THE RECOGNITION OF OUR NATIONAL PARKS AMONG YOUNG ADULTS

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Abstract

I conducted a survey questionnaire about the recognition of national parks among the students of the University of Pannonia, Georgikon Faculty in 2012 and 2013. According to my previous experience as a lecturer, I supposed that young people had incomplete knowledge about national parks. As the result of my previous survey about the Danube-Drava National Park Directorate, which is my narrower research area, I had the idea to test the knowledge of young people in a more general questionnaire in the hope of getting a more favourable picture. In order to prove my hypothesis I conducted a survey questionnaire among the students of the Georgikon Faculty who had not met this topic in their university studies yet. 132 students took part in the survey. The research revealed that although young adults had much better knowledge about national parks in general than about one particulate directorate, the results can be improved. According to the results the order of the recognition of national parks can be determined among young people. Young adults like hiking and going on outings in nature but they do not prefer taking part in the programs organized by the national park directorates.

Keywords: Hungary national parks, survey, questionnaire, young people, ecotourism

Kivonat

A nemzeti parkok ismertségével kapcsolatos kérdőíves felmérést készítettem a Pannon Egyetem, Georgikon Kar hallgatóinak körében 2012-ben és 2013-ban. Korábbi oktatói tapasztalataimból kiindulva azt feltételeztem, hogy a felsőoktatásba kerülő fiatalok nemzeti parkokkal kapcsolatos ismeretei hiányosak. Szűkebb kutatási célerületem, a Duna-Dráva Nemzeti Park Igazgatósággal kapcsolatos korábbi kérdőíves felmérésem eredményei láttan jött az ötlet, hogy egy tágabb, általánosabb kérdőívben tesztelem a fiatalok tudását, bizva abban, hogy kedvezőbb képet festenek majd az eredmények. Hipotézisem igazolására kérdőíves felmérést készítettem a Georgikon Kar azon hallgatóinak körében, akik a felsőoktatási tanulmányainak egyik részét nem találkoztak a témakörrel. A felmérésben 132 fő hallgató vett részt. A kutatásból kiderült, hogy a fiatal felnőttek nemzeti parkokkal kapcsolatos ismeretei ugyan sokkal jobbak, mint egy konkrét igazgatóság esetében, de még javíthatóak. Az eredmények alapján a nemzeti parkok ismertségének sorrendje is felállítható a fiatalok körében. A fiatal felnőtték szokták és szeretnének is tűrőzni, kirándulni a természetben, a nemzeti park igazgatóságok által szervezett programokon azonban nem jellemző a részvételük.

Kulcsszavak: magyar nemzeti parkok, kérdőíves felmérés, fiatal felnőttek, ökoturizmus
INTRODUCTION

The main aim of my research is to reveal the knowledge of young people about national parks and their habits concerning hiking. Before starting the survey I set up three hypotheses that can be justified by the results described in the study.

REVIEW OF THE RELEVANT LITERATURE

National Parks in Hungary

For the past three decades ten national parks directorates have been established in our country: the oldest of them is the Hortobágy National Park Directorate (1973), while the youngest is the Őrség National Park Directorate established in 2002. The government decree of 347/2006 (XII 23) appoints the national park directorates establishments, which are responsible for handling protected natural areas in an environmental conscious way. The law includes the responsibilities, headquarters, and activity areas of national park directorates. The present ten national park directorates (NPD), with the year of their establishments, are as follows:

- The Aggtelek NPD (1985),
- Balaton Uplands NPD (1997),
- Bükk NPD (1976),
- Duna-Dráva NPD (1996),
- Duna-Ipoly NPD (1997),
- Fertő-Hanság NPD (1994),
- Hortobágy NPD (1973),
- Kiskunság NPD (1975),
- Kőrös-Maros NPD (1997),
- The Őrség NPD (2002).

I am not going to introduce the Directorates of the National Parks of Hungary in details. Several authors (Kapocsy, 1993; Kalotás, 1996, 2004, 2005, 2008, 2012; Vojnits, 2006), and the publications of the Hungarian Tourism cPlc. and our ministry, (KVvM 2005 then VM 2014), which is responsible for environmental protection, give detailed information about the most important features of our national parks.

