Motivations for Visiting Peri-urban Natural Areas

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Abstract — In the 21st century, tourism has become one of the most dynamic and fastest growing economic sectors in the world, being considered a decisive driver in job creation and local and regional economic development. In Portugal, this is, also, a reality. Additionally, sustainable tourism and protected areas can contribute with public benefits towards a better common future. This paper aims to identify visitors' motivations for a Portuguese protected area (PPA), the Vale do Tua Regional Natural Park (PNRVT). Data were collected through a questionnaire, with 395 respondents. From those, only 100 (34.7%) respondents indicated that they had already visited the PNRVT and were considered for the evaluation of motivations of this protected area. The data obtained were analyzed using Jamovi statistical program, using univariate and multivariate statistical techniques. From the results obtained, it is possible to conclude that visitors of PNRVT aim to learn/expand their knowledge and see a specific place.

Keywords - visitors' motivations; protected area; peri-urban natural area; PNRVT.

I. Introduction

One of the most dynamic and fastest growing economic sectors worldwide, in recent decades, has been tourism. This sector is considered a decisive factor in job creation and local and regional development. However, the competitiveness of tourist products and destinations strongly depends on natural and social resources. Still, while the competitiveness of tourism products and destinations relies heavily on natural and social resources, the environmental footprint of the tourism industry and its contribution to social inequalities are undeniable [1]. This work intends to contribute towards the necessary transformation to a more sustainable tourism that ensures a positive influence to the achievement of the UN Sustainable Development Goals.

In this sense, and considering the increased competition among tourism destinations, it becomes essential to identify why tourists choose to visit some destinations instead of others. Natural parks and other protected areas (PA) are popular destinations for people who want to enjoy nature-based leisure, travel, and ecotourism activities [2]. Indeed, despite the desire to enjoy the landscape, and nature in general, the broadening of knowledge and rest are considered ecotourism motivations, the motivations that lead people to visit PA are not homogeneous [3] and the ecotourism market is not homogeneous [4].

It is essential to identify the reasons of visiting tourists. Specifically, it seems important to know the perceptions and profile of potential visitors of concrete PA by understanding motivations and the importance given to resources, activities, equipment, and services.

This empirical study identifies visitors' motivations for a Portuguese protected area (PPA), the Vale do Tua Regional Natural Park (PNRVT), addressing the following research questions:

- RQ1 What is the profile of PA visitors?
- RQ2 Do motivations differ between different PA?
- RQ3 What motivates tourists to visit the PNRVT?

The article proceeds as follows. First, with the research background, a brief literature review is done about tourism in PA, and PA visitors' characteristics and motivations. Second, it presents the methodological approach and clarifies the data collection process. It also examines data and results obtained in this research. Finally, a discussion, conclusions, and implications for further research are drawn.

II. RESEARCH BACKGROUND

A. Tourism, Protected Areas, and Peri-urban Territories.

Tourism demand for protected and natural areas is growing as in the post-pandemic they are also associated with improved health and well-being [5], [6]. It has been claimed that the nature tourism industry is growing faster than the tourism industry, as a whole [2], [7], [8]. Nature tourism, which also includes visits to protected areas, can be defined as a recreational activity in natural physical environments [8], [9]. Protected areas are popular destinations for people who want to participate in nature-based leisure activities [2].

Exceptionally and globally, major cities and towns are surrounded by peri-urban areas - which are neither rural nor urban [10]. Visiting peri-urban areas has attracted some academic attention, with studies focusing on its proximity to urban centers, conflicts between users of different activities, as well as users' tolerance for more invasive activities [11], [12].

B. Protect Areas Visitors' Motivations

Literature has profusely discussed the motivations for visiting PA (Table I), showing that tourists visit a natural park for several reasons, such as the challenge tour, the social trip, the nature tour, and the routine escape tour [13]. Or, according to [12], for relaxation/introspection in nature, health and wellbeing, and leisure activities in nature.

