

## UMWELTFRAGEN *ENVIRONMENTAL ISSUES*

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### IMPROVEMENT OF THE RELATIONSHIP BETWEEN ENVIRONMENT AND TOURISM: CASE STUDY OF THE NATIONAL PARK ĐERDAP IN SERBIA

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*Initial submission / erste Einreichung: 05/2018; revised submission / revidierte Fassung: 03/2019;  
final acceptance / endgültige Annahme: 06/2019*

with 2 figures and 3 tables in the text

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#### *Summary*

*The relationship between the environment and tourism can be perceived from several different aspects. The concept of sustainability and its principles are one of the most fre-*

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quently analysed approaches and the motivational basis for visiting can show how much the protected nature and healthy environment matter to the tourists. Based on the internal motivators, we examined whether the tourism in Đerdap is controlled, on a smaller scale, and qualitatively focused. A total of 484 respondents participated in the survey research. The comparison of attitudes was performed in relation to the demographic attributes of the respondents (gender, age, education). Target groups of tourists who prefer sustainable tourism have been identified. Sustainable tourism is a significant determinant in the further development of tourism in the protected area National Park Đerdap. The results of the research, based on 12 statements, performed t-testing and one-factor variance analysis (ANOVA), show that the visitors' greatest interests are related to the environment (natural as well as cultural value of the area). The researched motivational factors (new experiences and events, relaxation and rest, acquiring new knowledge – cultural and educational motivation) are based on sustainability. The results of this research can be applied in practice by implementing them through various management and marketing plans in the National Park Đerdap.

*Keywords:* Sustainability, tourism, sustainable tourism, motivation, national parks, National Park Đerdap, Serbia

## Zusammenfassung

### BEZIEHUNGEN ZWISCHEN TOURISMUS UND UMWELT: FALLSTUDIE NATIONALPARK ĐERDAP IN SERBIEN

Die Beziehung zwischen Umwelt und Tourismus kann aus verschiedenen Blickwinkeln betrachtet werden. Das Konzept der Nachhaltigkeit und seine Prinzipien sind einer der am Häufigsten analysierten Ansätze, während die Motivationsanalyse zeigen kann, wie wichtig die geschützte Natur und eine gesunde Umwelt für die Besucher eines Nationalparks sind. Im Rahmen einer Erhebung wurden insgesamt 484 Touristen nach ihren Motiven befragt und unterschiedliche Einstellungen, differenziert nach demographischen Merkmalen der Probanden (Geschlecht, Alter, Ausbildung), analysiert. In diesem Zusammenhang wurden jene Zielgruppen der Touristen festgestellt, die den sanften Tourismus bevorzugen. Dieser stellt eine wichtige Determinante der weiteren Entwicklung des Tourismus im Schutzgebiet des Nationalparks Đerdap dar. Die Ergebnisse der Untersuchung zeigen, dass die hauptsächlichen Interessen der meisten Besucher mit der Umwelt verbunden sind (natürlicher und kultureller Wert des Gebiets). Die untersuchten Motivationsfaktoren (neue Erfahrungen und Veranstaltungen, Entspannung und Erholung, Erwerb neuer Kenntnisse, kulturelle und bildende Motivation) basieren alle auf Nachhaltigkeit. Die Ergebnisse der vorliegenden Studie liefern Grundlagen für die Umsetzung verschiedener Management- und Marketingpläne im Nationalpark Đerdap in der Praxis.

*Schlagwörter:* Nachhaltigkeit, Tourismus, sanfter Tourismus, Motivation, Nationalparks, Nationalpark Đerdap, Serbien

## 1 Introduction

Tourism has developed quickly and represents a new point of growth for stimulating economic and social development of a region. It has been recognised as a financial support in protected areas thus it could change the perception of local communities in relation to the environment (SIRIVONGS and TSUCHIYA 2012; COAD et al. 2008; NYAUPANE and POUDEL 2011) and increase environmental protection (IMRAN et al. 2014). Tourism depends on the quality of the environment especially in national parks and other protected resources. More and more people express their desire to spend time in preserved and unique natural areas. The protection of a certain area means that the values which make it unique should be protected above all. This means that complex territorial characteristics organised in an integrated and sustainable manner are the priority (BAKIRCI 2015).

The concept of sustainable tourism implies ethical changes in all the participants. Ethical changes primarily refer to the needs and responsibilities. The visitors' needs are imperative and one of the main objectives of sustainable tourism (JOVIČIĆ 2010) and in this study we used them to present one of the principles of sustainable tourism in the National Park Đerdap. While conducting the study, we took into account principles relating to ethical and motivational aspects of sustainability, from tourists' point of view. The most realistic way to accomplish continuous need fulfillment is by developing awareness of the need for the control in the environment (PANDIT et al. 2015). Another significant approach of sustainable tourism implies rational use of environment and cultural heritage as well as their affirmation, thus, in that context, we studied the interests of the visitors of the National Park Đerdap in these values.

Sustainable development and sustainable tourism are significant elements of modern policy and laws on protected areas especially since the 1990s when IUCN (International Union for Conservation of Nature) developed management categories of protected areas (LAUSCHE 2011; BORRINI-FEYERABEND et al. 2013). The management of protected areas has been implemented in Serbia by the government. Natural resources policies in Serbia are based on different documents, from the highest, national level to those relating to individual natural resources. The system of nature protection and management is centralised so there is a need for the diversity of models. In this regard, the participation of the public would be more important because it contributes to the management efficiency and subsequently to the sustainability of tourism.

Tourism is an important partner in plans and strategic documents related to the protection of nature in Serbia. The sustainability is one of the topics within the "Danube Region Strategy" where a special place is held by the promotion of culture and tourism, human contact, preservation of biodiversity, knowledge development (STOJOVIĆ et al. 2012). The "Nature Protection Act" highlights the need to define conditions and measures for nature preservation and usage of nature and indicates the importance of a nature management program (Official Gazette RS 36/2009; 88/2010; 91/2010 and 14/2016). For defining the policies of natural resources in Serbia, the aims accomplished through the "National Parks Act" (2005) are especially significant: preservation and improvement of natural and cultural values, preservation of the balance between natural processes and human activity (sustainable development), experiencing nature, education, research, sports and recreation.

“National Strategy for Sustainable Development in Serbia” (2007) and „Strategy for the Development of Sustainable Tourism in the National Park Đerdap“ (cf. Strategija razvoja ... 2010) determined the priority activities: improving the quality of the environment, motivating visitors by putting emphasis on the value and quality of experience and not on the scope of tourism. Both „Management Plan for National Park Đerdap“ (2016) and „Management Plan for Visitors to National Park Đerdap“ (2016) contribute to the policy of the National Park Đerdap. The main objective of the “Visitors Management Plan” is creating bases for the improvement of the quality of visitor experience while complying with the legal regulations of this natural resource. The “Analysis of the Sustainable Tourism Potential with the National Park Đerdap Business Plan” (2014) is a document which gives guidelines for the efficient management system following the principles of sustainability. The market and risk analysis between environmental protection and tourism has been carried out and the following measures were suggested: determining the bearing capacity, marketing and communication development, defining missions, visions, monitoring, activities and responsibilities.

In the activities of national park protection and development, the manager (“Public Company National Park Đerdap”) has the main role. Research on the capacity for sustainable management of protected areas in Serbia was conducted in 2010 (ORLOVIĆ-LOVREN 2011). It was noted that there are trends of improvement due to projects and construction of visitor centers. This research included National Park Đerdap as well.