The decree of 14/1997. (V 28) by KTM ranked the territories of the national parks into zone categories. § 5 describes the exhibition area, where the exhibition centre can be placed according to the rules determined in the technical plan and the conditions of environment friendly exhibition activities must be ensured here too, that is, sustainable tourism called ecotourism forms here.

Ecotourism

Unfortunately, ecotourism still does not have a general definition which is accepted internationally. In Hungary its meaning was first determined in the ecotourism section of the Natureexpo conference in 1996 (Lengyel, 1998), according to which on the one hand it is an
approach, on the other hand it includes the different forms of tourism which are based on natural and cultural attractions. The definition of UNTWO (World Tourism Organization) summarizes the features of ecotourism in five points. Several sources (Sulyok 2001, Cousins 2007, Weaver-Lawton 2007, Ahmad 2014, Sulyok 2014, Mintel 2014) take these into account which can be summarized as follows: nature based tourism with its traditional culture, containing educational and interpretation features, generally organized for small groups from below, it minimizes the negative impacts on the natural and socio-cultural environment, it supports the maintenance of natural areas (with employment and income opportunities for local communities). Ecotourism, has the following definition according to IUCN (International Union for Conservation of Nature), suggested for acceptance as official Hungarian position by the authors’ of the National Ecotourism Development Strategy (OÖS): ‘ecotourism is a form of travel or visit in relatively undisturbed regions which takes responsibility for the environment in order to enjoy and appreciate the natural and cultural values of the past and present and provide social and economic benefits to the local residents, but these visits moderate the harmful effects’ (OÖS, 2008, p. 12.). In my opinion the most suitable definition comes from the International Ecotourism Society, which says:’ Ecotourism is responsible travel to natural areas that conserves the environment and sustains the well being of local people’ (Lindberg, 1993, p. 8.).

The National Ecotourism Development Strategy (2008) characterizes the participants of ecotourism in the following way: they are young and middle aged with higher qualifications and their income is higher than the average. That is why I find it worth examining the potential future demand, that is, young people studying in higher education.

METHODS AND HYPOTHESES

On the basis of the results in my research area, the Danube-Drava National Park Directorate (Tóth, 2007, 2008, 2010a, 2010b, 2013a), I had the idea to get information about the knowledge of young people in a questionnaire with a more general topic. Besides surveying the available secondary sources about the topic I carried out observations. Having spent several years in education I noticed that university students’ knowledge about general geography, at least about national parks is not satisfactory. After my personal experiences I started to gather primary data, which was based on a questionnaire. The works of Majoros (2004), Babbie (2008) and Malhotra (2009) helped me to improve my methodological knowledge. My self-completed, voluntary questionnaire mostly contained open-questions
besides general personal data. The subjects of my research were the students of the Georgikon Faculty who had not meet this topic in their university studies. The first group of questions of my questionnaire aimed to survey the recognition of national parks, the second part examined their hiking habits.

132 students took part in the survey between the spring semester of 2012 and the autumn semester of 2013. The results were evaluated by Microsoft Office Excel 2003, and SPSS Statistics 17.0 programs. Besides fundamental statistical analysis the categorized variables needed the application of the $\chi^2$ test while the correction formula of the Kendall rank concordance coefficient helped to set up the orders of preference.

At the beginning of my research I had the following consumptions:
1 The knowledge of the students in Georgikon Faculty about national parks is insufficient before starting their studies in this field.
2 Students in the Georgikon Faculty go hiking regularly and the majority of them like individual relaxation.
3 The students of the Georgikon Faculty do not often take part in the programs the national park directories offer.

The exposition of the results is listed in the order of my presumed statements.

RESULTS

62.8% of the participants of the survey are women, 31.8% of them are men, 83.3% belongs to the age group between 18-25 and the majority has secondary level qualifications. 43.9% comes from Zala county, 18.2% from Veszprém county, 7.6% from Vas county and 6.8% from Somogy county.

My first question about national parks was: **How many national park directorates are there in Hungary?** (Fig. 1) 23 people said no (17,4%), of the others 40 people (30.3%) gave the correct answer, that is there are ten national park directorates in the country. 23.5% of the participants answered 9, which is close to the correct answer while the others (52.3%) guessed between 2 and 15.

