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Witold Warcholik

Tourist products buyers in the Luboń Wielki area

Abstract

The article presents segmentation of tourist products buyers in the Luboń Wielki area. The results are shown in the context of attempts to create market for tourist services in Beskid Wyspowy. Tourist profile was created based on the monitoring of tourism traffic and surveys, including the perception of the image of this part of the mountains. Elements registered as essential in the planning and development of tourist services are: the existence of two peaks in the daily presence of tourists, predominance of individual hikers, specialisation for cycling routs and the close relationship between the intensity of tourist traffic and meteorological conditions. There are significant differences in terms of planned and actual traffic on tourist routs, without relation to the location near the potential tourist attractions. Tourists more often consider as such PTTK shelters and approach of the Rabka spa, than for example, the values of Inanimate Nature Reserve of Luboń Wielki.

Key words: Beskid Wyspowy; Luboń Wielki; tourism; tourist product; tourist profile; tourist traffic

Introduction

There is an increasing number of detrimental effects on the environment and therefore those aspects of anthropopresion should be monitored. The monitoring process should be focused on the intensity of tourists traffic, changes in its distribution in space, tourist's profile and preferences as well as research on its influence on local economy. Tourism in the mountain areas, characterised by increasing indexes of co-existing services, is often seen as a mass, wild-spread occurrence (Warcholik, Senczuk 2011). One of the example areas with the intense anthropopresion is Beskid Mountains, including Beskid Wyspowy, with its fast developing, qualified and mass, mountain tourism. It is the part of Beskid Mountains that is relatively easy to reach for tourists. Its landmark is Luboń Wielki, with the only one existing PTTK (*National Polish Tourist Association*) mountain shelter in this region (Matuszczyk 2004).

The results of research on tourist traffic in Luboń Wielki region are presented below. This research was conducted in 2013 and led to conclusions on the intensity

of tourist traffic and its distribution in space. The author could also single out the parts of tourist routes with the highest rank of tourists attendance. Additionally, information about the tourist profile and perception of the Luboń Wielki area among tourists and visitors has been gained. The main reason for segmentation of tourist product buyers was to help with creating the market for tourists services, especially meant by the range and kinds of services.

The research on structure and scale of tourism traffic in the mountain areas in Poland are carried out mainly in protected areas, e.g. Pieniński National Park (Fischbach, 1985; Warcholik, Majewski, Kiszka 2010), Tatrzański NP (Baścik, Czubernat, Pociask-Karteczka 2007; Czubernat 2005; Marchlewski 2005), Gorczański NP (Popko-Tomasiewicz 2007; Semczuk 2012), Bieszczadzki NP (Prędko 2006), Babiogórski NP (Arcikiewicz 2012; Hibner 2013), Magurski NP (Mrocčka, Krauz 2010), Góry Stołowe NP (Prószyńska-Bordas 2008) and Karkonoski NP (Wieniawska-Raj 2007). Large number of articles investigates tourists' impact on the environment in many different regions of Polish mountains, and is based on the studies on the anthropopression on the relief (Czochoński 2000; Fidelus 2008; Gorczyca 2000; Kasprzak 2005; Krusiec 1996; Łajczak 1996; Szydarowski 2000; Wałykowski 2006), soil (Czapski i Mizgajska 1996; Degórski 2002; Łajczak 1996; Prędko 2002) and flora (Guzikowa 1982; Skawiński 1993; Skawiński, Krzan 2002).

The survey took place in 2013 over the course of 11 days (15–22nd Sept., 2nd Nov., 3rd Nov., 1st Nov.), ten hours per day, constantly between 9 am and 6 pm.; 1628 tourists and visitors were surveyed. The monitoring process took place during holidays, when the intensity of tourist traffic is high, but during regular working days as well. The numbers of tourists were noted in 15 min. periods.