## 2 Literature Review

After the popularization of the sustainable development as an environmental management concept in the late 1980s, research literature focused on theory, principles and practices of the sustainable tourism (WHEELER 1993; LANE 1994; GOODAL and STABLER 1997; HUNTER 1997; STABLER 1997; LAWS et al. 1998; MCCOOL and STANKEY 2001; COOPER et al. 2005; KO 2005; SAARINEN 2006; MILLER et al. 2010; BEAUMONT 2011; BUCKLEY 2012; WHITELAW et al. 2014; SCHROEDER 2015; GOMEZ et al. 2016).

During the previous decades, a demand for overcoming conceptual arguments and semantic issues and focusing on applying concepts in practice has been put forward in academic literature on sustainable tourism (GARROD and FYALL 1998). Key discrepancies in the interpretation of the concepts are still present. One point of view sets the tourist industry in the centre of a more narrow focus and the other perceives the sustainable development as a broader goal which the tourism should strive for (MILLER and TWINING-WARD 2005). The sustainability is the primary goal in making decisions related to tourism (BRAMWELL et al. 2017) and a dominant paradigm for visitor management in protected areas (CANDREA and ISPAS 2009; LEUNG et al. 2018). The concept of postmodern tourism is a step further and it highlights the variety of tourist motives, experiences and surroundings which surpass the claims regarding tourist experiences and the importance of authenticity. The postmodern concept is a search for the personalities attracted by the nature and scenery, nostalgia for what is natural and sacred (LAVEN et al. 2015; GOMEZ et al. 2016).

Studies on sustainable tourism examined the relationship of the residents and tourists (MAY 1991; LIU 2003); the impact of tourism on the environment, development and

preservation of cultural and artistic values of local communities (STOCKING and PERKIN 1992; PRETTY and PIMBERT 1995); local communities (engagement, support, management of tourism development, increase in tourism education and training, improvement of services) (TOWNSEND 2000; WOODSIDE and DUBELAAR 2002; THAPA et al. 2005; WURZINGER and JOHANSSON 2006; OREJA RODRIGUEZ et al. 2008; SPENCELEY 2008; HUANG and SHIH 2009; NICHOLAS and THAPA 2010); principles of sustainability and segmentation of the market (DOLNICAR and LEISCH 2008; STOJANOVIĆ et al. 2014). Among numerous studies on sustainable tourism are those related to measuring sustainability and conceptual challenges (implementation of measurement, impact of different contexts on measurement, legal compliance) (BELL and MORSE 1999; 2003; BUTLER 1998; Ko 2005; CASTELLANI and SALA 2010). Taking into consideration the heterogeneity of the topic, some authors concluded that the universal program of the sustainable development of tourism does not exist because it depends on the characteristics of the area (NEDELICU 2010; ŠTETIĆ et al. 2015; MAZILU and GHEORGHECI 2015).

A special group of studies refer to a behavioural approach and the importance of individual characteristics of studying sustainable tourism. JACKSON (2004) claims that the individual motives are complex and multiple, especially people's willingness to adjust to the sustainable way of life. HIGHAM et al. (2013) conclude that the promotion of sustainability requires a better understanding of tourist psychology, and the habits in connection with traveling (as a tourist) reflect our social system and standards. The interpretation of different elements of experience related to the nature can be determined using the individual cultural context (COCHRANE 2006, p. 989). Environmental ethics contributes to the development of attitudes because it explains the decisions and actions (BURNS et al. 2011; XU and FOX 2014). BENNINGTON and MOORE (2011) observed that people are a part of a responsible community involved in the development of values and sustainable usage of the nature. BALLANTYNE et al. (2011) believe that the interests and knowledge about sustainable development depend on changes in awareness, development of intentions for specific activities in the environment, and adoption of special lifestyle which support the environmental sustainability.

The significance of sustainable tourism is supported by the fact that the percentage of tourists who are interested in protected natural areas increased from 2 percent in the late 1980s to 20 percent at the beginning of this millennium (LOCKWOOD et al. 2006). According to UNWTO data from 2009, 30 percent of tourists are interested in sustainable tourism. The United Nations Environment Program (UNEP 2011) also highlights the growing trend towards improving the dimensions of environmental sustainability. The sustainable development is the main objective of the "European Spatial Development Perspective" (ESDP) (ANCUȚA et al. 2015).

### 3 Study area and methods

#### 3.1 The study area

The National Park Đerdap is located in the northeastern part of Serbia, at the international border with Romania. The park includes the Iron Gate, the longest gorge in Europe,

flowed through by the Danube river, and parts of the mountain massif of North Kučaj, Miroč and Štrbac. It belongs to the areas in which a large number of geological, geomorphological, paleontological, climatic, hydrologic, edaphic, phytosociological, phytogeographic, floristic, faunal, but also cultural, historical and archaeological phenomena are concentrated. A dominant hydrographic object is the Danube, and the essential natural phenomenon is the Iron Gate, with the length of 100 km the longest gorge in Europe. Iron Gate is a compound valley composed of three basins and four gorges. It cuts through the rung of Carpathian mountain, connecting the Pannonian and Vlach-Pontian basin (BJEDOV et al. 2014).

The National Park Đerdap was established in 1974 on an area of 638 km<sup>2</sup>, making it the largest national park in Serbia. Nine years later (1983) its borders were formed, and the “National Parks Act 1993” established the current management system (cf. Spatial plan of the special-purpose area NP Đerdap 2013). In the national park there are 1,100 plant species, among which tertiary relicts are of particular significance (the total of 40 relict communities). The protection of the area is, as with the other national parks in Serbia, conducted through three levels, with the area of the first level encompassing 18 units, including nine nature reserves. In the second zone of protection there are 15 units (ŠTETIĆ et al. 2015). According to its special natural values, Boljetin River canyon reef stands out with the rocks of almost all geological formations, which is the reason why it is protected as a natural monument of geological heritage of the Balkan and arranged for a visit as a geological trail (NIKOLIĆ 2006).

National Park Đerdap has gained a protected status under international conventions and documents (Proposal of a Management Plan for the National Park Đerdap 2011–2020, 2012). Due to the diversity of ornithofauna, rare and endangered birds, the National Park Đerdap is included in the list of internationally “Important Bird Areas” – IBA. It is also an internationally “Important Plant Area” (IPA), a selected area for butterflies (“Prime Butterfly area” – PBA), “Emerald Area” (significant from the standpoint of the implementation of the Convention on the Conservation of European Wildlife and Natural Habitats), “Ramsar Site” (wetland area of international importance), the area of the European Green Belt (“European Green Belt Project”) (BJEDOV et al. 2014).

National Park Đerdap is also an area where the “Framework Convention on the Protection and Sustainable Development of the Carpathians” is implemented and one of eight areas in Serbia that are planned for a biosphere reserve by UNESCO program “Man and Biosphere” (cf. Proposal of a Management Plan for the National Park Đerdap 2011–2020, 2012). The potential “Geopark Đerdap” is nominated in 2017 on the total surface area of 1330 km<sup>2</sup> and it will cover the complete area of the NP Đerdap, but also will include enlarged territory that has specific geoheritage sites protected by Serbian Law of Nature Protection in status of natural monuments (e.g. Rajkova cave and Vratna natural bridge) (BELJI et al. 2018).

There are significant and anthropogenic resources in the National Park Đerdap: Lepenski vir site, with the remains of Neolithic settlements from 9,000 years ago, Roman period sites (Tabula Traiana, Trajan’s Bridge, fortresses Diana and Pontes, Golubac medieval city, fortresses Ram and Fetislam) (ŠTETIĆ et al. 2015; BELJI et al. 2014; BELJI 2017). Well preserved relics of the past are an example of the long-lasting inter-

actions between humans and the environment and are of a high educational importance (LATOCHA 2015).



