

Tourism in protected areas: the example of Peneda-Gerês National Park (Portugal)

Hugo Martins*

University of Maia (Portugal)

Abstract: Tourism in protected areas can have a variety of positive impacts, on the protected areas themselves, for the people, communities and economies that surround them, and for the tourists who visit them. In Portugal, nature is one of the strategic differentiating assets of national tourism. Of the Portuguese protected areas there is one that stands out: the Peneda-Gerês National Park (PGNP). The aim of this article is to understand the evolution of supply and demand in tourist terms in the PGNP. It was possible to observe that the territory has early sought to consolidate itself as a brand both nationally and internationally, being inserted in networks of high prestige, having also sought to know, study and classify the existing heritage in the territory, considered as tourist attractions. The PGNP continues to be a reference in terms of tourist demand, despite having registered a decrease during the pandemic period.

Keywords: Protected areas; Nature tourism; Tourism; Peneda-Gerês national park; PGNP.

Turismo en áreas protegidas: el ejemplo del Parque Nacional de Peneda-Gerês (Portugal)

Resumo: O turismo em áreas protegidas pode ter uma variedade de impactos positivos, nas próprias áreas protegidas, para as pessoas, comunidades e economias que as rodeiam, e também para os turistas que as visitam. Em Portugal, a natureza é um dos ativos estratégicos diferenciadores do turismo nacional. Das áreas protegidas portuguesas há uma que se destaca: o Parque Nacional da Peneda-Gerês (PNPG). O objetivo deste artigo visa perceber a evolução da oferta e da procura em termos turísticos do PNPG. Foi possível observar que o território desde cedo procurou consolidar-se como marca quer nacional quer internacionalmente, estando inserido em redes de elevado prestígio, tendo também procurado conhecer, estudar e classificar o património existente no território, considerado como atratividades turísticas. O PNPG continua a ser uma referência em termos de procura turística, apesar de ter registado um decréscimo no período da pandemia.

Palavras-chave: Áreas protegidas; Turismo de natureza; Turismo; Parque nacional da Peneda-Gerês; PNPG.

1. Introduction

As a result of a saturation of conventional tourism and the change in consumer attitudes and behaviours, the “natural spaces have come to be used to satisfy the new needs created by the consumer society as spaces of increasing demand for tourism-recreational purposes” (Laranjo, 2011, p.10). Protected areas are therefore well placed to take advantage of this shift in preferences (Gamito & Silva, 2012) since they possess the values that those consumers seek. Protected area tourists are attracted precisely because these are natural areas and, consequently, extremely sensitive (Martins, 2018). Protected area managers should try to “identify negative impacts on the environment in an attempt to avoid, mitigate or minimise them” (Leung et al., 2015, p.97).

As a tourist destination, protected areas seek to impart rewarding experiences to visitors. These experiences and impacts also affect local communities at various levels (economic, social and cultural) as well as environmental risks. In Portugal, tourism in protected areas has become a national focus, especially since the 21st century. With the Tourism Strategy 2027, nature is one of the ten differentiating

* University of Maia (Portugal) and CEGOT; E-mail: hugomartins@umaia.pt; <https://orcid.org/0000-0002-1651-8715>

strategic assets of national tourism, being one of the anchor products of the Minho region, alongside cultural and landscape touring, religious tourism, nautical tourism, gastronomy and wines (Martins et al., 2021a; Turismo de Portugal, 2017).

Within the protected areas, the Peneda-Gerês National Park (PGNP) stands out, both in terms of supply and demand, and is considered a reference mainly associated with nature tourism. By association with an enormous botanical diversity, there is in the PGNP a set of natural habitats that support a rich and varied faunal community, with several endemic species, rare or with limited distribution in Portugal, deserving of highlight at national and international level. It also has a vast historical and cultural heritage, which is a potential attraction and development of tourism (ethnography, gastronomy, handicrafts, historic villages, megalithic, Celtic, Roman, medieval, modern remains, medieval castles and pillories, Soajo and Lindoso granaries, among others).

Regarding tourism demand, this territory, in recent years has recorded a high growth in demand, as a result of the projection and its identity in national and international terms. Therefore, the aim of this article aims to understand the evolution of supply and demand in tourism terms of the only national park in Portugal, the PGNP.

2. Tourism in protected areas

The idea of protecting certain territories and/or spaces emerged in the 19th century. However, during the 20th century, this phenomenon spread all over the world, with several countries drafting legislation, classifying these spaces as protected areas (Eagles et al., 2002).

In the process of classification, planning and management of a protected area, the first concern is normally that of protection, seeking to interdict or condition human activity. Once protection is ensured, the second step is conservation, through the implementation of actions aimed at safeguarding, managing and enhancing and recovering natural resources. Only lastly is it recommended “visitation and cultural, educational and recreational activities, as well as activities that constitute alternative paths of sustainable local development, benefiting the generation of benefits for local communities, from products or the provision of services, through the participation of local entities” (Gamito & Silva, 2012, p.6). Therefore, regarding the protected areas, it is necessary to pay attention to all the stages of this process until arriving at the idea of turning the territory into a tourist destination.

