

MENDEL UNIVERSITY IN BRNO

Czech Society of Landscape Engineers – ČSSI, z.s.,



and

**Department of Landscape Management
Faculty of Forestry and Wood Technology
Mendel University in Brno**



Public recreation and landscape protection
—
with sense hand in hand!

Conference proceedings

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of Libor Jankovský, the Dean of the Faculty of Forestry and Wood Technology, Mendel
University in Brno,
of Klára Dostálová, the Minister of the Regional Development CZ,



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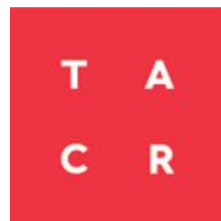
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OPINIONS AND PREFERENCES OF SINGLETRAIL USERS – A SUMMARY OF THE RESULTS OF A QUANTITATIVE SURVEY

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Abstract

The presented paper came into being as an output of the project named Conditions for the harmonious alignment of biking in the forest environment with the interests of nature conservation and regional development (TL02000505). Mendel University in Brno is the main project researcher, SocioFactor Ltd. and NAKOLO Ltd. companies are the co-researchers. The study presents results of a quantitative part of the research carried out by the SocioFactor company in the year 2020. A questionnaire survey was chosen as a technique of data collection, which dealt with the preferences of cyclists as well as with their behaviour on the singletrail track. The questionnaires were distributed in the form of CAWI, i.e., through an online questionnaire using the Click4survey tool. The questionnaire contained both closed and open-ended questions, which provided the respondents with sufficient space to express themselves. The questionnaire contained 28 questions that focused on several topics. Such topics were, for example, the preferences of cyclists for the shape of the singletrail, the economic side of using it, or questions concerning the influence of the singletrail on environmental changes. The total number of completed questionnaires is 646. The results of the analysis are presented in the study in comprehensive graphs and tables that were created during the data analysis in the SPSS software.

Key words: questionnaire survey, preferences of cyclists, singletrail and environmental changes

Introduction

The conference paper came into being as an output of the project named Conditions for the harmonious alignment of biking in the forest environment with the interests of nature conservation and regional development (TL02000505) that was supported by the TL – Program for the Support of Applied Social Sciences and Humanities Research, Experimental Development and Innovation ÉTA. The conference paper presents outcomes of the quantitative part of the research that was conducted by SocioFactor in 2019-2021. That part of the research was focused on the preferences of cyclists, their behaviour on the trail, economic side of the use of the singletrail and on questions connected with the impact of the singletrail on changes in the surrounding nature.

Methodology

Both the quantitative and the qualitative data collection were carried out within the project. In the qualitative part of the research, we focused mainly on interviews with stakeholders who are directly affected by the operation of singletrails. Stakeholders included (1) representatives of the management of the municipality where the singletrail is located, (2) entrepreneurs, (3) operators of individual singletrails, (4) hunters whose hunting grounds are a part of the territory where the singletrail is located, (5) local citizens who live in municipalities in the immediate vicinity of the observed singletrails, (6) cyclists who ride singletrails, and (7) tourists. A total of 182 semi-structured interviews were conducted within the qualitative part of the research.

The quantitative part of the research, the results of which are a part of the presented paper, dealt with cyclists' preferences, their behaviour on the track, and the economic issue of riding singletrails, or questions about the influence of the singletrail on changes in the surrounding landscape. The questionnaire survey technique was used to collect the data; the questionnaires were distributed in the form of CAWI, i.e., through an online questionnaire using the Click4survey tool. The questionnaire contained both closed-ended and open-ended questions, which provided the respondents with sufficient space to express themselves. The questionnaire contained 28 questions that focused on several topics. In the first quarter of the year 2020, a questionnaire survey was designed, followed by a pilot questionnaire, after which the questionnaire was modified to the final form. The main period of conducting the survey was from May 25 to August 19, 2020; the total number of completed questionnaires was 646, and the return rate of the questionnaire was 41%. The average response time was 13 minutes and 20 seconds.

Data analysis was performed in the statistical software IBM SPSS Statistics and in the Microsoft Excel programme. Respondents were also asked to provide their email address. Consequently, all completed questionnaires containing an email address, were filtered, and only those respondents, who had an experience with riding singletrails abroad and, at least once, cycled singletrails in all three

monitored localities - i.e., Jedovnické trails, Mariánské valley trails and Rychlebské trails, were contacted by email. They were requested to provide a telephone interview, the aim of which was to compare their experiences with singletrails in the Czech Republic and abroad. Eleven respondents took part in the telephone survey.