Source: Public Enterprise Đerdap National Park

Figure 1: The geographical position of the study area

Year	Number of tourists		
	domestic	foreign	total
2011	576	226	802
2012	881	104	985
2013	625	212	837
2014	937	357	1294
2015	772	852	1624
2016	1441	493	1934
2017	2273	941	3214
2018	3043	1202	4245

Source: Internal data from the official records of the National Park Đerdap

Table 1: Tourist turnover in the National Park Đerdap (2011–2018)

In the period between 2011 and 2018, the number of National Park Đerdap visitors, both foreign and domestic, increased five times. The biggest number of foreign visitors came from Germany and Italy. The cooperation with cruiser companies, travel agencies in the country and abroad, mountaineering clubs and numerous promotional activities have contributed to the increasing number of visitors. For now, the tourists are not putting a lot of pressure on certain zones and sites. The area is most popular during summer when the visitors are dispersed across a relatively large area of the national park.

### 3.2 Research methodology

According to the research topic, the following working hypotheses were formed: *Hypothesis 1*: When it comes to the interest in natural and cultural values within National Park Đerdap, there is no difference based on the gender of the respondents. *Hypothesis 2*: The visitors of the National Park Đerdap are interested in natural values, regardless of their age and education. *Hypothesis 3*: Being interested in cultural values in the National Park Đerdap depends on the age and education of the visitors.

The survey was carried out in 2018. It included a random sample of 484 respondents in total (during the research, 524 questionnaires were completed out of which 484 questionnaires were analysed as properly completed). In this way, a liability rate of 92.37 percent was achieved. The questionnaire (DE VAUS 2002; STANGOR 2006; GOODWIN 2007) consists of two parts. The first part referred to the social and demographic characteristics of the respondents, while the second part of the questionnaire required the respondents to specify the level of agreement, using the Likert scale (DE VELLIS 2003) from complete disagreement to complete agreement with the given statements (1–5). Twelve offered statements were formed in order to gain knowledge about the level of satisfaction of the respondents regarding tourist values in the Đerdap area of the Danube and then to single out the most important motives for learning about the National Park Đerdap and to highlight the attitudes concerning the natural and cultural values (taking into account the values of tourist sites Golubac, Donji Milanovac, Tekija and Kladovo).

Data processing was carried out in the software package for statistical data processing and analysis (IBM SPSS Statistics 20) (PALLANT 2011). The research results are presented using descriptive analysis, t-test and one-factor analysis of variance ANOVA. One-factor analysis ANOVA was often implemented during the research of motivational factors in tourism (AWARITEFE 2003; LEEA et al. 2004; LORD et al. 2004; SCHOFIELD and THOMPSON 2007; MAK et al. 2009; CHEN et al. 2014; MODY et al. 2014; OTOO and AMUQUANDOH 2014; ALEXANDER et al. 2015; LI et al. 2015).

## 4 Results and discussion

When it comes to social and demographic characteristics of the respondents, the following were taken into consideration: gender, age and the level of education (qualifications). Within the total sample of 484 respondents, 319 respondents (65.9 percent) were women, while the



number of male respondents was 165 (34.1 percent). For the analysis of the age structure of the respondents, they were divided into six age groups. It was found that most of the respondents belonged to the age group of 21–30 years (50.8 percent of the total sample). In the analysis of the level of education, the respondents were divided into four groups: pupil/student, secondary (high school), college and university education. The largest group was the pupil/student group (57.2 percent) followed by the university education group (20.2 percent).

Descriptive statistics showed that the average values of items vary from the highest value (4.65) to the lowest (2.21). The lowest value refers to the social prestige as a reason why the respondents would like to get to know the National Park Đerdap, which suggests that it does not play a big role in selecting destinations. The highest value shows that, according to the largest number of respondents, the most interesting are natural values (Iron Gate, the river Danube, basins). This observation is supported by the research conducted by PANIĆ and ORLOVIĆ-LOVREN (2014). The research showed that the visitor target groups in the National Park Đerdap prefer the sustainability of tourism. They are researchers of rare bird and animal species habitats, nature lovers (mountaineers and members of nature lovers associations), students (thematic visits and research camps), adventurers (they use thematic routes in the nature and viewpoints).

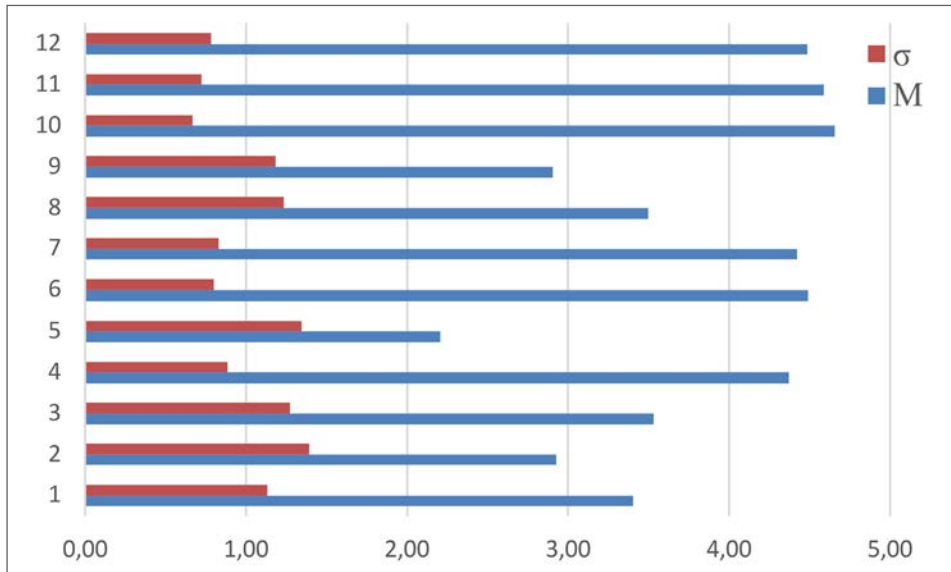
Figure 2 presents the average values and standard deviations according to the ordinal number of items<sup>1)</sup> from the questionnaire, based on which the survey was conducted. The values of standard deviation point to a relatively large agreement of respondents regarding the condition of the analysed items. Particularly interesting are the standard deviations lower than 1, indicating strong agreement between respondents with regard to the natural and cultural values, gaining new experiences and knowledge, relaxation and rest. The segmentation of tourists can be carried out based on these indicators, especially of those who are aware of the necessity to preserve the natural environment.

Overall, the tourists have a positive attitude towards the environment demonstrated by the research conducted by WURZINGER and JOHANSSON (2006), JUVAN and DOLNICAR (2014). WURZINGER and JOHANSSON (2006), while conducting a research with Swedish tourists, arrived at a conclusion that the respondents believe that a large number of tour-

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<sup>1)</sup> The twelve items from the questionnaire:

1. You are satisfied with your knowledge about the tourist values of the National Park Đerdap. You would like to learn about the National Park Đerdap because of:
2. the desire to escape from the environment you live in,
3. the research and evaluation of this area,
4. the relaxation and rest,
5. the social prestige,
6. new experiences and adventures,
7. the acquisition of knowledge (cultural and educational motivation),
8. the pleasure and sensation seeking,
9. facilitating social interaction (communication).
10. In the National Park Đerdap there are interesting natural values (rivers, gorges, canyons, mountain peaks, etc.).
11. In the National Park Đerdap there are interesting cultural values (archaeological sites, fortresses, etc.).
12. In the National Park Đerdap, tourist sites have an important value: Golubac, Donji Milanovac, Tekija, Kladovo.