Currently, these classified areas increasingly appear, in the national and international context, as tourist destinations. In fact, the importance of the unique natural, landscape and cultural values inherent to the territory of classified areas and the growing demand of these places for recreation and leisure activities in direct contact with nature and local cultures make these spaces constitute themselves as new tourist destinations (ICNF, 2020a). The growth of interest in sustainable tourism and ecotourism reflects a growing wave of social concern about the quality of the natural environment and the effects of tourism. Consequently, there is a growing conviction that there is a need for tourism that, unlike so-called conventional tourism, does not degrade the environment. According to Paiva & Proença (2011, p.19), “consumers have started to be aware of their ecological responsibility through the protection and preservation of the environment, having more and more importance in their lives and purchasing decisions”, adopting a “green consumer” lifestyle. For Eagles et al. (2002, p.14), changing recreation and tourism patterns and behaviours, the demand for outdoor recreation activities is “strongly correlated with the increasing level of education in society”. Today’s citizen cares more about pro-environmental behaviours. An example of this is countries such as Canada which has launched strategic plans to raise awareness of the preservation of both protected areas and the diversity of wildlife.

In fact, protected areas can contribute to local development and regional attraction, in a perspective of sustainable development, provided there is a collaboration of the communities of these areas (municipalities, tour operators, transport and other local economic agents) “both in the actions of nature conservation and in the defence of a heritage that belongs to all (forest defence monitoring of hunting and fishing, improvement of livestock and agricultural productivity, valuing the traditional forms of these activities, promotion of handicrafts and local products and rehabilitation of the historical, architectural and cultural heritage), but, above all, in boosting tourism and nature activities and sports, through protocols and partnerships that generate added value” (Gamito & Silva, 2012, p. 2).

Regarding the positive impacts/benefits, those that the authors highlight most include economic, social, community and environmental benefits (table 1):

Table 1: Potential benefits of tourism in protected areas

Type of benefits	Examples
Economic	<ul style="list-style-type: none"> - Generation of employment for the local population, directly and indirectly; - Increased economic income for local stakeholders; - Stimulates the emergence of tourism businesses; - Stimulates the establishment of domestic craft industries;
Social and community	<ul style="list-style-type: none"> - Improves living standards of local people; - Encourages local people to value their culture and local environments; - Promotes aesthetic, spiritual, health and other wellbeing-related values; - Encourages residents to learn the languages and cultures of foreign tourists, increasing the level of education of local people; - Improves physical health through recreational as well as spiritual exercise; - Encourages the development and conservation of culture by stimulating local crafts and traditional cultural manifestations;
Environmental	<ul style="list-style-type: none"> - Promotes education for the conservation of fauna and flora biodiversity; - Creates economic value and protects natural resources that otherwise have no perceived value to residents, or that represent a cost rather than a benefit; - Helps communicate and interpret the values of natural and built heritage and cultural heritage to visitors and residents of visited areas, promoting attachment to place, in particular, and greater appreciation of protected areas, in general; - Supports research and development of good environmental practices and management systems to influence the operation of travel tourism businesses as well as visitor behaviour in destinations; - Promotes greater pollution control.

Source: Self elaboration based on Eagles et al. (2002); Leung et al. (2015)

To maximise the benefits of tourism and minimise the negative impacts, each protected area needs a plan that describes how tourism and its associated development should be managed. In reality, tourism is often seen as an opportunity for endogenous development of a region (Martins, 2022). However, it entails pressures on the region that if not properly controlled and delimited could cause the early decline of a potential tourist destination (Butler, 2022). Since tourism in protected areas can cause negative effects that jeopardise the preservation and conservation of the natural environment and the local communities themselves, the risks must be known in order to be minimised. In this sense, planning has the function of controlling the effects of these negative impacts and aggressors to the natural environment.

2.1. Protected areas in Portugal

In Portugal, there is the National System of Classified Areas, comprising the National Network of Protected Areas, the areas forming part of the Natura 2000 Network and the other areas classified under international commitments entered by the Portuguese State. This national system is an asset for the country, due to the opportunity to enhance the value of the various products and services associated with it, ensuring scale, and promoting the valuation of destinations and the implementation of network management mechanisms.

According to the Institute for Nature Conservation and Forests (ICNF, 2020a), protected areas are classified as terrestrial and inland aquatic areas and marine areas in which biodiversity or other natural occurrences have, due to their rarity, scientific, ecological, social or scenic value, a special relevance that requires specific conservation and management measures, in order to promote the rational management of natural resources and the enhancement of natural and cultural heritage, regulating artificial interventions that may degrade them. The classification of a territory as a protected area aims to grant it a legal protection status suitable for maintaining biodiversity and ecosystem services and geological heritage, as well as for enhancing the landscape. The classification of a protected area may be national or regional/local in scope, or even private in scope.

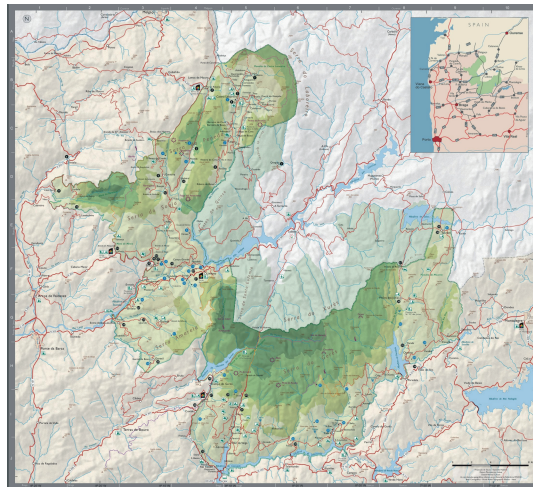
In Portugal, there are various types of protected areas 1) National Park - area containing mostly representative samples of characteristic natural regions, natural and humanised landscapes, biodiversity elements and geosites, with scientific, ecological or educational value; 2) Natural Park - area containing predominantly natural or semi-natural ecosystems, where the long-term preservation of biodiversity

and one of the primary components in the national economy. The Institute for Nature Conservation and Forests has in its direct management about 520 thousand hectares of national forests, forest perimeters and other properties (ICNF, 2020b). Of all the protected areas, the one that stands out the most is the PGNP, because it is the only one in Portugal with the typology of national park.