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TABLE I. SOME LITERATURE ON VISITORS' MOTIVATIONS IN PA

Study	Motivations
[4]	Appreciate and contact nature, Novelty, Expand Knowledge, Rest, Be in a calm environment
[14]	Learn about nature, Be physically active, Meet people with similar interests
[15]	Relaxation, Escape, Improve relationship, Self-development
[3]	Escape, Cohesion, Health activity, Learning about nature
[16]	Self-development, Interpersonal relationships, Reward, Building personal relationship, Escape, Ego-defensive function, Nature appreciation
[17]	Interpersonal relationships, Self-development, Escape, Building personal relationships, Nature, Ego-defensive function, Rewards, Fun
[12]	Relaxation/introspection in nature; Health and well-being; Leisure activities in nature

Source: Own elaboration

In Portugal, in a study carried out by [3], a set of motivations was listed such as "resting", "learning/expanding knowledge", "seeing a specific place", "meeting new people", "contacting local residents", among others. In the results of the study, the main motivations for the visit two specific PA are "opportunities to rest/tranquility and to have new experiences (Gerês National Park) and "visit a specific place in the protected area" (Sintra Park).

Still, the assumption that the motivations that lead to the visit of the different PA are the same, seems to be a misleading principle, and so this work proceeds to a specific study object, PNRVT.

III. STUDY AREA: PNRVT

This regional natural park, in Fig. 1, was created in 2013, 2013, through Portuguese Regulation No. 364-A/2013 and encompasses an area of 25,000 hectares and about 40 kilometers until the mouth of the Tua River, in the Douro River, in northern Portugal. It runs through five counties whose municipalities are aggregated in the management and financing agency of the park. The main objective of the park is the preservation of the rural, natural, and cultural heritage, and to enhance its resources to create wealth for the local populations [18]. It focuses on nature, nautical, health, and wellness tourism, and is also certified in dark tourism [20].



Figure 1. PNRVT

Source: [19]

IV. METHOD

Two sources were used in the present investigation: primary and secondary. Concerning the primary sources, the convenience sampling technique was used for data collection and a questionnaire was applied online using institutional emails and social media. It was made available in an electronic medium (Limesurvey Platform). A pre-test of the questionnaire was carried out with 3 individuals who suggested small changes.

Data were collected through a self-administered questionnaire reaching a convenience sample of 395 respondents. From those, only 100 (34.7%) respondents indicated that they had already visited the PNRVT and were considered for the evaluation of motivations of this natural park. The data obtained were analyzed using Jamovi statistical program (version 2.2.5), using univariate and multivariate statistical techniques (Table II).

TABLE II. METHODOLOGICAL SYNTHESIS

Temporal basis	Cross-Section
Unity of analysis	Visitors and potential visitors of PPA
Sampling	Convenience
Sample	100/361/395
Data collection	Survey questionnaire online
Dates	December 2021 to January 2022
Data analysis	Univariate and multivariate

Source: Research data

V. FINDINGS

C. Data Collection

The questionnaire structure includes three thematic groups: sociodemographic characterization; knowledge about natural parks (visit experience, sources of information, most appreciated elements, visit frequency, motivations) and perceptions about the PNRVT, in particular (products

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associated with each municipality in the PNRVT, expectations in terms of resources, activities and desired equipment, desired products at the park store, visit intentions and suggestions).

D. Sample sociodemographic characteristics

The obtained sample (Table III) consists of 624 questionnaires (395 complete and considered valid). For the analysis of the sociodemographic profile of the potential visitor, five variables are used (age, gender, education level, professional situation, and residence) that are among the most addressed in similar academic studies.

In terms of age, the sample includes individuals between 18 and 80 years old who are on average 43 (43.4) years old, with at least 68% of respondents aged between approximately 32 and 55 years old. Respondents are mostly female (66.8%), and have a high level of education, with Postgraduate / MBA / Masters / Ph.D. being the most frequent answer (48.4%). In terms of employment, most are employed (73.7%) and there is a reasonable percentage of students (10.9%). Most respondents are from the north (Porto Region, Interior, and Coast North) (93.5%). In terms of income (net monthly household income), there are only 22 respondents with an income of fewer than 665 euros, which was to be expected since most respondents have high levels of education, with most respondents earning between 1001 and 2000 euros (39%), and 36.2% of respondents earning more than 2000 euros, a higher percentage than that of respondents earning 1000 euros or less, which is 24.8%.