M – arithmetic mean (average value);  $\sigma$  – standard deviation

Figure 2: Average values and standard deviations according to the ordinal number of items

ists in one place may be harmful to the nature. JUVAN and DOLNICAR (2014) arrived at a conclusion, while interviewing tourists in Australia, that the preferences for vacation are connected to the environment: doing sports, enjoying and relaxing, experiencing the nature, desire to preserve the unspoiled nature. GARMS et al. (2017) examined the motives why German tourists visit the National Park Fulufjället in Sweden. The analysis of the factors of reliability has shown five motivational factors with internal consistency: focusing on self, nature, freedom, others and experience. In our paper, the research results of similar motivational factors are presented.

Among the most important driving motives, according to the largest number of respondents ( $M > 4$ ), the following were singled out: the acquisition of knowledge (cultural and educational motivation), new experiences and adventures, relaxation and rest, interest in natural, cultural values and the well-affirmed tourist sites (Golubac, Donji Milanovac, Tekija, Kladovo). While the least important were: social prestige, the desire to escape from the environment they live in and facilitating social interaction ( $M < 3$ ). The research by ŠTETIĆ et al. (2015) showed that the tourist experience components are those of the preserved nature: finding freedom outside the city life, satisfaction with spending time in the nature, learning about the nature and its authenticity. Our research shows disagreement in connection with the statement regarding the escape from the city life, as one of more important factors of tourist experience of the protected resource, while the education is considered to be the most important factor.

The above mentioned driving motives are supported by tourist activities in the National Park Đerdap, such as cycling, because the Danube cycling route in Serbia passes

through it (DBR, Donauradweg), a part of the “Euro Velo 6 Route”, which connects the Atlantic coast with the Black Sea. The Danube cycling route in the National Park Đerdap is 110 km long. Nine pedestrian trails 1.8 to 21 km long are located in the park. The trails are marked and they connect natural rarities, viewpoints, caves, nature reserves. It is significant to mention the “European Pedestrian Corridor E4”, which passes through the National Park Đerdap. In the Visitors Center in Donji Milanovac, the employees provide information services related to activities during the stay and the rules of conduct in protected areas. Professional guidance services include sustainable use of area and activities that are consistent with the preservation of natural ecosystems: hiking, bird watching and wildlife viewing, visiting cultural and historical sites, swimming, sailing, camping, taking photos, fishing, climbing and descending rocks, educational tours.

Considering that the natural values hold the first place with the largest number of respondents and as the most important motivator for their arrival to the National Park Đerdap ( $M=4.65$ ), we can assume that they are environmentally responsible tourists. Their response to the statement “You are satisfied with your knowledge about the tourist values of the Đerdap section of the Danube” shows that the objectives set forth in the study are fulfilled, and they are the environmental protection and the optimal satisfaction and knowledge of tourists. The common premise in the promotion of sustainability is that increasing awareness and education encourage pro-environmental behaviour (MILLER et al. 2010). It is evident that the ecological awareness of the respondents exists and that they want to educate themselves more which indicates positive tendencies towards the sustainability of tourism.

In order to compare the results for the observed characteristic according to the gender of the respondents and to test the formed Hypothesis 1, we used t-test of independent samples. The results of this test show relative differences between the arithmetic means at the determinants of items with the degree of significance of 5 percent. Since  $p < 0.05$  (for claims under numbers 1, 3, 5, 6, 7, 8, 11 and 12 of the items), we can notice a statistically significant difference in attitudes between men and women when it comes to the following: the level of satisfaction knowledge about tourist values, research and evaluation of this area, social prestige, new experiences and adventures and gaining knowledge (cultural and educational motivation), pleasure and sensation seeking, cultural values and the importance of tourist sites Golubac, Donji Milanovac, Tekija, Kladovo. For other claims  $p \geq 0.05$ , resulting in the conclusion that the assessment of determinants is not dependent on the gender of respondents (Table 2).

Hypothesis 1 is partially accepted. The assumption about the equal interest of male and female respondents in natural and cultural values is disrupted. The results of the research showed that there are differences when it comes to cultural values between the respondents of different gender ( $t = 2.068$ ,  $p = 0.039$ ). A higher average value of responses was given by female respondents ( $M = 4.64$ ,  $\sigma = 0.690$ ) when compared to the male respondents ( $M = 4.49$ ,  $\sigma = 0.778$ ).

Furthermore, one-factor analysis of variance ANOVA according to the determinants relating to how different interesting natural and cultural tourist values of the National Park Đerdap are in comparison to age and the level of education was applied. The objective was to either determine or disprove the existence of statistically significant differences among

Investigated items / in order	Gender	N	M	$\sigma$	t	p	df
1	M	165	3.21	1.197	-2.776	0.006	482
	F	319	3.50	1.081			
2	M	165	3.02	1.403	1.029	0.304	482
	F	319	2.88	1.384			
3	M	165	3.29	1.249	-3.013	0.003	482
	F	319	3.66	1.266			
4	M	165	4.32	0.882	-1.014	0.311	482
	F	319	4.40	0.888			
5	M	165	2.01	1.235	-2.386	0.018	482
	F	319	2.31	1.389			
6	M	165	4.26	0.936	-4.249	0.000	482
	F	319	4.61	0.691			
7	M	165	4.25	0.907	-3.376	0.001	482
	F	319	4.51	0.772			
8	M	165	3.34	1.242	-2.016	0.044	482
	F	319	3.58	1.221			
9	M	165	2.85	1.128	-0.647	0.518	482
	F	319	2.93	1.210			
10	M	165	4.59	0.732	-1.381	0.168	482
	F	319	4.69	0.631			
11	M	165	4.49	0.778	-2.068	0.039	482
	F	319	4.64	0.690			
12	M	165	4.38	0.865	-2.115	0.035	482

N – number of respondents; M – arithmetic mean (average value);  $\sigma$  – standard deviation; t – value of t-statistics; p – level of significance ( $p < 0.05$ ); df – number of degrees of freedom ( $df = N - 2$ ).

Table 2: The results of t-test at the determinants according to the gender of respondents

them, and based on that to draw a conclusion about target groups of certain demand segments oriented towards sustainable tourism (Table 3)

Based on the age structure and the level of education of the respondents, we explored the appreciation of the first and fundamental principle of sustainability of tourism in the National Park Đerdap. This principle implies that the present generation should respect the right of future generations to meet their traveling needs. It can be concluded that the respondents, regardless of their age and level of education (qualifications), do not differ significantly when rating presented items in terms of natural values, but they show certain dif-

ferences regarding the interest in cultural values within the National Park Đerdap. In regard to Hypothesis 2, the results of the research showed that in terms of age and education of the respondents ( $F = 0.703, p = 0.622$ ), the differences between the selected groups do not exist ( $F = 1.503, p = 0.213$ ). The results in Table 3 show that Hypothesis 2 is fully accepted. When it comes to Hypothesis 3, the results of the research showed that in terms of age of the respondents there are differences ( $F = 2.422, p = 0.035$ ) whereas it was determined that in terms of the level of education, the differences between the selected groups do not exist ( $F = 0.940, p = 0.421$ ) which indicates that Hypothesis 3 is partially accepted (Table 3).