2.2. Peneda-Gerês National Park

The PGNP, with an area of 703 square kilometres, is situated in the extreme northeast of Minho, extending to Trás-os-Montes, from the lands of Serra da Peneda, Soajo, Amarela until Serra do Gerês, being cut by the rivers Lima and Cávado, assuming a horseshoe shape (figure 2).

Figure 2: Map of the PGNP



Source: ICNF (2019)

Its vast territory is distributed over three districts (Braga, Viana do Castelo and Vila Real) and two regions (Minho and Trás-os-Montes); it covers 18 parishes, distributed across the municipalities of Arcos de Valdevez, Melgaço, Montalegre, Ponte da Barca and Terras de Bouro. According to the criteria of the Nomenclatures of Territorial Units, it is located in the NTU II of the North of Portugal, covering part of the NTU's III of Alto Minho (municipalities of Ponte da Barca, Arcos de Valdevez and Melgaço), Cávado (municipality of Terras de Bouro) and Alto Tâmega (municipality of Montalegre). The PGNP area has a highly rugged mountainous relief, with steep slopes and numerous rocky outcrops.

By association with a floristic richness, there are in the PGNP a set of natural habitats that support a rich and varied faunal community, with several endemic species, rare or with limited distribution in Portugal, deserving of highlight at national and international level.

In addition to infrastructures, the PGNP also has a varied set of cultural heritage, very associated with the development of tourism activity, inserted in a wide range of activities that aim to attract various types of tourists (Martins et al., 2021b).

Before the elevation of this region to national park status, already since the 1940s the botanical scientific community, namely foresters and landscape architects, debated on the type of classification for the Peneda and Gerês Mountains, considering the creation of a natural park or a national park given its richness in natural and cultural values and humanised rural landscapes of outstanding importance. Initially the idea was to make this area a natural park and not a national park since the areas classified as national parks were neither inhabited nor intervened by Man, i.e. the space could not be humanised. However, it was understood that the natural and cultural heritage of the Peneda and Gerês Mountains, although heavily humanised, was of remarkable value and that this value, combined with the objectives directed towards the conservation, study and balanced use of the resources in question, justified the classification of a national park.

According to the current management plan of the PGNP, considering the ecological importance and sensitivity of the existing natural values, the territory is divided into two different zones: the “natural environment area” and the “rural environment area” having different levels of protection, depending on various criteria such as the existing ecosystems, the type and intensity of human uses and the existing flora and fauna.

In terms of population, the territory in general has suffered a decrease. Making a comparative analysis of the latest censuses, between 2011 and 2021, the population of the PGNP recorded a negative variation of 17.8% (from 9,071 people in 2011 to 7,456 in 2021) (table 1), corroborating the idea of Martins (2018) when referring that there has been a decrease every 10 years to around 18%.

In terms of county, the one that lost most population (considering only the parishes that cover the PGNP) was Melgaço (-23.4%), followed by the county of Arcos de Valdevez (-21.2%). On the other hand, the municipality with the lowest population loss was Montalegre (-11.8%) (table 1).

In terms of parishes, those with the largest decrease were Soajo (-31.9%) in the municipality of Arcos de Valdevez; Tourém (27.2%) in the municipality of Montalegre; Cabana Maior (25.9%) and Cabreiro (24.3%) in the municipality of Arcos de Valdevez; Castro Laboreiro and Lamas de Mouro parishes (23.4%) in the municipality of Melgaço; and Britelo (21.9%) in the municipality of Ponte da Barca (table 1).

Table 1: Evolution of the (resident) population in the parishes of the PGNP

Municipality	Parish	Census 2011	Census 2021	Variation 2011-2021
Arcos de Valdevez	Cabana Maior	239	177	-25,9
	Cabreiro	428	324	-24,3
	Gavieira	298	258	-13,4
	Gondoriz	958	861	-10,1
	Soajo	986	671	-31,9
Total		2.909	2.291	-21,2
Melgaço	União das freguesias de Castro Laboreiro e Lamas de Mouro	657	503	-23,4
Total		657	503	-23,4
Ponte da Barca	Britelo	485	379	-21,9
	Lindoso	427	374	-12,4
	União das freguesias de Entre Ambos-os-Rios, Ermida e Germil	612	498	-18,6
Total		1.524	1.251	-17,9
Terras de Bouro	Campo do Gerês	162	149	-8,0
	Covide	343	273	-20,4
	Rio Caldo	892	770	-13,7
	Vilar da Veiga	1.286	1.074	-16,5
Total		2.683	2.266	-15,5
Montalegre	Cabril	553	512	-7,4
	Outeiro	156	143	-8,3
	Pitões das Júnias	161	151	-6,2
	Tourém	151	110	-27,2
	União das freguesias de Sezelhe e Covelães	277	229	-17,3
Total		1.298	1.145	-11,8
Global Total		9.071	7.456	-17,8

Source: Self elaboration based on INE (2021)

On the other hand, there has been an increase of the built environment in some of the parishes covered by the PGNP. It is notable a high demographic reduction in the main parishes of the PGNP, witnessing, however, an increase in the built environment, which may be related to the growth of tourism and services in the region or to the phenomenon of “second homes”.

