

THE PONTIAN PALEONTOLOGICAL SITES IN MEHEDINȚI COUNTY (ROMANIA)

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ABSTRACT. In the Mehedinți County most Pontian fossil deposits outcrop at the surface, being exposed to natural factors of erosion. On the other hand, human interventions have led to the disappearance of paleontological sites, but there are many cases where, due to exploitation of mineral resources identified new places which later became protected areas. In this study, 14 Pontian sites were described, of which only one is declared a protected natural area, i.e. the Malovăț Reserve. Some sites have been submitted in terms of location, geologic framework, geological age, previous research, inventory paleontological, scientific importance, and others just reported. This study has been realized to assess the conservation status of paleontological sites from Mehedinți.

Key words: Pontian sites, conservation status, Mehedinți County, Romania.

REZUMAT. Situri paleontologice ponțiene din județul Mehedinți (România). În județul Mehedinți majoritatea depozitelor ponțiene fosilifere află la suprafață, fiind astfel expuse factorilor naturali de eroziune. Pe de altă parte, intervențiile antropice au dus la dispariția unor situri paleontologice, dar sunt și numeroase cazuri care, datorită exploatărilor de resurse minerale au fost identificate locuri noi care, ulterior au devenit arii naturale protejate. În acest studiu au fost descrise 14 situri ponțiene, dintre care, doar unul singur este declarat arie naturală protejată, și anume: Rezervația paleontologică Malovăț. Unele situri au fost prezentate din punct de vedere al localizării, cadrului geologic, vârstei geologice, cercetărilor anterioare, inventarului paleontologic, importanței științifice, iar altele doar semnalate. Acest studiu a fost realizat pentru evaluarea stării de conservare a siturilor paleontologice din Mehedinți.

Cuvinte cheie: situri ponțiene, stare de conservare, județul Mehedinți, România.

INTRODUCTION

In Mehedinți County there are deposits of different ages, where one can find fossils that attest the life from the geological past and the environment conditions of those living being. The protection of these beings and places where

they outcrop is asked by their palaeoecological importance (their living environment, animal associations and their way of life).

From all the paleontological sites on the area of the Mehedinți County, we will consider the Pontian ones present following their scientific importance in order to know these natural areas which, sometimes, can preserve on large territories some very important entities.

In the Mehedinți County most Pontian fossil deposits outcrop at the surface, being exposed to natural factors of erosion. On the other hand, human interventions have led to the disappearance of paleontological sites, but there are many cases where, due to exploitation of mineral resources new places which later became protected areas were identified.

The Pontian deposits occupy a big area on the Danube bank, too, starting from Drobeta Turnu Severin to the East and Southeast. From the outcrops, but also using drillings, there could be observed that the Pontian is represented by alternations of clays and marls (observed on the Danube bank at Ostrovul Corbului and Batoți), and in the superior part it is represented by grey-purple clay sands.

In this study, 14 Pontian sites were described, but only one of them is declared a protected natural area, i.e. the Malovăț Reserve. Some sites have been submitted in terms of location, geologic framework, geological age, previous research, inventory paleontological, scientific importance, and others just reported.

PREVIOUS RESEARCH

The Pontian deposits in Western Oltenia, with a rich and varied fauna, have long been in the attention of researchers who have tried to detail the stratigraphy of this level.

Monographs and doctoral theses regarding the Pontian deposits fossils from West of the Dacian Basin were elaborated Ionescu Argetoia (Ionescu, 1918), Barbu (Barbu, 1954), Marinescu (Marinescu, 1978), Pană (Pană et al., 1981), Țicleanu (Țicleanu, 1992), Diaconu (Diaconu, 2005), Meilescu (Meilescu, 2005).

The Pontian deposits crop out along the Danube bank, which was investigated on several occasions (Diaconu, 2002a); mollusc faunas at Erghevița, Bistrița, Mojiei Valley, Cârjei Valley, Ostrovul Corbului, Obârșia de Câmp and Lower Pontian paleoflora at Batoți were thus identified.

Presentation of the scientific importance of the paleontological sites of Mehedinți County was carried out by the Diaconu, (Diaconu, 2000; 2004e; 2006). Diaconu (Diaconu, 2007) realized the floristic repertory of the mio-pliocene macrofloras from Danube - Motru sector (Mehedinți County).

Recently, Pătruțoiu (Pătruțoiu, 2010) analyzes the paleontological sites protected in Oltenia by highlighting the importance of fossils area, the problems regarding their protection and proposals for new protected areas.