The indication of **the number of national park directorates** does not depend on the gender, age, qualifications, place of living and hiking habits of the participants but it does depend on the **time of questioning** and this connection is justified by the Pearson $\chi^2$.
In the different semesters the students who made up the sample had very different knowledge. At a significance level of 0.008%, the value of the Cramer V index is 0.23, which shows a weak significance connection (Tab. 1). While in both of the semesters of 2012 the majority (61.5% and 88.9%) gave good values (10) or made one mistake (9, 11) when answering the questions, in both of the semesters of 2013 the majority gave answers, which had a difference more than one comparing it to the correct answer or they did not answer at all (52%, 57.5%).

**Table 1** Variable indicating significant connection with the number of National Park Directorates

<table>
<thead>
<tr>
<th>Criterion</th>
<th>$\chi^2$</th>
<th>Cramer -V</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of questioning</td>
<td>22.36</td>
<td>0.238</td>
<td>0.008</td>
</tr>
</tbody>
</table>

It is not sure that there is real knowledge if a number is correct therefore my next question asked them to *list the parks*. 13 students (11.4%) could not mention any of the national park directorates however 17 people (12.9%) could list all the NPDs correctly. On average the respondents could name 5.5 NPDs.

Of course nobody listed more than 10, although they mentioned 11, 12, 13, 15 in the previous answers several times, and it also happened that the respondents named non-existent directorates. Among others the answers included the NPDs of the Great Hungarian Plain, Kis Balaton, Mátra, Lake Fertő, Gemenc and Nagykunság. Fig. 2 shows how well young people know our different national park directorates.
We can observe that the Hortobágy National Park Directorate (HNPD) is the most popular. This result is not surprising because this is our largest and oldest national park directorate that celebrated its 40th anniversary in 2013. It was mentioned by 71.2% of the interviewees and 80.3% of the respondents. Hortobágy NPD was followed by Balaton Uplands NPD (BFNPD), Aggtelek NPD (ANPD), and Fertő-Hanság NPD (FHNPD). The fact that BFNPD is well known is not surprising as the majority of the interviewees live in the territory of this directorate and all of them studies in the capital of Lake Balaton in Keszthely. The Danube-Drava National Park Directorate, which is in the centre of my basic research, is placed in the first part of the middle section. Its recognition is satisfactory as more than half of the interviewees (57.5%) mentioned it and 65% of the respondents named it. I also wanted to know whether the recognition of the NPDs changed during the years therefore I examined the relation of the recognition of the NPDs to each other in each semester. It can well be seen that the most popular ones are those which have already been mentioned above, whereas the least known are the Bükk NPD (BNPD) and the Körös-Maros NPD (KMNPD). However the recognition of the Őrség NPD grew continuously among the students from semester to semester.

If the NPDs are graded according to the number of their mentioning in each semester, it can be seen clearly that the rate of bonds is high that is the parity of rank numbers is high in the preference order (Tab. 2).
Table 2 Reference to National Park Directorates and orders of preference

<table>
<thead>
<tr>
<th></th>
<th>The Aggtelek NPD</th>
<th>Balaton Uplands NPD</th>
<th>Bükk NPD</th>
<th>Duna-Dráva NPD</th>
<th>Duna-Ipoly NPD</th>
<th>Hortobágy NPD</th>
<th>Kőrösi-Maros NPD</th>
<th>Kiskunság NPD</th>
<th>The Örség NPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2012</td>
<td>22</td>
<td>30</td>
<td>12</td>
<td>21</td>
<td>19</td>
<td>26</td>
<td>28</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Autumn 2012</td>
<td>13</td>
<td>12</td>
<td>8</td>
<td>13</td>
<td>10</td>
<td>13</td>
<td>16</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>32</td>
<td>34</td>
<td>21</td>
<td>27</td>
<td>25</td>
<td>29</td>
<td>35</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>Autumn 2013</td>
<td>15</td>
<td>13</td>
<td>8</td>
<td>15</td>
<td>11</td>
<td>13</td>
<td>15</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Spring 2012</td>
<td>4</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Autumn 2012</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>4.5</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>1.5</td>
<td>10</td>
<td>4.5</td>
</tr>
<tr>
<td>Autumn 2013</td>
<td>3</td>
<td>5.5</td>
<td>9</td>
<td>3</td>
<td>7.5</td>
<td>5.5</td>
<td>3</td>
<td>10</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Source: edited by author

In this case the correction formula of the Kendall rank concordance coefficient can be applied in the calculations to establish how much the parity is between the preference orders.

\[ W = \frac{\Delta}{\left( \frac{1}{12} \sum R_i^2 - \frac{1}{144} \right)} \],

where \( \Delta = \sum (R_i - \overline{R})^2 \), \( k \) is the number of the existing rank orders, \( n \) is the number of the factors to be ranked and \( L = \frac{2k^3 - 3k^2 + k}{12} \).