2.2.1. The PGNP as a tourist destination

Currently, the PGNP compared to other protected areas at international level has a set of factors that enhance this region as a tourist destination of excellence. In fact, it has a permanent technical staff, a management plan in place, good access conditions (e.g. roads and signposting) and accommodation for tourists, among others (ICNB, 2008). In fact, in most developing countries, national parks lack the infrastructure that the PGNP already has (Martins, 2018).

In this aspect, it was sought from early on, especially from the 1980s, to know, study and classify the PGNP heritage, material and immaterial, through the inventorying of the archaeological, architectural and ethnographic value existing heritage of the territory, in addition to the natural heritage, considered tourist attractions (table 2).

Table 2: Tourist attractions of the PGNP

Touristic Attractions	Examples
Gastronomy and traditional products	<ul style="list-style-type: none"> - Trout; - Lamprey with Bordeaux rice, fried with eggs or roasted; - Kid roasted in a wood oven; - Barrosã and Cachena meat (Soajo); - Honey; - Medicinal plants (teas); - Goat cheese; - Regional smokehouse; - Terras de Bouro’s “Sarrabulho”; - Alvarinho wine.
Handicrafts	<ul style="list-style-type: none"> - Linen; - Clay.
Natural Landscape	<ul style="list-style-type: none"> - Albergaria Wood; Cabril Wood; Ramiscal Wood; - Penedo do Encanto; - Bouça do Colado (with rock engravings) - Parada-Lindoso; - Meda da Rocalva; - Meadinha (Gavieira); - Mourela plateau; - Waterfalls (Pincães, Arado, Tahiti, Leonte, Fafião, among others); - Viewpoints: Pedra Bela, Junceda, Boneca, Fraga Negra, Freira, Montes Velho, among others.
Historical Heritage	<ul style="list-style-type: none"> - Necropolis of Castro Laboreiro (Melgaço), Portela do Mezio (Arcos de Valdevez), Serra Amarela (Ponte da Barca) and Mourela (Montalegre); - Rock sanctuary of Gião (Soajo); - Geira (Roman military road with milestones that linked Bracara Augusta (Braga) to Asturica Augusta (Astorga)); - Various megalithic, Celtic and Roman remains (e.g. the Pedra dos Namorados and the Menir da Ermida statue, Ponte da Barca); - Castles of Castro Laboreiro and Lindoso; - Chalcedonian ruins; - Castro de Outeiro; - Soajo and Lindoso granaries; - Medieval pillories (e.g. from Soajo and Castro Laboreiro).

Touristic Attractions	Examples
Historical Villages	<ul style="list-style-type: none"> - Pomba (Gavieira) - abandoned medieval settlement; - S. Vicente do Gerês (Mata do Beredo) - abandoned medieval village; - Castro Laboreiro; - Soajo; - Peneda; - Lindoso; - Tourém; - Pitões das Júnias.
Religious Heritage	<ul style="list-style-type: none"> - Church and ruins of the Monastery of Santa Maria in Pitões das Júnias (Montalegre); - Sanctuary of Sr.^a da Peneda; - Sanctuary of S. Bento da Porta Aberta.
Thermal Baths	<ul style="list-style-type: none"> - Caldas do Gerês thermal spa.
Ethnography	<ul style="list-style-type: none"> - Folkloric ranches; - Popular traditions and legends; - Typical garments (example: traditional female figure from Castro Laboreiro's mountain village - the Castreja).

Sources: Self elaboration based on Nogueira, (2014); ICNF (2013)

In addition to its tourist attractions, over the years the PGNP has obtained some conservation statuses both nationally and internationally, which gives it greater visibility and projection. This protected area forms a group with the Spanish Parque Natural de la Baja Limia - Serra do Xurés, constituting with the latter, since 1997, the Transfrontier Park Gerês-Xurés. In 2009, the cross-border park was considered by UNESCO as a World Biosphere Reserve (Transfrontier Biosphere Reserve "Gerês - Xurés").

At national level, as far as the PGNP is concerned, it also has the status of Site of Community Importance (Council of Ministers Resolution n° 142/97, of 28 August). Also at national level, the PGNP, in 2010, the International Year of Biodiversity, was considered one of the 7 Natural Wonders of Portugal, in the category of Protected Areas.

At the international level, the PGNP has sought to be part of highly prestigious and recognised networks. It is part of the network of biogenetic reserves of the Council of Europe with the "Matas de Palheiros - Albergaria" (an area integrated in the Natura 2000 network); it is part of the federation of National and Natural Parks of Europe, as well as the PAN Parks network. The PGNP's membership of the PAN Parks network allows this protected area to be part of a network of excellence that only includes the best parks in Europe, being the PGNP the only one in the Iberian Peninsula to integrate this network. With the PAN Parks certification, a substantial increase in the influx of foreign tourists was assumed, namely from Northern Europe, since the PGNP was included in the itinerary of major tour operators specialising in nature tourism (Turismo de Portugal, 2016). Effectively, there has been a growth in the number of visitors to these classified areas for recreation and leisure activities in direct contact with nature and local cultures. This makes these classified areas constitute as new tourist destinations (ICNF, 2020b).

3. Methodology

To understand the evolution of tourism demand and supply of the PGNP over the last few years, we carried out a study based on a content analysis in which we sought to present the data in a statistical way. Given this main objective of the investigation, we were able to turn our attention to the specialized literature in the area, thus initiating the stage of the research phases suggested by Pizam (1987) and Tuckman (2000).

This review included the reading of several articles published in major international journals of scientific nature, books of authors of national and international reference, institutional websites and publications of official entities.