In the questionnaire there were questions about the direction tourists came from and their destination. Information about large groups and the groups led by the mountain guides were also contained. In the Luboń Wielki area it's impossible to estimate the number of tourists based on the number of tickets and there are no automatic recorders on the slopes. Two hundred respondents were questioned in order to gain information to build a tourist profile. Counting tourists and questioning has been conducted in two places, overlooking 100% of tourist traffic in the Luboń Wielki area:

- on the top of Luboń Wielki, where the blue trail from Naprawa meets the blue trail from Rabka and the green trail from Rabka,
- close to the top of Luboń Wielki, where the red trail from Naprawa joins the yellow trail from Rabka.

The intensity of the tourist traffic in the Luboń Wielki area

The tourist traffic in Luboń Wielki area is created by both the visitors, constituting 60% of people registered with monitoring (one – day visitors in Beskid Wyspowy, as declared by 40% of people questioned) (table 1) and tourists. The latter group declared their stay in the area as lasting for: a weekend – 18%, 3–7 days – 10% and more than 7 days – 8% of them. The inhabitants of the communes in the Luboń Wielki area constituted 5% of the people registered on the upper part of the mountain.

During the whole period of the survey, only 11,1% of the tourists were organized groups.

In the case of Luboń Wielki tourist traffic can be considered as uniform; there are no parts of the tourist trails with significantly heavier traffic, stating disadvantageous situation and being noticed in many parts of the mountains in Poland.

Tab. 1. The duration of stay of the tourists in Luboń Wielki area [%] L – the summit of Luboń Wielki, BW – Beskid Wyspowy

The origin of tourists/ visitors (voivodeship)	1 day		weekend		3-7 days		More than 7 days	
	L	BW	L	BW	L	BW	L	BW
Dolnośląskie	5	0	15	11	0	14	8	7
Lubelskie	1	0	0	0	0	0	0	7
Łódzkie	2	0	0	7	0	0	0	0
Małopolskie	78	93	59	61	43	31	23	50
Mazowieckie	2	0	11	7	21	11	8	7
Opolskie	2	0	0	0	0	6	0	0
Podkarpackie	1	0	0	4	0	0	0	0
Pomorskie	0	0	4	4	0	3	15	7
Śląskie	6	5	11	7	21	23	15	0
Świętokrzyskie	0	0	0	0	0	3	8	0
Warmińsko-Mazurskie	0	0	0	0	0	0	15	14
Wielkopolskie	2	2	0	0	14	9	0	0
Zachodniopomorskie	0	0	0	0	0	0	8	7

Source: Compiled by the author

During the period of this survey tourist traffic in the Luboń Wielki summit area could be depicted as stated below:

- 27,7% of the tourists used the red trail to hike up, which gives 41 pers/24 hours (maximum during the “long weekend” in August, 80 pers/24 h),
- 20,9% used the yellow trail (31 pers/24 h; “long weekend” 50 pers/24 h),
- 20,0% used the green trail (30 pers/24 h; “long weekend” 70 pers/24 h),
- 17,1% used blue trail Rabka – Luboń (25 pers/24 h),
- 13% used blue trail Naprawa – Luboń (19 pers/24 h; “long weekend” 50 pers/24 h).

Only 1% of tourists used unmarked trails, which gives 2 persons/24 h on average.

The red trail is considered as the main trail to hike up (table 2), while the highest percentage of tourists declared the blue trail Luboń Wielki – Rabka as the main route to hike down. The red and yellow trails have been most often chosen by organised groups.

Tab. 2. Hike up and hike down trails in the Luboń Wielki area during the survey period (15-22.08.2013, 2.11.2013,3.11.2013,11.11.2013)

The trail	Tourists and visitors			
	The number of hikers up	% hikers up	The number of hikers down	% hikers down
Red	452	27.8	378	23.2
Yellow	341	20.9	256	15.7
Green	326	20.0	332	20.4
Blue (R)	280	17.2	448	27.5
Blue (N)	212	13.0	205	12.6
Off the trail	17	1.0	9	0.6
Summary	1628	100.0	1628	100.0