Items	Age	N	M	$\sigma$	F	p	Educ.	N	M	$\sigma$	F	p
In the National Park Đerdap, there are interesting <i>natural</i> values (rivers, gorges, canyons, mountain peaks, etc.)	< 20	104	4.56	0.846	0.703	0.622	P/S	277	4.64	0.722	1.503	0.213
	21-30	246	4.67	0.619			SSS	77	4.75	0.542		
	31-40	41	4.63	0.581			VS	32	4.47	0.761		
	41-50	45	4.73	0.495			VSS	98	4.68	0.549		
	51-60	28	4.68	0.612								
	> 60	20	4.75	0.786								
	Total	484	4.65	0.668								
In the National Park Đerdap, there are interesting <i>cultural</i> values (archaeological sites, fortresses, etc.)	< 20	104	4.38	0.938	2.422	0.035	P/S	277	4.45	0.795	0.940	0.421
	21-30	246	4.65	0.651			SSS	77	4.70	0.563		
	31-40	41	4.54	0.711			VS	32	4.63	0.554		
	41-50	45	4.67	0.603			VSS	98	4.60	0.670		
	51-60	28	4.64	0.621								
	> 60	20	4.75	0.550								
	Total	484	4.59	0.724								

P/S – pupil/student; SSS – secondary/high school education; VS – college education; VSS – university education; M – arithmetic mean (average value);  $\sigma$  – standard deviation; F – statistics value; p – the level of significance ( $p < 0.05$ )

Table 3: The results of the one-factor analysis of variance ANOVA according to the determinants related to tourist values in

According to the results in Table 3, where a statistically significant difference according to the age of the respondents was noticed and additional tests were conducted accordingly, it was determined that age groups “under 20” and “21–30” differ statistically significantly (mean difference  $-0.266, p = 0.021$ ) according to the formed Hypothesis 3. The size of the effect is shown using eta square, one of the most often used indicators of effect size.<sup>2)</sup> In

<sup>2)</sup> Eta square is calculated by dividing the sum of squares between groups by the total sum of squares. According to the Cohen criterion (COHEN 1988, pp. 284–287) that achieved result of 0.02 shows an extremely small effect of the difference. COHEN classifies 0.01 as small effect, 0.06 as medium effect and 0.14 as large effect (quoted in PALLANT 2011, p. 254).

this case, the achieved result is 0.02 which is interpreted as weak and almost insignificant. This is supported by the fact that even though the achieved result is statistically significant, the actual effect of the difference in average values between these two groups is very small ( $M = 4.38$  and  $M = 4.65$ ). In the research where the sample is large enough (in this case  $N = 484$ ) we should take into account that really small differences become statistically significant even when the difference between the groups is practically insignificant.

Therefore, the results should always be carefully interpreted and all available information and facts need to be taken into consideration. In this case, the number of respondents in the group "21–30" is almost twice as higher when compared to the group of the respondents "under 20" (246 : 104). The remaining selected age groups do not differ significantly when compared to these two groups nor when compared to each other. The results achieved based on the performed one-factor analysis of variance ANOVA (motives for the visit in relation to the age and the level of education), show high average values of items in connection to the desire to relax and rest, acquire knowledge and new experiences. The agreement was reached about great interest in natural values in regard to all age structures of respondents ( $M > 4.50$ ).

Even though a statistically significant difference between the respondents in terms of certain attitudes and motivators was determined, we can still claim that the respondents included in this research are environmentally conscious. This is indicated by the highest average value given by the respondents to the natural tourist values assessing them as the most important reasons to visit National Park Đerdap ( $M = 4.65$ ). Taking into consideration the wishes and reasons why tourists visit this area, it is clear that natural values are the primary and complementary motive, thus these are responsible tourists acting in accordance with the environmental principles.

## 5 Conclusion

In order to plan and implement an effective protected natural resources management system, it is necessary to unite the attitudes of different participants in tourism. Therefore, we should work on developing awareness of sustainability and we should include the analysis of the principles of social and economic sustainability in future research. The creation and realisation of tourist products should more adequately involve the local self-government, residents and relevant institutions in order to make the basic principles of sustainability noticeable in practice.

Data on visitors of the National Park Đerdap are recorded for group and individual visitors who contact the Park Administration for the services and organisation of the program. Forming the visits and visitors database enables the information management. This information may serve to direct tourist needs and help design tourist products. Since this is an area with preserved natural and cultural values (which, according to the opinion of the respondents, are the basis for the development of tourism of this area or their main motivators to visit it) the complexity of sustainability relying on the principle of precaution should be recognised (avoid every activity whose consequences are negative for the environment or cannot be predicted with certainty).

For the further development of tourism in the National Park Đerdap, its borderline position and proximity to the “Regional Park Portile de Fier” in Romania is significant, creating a more continuous space in this region. As a result, there are numerous possibilities of cross-border cooperation (cross-border parks – “Europarcs”), further protection of nature and development of tourism on sustainable principles, where the participation of the local community would be guaranteed. The political will to support the effective management of the National Park Đerdap is not sufficiently expressed. Strengthening partnerships for sustainable tourism and detailed user segmentation research should contribute to improving services. Using animation on the visitors’ paths would help explore perceptions about resource, social and managerial conditions.

## 6 References

- ALEXANDER A., KIM S. B., KIM D. Y. (2015): Segmenting Volunteers by Motivation in the 2012 London Olympic Games. In: *Tourism Management*, 47, pp. 1–10. – <https://doi.org/10.1016/j.tourman.2014.09.002>.
- Анализа потенцијала за одрживи туризам са бизнис планом Националног парка Ђердап [Analysis of the Sustainable Tourism Potential with the National Park Đerdap Business Plan] (2014). Београд [Beograd]: Агенција за менаџмент и консалтинг „Саветник у туризму” [Agency for Management and Consulting “Advisor in Tourism”].
- ANCUȚA C., OLARU M., POPA N., IȘFĂNESCU IVAN R., JIGORIA-OPREA, L. (2015): Evaluation of the Sustainable Development of Rural Settlements. Case Study: Rural Settlements from Romanian Banat. In: *Carpathian Journal of Earth and Environmental Sciences*, 10 (3), pp. 67–80. – <http://www.ubm.ro/sites/CJEES/viewTopic.php?topicId=549>.
- AWARITEFE D. (2003): Destination Environment Quality and Tourists’ Spatial Behaviour in Nigeria: A Case Study of Third World Tropical Africa. In: *International Journal of Tourism Research*, 5, pp. 251–268.
- BAKIRCI M. (2015): Sustainable Development of Rural Tourism within the Periphery of Metropolitan Areas: The Polonez Village (Istanbul, Turkey). In: *Carpathian Journal of Earth and Environmental Sciences*, 10 (3), pp. 157–166. – <http://www.ubm.ro/sites/CJEES/viewTopic.php?topicId=558>.
- BALLANTYNE R., PACKER J., FALK J. (2011): Visitor’s Learning for Environmental Sustainability: Testing Short- and Long-Term Impacts of Wildlife Tourism Experiences Using Structural Equation Modelling. In: *Tourism Management*, 32 (6), pp. 1243–1252. – <https://doi.org/10.1016/j.tourman.2010.11.003>.
- BEAUMONT N. (2011): The Third Criterion of Ecotourism, Are Ecotourists More Concerned About Sustainability Than Other Tourists? In: *Journal of Ecotourism*, 10 (2), pp. 135–148.
- BELIĆ S., ILINČIĆ M., BELIĆ J., BELIĆ M. (2014): Sustainable Planning and Tourism Development Policy Exemplified by Medieval Fortresses along the River Danube. In: *Bulletin of the Serbian Geographical Society*, 94 (3), pp. 69–82. – <https://doi.org/10.2298/GSGDI403069B>.
- BELIĆ M. (2017): Cultural Tourist Motives in National Parks in Serbia. In: FILIPOVIĆ D., GOSAR A., KODERMAN M., DURDIĆ S. (eds.): *Tourism in Protected Areas of Nature in Serbia and Slovenia*. Belgrade: University of Belgrade – Faculty of Geography, pp. 113–128.
- BELIĆ M., DURDIĆ S., STOJKOVIĆ S. (2018): The Evaluation of Geoheritage for Geotourism Development: Case Study on the Potential Geopark Đerdap. In: *Collection of Papers, Faculty of Geography at the University of Belgrade*, 66 (2), pp. 121–132.

