

ECONOMIC ACTIVITIES AND THEIR IMPACT ON THE ENVIRONMENT IN THE MĂCIN MOUNTAINS NATIONAL PARK

Cătălin Purice¹, Gheorghe Romanescu¹

Abstract. The Măcin Mountains National Park (PNMM), situated in the northwest of Dobrudja, was constituted through the provisions of Law 5/2000 on the approval for national planning of the national territory. The main economic activities and their impact on the environment are underlined. Among all the natural resources in the Măcin Mountains, the underground ones have been intensely exploited. Hence, the economic activity with the most obvious negative effects on the environment is represented by the exploitation of granite and of quartzites. The national park status requires a limitation of these exploitations and “re-ecologization” measures for the old quarries.

Keywords: *National Park, environment, management, natural resources.*

1. Introduction

There is evidence on the occupation of Northern Dobrudja dating back to the period of Middle Palaeolithic, between the years 100000 and 35000 BC (Comşa, 1952, 1953, 1971; Florescu, 1968; Pârvan, 1923; Rădulescu et al., 1976). The research took place in several locations of Dobrudja, including Jijila, Măcin (rock excavations) and Luncavița (traces of the Hamangia Culture) (Vasiliu, 2007). Furthermore, relics of the Neolithic Culture of the Gumelnița Culture were discovered at Jijila, Văcăreni, Garvăn, Carcaliu (Dumitrescu, 1971; Mănucu-Adameșteanu, 2010; Micu et al., 2007; Nicoară, 2006; Vulpe, Barnea, 1968). Evidence of the natives' occupation since the Golden Era was found in the banks of Lake Jijila and in the excavations at Jijila. The area flourished in the archaic period thanks to the Roman and Greek citadels and through the commerce with farming products, livestock, fish, wood etc. (Aparaschivei, 2007; Barnea, 1961; Preda, Simion, 1971; Suceveanu, 1971; Ștefan, 1971). The market demand for these products led to an intensification of human activities: land cultivation, animal breeding, and forest exploitation (Barnea, 1971).

After 1418, when Dobrudja was included in the Ottoman Empire, a forest administration regime was institutionalized for the first time (Rădulescu, Bitoleanu, 1998; Șerban, Șerban, 1971). The Russian–Turkish wars during the second half of the nineteenth century made people leave the area and it led to the deforestation of important areas within the Măcin Mountains. Following the union of the Romanian Principalities, in 1859, and the annexation of Dobrudja, in 1878, the area was repopulated through transhumance (The German Democrat Forum in Constanța, 2011). More land was turned into pastures, probably because of the massive deforestations that had taken place previously. In that period, the area

¹ “Alexandru Ioan Cuza” University of Iasi, Faculty of Geography and Geology, Department of Geography, Bd. Carol I 20A, 700505, Iasi, Romania

of the Măcin Mountains went through significant changes: the population grew in number, which meant more pressure on the renewable and non-renewable resources (Mureșanu, 2002).

The industrial revolution provided enough resource exploitation means. At the end of the nineteenth century, the first rock quarry was exploited in the Greek area. King Charles I of Romania encouraged the migration of the quarry workers – especially Italians – and he gave them land in order to settle in this area. In 1908, the first kaolin quarry began to be exploited in the Măcin area (Culmea Pricopanului at Cheia and Vițelaru). There are written records on the existence of granite quarries in Valea Budurului dating to 1930.

Farming intensified because of the Danube Valley development. The drainage reduced the water level in the wetlands along the river (Pond of Brăila was turned into a farming area). Within the past few years, some of the floodplain lakes have also been drained: Jijila is dedicated exclusively to agriculture.

There are fifteen human communities near the park, which means around 38,000 inhabitants. They are distributed into six communes (Greci, Cerna, Turcoaia, Jijila, Luncavița, Izvoarele) and a town (Măcin). The existence of the National Park in their proximity can encourage new ideas for business and local investments in the future. The existence of the park represents an opportunity to promote the area on the national and international tourism market and to attract new investments in the region. Human activities and land use within the limits and on the adjacent territories to the National Park have had significant implications in its protection and management (Table 1) (National Centre for Sustainable Development, 2011; GEF Project, 2010).