Regarding the literature review, we sought, critically and carefully, to analyze the potential benefits of tourism in protected areas. We also seek to identify the main protected areas in Portugal, focusing our study on the only national park in Portugal, the PGNP.

4. The region's tourism supply and demand

4.1. The tourism supply of the PGNP

According to Cunha (2013, p.175) one could “consider as tourism supply the set of goods and services that contribute to meet the needs of tourists”, but “the multiplicity of motivations that is at the origin of travel and the peculiar characteristics of the needs of travellers do not allow to clearly delimit the contours of tourism supply”, being multiple and varied its components. One of the main components is natural resources. It is therefore necessary that tourism supply implies that the tourist destination has a set of resources, products, services and facilities available to tourists.

According to the management plan of the PGNP (ICNB, 2008), the tourism potential of the PGNP is increasingly high due to the large geographical extension of the Park, the biogeomorphological richness and the landscape quality. Due to the intrinsic characteristics of this territory, the PGNP provides different types of tourism. The one that stands out most is nature tourism, as the PGNP provides outdoor/nature activities involving the observation, appreciation and enjoyment of nature, which includes hiking/walking tours, photographic expeditions, interpretative trails and fauna and flora observation activities (geological routes, birdwatching). The region provides active tourism, combining nature tourism with adventure tourism, thus reaching a wider target audience. Some examples of active tourism activities are rope manoeuvres (climbing, slide, abseiling, tree-climbing and obstacle courses), paintball, archery, bicycle rides and activities, rides and other equestrian activities, off-road rides (motorbike, moto4 and 4x4 vehicles, kartcross and similar), trekking, water trekking, canyoning, coasteering and similar, among others. Normally, most of these activities are organised by tourist entertainment companies recognised by the Institute for Nature Conservation and Forests to operate in the protected areas or even the tourist resorts that try to make them more dynamic for visitors (Geresmont; Lamas de Mouro Camping Park; Cerdeira Camping Park). Furthermore, the region provides nautical tourism, as the Rio Caldo marina enables the practice of nautical, sport, leisure and tourist activities, ranging from sightseeing, windsurfing, sailing, rowing, motorboating, jet skiing and sport fishing. Another type of tourist offer that the region has is health and well-being tourism (thermal tourism), this being the oldest tourist activity in the PGNP. This is due to the therapeutic potential of the thermal waters of Caldas do Gerês, extending also to the SPA (‘Sano Per Acqua’ - Health through Water). Besides, the religious aspect has a strong pendency in the region. It is common to make an annual pilgrimage to the São Bento da Porta Aberta Sanctuary, in the parish of Rio Caldo (municipality of Terras de Bouro), where the number of pilgrims is only exceeded by the Our Lady of Fátima Sanctuary - Leiria, fostering religious tourism in the region. Another pilgrimage site within the boundaries of the PGNP is the Sanctuary of Our Lady of Peneda: the sanctuary dates to the 12th century and its twenty chapels date back to the 18th century. Finally, the region provides tourism related to culture and gastronomy. Tourists in the PGNP can enjoy the gastronomy and the existing architectural and archaeological heritage. Besides that, there are currently a set of museums that portray the historical culture of the PGNP population, namely the Ethnographic Museum of Vilarinho da Furna, the Castro Laboreiro Museum and the Ermida Museum.

Alongside these tourist attractions, the PGNP provides guided tour services and environmental education activities, either through the Vidoeiro Environmental Education Centre (operating since 2003) or through the park's “doors” project, designed to provide information and supervision to visitors and to assume an active role in the environmental education and awareness of the public. The Gates of the PGNP, designed as anchor-structures in the management and promotion of visitation in the surrounding area, are areas of visitation and communication, each one having a specific theme: a) Lamas de Mouro gate, whose theme is spatial planning; b) Mezio gate, whose theme is nature conservation and biodiversity; c) Lindoso gate, whose theme is water and geology; d) Campo do Gerês gate, whose theme is the history of the territory; e) Paradela gate (Montalegre), whose theme is landscape. The Gates work as visitor support, as privileged centres in the information and framing of visitors, in the offer of activities and specific visit programmes and, also, in the education and environmental awareness of the public in general. All five Gates (one in each municipality which is part of the PGNP) and the Vidoeiro Environmental Education Centre constitute a programmed and equipped area for the reception, recreation and leisure of the PGNP visitors, framed by an information and environmental awareness system which prepares them to explore the surrounding territory. The “gates” are strategically located on the periphery of the PGNP, at its main entrances, and “are important structures for the planning and management of visitor flow, retention function and function of guiding or leading the visit to the interior of the park” (ICNB, 2008, p.123).

Of all the types of tourism, the one that is developing with greater strength, especially in protected areas, as is the case of the PGNP, is nature tourism. According to Silva, (2013) and Cordeiro & Alves (2022),

there have been important changes in the dynamics of leisure and tourism, associated with a greater environmental awareness and the appreciation of physical activity and these changes, combined with the marketing of “nature” as a consumer good and the improvement in accessibility have led to the expansion of nature tourism and consequently to an increase in demand for natural and adventure territories.

Nature tourism has been growing at a rate significantly above the average for the sector and this trend is expected to continue in the coming years (Hill & Gale, 2009). However, there are authors who consider that most tourists in protected areas are not interested only in outdoor activities/nature, being recommended that destinations that have the natural heritage as their core, seek to incorporate cultural and leisure elements in the offer (Mehmetoglu, 2007). Nevertheless, this action should be thought consciously, since the incorporation/offering of other elements can bring risks to the protected area.