- BELL S., MORSE S. (1999): *Sustainability Indicators: Measuring the Immeasurable*. London: Earthscan Publications.
- BELL S., MORSE S. (2003): *Measuring Sustainability: Learning from Doing*. London: Earthscan Publications.
- BENNINGTON J., MOORE M. H. (2011): Public Value in Complex and Changing Times. In: BENNINGTON J., MOORE M. H. (eds.): *Public Value, Theory and Practice*. Hampshire: Palgrave Macmillan, pp. 1–30.
- BJEDOV V., KRSTESKI B., MIJOVIĆ MAGDIĆ J., STOJANOVIĆ V., LUKIĆ D., LAZAREVIĆ P., NIKOLIĆ V., VUKELIĆ M., KLIČKOVIĆ M., SIMIĆ S., RADAKOVIĆ M., AJTIĆ R., SEKULIĆ N. (2014): Benefits of Ecosystem Services in National Park Đerdap for the Local Community. Beograd: Nacionalni park Đerdap, Zavod za zaštitu prirode Srbije [National Park Đerdap, Institute for Nature Conservation of Serbia] (in Serbian).
- BORRINI-FEYERABEND G., DUDLEY N., JAEGER T., LASSEN B., PATHAK BROOME N., PHILLIPS A., SANDWITH T. (2013): *Governance of Protected Areas: From Understanding to Action*. Gland, Switzerland: IUCN (= Best Practice Protected Area Guidelines Series, 20).
- BRAMWELL B., HIGHAM J., LANE B., MILLER G. (2017): Twenty-five Years of Sustainable Tourism and the Journal of Sustainable Tourism: Looking Back and Moving Forward. In: *Journal of Sustainable Tourism*, 25, pp. 1–9.
- BUCKLEY R. (2012): Sustainable Tourism: Research and Reality. In: *Annals of Tourism Research*, 39 (2), pp. 528–546. – <https://doi.org/10.1016/j.annals.2012.02.003>.
- BURNS L. G., MACBETH J., MOORE S. (2011): Should Dingoes Die? Principles for Engaging Eccentric Ethics in Wildlife Tourism Management. In: *Journal of Ecotourism*, 10 (3), pp. 179–196. – <https://doi.org/10.1080/14724049.2011.617450>.
- BUTLER R. (1998): Rural Recreation and Tourism. In: ILBERY B. (ed): *The Geography of Rural Change*. Harlow: Addison Wesley Longman, pp. 211–232.
- CANDREA A. N., ISPAS A. (2009): Visitor Management, a Tool for Sustainable Tourism Development in Protected Areas. In: *Bulletin of the Transilvania University of Braşov, Series V: Economic Sciences*, 2 (51), pp. 131–136.
- CASTELLANI V., SALA S. (2010): Sustainable Performance Index for Tourism Policy Development. In: *Tourism Management*, 31 (6), pp. 871–880. – <https://doi.org/10.1016/j.tourman.2009.10.001>.
- CHEN G., BAO J., HUANG S. (2014): Segmenting Chinese Backpackers by Travel Motivations. In: *International Journal of Tourism Research*, 16, pp. 355–367. – <https://doi.org/10.1002/jtr.1928>.
- COAD L., CAMPBELL A., MILES L., GREEN K. E. (2008): *The Costs and Benefits of Protected Areas for Local Livelihoods: A Review of the Current Literature*. Working Paper. Cambridge, U.K.: UNEP World Conservation Monitoring Centre.
- COCHRANE J. (2006): Indonesian National Parks Understanding Leisure Users. In: *Annals of Tourism Research*, 33 (4), pp. 979–997. – <https://doi.org/10.1016/j.annals.2006.03.018>.
- COOPER C., FLETCHER J., FYALL A., GILBERT D., WANHILL S. (2005): *Tourism Principles and Practice*. London: Pearson Education.
- DE VAUS D. A. (2002): *Surveys in Social Research*. Sydney: Allen & Unwin.
- DE VELLIS R. F. (2003): *Scale Development: Theory and applications*. Thousand Oaks, CA: Sage.
- DOLNICAR S., LEISCH F. (2008): Selective Marketing for Environmentally Sustainable Tourism. In: *Tourism Management*, 29 (4), pp. 672–680. – <https://doi.org/10.1016/j.tourman.2007.07.010>.
- GARMS M., FREDMAN P., MOSE I. (2017): Travel Motives of German Tourists in the Scandinavian Mountains: The Case of Fulufjället National Park. In: *Scandinavian Journal of Hospitality and Tourism*, 17 (3), pp. 239–258. – <https://doi.org/10.1080/15022250.2016.1176598>.
- GARROD B., FYALL A. (1998): Beyond the Rhetoric of Sustainable Tourism? In: *Tourism Management*, 19 (3), pp. 199–212. – [https://doi.org/10.1016/S0261-5177\(98\)00013-2](https://doi.org/10.1016/S0261-5177(98)00013-2).



- GOMEZ, M., MEDINA, F., PUYUELO, J. (2016): New Trends in Tourism? From Globalization to Post-modernism. In: *International Journal of Scientific Management and Tourism*, 2 (3), pp. 417–433.
- GOODAL B., STABLER M. J. (1997): Principles Influencing the Determination of Environmental Standards for Sustainable Tourism. In: STABLER M. J. (ed): *Tourism and Sustainability: Principles to Practice*. Wallingford: Cab International, pp. 279–304 (CABI Publishing Series).
- GOODWIN C. J. (2007): *Research in Psychology: Methods and Design*. New York: John Wiley.
- HIGHAM J., COHEN S., PEETERS P., GÖSSLING S. (2013): Psychological and Behavioural Approaches to Understanding and Governing Sustainable Mobility. In: *Journal of Sustainable Tourism*, 21 (7), pp. 949–967. – <https://doi.org/10.1080/09669582.2013.828733>.
- HUANG P. S., SHIH L. H. (2009): Effective Environmental Management Through Environmental Knowledge Management. In: *International Journal of Environmental Science & Technology*, 6, pp. 35–50.
- HUNTER C. (1997): Sustainable Tourism as an Adaptive Paradigm. In: *Annals of Tourism Research*, 24, (4), pp. 850–867. – [https://doi.org/10.1016/S0160-7383\(97\)00036-4](https://doi.org/10.1016/S0160-7383(97)00036-4).
- IMRAN S., ALAM K., BEAUMONT N. (2014): Reinterpreting the Definition of Sustainable Development for a More Ecocentric Reorientation. In: *Sustainable Development* 22 (2), pp. 134–144.
- JACKSON T. (2004): *Motivating Sustainable Consumption: A Review of Evidence on Consumer Behaviour and Behavioural Change*. London: Sustainable Development Research Network. – [http://www.sustainablelifestyles.ac.uk/sites/default/files/motivating\\_sc\\_final.pdf](http://www.sustainablelifestyles.ac.uk/sites/default/files/motivating_sc_final.pdf).
- JOVIČIĆ D. (2010): *Turizam i životna sredina [Tourism and the environment]*. Beograd: Ton Plus.
- JUVAN E., DOLNICAR S. (2014): The Attitude-Behaviour Gap in Sustainable Tourism. In: *Annals of Tourism Research*, 48, pp. 76–95. – <https://doi.org/10.1016/j.annals.2014.05.012>.
- KO T. G. (2005): Development of a Tourism Sustainability Assessment Procedure: A Conceptual Approach. In: *Tourism Management*, 26 (3), pp. 431–445. – <https://doi.org/10.1016/j.tourman.2003.12.003>.
- LANE B. (1994): Sustainable Rural Tourism Strategies: A Tool for Development and Conservation. In: *Journal of Sustainable Tourism*, 2 (1–2), pp. 102–111. – <https://doi.org/10.1080/09669589409510687>.
- LATOCHA A. (2015): Past Human Activities Recorded in the Landscape: A Case Study from the Glengveagh National Park, Ireland. In: *Landscape Research*, 40 (3), pp. 338–358. – <https://doi.org/10.1080/01426397.2013.829807>.
- LAUSCHE B. (2011): *Guidelines for Protected Areas Legislation*. Gland, Switzerland: IUCN.
- LAVEN D., WALL REINIUS S., FREDMAN P. (2015): New Challenges for Managing Sustainable Tourism in Protected Areas: An Exploratory Study of the European Landscape Convention in Sweden. In: *Society & Natural Resources*, 28 (10), pp. 1126–1143. – <https://doi.org/10.1080/08941920.2015.1013166>.
- LAWS E., FAULKNER B., MOSCARDO G. (1998): Embracing and Managing Change in Tourism. In: LAWS, E., FAULKNER, B., MOSCARDO, G. (eds.): *Embracing and Managing Change in Tourism: International Case Studies*. New York: Routledge, pp. 1–10.
- LEE A. C. K., LEEB Y. K., WICKS B. E. (2004): Segmentation of Festival Motivation by Nationality and Satisfaction. In: *Tourism Management* 25, pp. 61–70. – [https://doi.org/10.1016/S0261-5177\(03\)00060-8](https://doi.org/10.1016/S0261-5177(03)00060-8).
- LEUNG Y. F., SPENCELEY A., HVENEGAARD G., BUCKLEY R. (eds.) (2018): *Tourism and Visitor Management in Protected Areas: Guidelines for Sustainability*. Gland, Switzerland: IUCN (= Best Practice Protected Area Guidelines Series, 27).
- LI M., ZHANG H., XIAO H., CHEN Y. (2015): A Grid-group Analysis of Tourism Motivation. In: *International Journal of Tourism Research*, 17, pp. 35–44. – <https://doi.org/10.1002/jtr.1963>.