Source: Compiled by the author

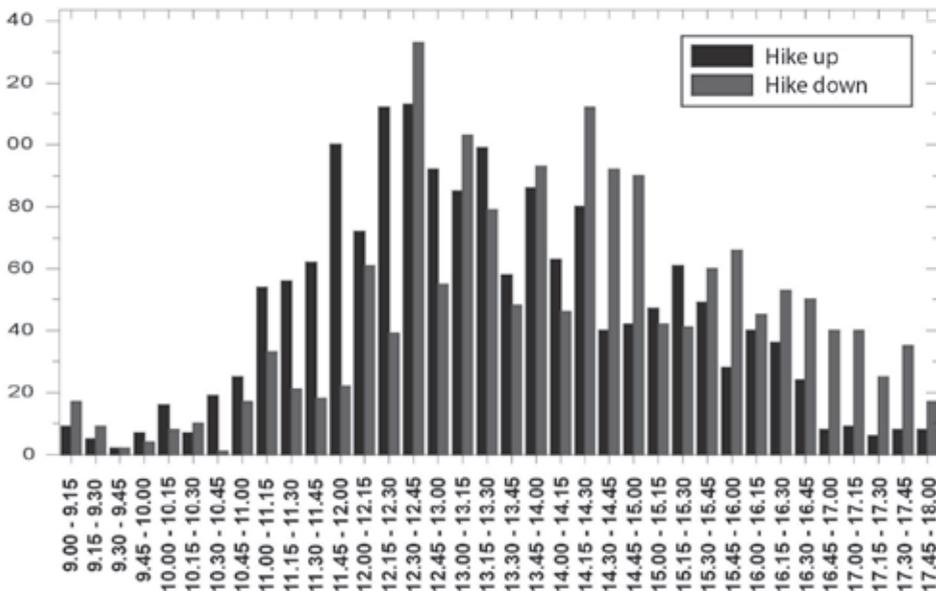


Fig. 1. The intensity of tourist traffic in the Luboń Wielki area (monitored 15-22.08.2013, 2.11.2013, 3.11.2013, 11.11.2013)

Source: Compiled by the author

During the investigated period the highest intensity of tourist traffic in the Luboń Wielki area was noticed between 11.45 am and 4.00 pm (figure 1). The largest number of tourists hiking up was observed between 12.15 pm and 12.45 pm, while of those hiking down between 2.15 pm and 2.30 pm.

The domination of hikers down to hikers up before 9.30 am results from the fact that tourists staying overnight in the mountain shelter only start their trip. Until 1 pm hikers up are in majority, and afterwards the tourists and visitors leaving the

summit area. Around 3 pm the increasing number of hikers up has been noticed again (figure 1). Before 1 pm the general number of tourists is increasing, as they started their trip in the early morning hours and rest at the summit. Starting from around 3 pm the second rise in number of tourists is observed, and those are the ones who started their tips in early afternoon or execute long – way marches in the Beskid Wyspowy area. After 4 pm the number of tourists on the summit is constantly decreasing.

Bikers constituted only 2,9% of visitors during the surveyed period. Half of them used the blue trail from Naprawa to get to the summit, while 16,8% used red trail, 14,6% – green one and 12,5% used blue trail from Rabka. The most often chosen trails to run down Luboń Wielki were: the blue one to Naprawa (58%), the red one (27,1%), and the blue one to Rabka (8,3%). 6,8% of bikers used the off road paths.

One of the most important factors, affecting the intensity of tourist traffic during the period of the survey, was the weather. Comparing to the other mountain areas characterised in the literature, intense rainfalls had a relatively big impact on the reduced number of people on the trails. There was only one person visiting the Luboń Wielki summit on the 21st Aug. 2013 (to compare with the largest number of tourists on 15th Aug. 2013 – 431 people); the reason was intense rainfall during the monitoring period that day. The cloudless day of 15th Aug. 2013 was the beginning of so called “long weekend”, noticeably standing out in the tourists number statistics (table 3).