As already mentioned, the PGNP, due to its great geographical extension, biogeomorphological richness and landscape quality, historical and cultural heritage, has a vast set of potentialities and resources, responding to a diversified tourist demand. Moreover, the PGNP is in a privileged position compared to other protected areas, since besides holding some conservation statuses at national level, it also has other conservation statuses at international level, becoming increasingly a tourist attraction pole not only for national tourists, but also for international tourists. Added to these assets, the PGNP has a varied set of infrastructures in terms of accommodation, an inseparable component for the practice of tourism activity. Within the operationalization of the PGNP as a tourist destination, the region has several “main actors”, namely, “the interpretation centres, the museum centres, the tourism offices, the transport companies, the travel agencies, the PGNP management, the regional tourism agencies, the Portuguese tourism, the local councils and municipalities, the local community groups, the tourism enterprises, the tourism animation companies (...)” (Nogueira, 2014, p.113).

The PGNP, being long considered a tourist destination, already has some tradition in offering tourist accommodations, either in the rural space tourism modality or in the nature houses modality, seeking to respond to the needs of an increasing and demanding demand, to which is added the need for conservation of the built historical heritage. The PGNP region has a reasonable accommodation capacity, having grown both in number of establishments (table 3) and in number of beds (table 4), with a strong concentration of supply in the municipality of Terras de Bouro, either in the local accommodation modality or in the tourism enterprises modality.

In terms of number of establishments/tourist accommodation, between 2017 and 2019 we observe a trend of gradual increase in the number of establishments in the municipalities covered by the PGNP, being the municipalities of Terras de Bouro and Arcos de Valdevez those that recorded the highest number of establishments between the years 2017 and 2019: the municipality of Terras de Bouro had 47 establishments in 2017 and recorded an increase of 13 more establishments in 2019, bringing the number to 60 establishments; the municipality of Arcos de Valdevez had 33 establishments in 2017 and recorded an increase of 8 more establishments in two years, making 41 establishments in 2019.

The municipality with the most tourist establishments remains mainly the municipality of Terras de Bouro (47 establishments in 2017, 60 establishments in 2019 and 56 establishments in 2020) (table 3).

Table 3: Number of tourist establishments / accommodation in the sub-regions and municipalities covered by the PGNP in 2017 and 2020

	2017	2018	2019	2020	Variation (%) 2019-2020
Portugal	5.840	6.868	6.833	5.183	-24
Norte	1.313	1.438	1.785	1.420	-20
Alto Minho	233	242	282	244	-13
Arcos de Valdevez	33	36	41	38	-7
Melgaço	17	15	20	17	-15
Ponte da Barca	18	20	23	25	9
Cávado	155	163	206	171	-17
Terras de Bouro	47	50	60	56	-7
Alto Tâmega	63	73	79	64	-19
Montalegre	17	19	22	16	-27

Source: Self elaboration based on INE (2021)

The year 2020, the year of the start of the pandemic due to Covid-19, represented a general decrease in the number of establishments both in national terms (6,833 establishments in 2019 to 5,183 in 2020, with a variation of -24%) and in regional terms (the North recorded a drop of about 20% in the number of establishments, from 1,785 in 2019 to 1,420 in 2020). However, regarding the municipalities covered by the PGNP, the recorded drop was not so great, with the exception of the municipality of Montalegre with a variation of -27%). On the other hand, the municipality of Ponte da Barca had a positive variation of 9%. The councils of Terras de Bouro and Arcos de Valdevez had a slight variation (-7% each council) (table 3).

In terms of accommodation capacity (accommodation capacity is understood as the “maximum number of individuals that establishments can accommodate at a given time or period, this being determined through the number of existing beds and considering as two the double beds” (INE, 2016, p.492)), between 2017 and 2019 there was an increase in national terms, as well as has terms of sub-regions. In overall terms, the North in 2017 presents 15.6% of Portugal’s capacity (table 4).

In terms of counties covered by the PGNP, the one with the highest availability of beds is Terras de Bouro: in 2017 it presented 1644 beds, having in 2018 increased to 1716 and in 2019 to 1876. The second municipality with more availability is the municipality of Arcos de Valdevez: in 2017 it presented 688 beds, having increased to 700 beds in 2018 and 744 beds in 2019; the third municipality with more capacity is the municipality of Melgaço: in 2017 it presented 452 beds, having in 2018 suffered a decrease to 419 beds and increased in 2019 to 432 beds. Despite having registered an increase in capacity, the municipality that has the least beds is Ponte da Barca: in 2017 it presented 264 beds, having in 2018 increased 268 beds and in 2019 to 333 beds (table 3).

Table 4: Tourist accommodation capacity of the sub-regions and municipalities covered by the PGNP between 2017 and 2020

	2017	2018	2019	2020	Variation (%) 2019-2020
Portugal	402.832	423.152	443.157	344.757	-22,2
Norte	62.855	66.501	73.987	62.229	-15,9
Alto Minho	6.667	6.985	7.517	6.885	-8,4
Arcos de Valdevez	688	700	744	705	-5,2
Melgaço	452	419	432	378	-12,5
Ponte da Barca	264	268	333	337	1,2
Cávado	7.368	7.829	8.511	7.313	-14,1
Terras de Bouro	1644	1716	1876	1854	-1,2
Alto Tâmega	2.308	2.420	2.654	2.401	-9,5
Montalegre	332	334	383	285	-25,6

Source: Self elaboration based on INE (2021)

In terms of variation between 2019 and 2020 the accommodation capacity was quite affected in national terms, showing an overall decrease of 22.2% (from 443,157 beds in 2019 to 344,757 beds in 2020). The North region registered a decrease of 15.9% (73,987 in 2019 to 62,229 in 2020). In terms of sub-regions, only the Cávado region recorded similar values to the North region (-14.1%). However, with regard to the municipalities, the values show a very small decrease in terms of capacity (with the exception of Montalegre that presented a variation of -25.6%): Arcos de Valdevez registered a negative variation of -5.2% and Terras de Bouro a variation of -1.2%. The municipality of Ponte da Barca registered a positive variation of 1.2% (table 4).