Results

The questions in the questionnaire survey are divided into several topics, the results of which are subsequently presented. These topics include: (1) cycling preferences, (2) the impact of singletrails on changes in the surrounding landscape, (3) cyclists' behaviour on the trail, and (4) finances. The following text presents brief results of the survey, and is divided according to the above mentioned topics.

Cycling preferences

At first respondents were asked whether they only cycle singletrails in the Czech Republic, or if they also ride them abroad. Less than two thirds of respondents (61%) stated they cycled singletrails only in the Czech Republic; more than a third of them (39%) also went abroad. Another question focused on how long respondents had been cycling singletrails. A majority (43%) stated they had been cycling them for more than five years; only 5% of respondents had been riding them for less than a year. Then they were asked in which season they cycled singletrails. Most respondents (97%) stated they cycled them in summer; 91% of cyclists rode singletrails in spring and autumn. The most popular day for cycling singletrails is Saturday (91%); the least popular day is Tuesday, when only 23% of cyclists go on them. We also asked respondents which environment they preferred for singletrails. More than a quarter of them (27%) expressed their preference for banked turns and bumps, another 23% of them preferred undulating terrain for pumping and jumping. One fifth of respondents (20%) preferred rocky and boulder paths. Regarding preferences for the track difficulty, most respondents (44%) preferred the routes marked in red, a quarter of them (25%) preferred the most demanding black marked circuits, and less than a quarter of them (24%) preferred circuits marked in blue. As for preferences, cyclists were to express their idea what the ideal singletrail should look like. This question was open, so here are just a few examples of respondents' statements: "Ideally, at least one singletrail near each county town, near each skill centre for teaching children and adults, various levels of complexity of obstacles, an available hose for washing bicycles", "The complex should have some facilities. Trails should be non-violently integrated into the surrounding landscape, using as little heavy forestry machinery as possible. I prefer trail centres where I can climb the hill; ideally, a combination of a flow trail and a more technical one. The trail difficulty should range from beginners to experienced bike riders." I would imagine singletrails near every large town with more than 50,000 inhabitants so that children have an opportunity to spend more time doing sports outdoors in the fresh air. Each such a singletrail centre should have at least three circuits, from easy to demanding ones". If we should summarize the answers, they most often demand that a singletrail has adequate facilities, that each area offers several circuits with a various range of difficulty and length of the trail. Respondents frequently stated they would like to have a larger number of singletrail circuits throughout the Czech Republic. They consider it important that the singletrail fits into the surrounding landscape and should be adapted to it by its length and difficulty. Requirements for length and difficulty varied among respondents - some of them preferred less technical circuits and faster descents, while the others preferred slower and more technical tracks. Following this, we asked respondents whether the diversity of singletrails (different length circuits, difficulty) is more important to them than their availability (distance from the place of residence). More than half of them (53%) said both were equally important to them. For less than a third of them (31%), the diversity of singletrails was more important than the distance from their places of residence. This was confirmed by the results of another question in which we asked how far from the place of residence the respondents would be willing to commute on singletrail. Within a daily trip, more than half of respondents (51%) were willing to commute more than 20 km, more than a third of them (35%) were willing to commute 10-20 km, and another 14% of them would commute only up to 10 km. Within a weekend trip, more than four fifths of them (81%) were willing to commute more than 50 km; nine tenths of respondents (90%) would be willing to go for a singletrail more than 100 km on holiday.

The influence of singletrails on changes in the surrounding landscape

The respondents were asked whether, according to them, there might be some changes in the surrounding landscape due to the operation of singletrails. The first question was whether the operation on singletrails could lead to mammals' disturbance. More than a third of respondents (37%) believe singletrails might disturb mammals, while more than half of them (52%) think the opposite. Another 10% of respondents could not judge. We also asked whether birds might be disturbed due to

the operation on singletrails. A fifth of them (22%) thought so, almost three quarters of them (71%) disagreed, and less than a tenth of them (7%) could not assess that. Another question concerned amphibians' disturbance. Less than a fifth of respondents (17%) believe amphibians' disturbance might occur due to singletrails, but almost three quarters of them (71%) do not think it occurs. Another 12% of respondents were not able to assess the situation.