MATERIAL AND METODHS

Previous research from the period (1999-2007) concentrated in the doctoral thesis under the title Reconstruction of carbogenerating environments of the Danube River and Motru (Diaconu, 2008) and recent observations in situ formed the basis of this study to assess the conservation status of paleontological sites of Mehedinți.

THE DESCRIPTION OF THE PONTIAN SITES

1. The Malovăț Palaeontological Reserve was stated as so by the Resolution no. 23/1980 of the District Council. The region: Malovăț - Valea Boereasca - Colibași - Cocorova is the place where the fossils are numerous and from where the fauna composition of the Pontian deposits (6 mil. years old), could be studied, represented by bivalves and brachiopods.

The Pontian marl clay deposits of Malovăț, placed on the valley with the same name, comprise a Pontian fauna from which Diaconu (Diaconu, 2002a) determinates a faunal association specific to Upper Pontian (Bosphorian). From Valley of Urdă, the right affluent of the Malovăț River, with the same stratigraphic succession, there had been identified (Diaconu, 2000) a fauna which also attests the Bosphorian. On the Boereasca Valley, up to the river, there can be seen clayey marls with *Phyllocardium planum planum* (Deshayes) which to superior side become sandy and comprise a fauna specific to Bosphorian.

2. The Pontian fossil sites

The **Negoiești Site** is located 60 km north of Drobeta Turnu Severin (Mehedinți County), on the right side of the River Motru. The marls compact from Leurdiș Valley belonging to the lower Pontian are imprints of fossil molluscs and plants.

Vișenilor Valley Site. The Vișenilor Valley is the representative section for the Pontian deposits from the Danube-Motru sector (the perimeter of the Husnicioara mine). One of the most interesting outcrops of the Romanian and Dacian sands which are rich in fossils are placed on the superior course of Vișenilor Valley, where an alternation of fossiliferous grey sandy clay appears, yellowish sandy (Sands of Cocorova), white quartz sandy (Sands of Lazu), grey siltic clays with fossil plants, coals (Layers I, II, III, IV) in lithological succession.

The mollusc fauna identified (Diaconu, 2008) in Pontian deposits from Vișenilor Valley are illustrated in table 1.

In the mining perimeter Prunișor-Livezile, on **Bistrița Valley** (Bistrița village), the level fossil of the Vișenilor Valley was found by Pană (Pană et al., 1981).

Chioșmeni Site. On the left bank of the Chioșmeni brook, the left tributary to Topolnița, there is well preserved a layer mostly formed of lamellibranchiate and

gastropods (Diaconu & Enache, 2000). This fauna of molluscs (Tab. 1) is characteristic to Bosphorian.

The Chioşmeni Valley was previously researched by Niţă Pion (Niţă, 1958) that described and figured a series fauna of the molluscs from this valley. This site disappeared because of the depository sterile from Husnicioara open pit.

At the base of the **Gârdan Hill** exist the deposits of fossil grey sands from which was pointed out a Bosphorian fauna (Tab. 1) by Diaconu (Diaconu, 2002a).

The **Ergheviţa Valley Site** is located in the village of Ergheviţa, Mehedinţi County. It is a valley which stretches from seasonal East to West locality with the same name and flows into the Danube near the Bistriţa of Hinova village. On the Ergheviţa Valley there are visible the deposits of fine clayey sands, grey-greenish, over the grey marls, with a fauna of Pontian molluscs (Tab. 1) characteristic to Bosphorian (Lower Pontian).

Şimian Site. A similar fauna to the one from the Ergheviţa Valley is presented by Pătruţoiu (Pătruţoiu, 2000) in the north-west of Şimian village, where, over Bosphorian clays there follows a layer of yellow clayey sands. The site was discovered by Pătruţoiu in 1998, where has identified a rich fauna of molluscs (Pătruţoiu, 2000). Is the only place in the Western Basin where you can study the limit Pontian/Dacian (Pătruţoiu & Enache, 2000). Mollusc fauna contains robust forms Pontian indicating a long trend of brackish water, alongside new forms of freshwater.

Mojia Valley Site. In the deposits with purple marls, which are sometimes slightly sandy, from the right versant from the mouth of Mojia Valley, there is an abundant fossil fauna (Tab. 1) which is characteristic for the Lower Pontian (Odessian).