In our case taking the bond number of each semester into consideration

\[ \sum L = \frac{(2^2 - 2)}{12} + \frac{(2^2 - 2) + (3^2 - 3)}{12} + \frac{(2^2 - 2) + (3^2 - 3) + (4^2 - 4)}{12} = \frac{108}{12} \] and \( \Delta = 862 \) from where

\[ W = \frac{862}{\left( \frac{1}{12} \sum R_i^2 - \frac{1}{144} \right)} = 0.671 \]

As it can be seen that 67% of the order of preference is the same regarding each semester. The value of the coefficient is significant because:

\[ \chi^2 = \frac{(162)}{kn(n+1)} = \frac{10 \times 862}{4 \times 120(10 + 4)} = 29.61 > \chi^2_{0.05} = 21.7 (v=10-1=9) \]

A parity of 67% is considered suitable to set up a final order on the basis of the sums of the rank numbers (Tab. 3).
Listing the national parks do not depend on the year of questioning, the gender, the qualifications, the place of living and the hiking habits. It depends on the age and the answers about the number of the NPDs as it can be seen in the connection indicated by the Pearson $\chi^2$ significance value.

When the connection between the age and the list of the NPDs was examined we got a 0.35 Cramer V value, which shows a loose significance connection ($p=0.020$) (Tab. 4).

We can conclude that 88.2% of the respondents who gave a perfect answer (they could list the 10 NPDs) belonged to the age group between 18-25. The rate of non respondents was about 13% in both groups. While more than the half of the age group between 18 and 25 (50.8%) could list 7 or more national park directorates, 50% of the age group over 25 could name fewer than 5. therefore we can state that the younger generation has a more precise knowledge.

When I examined the connection between listing the NPDs and the number of the NPD directorates, the Cramer V=0.44 value showed medium strong significance connection ($p=0.000$) (Tab. 4). 100% was achieved by those who said that there were 10 NPDs. However only 42.5% of the students who knew that there were 10 national park directorates in Hungary could name them precisely while 12.5% gave 9, 8 or 7 correct answers. The two values of $\lambda$ show that the given number of NPDs depends on the success of listing the national parks and not the other way round. $\lambda = 0.239$ ($p=0.003$), which means that if we know how many national parks someone can list correctly we can improve our chance by 23.9% to say what number they will write for the number of national parks.

### Table 3 Order of National Park Directorates on the basis of the total of ranking numbers

<table>
<thead>
<tr>
<th>The Aggtelek NPD</th>
<th>Balaton Uplands NPD</th>
<th>Bükk NPD</th>
<th>Duna-Dráva NPD</th>
<th>Duna-Ipoly NPD</th>
<th>Fertő-Hanság NPD</th>
<th>Hortobágy NPD</th>
<th>Kőrös-Maros NPD</th>
<th>Kiskunság NPD</th>
<th>The Órség NPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ri</td>
<td>14,5</td>
<td>15,5</td>
<td>36</td>
<td>18</td>
<td>29,5</td>
<td>17,5</td>
<td>7,5</td>
<td>37,5</td>
<td>25,5</td>
</tr>
<tr>
<td>Order</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: edited by author

<table>
<thead>
<tr>
<th>Criterion</th>
<th>$\chi^2$</th>
<th>Cramer -V</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>16,572</td>
<td>0,354</td>
<td>0,020</td>
</tr>
<tr>
<td>Number of National Park Directorates</td>
<td>77,459</td>
<td>0,442</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: edited by author
I asked them whether they know **which one the oldest and youngest NPD is.** 62% of the interviewees (81 people) did not know or did not want to name our oldest directorate. 11% gave the wrong answer, most of them thought that the Aggtelek NPD was the oldest but BFNPD and the Bükk NPD were also mentioned. 36 people (27% of the interviewees) wrote correctly that the Hortobágy National Park Directorate was our first and at the same time our largest national park directorate (Fig. 3).”