TABLE III. SAMPLE SOCIODEMOGRAPHIC CHARACTERISTICS

	Frequency	%
Sex		
Male	131	33.2
Female	264	66.8
Highest level of education		
Up to 9h grade completed	10	2.5
Secondary school completed	66	16.7
Higher education (Bachelor)	128	32.4
Postgraduate/MBA/Master/PhD	191	48.4
Professional situation		
Student	43	11.1
Employed	290	74.9
Self-employed/employer	31	8.0
Other	23	5.9
Region		
Porto Region	24	6.1
Interior North	248	62.8
Coast North	97	24.6
Lisbon Region/ Coast Center / South and Islands	26	6.5
Net household income (monthly)		
< 665 euros	22	5.6
665-1000 euros	76	19.2
1001-2000 euros	154	39.0
2001-3500	111	28.1
>3500 euros	32	8.1

Source: Research data

E. Results and Discussion

To answer the various research questions, a descriptive analysis of the various themes relevant to the present study is carried out.

• What is the profile of PA visitors?

In the question "Have you ever visited a protected area?", almost all respondents (91,4%) have already visited a natural park at least once, showing the quality of the obtained sample based on the visitor experience. When questioned about how they became aware of that park(s), in Fig. 2) it appears that the publicity made by family, friends, or acquaintances (64.8%) has more effectiveness, followed by television/radio/press (40.3%). The internet/website/social networks (38.5%) appear in third place, which reveals the need to guarantee attractive information in this means of dissemination.

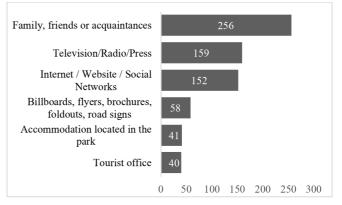


Figure 2. Source of information

Source: Research data.

Also, questioned about how often they visit PA, most respondents (54.9%) visit two, three, and more than three times a year, while the remaining 45.2% visit at most once.

In addition, using the question" Which natural park(s) do you know of? Please list at most three parks." is possible to inform that the top-of-mind awareness Parque Nacional da Peneda Gerês, in 2015, lost this position to Parque Natural de Montesinho, in 2022. Similarly, the assisted awareness of PNRVT was improved from 49% (2015) to 72.9% (2022). Spontaneous awareness of several Portuguese natural parks is shown in Table IV.

TABLE IV. PPA LEVEL OF AWARENESS

Spontaneous awareness	2015	2022
Parque Nacional da Peneda-Gerês	53%	63.5%
Parque Natural de Montesinho	47%	59.5%
Parque Natural da Serra da Estrela	32%	24.3%
Parque Natural do Alvão	31%	19.2%
Parque Natural do Douro Internacional	22%	17.2%
Parque Natural de Sintra-Cascais	7%	5.1%
Parque Natural Regional do Vale do Tua	4%	9.9%

Source: Research data

Questioned about the visitors' expectations, in Fig. 3, it should be noted that, given the experience of respondents, in

the PPAs who visited before, what they most like to see is nature, landscape, flora, fauna, and pedestrian paths. This confirms the literature about PA as a popular destination for people who want to enjoy nature-based activities [2].



Figure 3. Visitors' expectations in PA.

Source: Research data.

The socio-demographic characteristics of visitors and non-visitors are presented in Table V. The results show significant differences between the two groups in the following variables: age, education, professional situation, and net household income. The age distribution of visitors shows a majority adult profile between 40 and 49 years old. Non- visitors have a younger profile. The sample has a high educational level, being higher in the group of visitors. More than 75% of visitors are employed and 8.5% are students. The non-visitors group includes a larger proportion of students. Approximately 79% of visitors have a net household income of more than 1,000 euros, and non-visitors have a lower income.