Table 1: Various land uses in the adjacent areas to the Măcin Mountains National Park

Category	Current use	Perimeter of the park used for the category (m)	Surface of the Park
Forest	Forests	10,560	7,84%
Pasture	Pasturing	11,514	8,55%
Pastures	Pasturing	19840	14,73%
Damaged land	Pasturing	5,064	3,76%
Arable land	Non-cultivated	19,754	14,67%
Arable land	Cultivated	54,372	40,37%
Vines	Non-administered	5,694	4,22%
Quarries	Mining exploitation	3,175	2,35%
Urban	Area with buildings	4,703	3,49%
TOTAL		134,676	100%

2. Regional setting

The Măcin Mountains are situated in the southeast of Romania; more precisely, in the northwest of Dobrudja, in the Tulcea County, between the Danube Valley, Valea Luncaviței, and the Cerna–Horia saddle, between 28°07′ and 28°27′ long. E, and 45°01′ and 45°21′ lat. N, respectively (Romanescu, 1994) (Fig. 1). The Măcin Mountains National Park borders most of the mountainous area bearing the same name.

3. Materials and methods

For the current research stage, the method of the bibliographic study and of the specific documents – which involved a systematic analysis of the scientific publications and of the various official reports and documents, all in order to understand the concepts listed below – was used.

- Sustainable use of resources;
- Biodiversity preservation;
- Increase in the number of tourists in the area;
- Drawing up basic studies for biodiversity research;
- Elaborating detailed studies (with maps) on the current state, the distribution, and the evolution in space and time of the priority and endangered species and of the park habitats;
- Creating a database and a simple, long-term, monitoring programme for the key-species, for the habitats, and regarding the dangers, in order to support an effective preservation.

The information presented in this paper originates in the national and international specialized literature, in online library articles, and in reports of international organizations or institutions (European Commission, Global Environment Fund, and United Nations Development Programme). Forest and topographic maps, along with maps for the forested areas and satellite images have been used. The maps printed for the PNMM (Table 2) have helped build the GIS system (GEF Project-2010/ Global Environment Fund UNPD/United Nations Development Programme).

Table 2: Cartographic resources within of the Măcin Mountains National Park

Nr.	Cartographic resources	Scale/resolution
1	General forest maps	1 : 100,000
2	Forest maps for production units	1 : 20,000
3	Basic map for the forested areas of the Măcin Mountains	1 : 5,000
4	Topographic maps	1 : 25,000
5	Satellite images	12 m resolution
6	Orthophotoplans	5 m resolution
7	GIS system	In progress

4. Results and Discussions

The economic activity within the protected area is limited to the minimum required by the human communities.

Silviculture

The management of the forest fund within the protected area is based on the forest agreement of the National Forest Administration, of the Măcin and Cerna Range Districts, in conformity with the forest regime established within the official forestry management programme. The forestry developments approved for the area will be implemented by the forest administration or by the contracting parties. The harvest of secondary products is also in charge of the forest administration. We refer here to activities such as grain harvesting for garden centres, collecting wild berries and healing herbs, as well as lime flowers (Figure 2).