- LOCKWOOD M., WORBOYS G., KOTHARI A. (2006): *Managing Protected Areas – A Global Guide*. London: Routledge.
- LORD K. R., PUTREVI S., PARSA H. G. (2004): The Cross-border Consumer: Investigation of Motivators and Inhibitors in Dining Experiences. In: *Journal of Hospitality & Tourism Research*, 28 (2), pp. 209–229. – <https://doi.org/10.1177/1096348003256604>.
- LIU Z. (2003): Sustainable Tourism Development: A Critique. In: *Journal of Sustainable Tourism*, 11 (6), pp. 459–475. – <https://doi.org/10.1080/09669580308667216>.
- MAK A., WONG K., CHANG, R. (2009): Health or Self-indulgence? The Motivations and Characteristics of Spa-goers. In: *International Journal of Tourism Research*, 11, pp. 185–199. – <https://doi.org/10.1002/jtr.703>.
- MAY V. (1991): Tourism, Environment and Development – Values, Sustainability and Stewardship. In: *Tourism Management*, 12, pp. 112–118.
- MAZILU M., GHEORGHECI S. (2015): The Perception of Romania as a Tourist Destination into Sustainable Development. In: *Annals of the „Constantin Brâncuși” University of Târgu Jiu, Economy Series*, pp. 5–15. – [http://www.utgjiu.ro/revista/ec/pdf/2015-03%20Special/01\\_Mazilu%20Gheorgheci.pdf](http://www.utgjiu.ro/revista/ec/pdf/2015-03%20Special/01_Mazilu%20Gheorgheci.pdf).
- MCCOOL S. F., STANKEY G. H. (2001): Managing Access to Wildlands for Recreation in the USA: Background and Issues Relevant to Sustainable Tourism. In: *Journal of Sustainable Tourism*, 9 (5), pp. 389–399. – <https://doi.org/10.1080/09669580108667410>.
- MILLER G., TWINING-WARD L. (2005): *Monitoring for Sustainable Tourism Transition – the Challenge of Developing and Using Indicators*. Wallingford: CABI publishing. – <https://doi.org/10.1079/9780851990514.0000>.
- MILLER G., RATHOUSE K., SCARLES C., HOLMES K., TRIBE J. (2010): Public Understanding of Sustainable Tourism. In: *Annals of Tourism Research*, 37 (3), pp. 627–645. – <https://doi.org/10.1016/j.annals.2009.12.002>.
- MODY M., DAY J., SYDNOR S., JAFFE W., LEHTO X. (2014): The Different Shades of Responsibility: Examining Domestic and International Travelers’ Motivations for Responsible Tourism in India. In: *Tourism Management Perspectives*, 12, pp. 113–124. – <https://doi.org/10.1016/j.tmp.2014.09.008>.
- National Strategy for Sustainable Development in Serbia (2007). In: *Službeni glasnik RS [Official Gazette of the Republic of Serbia]*, br. 55/05, 71/05-ispavka i 101/07. Beograd.
- NEDELCU A. (2010): A Model for Sustainable Development of Tourism in the Canary Islands, Spain. In: *Proceeding of the International Conference BIOATLAS 2010 Transilvania, Braşov: University of Braşov, Romania*, pp. 131–138. – <http://www.academia.edu/2465513>.
- NIAUPANE G. P., POUDEL S. (2011): Linkages Among Biodiversity, Livelihood, and Tourism. In: *Annals of Tourism Research*, 38 (4), pp. 1344–1366.
- NICHOLAS L., THAPA B. (2010): Visitor Perspectives on Sustainable Tourism Development in the Pitons Management Area World Heritage Site, St. Lucia. In: *Environment, Development and Sustainability*, 12, pp. 839–857.
- НИКОЛИЋ С. [NIKOLIĆ S.] (2006): Туризам у заштићеним природним добрима Србије [Tourism in protected areas in Serbia]. Београд [Beograd]: Завод за заштиту природе Србије [Institute for Nature Conservation of Serbia].
- Official Gazette of the Republic of Serbia (RS), 36/2009; 88/2010; 91/2010 and 14/2016: The Law on Nature Conservation. Beograd (in Serbian).
- OREJA RODRIGUEZ, J. R., YANES-ESTEVEZ, V., PARRA LOPEZ E. (2008): The Sustainability of Island Destinations: Tourism Area Life Cycle and Teleological Perspectives. The Case of Tenerife. In: *Tourism Management*, 29, pp. 53–65.