Another question of the questionnaire survey was focused on the landscape destruction due to singletrails. Only 6% of respondents believe that singletrails destroy the surrounding landscape, but more than nine tenths of them (91%) think the opposite. The remaining 3% of them stated they could not assess the situation. Another question aimed at finding out whether the flora in the vicinity of singletrails was endangered. Less than a tenth of respondents (8%) think that yes, less than nine tenths of them (88%) believe singletrails do not endanger the flora, and the remaining 4% of them cannot assess the situation.

If singletrails have an effect on changes in the surrounding landscape, then, according to the respondents, they most often cause mammals' disturbance (37%). According to almost three quarters (71%) of respondents, there is no disturbance of birds and amphibians; and more than nine tenths of respondents (91%) do not think singletrails have an effect on the landscape destruction at all. Less than nine tenth (88%) of them believe singletrails do not endanger the surrounding flora.

Cyclists' behaviour on the track

In connection with the previous range of questions, respondents were asked whether they would be willing to limit themselves when descending singletrails, either in terms of time (limited operating hours of singletrails) or in terms of location (closure of circuits due to protection of fauna and flora). Almost three quarters of them (72%) stated they were willing to limit themselves in terms of time and location, 11% of them were willing to limit themselves in terms of time, 9% of them would prefer to limit themselves in terms of location. Less than a tenth of them (8%) stated they would not be willing to limit the use of singletrails at all due to nature conservation.

Do respondents know the operating rules of individual singletrails and do they follow them? It was the next question of the questionnaire survey. More than nine tenths (91%) of respondents stated they knew the operating rules and complied with them. Only 5% of them stated they knew the operating rules but did not follow them, and 4% of respondents did not know the operating rules at all. In the next question, respondents were asked if they travelled off the official singletrails lines. Almost three quarters of respondents (74%) stated they travelled off the official singletrails lines; the remaining 26% of them did not.

We also asked respondents if they ever had a conflict with someone on the singletrail. More than four fifths of them (84%) did not have a conflict with anyone. Only 5% of respondents had a conflict with other users, 2% of them had a conflict with hunters and forest keepers, 1% of them came into a conflict with singletrails operators. Another 8% of respondents experienced a conflict with someone else, most often with pedestrians.

Another question was focused on the importance of having the Base in the vicinity of singletrails. The answers of respondents were very balanced - 51% answered yes, 49% of them did not consider it important.

Finances

Regarding finances, we asked respondents whether they were willing to pay for riding singletrails. More than half of them (51%) would agree to charge singletrails for a one-time admission fee (per day or weekend). Less than a fifth of them (18%) would agree with the annual fee, 15% of respondents would agree to pay a monthly fee, and less than a fifth (16%) refused to pay any charge at all.

We also asked respondents whether they had their own equipment for riding singletrails, and how much money they spent on their own cycling equipment on average. Almost all respondents (99%) stated they had their own equipment, only 1% of them borrowed it from friends. As for expenses, a majority of cyclists (31%) spent on average 6,000 – 10,000 CZK on equipment per year; 24% of respondents spent 1,000 – 5,000 CZK; a fifth of them (20%) spent 11,000 – 20,000 CZK; 13% of them spent 21,000 – 50,000 CZK. Less than a tenth of respondents (9%) spent more than 50,000 CZK on equipment annually, and the least of them (3%) spent less than 1,000 CZK a year.

Furthermore, respondents were asked with whom they most often rode singletrails, and how much money they spent during their visit. More than half of them (55%) stated they cycled singletrails mostly with friends and acquaintances; the second most frequent answer was that they went alone (17%). 14% of respondents rode singletrails with their partners, and another 11% of them went with their family and children. For a one-day visit of singletrails, respondents spent approximately 500 CZK. When they were there for the weekend, which according to the questionnaire survey was done by

69% of respondents, they would spend on average approximately 2,000 CZK per visit. We also asked them how much they would spend on singletrails on holiday. More than half of respondents (56%) stated they had never spent a holiday on singletrails. Those respondents (44%) who did it spent approximately 6,500 CZK on average.