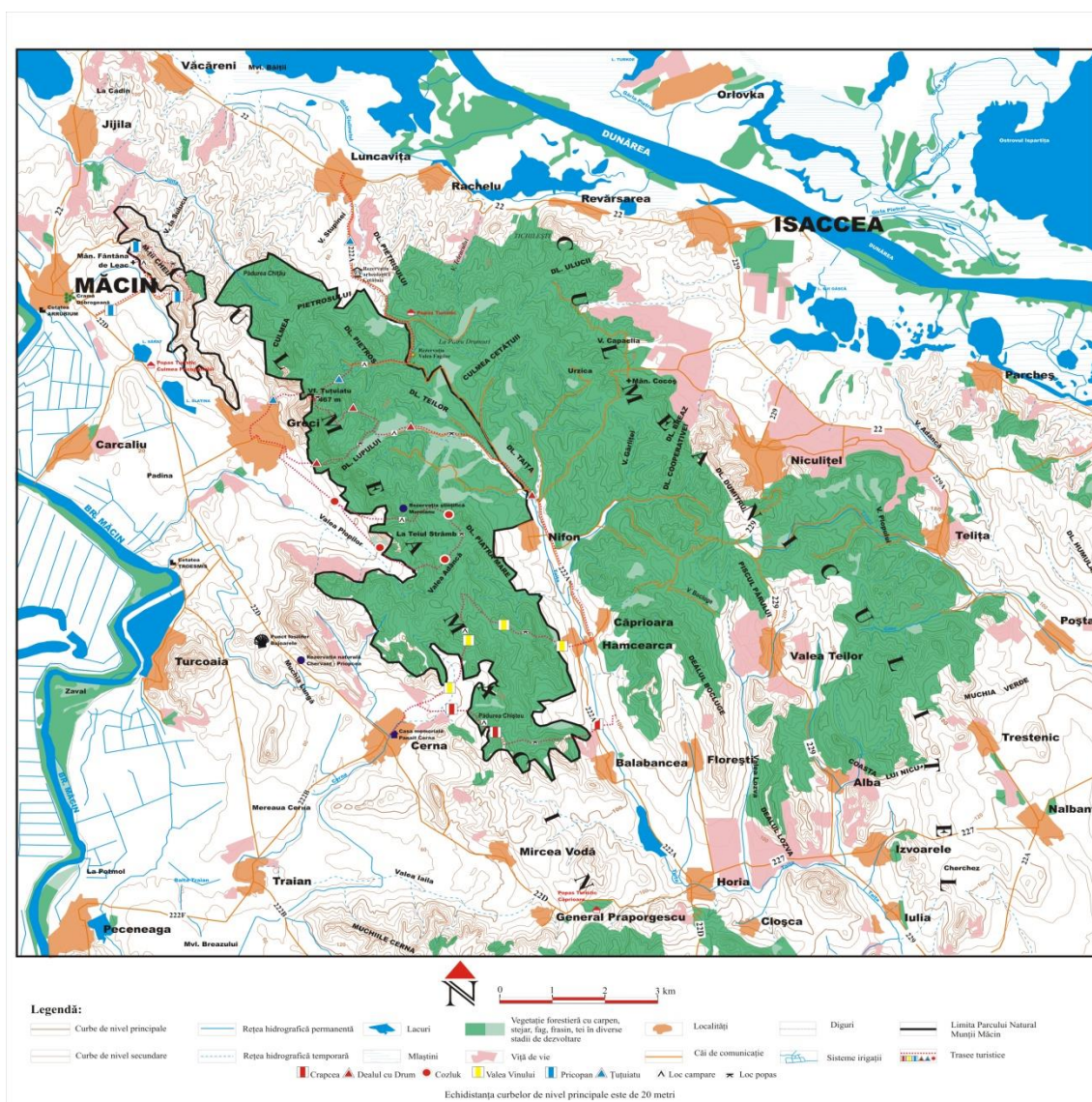


Figure 1: Localization of the Măcin Mountains and of the Măcin Mountains National Park

The National Park Administration collaborated with the Tulcea Forest Management and the Măcin and Cerna Range Districts in order to adjust the forest developments to the management plan for the park. In the forest areas within the sustainable park preservation zones, only limited wood collecting operations may take place, by using forest techniques that allow the natural crop regeneration. On the terrains part of the national forest fund included in the Măcin Mountains National Park, in the sustainable preservation area, wood collecting requires forest treatments that promote the natural tree regeneration, such as: treatment of cuttings for gardening purposes; treatment of the gardened and quasi-gardened cuttings, and the progress of progressive cuttings. As for the group-cuttings (the most common treatment in the perimeter of the park), such cuttings require at least 21 years of regeneration. After each treatment or intervention (opening, widening the gaps, and compression) on the standing timbers – even on those with flaws – has to leave behind thick shrubs of the valuable items

within the natural fundamental composition type of the forest or priority habitats. These trees will be distributed by their fundamental role or to ensure the protection of the natural priority element identified in the area where the abovementioned treatment was applied (National Centre for Sustainable Development, 2011).

The volume of the standing timbers, within the group-cuttings, will represent – overall – the surface for which this forest treatment was applied: between 3 and 5% of the total volume of standing timbers before executing the first cuttings. The trees to save will be chosen based on ecological functional criteria, which will ensure a proper environment for the species of interests, without affecting the fundamental role of the natural regeneration promoting treatments. The remaining trees will be selected when doing the inventory of the trees to extract, by a mixed commission. This commission is made up by the foresters within the Tulcea Forest Management, by foresters and biologists within the Administration of the Măcin Mountains National Park and, depending on the case, by experts in scientific domains specific to the natural elements to protect in the intervention perimeter.

Such a measure will ensure the ecosystem heterogeneity and the use of these trees as life environment for the priority species of the fauna component. When applying this treatment, the functional zoning of the park will be strictly observed.