Figure 3 Distribution of the name ‘oldest National Park’

Source: edited by author

The youngest one is the Őrség NPD, which got the title in 2002, is not so well-known, 29 people, 22% gave the correct answer, 5 answers were wrong and almost three quarters of the interviewees did not even answer this question (Fig. 4).

Figure 4 Distribution of the name ‘youngest National Park’

Source: edited by author

Mentioning the oldest national park directorates indicates a significant connection with two variables it depends on whether they could say the number of the national park directorates
and whether they could name them, the connection is indicated by the Pearson \( \chi^2 \) significance value.

When I examined the connection between **naming the oldest NPD** and **the given number of NPDs** the value of the Cramer \( V=0.26 \) showed a weakly significant connection (\( p=0.007 \)), (Tab. 5).

The respondents who wrote the numbers of 10, 9 or 11 as their answer, gave 80.5% of the right answers in connection with the oldest national park. 40% of the respondents who marked number 10 could name the oldest national park, but 47.5% did not answer. 36.1% of those who marked 9 or 11 knew HNPD well as the oldest NPD but 56% of them did not answer. More than one fifth (21.2%) of those who gave an answer with a difference more than one gave the wrong answer and 67% of them did not answer at all. The smaller the difference was from the correct number, the higher the rate of correct answers were and the smaller the rate of non respondents. The interviewees who did not write an answer to the number, did not want to guess therefore they did not answer about the oldest NPD (87%), although 13% of them certainly knew that Hortobágy was the oldest NPD.

When I examined the connection between **naming the oldest NPD** and **listing the NPDs** the value of Cramer \( V=0.36 \) showed a weakly significant connection (\( p=0.001 \)) (Tab. 5). 70.6% of the respondents who could name all the 10 NPDs exactly knew that the Hortobágy NP was the oldest. A large proportion of those who could name 9 NPDs (45.5%) gave a correct answer. Below this 16-27% could name the oldest NPD correctly but in these categories most of them did not answer (60-85%). The rate of wrong answers was between 0-20%.

**Table 5** Variables indicating significant connection with the name ‘oldest National Park’

<table>
<thead>
<tr>
<th>Criterion</th>
<th>( \chi^2 )</th>
<th>Cramer -V</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of National Park Directorates</td>
<td>17,716</td>
<td>0.259</td>
<td>0.007</td>
</tr>
<tr>
<td>List of National Park Directorates</td>
<td>35,432</td>
<td>0.366</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Source: edited by author

Naming the youngest national park did not depend on the year of questioning, gender, qualifications, place of living and hiking habits. However it depends on the age and the answer given to the number of NP directorates and the connection is indicated by the Pearson \( \chi^2 \) significance value.
When I examined the connection between naming the youngest NPD and the age the Cramer V=0.20 value a weakly significant connection (p= 0.081) (Tab. 6). The cross table shows that although 70% of the age group between 18-25 did not answer, one quarter of them (25.5%) gave a correct answer that the ŐNPD was the youngest NPD. On the other hand, 86.4% of the age group over 25 did not answer and only 4.5% of them gave a correct answer. It is also approved that the younger generation have a better knowledge just like when they listed the NPDs.

When I examined the connection between naming the youngest NPD and the given number of NPDs, the Cramer V=0.25 value showed a weakly significant connection (p=0.012) (Tab. 6). Those who answered with numbers 10, 9 or 11, gave 82.8% of the correct answers in connection with the youngest national park. 40% of those who voted for 10 could name the youngest national park but 55% of them did not answer. 22.2% of those who marked 9 or 11 knew the ŐNPD as the youngest national park but 69.4% of them did not answer. The great majority (81.8%) of those who wrote a number with a difference more than one did not answer. The smaller the difference was from the correct number, the smaller the rate of non respondents was. But there was also a big difference of knowledge about the oldest and youngest NPD because the rate of correct answers is smaller in the case of the youngest NPD and the rate of non respondents was much higher in this category.

When I examined the connection between naming the youngest NPD and listing the NPDs the Cramer V=0.49 value showed a medium significant connection (p=0.001) (Tab. 6). 76.5% of the respondents who could name all the 10 NPDs precisely knew that the Őrség was the youngest. A great majority of those (63.6%) who listed 9 gave a correct answer. Below these values 6-18% could name the youngest NPD correctly but most of them in these categories did not even answer (68-100%). The rate of the wrong answers was between 0-18%. The value of λ is 0.361 (p=0.010), which means that the chance that we can guess whether the person knows the youngest national park can be improved by 36.1%, if we know how many directorates he can list correctly.