The questionnaire survey shows that more than four fifths of respondents (84%) are willing to pay for riding singletrails; most often a daily or weekend admission fee. In fact, all users of singletrails have their own equipment, for which they spend an average of 6,000 - 10,000 CZK / a year. More than half of respondents (55%) mostly cycle singletrails with friends. They usually spend an average of 500 CZK on a one-day visit, an average of 2,000 CZK on a weekend, and an average of 6,500 CZK on a holiday.

Discussion and conclusion

As it was done with the qualitative part of the research, it would also be appropriate to link the results of the questionnaire survey with the results reached by the main researcher of the project – the Mendel University in Brno. In particular, the part dealing with the influence of singletrails on changes in the surrounding landscape should be a matter of the link. The research shows that if singletrails' riders perceive that tracks have an impact on the surrounding landscape, they most often perceive it in connection with disturbance of mammals. Even so, more than half of cyclists do not think singletrails disturb mammals at all. In addition, this part of the research can be linked to the results of the qualitative survey, in which the disturbance of game was pointed out by forest keepers as one of the biggest problems of singletrails.

The qualitative part of the research also showed that forest keepers very often complain about undisciplined cyclists who ride off the marked tracks of singletrails. In the questionnaire survey, almost three quarters of respondents (74%) stated they travelled off the official singletrails lines, which may support the claims of forest keepers. The connection of the quantitative and qualitative part thus occurs in the topic of conflicts, which resonated strongly, especially in the qualitative part of the research.

Thanks to the interconnection of all levels of the project, it is obvious that the topic of the influence of singletrails on the surrounding landscape resonates on many levels, and each group of communication partners perceives it differently. The gradual comparison of the results of both research teams is to contribute to the description of the situation in real life. This will provide a complex and comprehensive outline of the impact of singletrails on the surrounding landscape, and it will also show which conditions are needed for a harmonious combination of cycling in the forest environment with the need for nature conservation.

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Souhrn

V rámci projektu Podmínky pro harmonické skloubení cykloturistiky v lesním prostředí s potřebami ochrany přírody a rozvoje regionů (TL02000505), který byl podpořen v programu TL – Program na podporu aplikovaného společenskovedního a humanitního výzkumu, experimentálního vývoje a inovací ÉTA a jehož spoluřešitelem je firma SocioFactor s.r.o., proběhl v roce 2020 celorepublikový kvantitativní výzkum. Kvantitativní část výzkumu byla zaměřena na preference cyklistů, na jejich chování na trati, dále pak na ekonomickou stránkou využívání singletrailu či na otázky týkající se vlivu singletrailu na změny v okolní přírodě. Sběr dat probíhal pomocí techniky dotazníkového šetření.

Poměrně zajímavé výsledky přinesla část dotazníku věnovaná vlivu singletrailů na změny v okolní přírodě. Cyklisté se podle získaných dat ve většině případů nedomnívají, že singletraily mají dopad na změny v okolní přírodě nebo že provoz singletrailů přispívá k rušení okolní zvěře. Pokud mají singletraily vliv na změny v okolní přírodě, nejčastěji mají podle respondentů vliv na rušení savců (37 %). K rušení ptáků a obojživelníků pak podle téměř tří čtvrtin (71 %) dotázaných nedochází, více než devět desetin respondentů (91 %) si pak nemyslí, že singletraily mají vliv na ničení krajiny. Necelých devět desetin (88 %) oslovených si pak myslím, že singletraily neohrožují okolní flóru.

Tato část výzkumu se dá provázat s výsledky kvalitativního šetření, které firma SocioFactor uskutečnila v rámci tohoto projektu letech 2019-2021 a ve kterém bylo rušení zvěře myslivci označeno jako jeden z největších problémů singletrailů. Rušení zvěře vede k celé řadě konfliktů, ať už v rovině myslivci – uživatelé singletrailů či myslivci – provozovatelé singletrailů. Díky propojení všech rovin

projektu je tak patrné, že téma vlivu singletrailů na okolní krajinu rezonuje v mnoha rovinách a každá skupina komunikačních partnerů ho vnímá jinak. Postupné srovnávání výsledků výzkumných týmů řešitelů projektu poskytne ucelený a komplexní pohled toho, jaký vliv mají singletraily na okolní krajinu a jaké podmínky jsou potřebné pro harmonické skloubení cykloturistiky v lesním prostředí s potřebou ochrany přírody.

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