Outside the protected area, on the eastern sides, the Măcin and Cerna Range Districts administer the forest field, in conformity with the legal provisions on the forest administration. The pasturing zones within the forested pastures near the national park are managed by the local administrations of the Greci, Cerna, and Hamcearca villages. The tree cutting in this area falls under the same forest regulation.

In the Strict Protection Zones, no forest-related activities may take place, while in the Integral Protection Zones they only can occur when the situation requires the reduction of the effects of a calamity. Even when such is the case, these interventions require a license from the Scientific Board of the park and an approval from the central public authority in charge of the silviculture.



Figure 2: Tree and shrub plantations on Culmea Pricopanului

Hunting

In the Măcin Mountains National Park, five hunting funds overlap partially. The hunting funds belong to the State and they fall under the administration of Private Associations or of the Forest Administration. On the territory of the park, in the areas designated as “quiet zones”, the hunting is prohibited, with no exception. The hunting funds within the perimeter of the park will bear the status of refuge zones for the game and they can be administered only as hunting reservations, where the monitoring, protection, and research on the ecology and aetiology of the game also take place, as stipulated by the Law 407/2006 (National Centre for Sustainable Development, 2011).

All hunting activity within the park is considered a violation of the law and it shall be punished as poaching. Under special circumstances, it is allowed to extract the organisms designed as hunting species within the perimeter of the park; however, its purpose has to be either the scientific research, or the preservation of species balance. This operation requires the permission of the central authority for environment protection, as well as the approval of the Commission for the Protection of Natural Monuments. The capture of the fauna species for scientific research purposes also requires the permission of the central authority for environment protection, with a previous permission from the Romanian Academy.

The personnel within the Administration of the Măcin Mountains National Park and within the other forest range units with attributions in the park area is also entitled to identify and sanction illegal hunting (poaching). In the season 2006–2007, the hunting funds within and near the Măcin Mountains National Park and the game chased in the surroundings were significantly reduced (Table 3).

Table 3 The number of hunted game in the area of the Măcin Mountains National Park (period 2006–2007)

Hunting funds – number and name		Species of wild animals hunted							
		Custodia n	<i>Capreolu s capreolus</i>	<i>Sus scrof a</i>	<i>Lepus europaeu s</i>	<i>Turdu s spp.</i>	<i>Vulpe s vulpes</i>	<i>Canis aureu s</i>	<i>Marte s martes</i>
23	Cerna	RNP	0	1	30		4	4	0
24	Hamcearc a	AJVPS	7	4	40	4	8	2	0
25	Țiganca	RNP	4	10	25	20	5	8	1
33	Jijila	AJVPS	15	1	20	0	6	0	0
34	Greci	RNP	4	5	40	0	8	8	0
TOTAL			30	21	155	24	31	22	1

RNP-National Forest Administration; AJVPS-County Agency of Sports Hunters and Fishers.

Breeding and pasturing

The pastures near the park are in the charge of local administrations. The intensive pasturing within the past decades and animal breeding has altered the local pastures. Consequently, certain agents decided for illegal pasturing within the protected area. The recent aridity conditions have reduced the productivity of the hay fields to such an extent that the farmers (mostly the horse breeders) let the animals go free around the protected area during the winter months. As there are no fences, the animals were able to enter the Măcin Mountains National Park and they altered the ecosystems as they cropped, defecated, and transmitted parasites.



Figure 3: “Alpine” void with protected pasture on Culmea Pricopanului

The pasturing is prohibited in the Park, except for the 30-ha Integral protection area, on Culmea Pricopanului, where the pasturing areas are rationally used, by periods, species, and numbers, with permission from the Administration of the Park. This also has to take into account that the natural habitats and the existing fauna and flora species must not be affected (Figure 3). The pasture field (property of the Măcin Local Council – field 136/1-Nb) is the sub-zone where the traditional sustainable practices of the communities – whose territory was included in the protected area – are observed. The GEF/UNDP project will determine the support capability of this pasture, by various categories of animals. Pasturing is prohibited on the forest territory, except for certain specific circumstances (survival in case of calamities), in conformity with art. 53 of the Forest Code, Law 46/2008 (National Centre for Sustainable Development, 2011).