Tab. 3. The number of tourists and visitors on the Luboń Wielki summit in the following days: 15–22.08.2013, 2.11.2013, 3.11.2013, 11.11.2013

15.08	16.08	17.08	18.08	19.08	20.08	21.08	22.08	2.11	3.11	11.11
425	203	248	322	76	57	1	106	90	45	55

Source: Compiled by the author

Tourist profile and the perception of the image of Luboń Wielki

The average age of people on the Luboń Wielki summit was 37, and the oldest person was 76 years old. The largest group were tourists in the age group of 30–39 years old (40%) and the rest as follows: 20–29 y.o. (23%), 40–49 y.o. (23%) and 50+ (12%). This characteristic is similar to the other studies on the mountain areas in Poland (Hibner 2013; Prędko 2006; Wieniawska-Raj, 2007; Warcholik, Semczuk, 2011). What is distinctive in this particular case, is the low percentage of tourists younger than 20 years old (2%) in comparison to other areas of Polish mountains. The reason might be the low number of the organised school groups. The fact that Beskid Wyspowy is not very popular among the youngest tourists can be seen in the number of tourists born between 1986 and 1990, which is three times lower than the number of tourists born in the years 1981–1985 (table 4)

Tab. 4. Age structure [%] of the tourists and visitors on Luboń Wielki summit.

Before 1950	1951–1955	1956–1960	1961–1965	1966–1970	1971–1975	1976–1980	1981–1985	1986–1990	1991–1995
0.6	2.6	3.2	7.1	12.3	13.6	19.5	26.6	7.8	6.5

Source: Compiled by the author

Similar to other mountain areas in Poland with the trails relatively easy to hike, the gender ratio among tourists is nearly one to one (women – 51%, men – 49%). In the case of mountain areas in Poland, visibly lower percentage of women is noticed in the highest parts of Tatra National Park (Marchlewski 2005).

Tourists with a university education represent 73% of respondents (with high school education – 18%, with college and trade school education – 9%). These results can be confirmed by the research on other mountain areas in Poland (Arcikiewicz 2012; Hibner 2013; Prószyńska-Boras, Markiewicz 2011; Wieniawska-Raj 2007; Warcholik, Majewski, Kiszka 2010); when it comes to the Luboń Wielki case, it can be led from the small number of organised group, and among them school groups.

The structure of origin of the tourists on the Luboń Wielki summit confirms the results of the research conducted in the adjacent parts of the Carpathians (Hibner 2013; Prószyńska-Bordas, Markiewicz 2011; Warcholik, Kiszka, Majewski 2010). 69% of the people on the Luboń Wielki summit came from małopolskie voivodeship (table 5).

Tab. 5. The origin of tourists visiting Luboń Wielki summit

The origin (voivodeship) of the tourists/visitors.	Altogether %	Yellow trail %	Green trail %	Blue trail (R) %	Red trail %	Blue trail (N) %
Małopolskie	69.3	3	11	0	8	0
Śląskie	8.5	11	4	7	13	0
Dolnośląskie	6.5	11	4	7	5	0
Mazowieckie	4.6	61	61	75	66	100
Wielkopolskie	2.6	0	7	7	0	0
Pomorskie	2.0	3	4	0	3	0
Łódzkie	1.3	6	0	0	0	0
Warmińsko-Mazurskie	1.3	0	0	0	5	0
Zachodniopomorskie	1.3	0	0	4	0	0
Lubelskie	0.7	0	4	0	0	0
Opolskie	0.7	0	7	0	0	0
Podkarpackie	0.7	3	0	0	0	0
Świętokrzyskie	0.7	3	0	0	0	0

Source: Compiled by the author

When it comes to incidence of reaching the Luboń Wielki summit, predominance of first time hikers is easily noticed; those who came here for the second time constituted 16%, third time – 8% and 18% of tourists were there more than three times. This structure is similar to other parts of Beskidy Mts (Arcikiewicz 2012; Prędko 2006) but different from the parts of the visually attractive, monitored areas in national parks in Polish mountains. (Prószczyńska-Bordas, Markiewicz 2011; Hibner 2013). The arrangement of the tourist trails, converging at the destination point, gives the opportunity to reach the summit again in various ways (table 6).