TABLE V. VISITORS AND NON-VISITORS PROFILE

	Visitors (%)	Non- visitors (%)	Pearson chi- square
Sex			
Female	67.9	55.9	2.01
Male	32.1	44.1	2,01
Age groups			
18-29 years	11.6	47.1	
30-39 years	17.5	5.9	
40-49 years	43.5	29.4	31.9**
50-59 years	19.9	14.7	
60 or more years	7.5	2.9	
Highest level of education			
Up to ninth grade completed	1.9	8.8	
Secondary school completed	13.6	50.0	40.9**
Higher education (Bachelor/Degree)	32.7	29.4	40.9
Postgraduate/MBA/Masters/PhD	51.8	11.8	
Professional Situation			
Student	8.5	38.2	
Employee	77.9	44.1	20.1**
Self-employed/employer/employer	7.6	11.8	30.1**
Another situation	5.9	5.9	
Region			
Oporto	6.1	5.9	
North interior	61.8	73.5	2.18
North Coast	25.5	14.7	2.10
Lisbon/Coast Center/ South and Islands	6.6	5.9	

Net household income (monthly)			
Less than 665 euros	4.2	20.6	
665 – 1000 euros	17.7	35.3	28.7**
1001 – 2000 euros	41.3	14.7	28.7
2001 – 3500 euros	28.0	29.4	
More than 3500 euros	8.9	0	

^{**-} p-value<1%

Source: Research data.

• Do motivations differ between different PA?

To the question "Thinking about the reasons why you visit natural parks (and the PNRVT), indicate the degree of importance of each of the following reasons", the results are shown in Table VI.

TABLE VI. GENERAL PA MOTIVATIONS AND PNRVT

	n=361		PNRVT (n=100)	
	Mean	SD	Mean	SD
Rest	3.93	1.07	3.76	1.14
Learn/expand knowledge	3.85	1.04	3.99	1.06
Meet new people	2.55	1.06	2.9	1.19
Contact local residents	2.94	1.04	3.16	1.17
Avoid responsibilities/rest your mind	3.68	1.08	3.79	1.06
Move to a different environment/have new experiences	4.08	0.88	3.91	1.01
See a specific location	3.74	0.91	4.03	0.98
Have peace and calm/be away from the crowds	4.16	0.94	3.96	1.04
Be with friends/develop friendships	3.41	1.07	3.37	1.15

Abbreviation: SD, Standard deviation

Source: Research data. Likert scale between 1 (not at all important) and 5 (very important).

Table VII shows reasons for visiting other PPAs. These results suggest that the more relevant motivation for people visiting natural parks seems to be the desire for peace and calm, being away from the crowds.

TABLE VII. COMPARATIVE STUDIES

	Gerês Park (n=318)	Sintra Park (n=320)
Rest	4.1	2.69
Learn/expand knowledge	3.81	4.06
Meet new people	3.03	2.63
Contact local residents	3.05	2.91
Avoid responsibilities/rest your mind	4.35	3.32
Move to a different environment/have new experiences	4.25	3.93
See a specific location	3.28	3.77
Have peace and calm/be away from the crowds	4.25	3.03
Be with friends/develop friendships	3.12	2.54

Source: Carneiro et al. (2006).

• What motivates tourists to visit the PNRVT?

The question "Do you know or heard about the PNRVT?" aimed to assess the total awareness of this PA. Of the 395 respondents, 288 (72.9%) know or have heard of this PA. When questioned about how they became aware of the PNRVT, it

appears that the publicity made by family, friends, or acquaintances (33.9%) is the one that had the most effectiveness, followed by television/radio/press (28.9%). The internet/website/social networks (23.5%) appear in third place, which reveals the need to guarantee attractive information in this means of dissemination. It should be noted that only 100 (34.7%) respondents indicated that they had already visited the PNRVT.

Regarding the motivations for visiting the PNRVT (Table VI), the most valued motivations were "learn/expand knowledge" (mean=3.99) and "see a specific place" (mean=4.03), all with averages close to 4. The least scored motivation was meeting new people, where 74% scored a maximum of 3. Among the most valued is the have peace and calm/being away from the crowds and moving to a different environment/having new experiences. The last scored motivation was meeting new people. Those preferences and motivations are not like other PPA as Gerês and Sintra-Cascais (see Table VII).

• Which element do you most associate with the Tua Valley? (multiple choice answer)

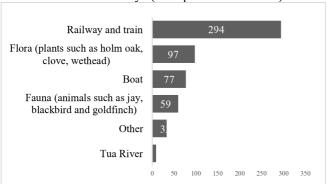


Figure 4. Identity element of PNRVT.