Plant culture

Near the National Park, the structure of the agricultural land is fragmented, considering the divisions made by the owners (Figure 4). In certain agglomerated areas, as consequence of the harvest regime or because of property transfer, the main crops are grains, sunflower, and rape. For most of the farming practiced, no pesticides or chemical fertilizers are used. The extreme droughts within the past years have reduced the economic importance of the arable agricultural lands near the park. This led to the emergence of deserted parcels around the park.



Figure 4: The use of agricultural lands for grain culture

Apiculture

Apiculture is a long-tradition profession in this region, mostly in the Luncavița area (Figure 5). Both the locals and the beekeepers from other regions come here to install as much apiaries (40–50) as possible within the Măcin Mountains National Park or in its immediate proximity. Most of them are usually installed when the lime trees blossom.



Figure 5: The practice of apiculture in the eastern sector of the Măcin Mountains National Park (Niculițel Plateau)

Apiaries can be installed within the perimeter of the park or in its immediate proximity only after getting a license from the Administration of the Park. The administration counts among its purposes to stimulate, together with the local beekeepers, the promotion of a local brand of ecological honey – the “*hercinică*” honey – internationally by helping the beekeepers find an outlet.

Exploitation of mineral resources

Granite exploitation in the localities of Măcin, Greci, and Cerna

The Măcin Mountains have benefitted from a special interest because of its mineral resources such as granite, kaolin, and quartzite. Of course, the most important of them is definitely the granite (The Carpathian–Balkan Geological Association, 1961). Traces of numerous quarries on Culmea Pricopanului and in the Greci area underline it. Currently, there are five functional quarries at the border with the Măcin Mountains National Park, situated in Măcin (Figure 6), Greci (Figure 7), Turcoaia (Figure 8), Luncavița, and Cerna. In the near

future, the exploitation activities are going to be limited to the three quarries located in the immediate proximity of the protected area: Măcin (Culmea Pricopanului), Turcoaia, and Greci (Îmbulzita Hill).



Figure 6: Granite exploitation in the Măcin quarry

The Administration of the Măcin Mountains National Park has been preoccupied with maintaining the companies that exploit the granite in the area and that have an exploitation license and concession prior to the constitution of the park. The granite quarry in the Măcin area remained in the perimeter of the park, even after it was designated a protected area.

On 16.04.2004, the Local Council of Măcin guaranteed the land grant for granite exploitation, and the exploitation activity could go on after extending the exploitation authorization (5399/23.04.2003) on 23.04.2004. The authorization was extended through the Government Decision 230/04.03.2004, establishing the park boundaries, which included the area mentioned in the farm-out agreement, within the Special Park Preservation Area. The exploitation began without any approval from the Romanian Academy, the Commission for the Protection of Natural Monuments, as stipulated by Law 462/2001 (National Centre for Sustainable Development, 2011).

Following the constitution of the Park Administration and because of the numerous notifications made by the Scientific Council of the Park to the Ministry of Environment and Water Management and to the Romanian Academy, the exploitation activity was ceased. A partial agreement was closed for the processing and transportation of the extracted granite, but by the due date of this agreement (31 December 2005), the amount stored on the fringes of the park was still there; furthermore, the pile even grew slightly larger. After the analyses brought before the courts of law in Tulcea and Constanța, the Administration of the Park – bringing as argument the importance of biodiversity on Culmea Pricopanului (the park area in which the leased land was included) – was given satisfaction. However, numerous other analyses were conducted on the claim that the terrain leased for granite exploitation was not part of the structure presented before the Romanian Academy. For this reason, in the initial documentation for the constitution of the Măcin Mountains National Park – through GD 1529/1.11.2006 – a 77.96 ha surface was eliminated from the perimeter of the park, which corresponds to the locations leased by S.C. Hidromineral and S.C. Eco Brăila for the granite exploitation.



Figure 7: The new granite exploitation of Greci

Taking this surface out of the park's perimeter has truly been a great loss, because Culmea Pricopanului is unique in Europe through the vegetation on the stepped crests and the geological records at the surface. The exploitation activity has destructive effects because it removes the foundation for many rare species, through dust, oils, noise, groundwater pollution etc., as this has been the biggest threat for the biological diversity of the park.

Given this situation, in January 2007 – following the analysis of the Environment Assessment presented by S.C. Hidromineral – the Scientific Council of the Măcin Mountains National Park issued an exploitation agreement down to the 200 m level curve (considering that the most advanced exploitation front was already at the 190 m level curve). This agreement was renewed in October 2007, following the level two Environment assessment, presented by the same company, through a license granted by the Park Administration (based on a new Decision of the Scientific Council). However, the renewal stipulated the observation of environment protection measures meant to minimize the negative impact of the exploitation on the natural patrimony within the perimeter of the park.