Table 6 Variables indicating significant connection with the name 'youngest National Park'

<table>
<thead>
<tr>
<th>Criterion</th>
<th>$\chi^2$</th>
<th>Cramer -V</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>5,038</td>
<td>0,195</td>
<td>0,081</td>
</tr>
<tr>
<td>Number of National Park Directorates</td>
<td>16,332</td>
<td>0,249</td>
<td>0,012</td>
</tr>
<tr>
<td>List of National Park Directorates NPI-k felsorolása</td>
<td>64,814</td>
<td>0,495</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: edited by author
We can conclude that the recognition of the oldest national park is more of the part of general knowledge and even those who do not know national parks very much could name it correctly. The recognition of the youngest NPD reflects a deeper knowledge because people who could name it (64-77%), could list the NPDs correctly or almost correctly. Those who could list 8 NPDs the rate of mistakes is rather high, (15% of them could give a correct answer) and the rate of non respondents also increased (from the previous 18-36% to 73%).

I was given a mostly correct answer (66.6%) to the question: ‘Which national park directorates is located closest to your place of living?’ (Fig. 5). Regarding evaluation this question took up most of the time because in personal questions first I connected the place of living to the county and then to the NPD and I compared this with the answers to this question. The reason for this is that I did not want to influence the answers in any way. 80 people knew which NPD territory they lived in, 22 people (16.7%) gave the wrong answer, however most of them could determine the geographical area but they had problems with the name of the directorate, I had to face this problem at the 2nd question too. 30 people did not answer.

**Figure 5** The distribution of naming the national park directorate nearest to the place of living

Naming the closest national park directorate does not depend on any other variables, only on the respondent’s place of living – as I have expected I – this connection is indicated by the significant value of the Pearson $\chi^2$.

When I examined the connection between naming the closest national park directorate and the place of living, the Cramer V=0.47 value showed a medium significant connection (p=0.000) (Tab. 7). At least half of the respondents knew which national park territory their place of living was located in. Zala (62.1 %), Somogy (55.6 %), Baranya (50 %), Vas (90 %),
Veszprém (83.3 %), Csongrád (50 %), Tolna (50 %), és Bács-Kiskun (50 %). Most wrong answers came from the inhabitants of Zala and Somogy counties, while three quarters of the inhabitants of Komárom-Esztergom and Pest counties did not even answer. The value of $\lambda$ is 0.231 ($p=0.004$), which means that the chance that we can say about somebody correctly that he knows his local NPD can be improved by 23.1% if we know where he lives.

**Table 7** Variables indicating significant connection with the name ‘closest National Park to the place of living’

<table>
<thead>
<tr>
<th>Criterion</th>
<th>$\chi^2$</th>
<th>Cramer -V</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of living</td>
<td>59,399</td>
<td>0,474</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: edited by author

My next question was: ‘**Could you list sights and attractions in your local national park directorates?**’ The name of the NPD and its sights were not needed, I simply wanted to get information about the region of their homes. More than half of the respondents (74 people, 56.1%) could name the sights of their place of living, however 54 people (41%) got frightened of the question and did not answer (Fig. 6). Listing the sights has no significant connection with any other variables.

**Figure 6 Distribution of listing the sights of the National Park close to the place of living**

Source: edited by author

2. **Students at the Georgikon Faculty go hiking and most of them prefer individual programs**

The second part of my questionnaire focused on information about hiking habits. The question ‘**Do you go hiking?**’, was not answered by 1 person, 15 people (11.4%) never go hiking, however 87.9% (116 people) of the respondents do (Fig. 7). There is not any variable that shows significant connection with hiking habits.
Figure 7 Do you go on outings or hiking?

Next question: ‘If you do, do you prefer organized trips or individual relaxation?’ The results are as follows: 12 people (9.1%) prefer organized trips, while the majority, 89 people (67.4%) like individual trips and 12% is fond of both individual and organized trips alike (Fig. 8). The majority of students do not seem to rely on other people to organize the trip, they do it individually.