Source: Research data

The PNRVT covers the municipalities of Alijó, Murça, Vila Flor, Carrazeda de Ansiães, and Mirandela. The respondents choose the product(s) most associated with the five municipalities (multiple choice answer) (see Table VIII). The results show that 54.2% associated wine with Alijó, 40% associated apple with Carrazeda de Ansiães, 95.7% associated "alheira" (sausage) with Mirandela, 58.5% associated wine with Murça, and 49.6% associated almond with Vila Flor. Olive oil, in turn, is commonly associated with three of these municipalities, Mirandela, Murça and Vila Flor.

TABLE VIII. PRODUCT ASSOCIATED TO EACH MUNICIPALITY

	Alijó	Carrazeda de Ansiães	Mirandela	Murç a	Vila Flor
Alheira (sausage)	17	14	378	17	14
Almond	58	60	53	25	196
Apple	21	158	5	4	29
Chestnut	37	66	27	38	28
Honey	28	23	32	22	27
Jams	12	15	11	10	14
Olive oil	99	86	182	183	162
Wine	214	76	24	231	69
I don't know	120	136	6	81	97

Source: Research data

Regarding the desired benefits (Fig. 5), in the PNRVT the respondents would most like to find the following: pedestrian paths, nature observation activities, food, and tourist train trips.

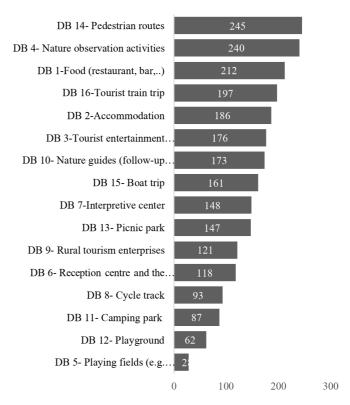


Figure 5. Desired benefits in the PNRVT.

Source: Research data.

In the case of the PNRVT, if there was a store, the respondents would most like to buy (Fig. 6) local products, honey, and olive oil (open answer).



Figure 6. Desired products in PNRVT' store.

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VI. CONCLUSIONS, IMPLICATIONS, ORIGINALITY, LIMITATIONS AND FURTHER RESEARCH

These final discussion and conclusions highlight the main contributions, as well as the limitations and recommendations for future research.

Based on a PPA, it was the intention of this study to identify and understand the motivations of tourists in popular destinations for people who want to enjoy leisure activities, travel and ecotourism based on nature.

In PNRVT the most valued motivations are "learn/expand knowledge" and "see a specific place", "have peace and calm/being away from the crowds", and finally, "moving to a different environment/having new experiences". Landscape, flora, fauna, and pedestrian paths are the most appreciated resources on PNRVT. The overwhelming majority of people want to visit the park (99.4%) indicating the success of this initiative.

This empirical study reveals that the motivations for visiting different protected areas can be considerably different and compares different PPAs. PNRVT's preferences and motivations are not like other PPA as Peneda-Gerês and Sintra-Cascais. The diversity of motivations to visit PA of different geographical areas and with different tourist attractions seems to exist.

This research contributes by adding knowledge about a natural park (PNRVT) in a low-density population region from the northeast interior of Portugal, helping public institutions and private companies to improve their tourism offerings and develop more efficient marketing plans. Knowledge of the expectations of potential visitors regarding infrastructure, products and services and the profile of potential visitors inform political and economic agents, contributing to the positioning of the PNRVT in the tourist market. Landscape, flora, fauna and pedestrian routes are the most appreciated resources on PNRVT.

Sustainable tourism is seen as a key activity for the development of the Tua Valley. In this region, endogenous resources, namely gastronomy and landscape, have enormous potential and are increasingly valued. The PPA management agency should consider that domestic and international ecotourist markets can make a great contribution to the development of the country's image, positioning Portugal as a destination for ecotourism.

This study entails several limitations as the surveyed sample is a convenience and small sample of actual visitors to the PNRVT (n= 100), impeding representativeness.

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