Figure 8: Granite exploitation at Turcoaia

Taking into account the precedent setting, the situation attracted multiple requests for granite exploitation activities, made by various economic agents, for both the area taken out of the Măcin Mountains National Park through GD 1529/1.11.2006, and other areas in the immediate proximity of the park (Table 4). Also in 2007, following several analyses of the study meant to assess the impact on the environment, presented by SC Eco SA Brăila, the license for granite exploitation in the proximity of the park was granted. However, the request

was to observe certain environment protection and regeneration measures (controlled explosion chart approved by the Administration of the Măcin Mountains National Park, the restoration of berms using protective vegetal layers, ensuring the moistening of transportation paths, installing phono-absorbing panels etc.) Following long debates, the Administration of the Măcin Mountains National Park decided to agree with the re-opening of a granite quarry in the Îmbulzita area, in the commune of Greci. Nonetheless, the Administration set restrictive measures regarding the exploitation and requesting 10 ha from the Local Council of the Commune of Greci to be included in the Măcin Mountains National Park. This land is meant to ensure an ecological corridor between Culmea Pricopanului and the Main crest of the Măcin Mountains. In the three abovementioned areas, the Administration of the Park monitors around the clock the observation of the requests accepted by the economic agents. Even under these circumstances, granite exploitation is still causing a negative impact on the biodiversity within the perimeter of the park and in its proximity.

Table 4: The main rock quarries within the area of the Măcin Mountains National Park

Nr.	Company	Name of the perimeter	Exploited mineral	Leased surface ha	Lease duration
1	SC Tehnologica RADION Cerna	Bujorul Bulgaresc-Cerna Hill	granite		
2	SC Romgranit Lines SRL Galati	Imbulzita –nord Greci	granite	8	49 years
3	SC EMVETRANS SL.Tulcea	Cavalu–Greci Hill	granite	72	
4	SC ECO S.A. Braila	Macin–Derea- Anton-Suluk	granite	19.67	
5	SC. Hidromineral Greci	Culmea Pricopanului	granite	65	Until 2020
6	SC ALAS ROMANIA SRL	Bujoarele– Turcoaia Hill	granite		
7	SC. DUMAGREGAT SRL	Turcoaia Hill	granite		
8	Tarmac SRL Bucharest	Iacobdeal–Turcoaia	granite		
9	Carpat Aggregate	Iglicioara–Turcoaia	quartziferous porphyry		
10	SC Uranus Pluton Ovidiu Filiala Cerna SRL	Piatra Rosie–Traian Quarry	granite		
11	SC Extrans Gip	Luncavita	granite		
		Revarsarea-sud Isaccea	greenstone		
12	NEGEV BEN-ARI INDUSTRIAL	Hill of Tefic- Isaccea	greenstone		
13	SC DUNAPREF	Măseaua Rosie – Niculițel Hill		31.85	
14	CCCF SA. BUCHAREST	Niculițel	greenstone		

Exploitation of renewable energy sources

The installation of wind turbines in the proximity of the park, at Macin, Greci, Cerna, and Luncavița is recent and its purpose is to exploit the local reserves. The region of Dobrudja fits the aeolian profile for power production and it has become the most attractive zone for investors in the field of renewable energy. The Administration of the Park issued a license for the instalment of wind turbines (the wind farm of Cerna). Similarly, other zones in the

proximity of the protected area can become of interest for solar energy, considering the great number of sunny days per year (National Centre for Sustainable Development, 2011).

Tourism and leisure activities

The Măcin Mountains National Park is not a well-known place for tourists, but its natural and anthropogenic potential is very high. Unfortunately, the touristic infrastructure has many shortcomings (Albotă, 1987; Coteș et al., 1975). The only locations for lodging are found in the surrounding areas, at Potcoava (Pond of Brăila), Cerbul Lopătar, and Luncavița. All of the locations lack quality and they provide only a few lodging places.