4.2. Tourism demand in the PGNP

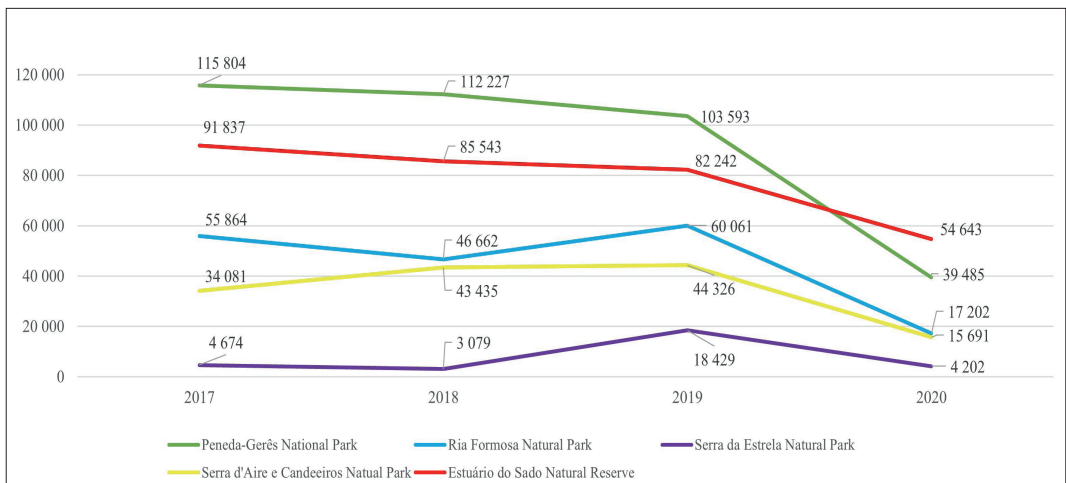
The PGNP is recognised for its extraordinary tourist resources and potential which have been the basis for the development of tourism activity and with growing weight in the region’s economy. Tourism-related activities, such as hotels, restaurants, tourist entertainment and circuits of the most varied

types, have also contributed to the emergence of more activities. Examples of this are the dynamism of civil construction and the expression of trade that contribute to the local economy and job creation (ICNB, 2010).

The analysis of tourism demand for a particular tourist destination is usually recorded by the movement of visitors to existing tourist offices. These data serve only as an indicator of visitor movement. However, these data work as an aid in decision making for the entities responsible for planning and development of a given territory and may not correspond to the total number of tourists who visited the territory.

Based on data from the Institute for Nature Conservation and Forests, it is possible to observe the evolution of the number of visitors to the main protected areas (figure 3). The main protected areas visited are the PGNP (in the northern region of Portugal), the Estuário do Sado Nature Reserve (in the central region of Portugal), the Ria Formosa Nature Park (in the Algarve region), the Serra d'Aire e Candeeiros Natural Park (central region of Portugal) and the Serra da Estrela Nature Park (central region of Portugal) (figure 3).

Figure 3: Visitors in the main national protected areas (2017-2020)



Source: Self elaboration based on ICNF (2021)

In the case of PGNP it is possible to observe that between 2017 and 2019, it registered a decrease in visitors: in 2017 it had 115,804 visitors, in 2018 it had 112,227 and in 2019 it registered 103,593 visitors. However, it remains the most visited protected area in the country in 2019. In 2020, the PGNP was one of the protected areas that suffered most from the effects of the pandemic, with a sharp decrease in visitors compared to 2019 (from 103,593 visitors in 2019 to 39,485 visitors in 2020). The PGNP became the second most visited protected area in 2020, having been overtaken by the Sado Estuary Nature Reserve (54,643 visitors in 2020) (figure 3).

Making an analysis of the number of overnight guests staying in tourist accommodation establishments, there was a positive evolution between the years 2017 to 2019, both nationally and in terms of regions and at the level of the municipalities that cover the PGNP (table 5).

Between 2017 and 2019 there was an increase in the number of guests at national level of 13.3% (23,953,765 guests in 2017 to 27,142,416 in 2019), with the Northern region registering an increase of 21.6% (from 4,892,605 to 5,873,026). All municipalities covered by the PGNP, between 2017 and 2019, recorded an increase, being the municipality of Ponte da Barca the one that stood out the most (from 7,296 guests in 2017 to 13,649 guests in 2019, with a positive variation of 87.1%). In 2017, the total number of guests in the municipalities that cover the PGNP was 141,758 guests; in 2018 there was an increase to 153,418; and in 2019 to 167,927, representing an increase of 18.5% between 2017 and 2019 (table 5).