Tab. 6. The incidence of visiting Luboń Wielki by the variants on the trails [%]

	First visit	Second visit	Third visit	Forth and more
Blue (R)	63.0	25.9	3.7	7.4
Green	62.1	10.3	6.9	20.7
Yellow	60.0	17.1	8.6	14.3
Red	55.3	13.2	13.2	18.4
Blue (N)	42.9	19.0	9.5	28.6

Source: Compiled by the author

The highest percentage of tourists staying overnight in the Luboń Wielki area or in Beskid Wyspowy in general stay for the night in Rabka Zdrój (42% of respondents), 14% stayed in Mszana Dolna, while others stayed in Lubień, Krzczów, Tenczyn, Naprawa and Szczyrzyc. Only 12% of tourists stayed overnight at the PTTK shelter on Luboń Wielki. As the shelter has only 25 beds (10 in the main building) its main role is gastronomical and being a shelter in case of difficult weather conditions.

Tab. 7. The localisation of accommodation points used by tourists reaching Luboń Wielki summit [%].

	Duration of stay		
	2 days	3–7 days	More than 7 days
Rabka-Zdrój	26.7	42.9	63.2
PTTK Shelter Luboń W.	16.7	17.1	10.5
Mszana Dolna	10.0	14.3	10.5
Others	46.7	25.7	15.8

Source: Compiled by the author

The quality of the accommodation has been evaluated as 7 in the 1–10 scale; the highest rating has been given to Rabka.

Public transport was sufficiently satisfactory for the tourists (the average rating 5.5). It was rated the highest by the tourists and visitors using the trails starting from Rabka and Naprawa, which are very well communicated with “Zakopianka”.

When it comes to the quality of the roads, the respondents in their opinions pointed good access to the starting points of the trails located close to “Zakopianka” (average rating – 6.5, the highest for the roads to Naprawa – 7).

The respondents rated relatively low the availability of parking places in the starting points of the trails to Luboń Wielki, the average rating was 4. During the periods of intense tourist traffic the number of parking places in the starting point of

the trails is highly insufficient. The best opinion has been given to the parking with the gastronomy points localised at the beginning of the blue trail from Naprawa. Considering the fact that this is the trail most often chosen by the tourists visiting the area more than once (table 6), the factors of public transport, roads quality and availability of the parking places should be recognized as very important to the process of creating tourist traffic in this part of Beskid Wyspowy.

The main factor influencing the choice of particular trail to Luboń Wielki are tourist attractions (37% of respondents). Tourists also take into consideration the time necessary to pass the trail to the very summit, communicative availability of starting points and the possibility of using different trails to hike up and down. Only one out of ten tourist does not think of the variants of the trails before starting hiking up.

To realise the criteria used to choose the trails, it is very important to understand and define the concept of a tourist attraction (table 8). In the questionnaire with open questions, 2/3 of the respondents mentioned as the main attractions: viewing panorama from the summit, PTTK shelter, close distance to Rabka Zdrój, and the availability of hiking trails. Wide clearings are an important attraction in the Beskid Wyspowy, as the peaks are in significant distance from one another, mostly wooded, with sparse viewing points (Mogielica, Miejska Góra, Jaworz). In the case of PTTK shelter, only few tourists mentioned the history and the rareness of the building having sleeping room with the windows overlooking the four quarters of the globe. When it comes to trails, tourists appreciated the variety of trails, which is not a common situation in the large parts of the Beskidy Mts. Rabka Zdrój, with its attractions, has been mentioned as the main accommodation area.

Tab. 8. The main attractions of Luboń Wielki area in the tourists' and visitors' opinion.

The attraction	% of opinions	The attraction	% of opinions
Panorama views	22.0	„Luboń Wielki” preserve	5.0
PTTK shelter	14.5	Vicinity of Chabówka	2.8
Rabka Zdrój Spa	11.7	Regional architecture	2.8
Availability of trails	10.3	Perć Borkowskiego	2.5
Neighbouring peaks of Beskid Wyspowy	8.1	Stone run (gołoborze)	1.7
Nature values	7.5	„Krzysie” clearing	1.4
Silence	5.6	Others	4.2
Others: short – wave transmitter, clear air, the rocks, local cusine, elevation			

Source: Compiled by the author

There were significant discrepancies between information about particular attractions in the documents on preserving strategies, as well as any kinds of promotional materials, and the actual knowledge tourists had. This includes the stone run (*gołoborze*), Perć Borkowskiego, panoramic “Krzysie” clearing (figure 2) and the “Luboń Wielki” preserve.