The Măcin Mountains National Park has the advantage of being close – 80–100 km – to the touristic area of the Danube Delta. The most intense touristic activity is registered in the summer, when relaxation and picnics are actually the main activities. Considering that there are significantly fewer visitors in the winter, the main activity remains the use of the touristic itineraries within the park, mostly in the areas of Greci and Culmea Pricopanului. The touristic itineraries focus on the main crest of the Măcin Mountains, Culmea Pricopanului and Valea vinului–Cerna (GEF Project, 2010) (Table 5, Fig. 9).

Table 5: The touristic itineraries within the Măcin Mountains National Park

touristic itineraries	itinerary length (km)	duration (hours)	stopovers	camping	markings
Culmea Pricopanului	6	4	1	1	blue ribbon
Țuțuiatu	20	7	1	1	blue triangle
Greci – Dealul cu drum – Nifon	14	6	1	1	red triangle
Cozluk – Valea Plopilor	12	6	1	1	red circle
Valea Vinului – Cerna	11	5.5	1	1	yellow ribbon
Crapcea Peak	8	4	1	1	red ribbon



Figure 9: Touristic itinerary of Culmea Pricopanului within the Măcin Mountains National Park

As concerns the specialized tourism, it is worth mentioning the protected areas, which preserve a vegetation and fauna specific to steppes with a mountainous touch (Table 6).

Table 6 The main touristic itineraries within the Măcin Mountains National Park

Nr.	Protected area	Position in rapport to the park	Distance from the park
1	Chervant Priopcea	Southeast	2.5 km
2	Cocoș Monastery	West	6 km
3	Sarica Hill	Vest	12.5 km
4	Carasan Teke	Southwest	11 km
5	Edirlen	Southwest	14 km
6	Bujorul Hill	South	13 km
7	Secaru Peak	South	14 km
8	Ostrov Valley	South	18 km
9	Ghiunghiurmez Hill	Southeast	16 km
10	Fossiliferous point of Bujoarele	West	5 km

At the same time, there are several cultural and historical points of interest in the proximity of the park:

- Basilica with crypt (*martirium*) – Commune of Niculițel, village of Niculițel – Tulcea;
- The Church of Saint Atanasie – Commune of Niculițel, village of Niculițel;
- The Paleo-Christian Church with crypt – Commune of Niculițel, village of Niculițel - Tulcea;
- Monastery of Saon;
- Monastery of Cocoș;
- Monastery of Celic Dere (Fig. 10);
- Pilgrimage – The Healing Well on Culmea Pricopanului (Fig. 11);
- The Roman–Byzantine city of Dinogetia, the civilian settlement on the island, mediaeval city (in the point of Bisericuța);
- Roman city of Noviodunum – Orașul Isaccea, Getian settlement, mediaeval settlement (in the point of La Pontonul Vechi);
- Roman city of Arrubium – town of Măcin;
- Roman city of Aegyssus – town of Tulcea;
- The Thraco–Getic city, the Roman city, Roman–Byzantine city of Iglîța–Troesmis – village of Turcoaia, etc (Figure 12).

Conclusions

Within the Măcin Mountains National Park and in the surrounding area, economic activities with a negative effect upon the environment have been in progress. Unfortunately, most villages and the town of Măcin rely on the resources on the Măcin Mountains. This is why the existing laws in the field cannot be applied *in integrum*.

Given the lack of proper promotion, the Măcin Mountains National Park is not very well defined for the tourists. A full-option, large-scale offer, with maps and brochures, is yet to be elaborated. Unfortunately, there is still no information centre built for the visitors. Many of the local inhabitants still do not have a clear image on the activities and objectives of the park and on the opportunities that it provides. They mistake the objectives of the park for those of other ongoing projects in the area, mostly for the projects referring to the preservation of large carnivorous animals. There is a real need for additional efforts meant to persuade the

local inhabitants of the benefits brought by an integrated approach of farming, tourism, preservation of the cultural inheritance, and conservation of the National Park. Although people are aware of the park's potential as additional touristic destination, this aspect is still limited. The success of the touristic programmes proposed will depend on the creation of a better image.



Figure 10: The monastic complex of Celic Dere



Figure 11: The monastic complex of the Healing Well at the foot of Pricopan



Figure 12: The village of Turcoaia and the surrounding area

The strategies to apply have multiple purposes, such as the sustainable use of resources, the preservation of biodiversity, the increase in the number of tourists, etc. The current debate between conservation and development can only be solved through awareness of the circumstances within the natural environment and of the direction in its evolution, harmonized with the demographic and economic necessities (National Centre for Sustainable Development, 2011).

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