Table 5: Visitors in tourist accommodation establishments in the sub-regions and municipalities covered by the PGNP between 2017 and 2020

	2017	2018	2019	2020	Variation (%) 2019-2020
Portugal	23.953.765	25.249.904	27.142.416	10.430.600	-61,6
Norte	4.892.605	5.285.297	5.873.026	2.469.917	-57,9
Alto Minho	351.621	393.988	433.015	241.663	-44,2
Arcos de Valdevez	33.815	37.978	42.764	26.497	-38,0
Melgaço	22.227	25.303	28.077	14.913	-46,9
Ponte da Barca	7.296	7.486	13.649	12.434	-8,9
Cávado	478.267	522.150	573.156	277.703	-51,5
Terras de Bouro	70.923	74.087	74.446	53.634	-28,0
Alto Tâmega	130.280	138.410	161.597	100.391	-37,9
Montalegre	7.497	8.564	8.991	4.795	-46,7
Total visitors in the municipalities of the PGNP	141.758	153.418	167.927	112.273	-33,1

Source: Self elaboration based on INE (2021)

Making an analysis in municipal terms, the municipality covered by the PGNP that received more guests was Terras de Bouro, because it is the one that has more establishments and accommodation capacity. In 2017 it hosted 70,923 guests, more than half than the second municipality (Arcos de Valdevez with 33,815) representing about half of all guests of the remaining municipalities of the PGNP (141,758 in 2017).

In 2019, the municipality of Terras de Bouro continued to be the municipality that received the most guests (74,446 guests). The other counties recorded a gradual growth in terms of guests, namely Ponte da Barca (from 7,296 in 2017 to 13,649 in 2019), Arcos de Valdevez (from 33,815 in 2017 to 42,764 in 2019) and Melgaço (from 22,227 in 2017 to 28,077 in 2019) (table 5).

With the pandemic, in 2020, the demand for the PGNP registered a decrease. However, it presented better figures than in national terms: while, overall, Portugal had a negative variation of -61.6%, the northern region recorded a variation of -57.9%; the totality of the counties of the PGNP recorded a negative variation of 33.1%, (in 2019 it recorded 167,927 guests and in 2020 it recorded 112,273). Of all the municipalities in the PGNP those that recorded a marked negative variation were Melgaço (46.9%) and Montalegre (46.7%). The municipality that recorded the least variation was Ponte da Barca with a variation of 8.9% in relation to 2019 (table 5).

In terms of stay in the establishment, the average period in national terms has had a slight oscillation: in 2019 it was 2.6 nights and in 2020 it was 2.5 nights. Regarding the Northern region, the value reduces substantially to 1.8 nights (both in the pre-Covid-19 period and during the beginning of the pandemic), values almost identical to the sub-regions covered by the PGNP (1.8 nights in the sub-regions of Alto Minho and Cávado and 1.7 nights in Alto Tâmega in 2019; 1.9 nights in the sub-region of Alto Minho, 1.8 nights in the sub-region of Cávado and 1.7 nights in Alto Tâmega, in 2020) (table 6).

Table 6: Average stay of the tourist accommodation in the sub-regions and municipalities covered by the PGNP

	2019	2020
Portugal	2,6	2,5
Norte	1,8	1,8
Alto Minho	1,8	1,9
Arcos de Valdevez	1,9	2,1
Melgaço	1,6	1,8
Ponte da Barca	1,9	1,8
Cávado	1,8	1,8
Terras de Bouro	2,0	2,0
Alto Tâmega	1,7	1,7
Montalegre	1,5	2,1

Source: Self elaboration based on INE (2021)

In 2019, the municipalities of Montalegre (1,5 nights) and Melgaço (1,6 nights) were the ones that registered lower values than the average of the Northern region (1,8 nights). The other municipalities registered a value superior to the Northern region: Arcos de Valdevez and Ponte da Barca presented 1,9 nights and Terras de Bouro presented 2,0 nights.

In 2020, two municipalities registered an equal value to the Northern region (Melgaço and Ponte da Barca with 1.8 nights), and the remaining municipalities registered a higher value: Montalegre and Arcos de Valdevez with 2.1 nights and Terras de Bouro with 2 nights (table 6).

5. Conclusion

The use of protected areas in terms of tourism, as a result of the saturation of conventional tourism, changes in mentalities, attitudes, habits and behaviour among consumers is, today, a reality. Many tourists, once consumers of mass tourism, are increasingly looking for an alternative type of tourism. There are even a number of tourist destinations which, in order to distinguish themselves, already use the term "alternative" to mass tourism. Due to this change of preferences in line with the conservation and preservation of nature, protected areas can take advantage in tourism terms, appearing, both in the national and international context, as tourist destinations.

In Portugal, tourism in protected areas has become a focus mainly since the XXI century, with the Tourism Strategy 2027, with nature becoming one of the ten differentiating strategic assets of national tourism. Peneda-Gerês is the only space classified with national park status in Portugal because it is one of the country's last strongholds where ecosystems can be found in their natural state, with little or no human influence, integrated into a humanised landscape. The PGNP stands out for also having a set of infrastructures that provide conditions to attract tourists, having several tourism products available such as nature tourism, active tourism, health and wellness tourism, religious tourism, nautical tourism and cultural tourism. The territory in question has sought to consolidate its brand in national and international terms, seeking to be inserted in networks of high prestige and recognition.

Although the territory is losing population, about 18% every 10 years (Martins, 2018), there has been a growth in the built environment, which may be related to the growth of tourism and services or to the phenomenon of second homes. In terms of tourism supply, the PGNP already has some tradition in the supply of tourist accommodation, either in the modality of local accommodation or tourist resorts. Of the five municipalities covered by the PGNP territory, Terras de Bouro is the one which registers the highest concentration in terms of tourism supply as this is where most of the supply is located. In terms of demand, the PGNP is the protected area that receives the most tourists. With the pandemic, in 2020, the demand for the PGNP registered a decrease. However, it registered more positive values if compared to the national level.

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