- ORLOVIĆ-LOVREN V. (2011): Adult Education and Capacity Building for Sustainable Management of Protected Areas. Beograd: Filozofski fakultet Univerziteta u Beogradu [Philosophical Faculty of the University of Belgrade] (in Serbian).
- OTOO F., AMUQUANDOH F. (2014): An Exploration of the Motivations for Volunteering: A Study of International Volunteer Tourists to Ghana. In: *Tourism Management Perspectives*, 11, pp. 51–57. – <https://doi.org/10.1016/j.tmp.2014.04.001>.
- PALLANT J. (2011): *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS*. Sydney: Allen & Unwin.
- PANDIT R., DHAKAL M., POLYAKOV M. (2015): Valuing Access to Protected Areas in Nepal: The Case of Chitwan National Park. In: *Tourism Management*, 50, pp. 1–12. – <https://doi.org/10.1016/j.tourman.2014.12.017>.
- PANIĆ N., ORLOVIĆ-LOVREN V. (2014): Guidelines for Integrated Management of Ecotourism in the Area of Đerdap National Park. Beograd: Nacionalni park Đerdap, Zavod za zaštitu prirode Srbije [National Park Đerdap, Institute for Nature Conservation of Serbia] (in Serbian).
- ПЛАН УПРАВЉАЊА НАЦИОНАЛНИМ ПАРКОМ ЂЕРДАП [Management Plan for National Park Đerdap] (2016). Доњи Милановац: Јавно предузеће Национални парк Ђердап [Donji Milanovac: Public Enterprise “Đerdap National Park”].
- ПЛАН УПРАВЉАЊА ПОСЕТИОЦИМА НП ЂЕРДАП [Management Plan for Visitors to National Park Đerdap] (2018). Београд / Доњи Милановац: Универзитет у Београду – Географски факултет, Јавно предузеће Национални парк Ђердап [Beograd / Donji Milanovac: University of Belgrade – Faculty of Geography / Public Enterprise “Đerdap National Park”].
- ПРЕДЛОГ ПЛАНА УПРАВЉАЊА НАЦИОНАЛНИМ ПАРКОМ ЂЕРДАП ЗА ПЕРИОД 2011–2020 ГОДИНЕ [Proposal of a Management Plan for the National Park Đerdap 2011–2020] (2012). Доњи Милановац: ЈП „Национални парк Ђердап” [Donji Milanovac: Public Enterprise “Đerdap National Park”].
- ПРОСТОРНИ ПЛАН ПОДРУЧЈА ПОСЕБНЕ НАМЕНЕ НП ЂЕРДАП [Spatial plan of area of special-purpose NP Đerdap] (2013). Београд [Beograd]: Министарство животне средине, рударства и просторног планирања, Републичка агенција за просторно планирање, Институт за архитектуру и урбанизам Србије [Ministry of Environment, Mining and Spatial Planning, Republic Agency for Spatial Planning, Institute for Architecture and Urban Planning of Serbia].
- PRETTY J. N., PIMBERT M. P. (1995): Beyond Conservation Ideology and the Wilderness. In: *Natural Resources Forum*, 19, pp. 5–14.
- SAARINEN J. (2006): Tradition of Sustainability in Tourism Studies. In: *Annals of Tourism Research*, 33 (4), pp. 1121–1140. – <https://doi.org/10.1016/j.annals.2006.06.007>.
- SCHROEDER K. (2015): Cultural Values and Sustainable Tourism Governance in Bhutan. In: *Sustainability*, 7, pp. 16616–16630. – <https://doi.org/10.3390/su71215837>.
- SCHOFIELD P., THOMSON K. (2007): Visitor Motivation, Satisfaction and Behavioural Intention: The 2005 Naadam Festival, Ulaanbaatar. In: *International Journal of Tourism Research*, 9, pp. 329–344. – <https://doi.org/10.1002/ijtr.638>.
- SIRIVONGS K., TSUCHYA T. (2012): Relationship Between Local Residents’ Perceptions, Attitudes and Participation Towards National Protected Areas: A Case Study of Phou Khao Khouay National Protected Area, Central Lao PDR. In: *Forest Policy and Economics*, 21 (C), pp. 92–100.
- SPENCELEY A. (2008): Requirements for Sustainable Nature-based Tourism in Transfrontier Conservation Areas: A Southern African Delphi Consultation. In: *Tourism Geographies*, 10, pp. 285–311.
- STABLER M. (1997): *Tourism and Sustainability: Principles and Practice*. Wallingford: CABI publishing.

- STANGOR C. (2006): *Research Methods for the Behavioral Sciences*. Boston: Houghton Mifflin.
- ŠTETIĆ S., ŠIMIĆEVIĆ D. (2014): *Tourist Destination Management*. Beograd: Visoka turistička škola strukovnih studija [College of Professional Studies in Tourism] (in Serbian).
- ŠTETIĆ S., PAVLOVIĆ S., STANIĆ JOVANOVIĆ S. (2015): Sustainable Rural Tourism of Lower Danube Region in Serbia: Challenges and Realities. In: *Sustainable Economies Management*, 4 (1), pp. 57–72.
- STOCKING M., PERKIN S. (1992): Conservation-with-Development: An Application of the Concept in the Usambara Mountains, Tanzania. In: *Transactions of the Institute of British Geographers*, 17, pp. 337–349.
- STOJANOVIĆ V., ĐORĐEVIĆ J., LAZIĆ L., STAMENKOVIĆ I., DRAGIĆEVIĆ V. (2014): The Principles of Sustainable Development of Tourism in the Special Nature Reserve »Gornje Podunavlje« and Their Impact on the Local Communities. In: *Acta geographica Slovenica*, 54 (2), pp. 391–400. – <https://doi.org/10.3986/AGS54407>.
- STOJOVIĆ J., KNEŽEVIĆ S., BOGDANOVIĆ A., KNEŽEVIĆ I. (2012): *Guide to the Danube Strategy*. Belgrade: European Movement in Serbia. – [http://www.emins.org/uploads/useruploads/knjige/12-dunavska\\_en.pdf](http://www.emins.org/uploads/useruploads/knjige/12-dunavska_en.pdf).
- Strategija razvoja održivog turizma u Nacionalnom parku Đerdap [Strategy for the development of sustainable tourism in the National Park Đerdap] (2010). Donji Milanovac / Beograd: Nacionalni park Đerdap, Mladi istraživači Srbije [National Park Đerdap, Young Researchers of Serbia, Rufford Small Grants Foundation].
- THAPA B., GRAEFE A. R., MEYER L. A. (2005): Moderator and Mediator Effects of Scuba Diving Specialization on Marine-based Environmental Knowledge-Behavior Contingency. In: *Journal of Environmental Education*, 37, pp. 53–67.
- TOWNSEND C. (2000): *The Effects of Environmental Education on the Behaviour of SCUBA Divers: A Case Study from the British Virgin Islands*. Unpublished Master's Thesis, The University of Greenwich, London, UK.
- United Nations Environment Programme (UNEP) (2011): *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. Nairobi: UNEP. – [www.unep.org/greenconomy](http://www.unep.org/greenconomy).
- WHEELER B. (1993): Sustaining the Ego. In: *Journal of Sustainable Tourism*, 1 (2), pp. 121–129. – <https://doi.org/10.1080/09669589309450710>.
- WHITELAW P. A., KING B. E., TOLKACH D. (2014): Protected Areas, Conservation and Tourism – Financing the Sustainable Dream. In: *Journal of Sustainable Tourism*, 22 (4), pp. 584–603. – <https://doi.org/10.1080/09669582.2013.873445>.
- WOODSIDE G., DUBELAAR C. A. (2002): General Theory of Tourism Consumption Systems: A Conceptual Framework and an Empirical Exploration. In: *Journal of Travel Research*, 41, pp. 120–132.
- WURZINGER S., JOHANSSON M. (2006): Environmental Concern and Knowledge of Ecotourism Among Three Groups of Swedish Tourists. In: *Journal of Travel Research*, 45 (2), pp. 217–226. – <https://doi.org/10.1177/0047287506291602>.
- XU F., FOX D. (2014): Modelling Attitudes to Nature, Tourism and Sustainable Development in National Parks: A Survey of Visitors in China and the UK. In: *Tourism Management*, 45, pp. 142–158. – <https://doi.org/10.1016/j.tourman.2014.03.005>.
- ЗАКОН О НАЦИОНАЛНИМ ПАРКОВИМА [Law on National Parks] (2015). In: *Службени гласник РС*, бр. 84/2015 од 6.10.2015. године [Official Gazette of the Republic of Serbia, No. 84/2015 from 06.10.2015].