitations of this study that should be taken into consideration in future research. The primary focus of the study was on visitors' perceptions about the impacts of tourism and their behavior during traveling. Future research could include a wider range of tourism impacts (an economic impact, impact on the quality of life of the local population, etc.). Different predictors of the attitude of visitors towards tourism could also be covered by a broader analysis (the place of residence, environmental education, nationality, etc.).

There are few concerns regarding the use of visitor surveys, including the biases inherent in surveying only current visitors and relying on only one interest group (i.e., current visitors). Consequently, Stewart and Cole (2003) suggest the opinions of on-site visitors need to be accompanied by future research to analyze what supports the experiences that visitors are looking for and the need to better classify subpopulations of users (Wade and Eagles, 2003). The significance of positioning individual destinations and protected areas within broader regional contexts and beyond is also underlined. Therefore, further research should be especially focused on other regions with great biodiversity and ecosystem values for comparison with the findings of the present study.

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#### CONFLICT OF INTEREST

The authors declare they have no conflict of interest.

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