The preference of organized and individual trips does not depend on any variables only on the fact whether the respondent go hiking regularly or not, the connection is indicated by the Pearson $\chi^2$ significance value.

Figure 8 Distribution of the preferences of organized trips or individual trips

When I examined the connection between the preference of organized and individual trips and hiking habits the Cramer $V=0.69$ value showed the upper level of a medium strong connection ($p=0.000$) (Tab. 8). According to some sources this connection is rated as very strong. 9.5% of those who like hiking prefer organized trips, 75.9% likes individual forms and
13.8% cannot make a difference. People who do not go hiking regularly (66.7%) do not prefer either of the two. Examining the \(\lambda\) values, if hiking is our dependent factor, its \(\lambda\) value is 0.750 (\(p=0.001\)) that is our chance to evaluate the person’s hiking habits can be improved by 75% if we know which form of hiking he prefers. The cause-effect relation is obvious if someone prefers organized or individual trips he probably goes hiking more or less frequently. If the chosen form is the depending factor the value of \(\lambda\) is 0.233 (\(p=0.003\)), which means that our chance to say about somebody whether he likes organized or individual trips can be improved by 23.3% if we know whether he goes hiking regularly or not.

**Table 8** Variables indicating significant connection with organized or individual hiking trips

<table>
<thead>
<tr>
<th>Criterion</th>
<th>(\chi^2)</th>
<th>Cramer -V</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you regularly go hiking</td>
<td>127,994</td>
<td>0,696</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: edited by author

3. The students of the Georgikon Faculty do not often take part in the programs the national park directories offer

My next question: Do you take part in the programs organized by the national park directorates? The result is not surprising the previous answers showed that 9% of the hikers (11 people) like organized trips. Only 13 people, 11.2% of the hikers and 9.8% of the interviewees have ever taken part in programs organized by the national park directorates (Fig. 9).

**Figure 9** Distribution of the participation in programs organized by the National Park Directorate

Source: edited by author
My last question: ‘If you do, what kind of programs do you take part in and how often?’
It was a relevant question for only 13 people. There was only one person who could be regarded eco-tourist following the real sustainable aspect, because he takes part in the different programs organized by the national park directorate monthly, for example eco trips, bird ringing, rescuing frogs and lectures. He is the so-called hard eco-tourist (Weaver, 2005). The other 12 people take part in organized trips like these once a year mostly in hiking, camps and bird watching. The main aim for most of them is the excursion (9 people). They are the so-called soft eco-tourists (Weaver, 2005).

DISCUSSION

1. The knowledge of the students in Georgikon Faculty about national parks is insufficient before starting their studies in this field.
40 (30.3%) students out of 132 respondents knew correctly that we have 10 national park directories but only 17 students 12.9% of the respondents could list them correctly. The question: which is our oldest and youngest national park remained unanswered by more than 60%. 36 students (27% of the respondents) answered correctly that Hortobágy National Park is the oldest and 29 of them (22%) knew that the Őrség National Park is the newest. 60.6% could identify the national park in their own place of living. Very often the official name was the problem and not the geographical location. More than half of the respondents (56%) could list supply elements in the directory of the park in their settlement. Knowledge is really insufficient but youths have a lot of information about national parks, on average they can list half of the national parks.

2. Students in the Georgikon Faculty go hiking regularly and the majority of them like individual relaxation.
According to the questionnaire survey youths like hiking (87.9%) and the majority of them (67.4%) prefer individual relaxation to organized trips.

3. The students of the Georgikon Faculty do not often take part in the programs the national park directories offer.
One fifth of the responding youths go hiking in organized trips therefore it is not surprising that only few of them (9.8%) took part in the programs organized by the national park directories.
CONCLUSION

The results of the study show that taking aim at the future eco-tourists, the present young adult age group is an important task. Young people have a lot of knowledge about national parks, they like relaxing outdoors but the programs organized by the national park directorates are not very popular with them. In my opinion aimed marketing and special programs could increase the young people’s interest. These organized programs should be more attractive or alternative program opportunities should be offered where they can select their own program packages to provide a sense of individuality.

REFERENCES


Tóth, É. (2010b). Turisztikai vizsgálatok a Duna-Dráva Nemzeti Parkban, XVI. Ifjúsági Tudományos Fórum, Keszthely.


www.ecotourism.org
http://sdt.unwto.org/content/ecotourism-and-protected-areas