Fig. 2. Tourists on „Krzysie” clearing, heading Luboń Wielki

Source: W. Warcholik

The statistics presented above prove the fact that only a small percentage of tourists hiking up to Luboń Wielki summit familiarise themselves with a map of the region and the trails or gain any information about them. This statement can be supported by the way the tourists chose the trails: the yellow trail, with a lot of tourists attractions, was chosen as often as the red and blue ones, described in the literature as not that interesting and picturesque (Matuszczyk 2004). The number of tourists on particular trails (table 5) proves the thoroughness of choosing the interesting trails to hike the tourists coming from distant parts of Poland, in contrast to tourists from Małopolska, who have strictly recreational purposes.

Conclusion

Tourist traffic is a dynamic process, in particular the one-day kind of tourism, like every day, weekend or holiday rest. It has been proved by the results of the survey on tourist traffic in Luboń Wielki area presented above. Segmentation of tourists, based on the statistics containing only those who stayed overnight in the area at least once, in the registered accommodation places, gives a limited or untrue picture of the tourist traffic and tourist profile in the Beskid Wyspowy area. Therefore, it should be systematically supplemented by the results of the monitoring process. Apart from the traditional forms of tourism, like hiking, cross-country skiing and ski-touring (not monitored, as well as other forms of winter tourism), there are new forms of spending time actively in Beskid Wyspowy. People biking, horse riding, running or choosing nature trails constitute, however, a small percentage of those appearing at the Luboń Wielki summit. Excellent conditions for hiking – a dominating form of tourism in the area, should come along with the ability to use the natural values of the area. At the same time the process of tourist industry developing should

not impact the attractiveness of the area itself. In 2014 a new trail was marked – The Main Trail of Beskid Wyspowy “Beskid Islands” (*Beskidzkie Wyspy*). It is 320 km long and it joins 53 peaks including Luboń Wielki and 38 localities. It follows some old and some newly marked trails, and those who pass all the trails are awarded with a gold or a silver badge.

On the other hand, there would be the regulations of tourist traffic in Luboń Wielki consequential to the existence of “Natura 2000” and the “Luboń Wielki” preserve. Those regulations include: protection of the cave entrances and every-year monitoring of their conditions, removing litter and pollutants, modification of the yellow trail with installing new signboards, removing vegetation encroaching the scree as well as preserving beechwoods (*Dentario glandulosae-Fagetum*, *Luzulo nemorosae-Fagetum*) and fir-spruce forests in the lower wood section by necessary pruning and modifications of species composition.

The demographic segmentation does not give the full picture of preferences and behaviour of the tourists in the Luboń Wielki area. For that reason, the profile of a tourist has been completed with opinions, ratings and perception of tourist attractions. The most important elements of planning tourism servicing and management in Beskid Wyspowy, and in particular in Luboń Wielki area, are: two peaks in daily attendance of tourists on the summit, domination of individual hikers and close correlation between the number of tourists and the weather conditions. The most important observations include the differences between the spatial distribution and intensity of tourist traffic planned by the local authorities, and the real ones. At the same time there is no direct correlation between the intensity of tourist traffic on certain parts of the trails, and the location of the tourists attractions next to them.

Reference

- Arcikiewicz, A. (2012). Jaki turysta? Badania struktury ruchu turystycznego na terenie Babiogórskiego Parku Narodowego w 2010 roku. *Gazeta Górska*, 78, COTG PTTK, 15–17.
- Baścik, M., Czubernat, S., Pociask-Karteczka J. (2007). Tendencje ruchu turystycznego na obszarze TPN w latach 1993-2006. In: J. Pociask-Karteczka, A. Matuszyk, P. Skawiński (ed.), *Stan i perspektywy rozwoju turystyki w TPN*. Studia i Monografie, 46. Kraków-Zakopane, 121–130.
- Czapski, Z., Mizgajska, H. (1996). Biologiczne skażenie szlaków turystycznych Tatrzańskiego Parku Narodowego. In: Z. Krzan (ed.), *Przyroda Tatrzańskiego Parku Narodowego a Człowiek*, 3. Kraków-Zakopane, 46–47.
- Czochoński, J. (2000). Wpływ użytkowania turystycznego na rozwój procesów i form erozyjno – denudacyjnych w otoczeniu szlaków. In: J. Czochoński, D. Borowiak (ed.), *Z badań geograficznych w Tatrach Polskich*. Gdańsk: Wyd. Uniwersytetu Gdańskiego, 331–344.
- Czubernat, S. (2005). Turystyka w wysokogórskim środowisku Polskich Tatr. In: Z. Ładygin, B. Chovancova (ed.), *Monitoring ruchu turystycznego w Tatrach*. Wyd. TPN, 43–50.
- Degórski, M. (2002). Ocena wpływu antropopresji na wybrane właściwości pokrywy glebowej piętra subalpejskiego i alpejskiego w rejonie Kasprowego Wierchu. In: W. Borowiec, A. Kotarba, A. Kownacki, Z. Krzan, Z. Mirek (ed.), *Przemiany środowiska przyrodniczego Tatr*. Kraków-Zakopane: Instytut Botaniki PAN, 395–402.

- Fidelus, J. (2008). Rola ruchu turystycznego w przekształcaniu ścieżek i dróg turystycznych na obszarze TPN. *Prace Geograficzne IGIPZ PAN*, 120, Kraków, 20–29.
- Fischbach, J. (1985). *Wielkość i struktura ruchu turystycznego w Pienińskim Parku Narodowym*. maszynopis. Dyrekcja Pienińskiego Parku Narodowego.
- Gorczyca, E. (2000). Wpływ ruchu turystycznego na przekształcenie rzeźby wysokogórskiej na przykładzie Masywu Czerwonych Wierchów i Regli Zakopiańskich (Tatry Zachodnie). *Prace Geograficzne*, IGIPZ PAN, 105, 369–389.
- Guzikowa, M. (1982). Wpływ pieszego ruchu turystycznego na szatę roślinną Pienińskiego Parku Narodowego (wybrane zagadnienia, ze szczególnym uwzględnieniem skutków wydeptania). *Studia Naturae*, 22, 227–241.
- Hibner, J. (2013). Struktura ruchu turystycznego w polskich górskich parkach narodowych należących do sieci „Człowiek i Biosfera”, *Współczesne problemy i kierunki badawcze w geografii*. Kraków: IGiGP UJ, 73–88.
- Kasprzak, M. (2005). Tempo degradacji powierzchni dróg i ścieżek turystycznych w Karkonoszach Wschodnich. *Opera Corcontica*. 41, 17–30.
- Krusiec, M. (1996). Wpływ ruchu turystycznego na przekształcenie rzeźby Tatr Zachodnich na przykładzie Doliny Chochołowskiej. *Czasopismo Geograficzne*, 67(3–4), 303–320.
- Łajczak, A. (1996). Wpływ narciarstwa i turystyki pieszej na erozję gleby w obszarze podszczytowym Pilska. In: A. Łajczak, S. Michalik, Z. Witkowski (ed.), *Wpływ narciarstwa i turystyki pieszej na przyrodę masywu Pilska*, *Studia Naturae*, 41, 131–159.
- Matuszczyk, A. (2004). *Beskid Wyspowy. Ziemia ciągle obiecana*. Pruszków: Oficyna Wydawnicza „Rewasz”.
- Marchlewski, A. (2005). Badania ankietowe na terenie TPN-u. In: Z. Ładygin, B. Chovancova (ed.), *Monitoring ruchu turystycznego w Tatrach*, Wyd. TPN, 43–50.
- Mrocza, A., Krauz, K. (2010). Dobowa struktura frekwencji turystów w Magurskim Parku Narodowym, Krajobrazy rekreacyjne – kształtowanie, wykorzystanie, transformacja. *Problemy Ekologii Krajobrazu*, t. XXVII, 469–472.
- Popko-Tomasiewicz, K. (2007). *Turystyka na terenie Gorczańskiego Parku Narodowego – wyniki monitoringu ruchu turystycznego*. Maszynopis. Biblioteka GPN, Poręba Wielka.
- Prędko, R. (2002). Wpływ ruchu turystycznego na teksturę oraz właściwości wodne gleb w obrębie szlaków pieszych Bieszczadzkiego Parku Narodowego. In: J. Partyka (ed.), *Użytkowanie parków narodowych. Ruch turystyczny – zagospodarowanie – konflikty – zagrożenia*. Ojców: Wyd. Ojcowski Park Narodowy, 763–770.
- Prędko, R. (2006). Bieszczadzki Park Narodowy w świetle badań ankietowych turystów na szlakach pieszych w latach 2004–2005. *Rocznik Bieszczadzki*, 14, 285–297.
- Prószyńska-Bordas, H. (2008). Cechy ruchu turystycznego w Parku Narodowym Gór Stołowych i ich przemiany w okresie dziesięcioletnim w świetle badań ankietowych. *Turystyka i Rekreacja*, 12, 19–28.
- Prószyńska-Bordas, H., Markiewicz, J. (2011). Struktura ruchu turystycznego w Gorczańskim Parku Narodowym oraz ocena przygotowania obszaru do turystyki. *Studia i Materiały Centrum Edukacji Przyrodniczo-Leśnej*, 3(28), 160–166.
- Semczuk, M. (2012). Ruch turystyczny w Gorczańskim Parku Narodowym, *Ochrona Beskidów Zachodnich*, 4, 98–110.
- Skawiński, P. (1993). Oddziaływanie człowieka na przyrodę kopuły Kasprowego Wierchu oraz Doliny Goryczkowej w Tatrach. In: W. Cichocki (ed.), *Ochrona Tatr w obliczu zagrożeń*. Zakopane: Wyd. Muzeum Tatrzańskiego, 197–226.

- Skawiński, P., Krzan Z. (2002). Restytucja szaty roślinnej kopuły Kasprowego Wierchu w latach 1993–2001. In: W. Borowiec, A. Kotarba, A. Kownacki, Z. Krzan, Z. Mirek (ed.), *Przemiany środowiska przyrodniczego Tatr*. Kraków-Zakopane: Instytut Botaniki PAN, 407–411.
- Szydarowski, W. (2000). Rozwój form erozyjnych w otoczeniu szlaków turystycznych Tatrzańskiego Parku Narodowego. In: J. Czochoński, D. Borowiak (ed.), *Z badań geograficznych w Tatrach Polskich*. Gdańsk: Wyd. Uniwersytetu Gdańskiego, 315–328.
- Wałydkowski, P. (2006). Wpływ dróg górskich na dynamikę procesów morfogenetycznych w rejonie Turbacza. *Ochrona Beskidów Zachodnich*. 1, 67–79.
- Warcholik, W., Semczuk, M. (2011). Natężenie ruchu turystycznego w PPN. In: Z. Ziolo, T. Rachwał (ed.), *Przemiany struktur lokalnych i regionalnych sektora usług w latach kryzysu gospodarczego*. Warszawa-Kraków: Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Gospodarczego, 148-154.
- Warcholik, W., Majewski, K., Kiszka, K. (2010). Ruch turystyczny w Pienińskim Parku Narodowym. *Pieniny – Przyroda i człowiek*, t. 11, 149-156.
- Wieniawska-Raj, B. (2007). Dynamika ruchu turystycznego w Karkonoskim Parku Narodowym. In: J. Štursa, R. Knapik (ed.), *Geoekologické problémy Krkonoš*. Sborn. Mez. Věd. Konf., Svoboda n. Úpou, *Opera Corcontica*, 44(2), 593–602.

Biographical note of author: doctor of Earth Sciences, geodetic engineer, currently employed at the Department of Tourism and Regional Studies at the Pedagogical University of Cracow. Author of several publications on tourism, geomorphology, cartography and GIS, an avid Cracow fan, licensed Cracow city guide and a tour guide. Marathon runner, mountaineering enthusiast and photographer.

Witold Warcholik, dr
Uniwersytet Pedagogiczny w Krakowie
Zakład Turystyki i Badań Regionalnych
ul. Podchorążych 2
30-084 Kraków
warwitek@gmail.com