At **Ostrovul Corbului**, the purple marls deposits from the Danube bank contain a specific fauna for the Lower Pontian (Tab. 1). In the furrow from the eastern limit of *Hinova*, in the grey clayey sands, there is a *Phyllocardium planum planum* (Deshayes) layer.

Crăguieşti Site. Crăguieşti locality, included in the natural park Geopark Mehedinţi Plateau, is located in the north-western part of Mehedinţi County. Aflorimentul with plant fossils is situated on the hill above the village, called Culmea la Vale.

The geological succession comprises skinny fossil purple marls, fossils purple clays, skinny fossil purple clays and grey-brown clay. Plants generally appear in the purple marls.

The presence of the species fossils molluscs (Tab. 1) indicates the age of the Lower Pontian of grey clays and purple marls. The previous researches in this zone not refer a fossil plants, the site was discovered in 2006 (Diaconu, 2007). The Pontian flora from Crăguieşti site is represents by the taxa in table 2. It is a portly flora with a tafocoenose very interesting, what has selected from several paleobiocoenoses.

The **Batoți Site** is located 25 km south of Drobeta Turnu Severin (Mehedinți County), on the left side of the Danube. The succession dominated by clayey deposits includes a rich fossil vegetal association.

The deposits rich in fossil flora from Batoți are mainly represented by stratified clays with fossil plant remains, besides which siltic clays and sandy silts, including carbonate sandstone concretions - also containing plant impressions, occur. The fossil plant sequence is part of clay soils, sometimes with fine sands attributed Odessian (Lower Pontian) by Marinescu (Marinescu, 1978) on the basis of the fossil content including *Valenciennius annulatus* Rousseau and *Paradacna abichi* Hoern.

Petrescu (Petrescu et al., 2002) were the first to study the fossil plant-bearing deposits from Batoți (Mehedinti County) focusing on the exceptional palynologic content of the Early Pontian. The macrofloral researches of the Pontian deposits with fossil plants from Batoti, very important for the Pontian paleoflora of all Paratethys were made by Țicleanu (Țicleanu et al., 2002) and Diaconu (Diaconu, 2002b; 2003 and Diaconu, 2004a-2004d). Corroborating the results of the previous researches Diaconu (Diaconu et al., 2004), pointed out the importance of micro-and macroflora from Batoți in the frame of the paleofloristic heritage of Romania.

Flora of the Batoți comprises 50 taxa (Tab. 2). The flora from Batoți represents the only Lower Pontian assemblage described until now from Romania. The 50 identified taxa is an argument for a paleofloral assemblage of a very special scientific importance. From a palynological point of view, is not other similar microflora - as far as its richness and diversity are concerned - is known from Romania and its neighbouring areas.

The **Crivina Site** is located 40 km south from Drobeta Turnu Severin (Mehedinți County), on the left side of the Danube, being part of the Danube Green Corridor Natural Park. The out crop discovered in 2008 and researched by Diaconu (Diaconu, 2010).

The Early Pontian succession cropping out in the fossiliferous site is about 20 m thick, only a few meters contain fossil vegetal remains in well stratified clay, sometimes with local variegated features. Most of these rests occur as coarse vegetal detritus, frequently preserving more or less entire plant imprints, and rarely complete ones. An argument for the Lower Pontian represents the levels of fossil molluscs (Tab. 1) in the sequence deposits from Crivina. The flora from Crivina includes only 16 taxa (Tab. 2).

The Batoți site is covered by the building works carried out by Hidroconstrucția S. A. Porțile de Fier. In this situation, the Crivina site with a paleoflora similar to Batoți is the only outcrop for future researches. The taxa identified show a paleoflora assemblage of a very special scientific importance. All these arguments plead for preserving the Lower Pontian deposits rich in fossil plants from Crivina as sites special scientific interest (Diaconu, 2011).

At **Obârșia de Câmp Site** are found Pontian deposits with reddish ferruginous clay in which have been identified the fossils of molluscs (Tab. 1) belonging Lower Pontian (Odessian).

Table 1 - The repertory of the Pontian mollusc from paleontological sites (Mehedinți).

No.	Species determined / the place of collection	Malovăț	Valley of Urdă	Boereasca Valley	Negoiești	Vișenilor Valley	Bistrița Valley	Chioșmeni Valley	Gârdan Hill	Erghevița Valley	Mojiei Valley	Hinova	Ostrovul Corbului	Obârșia de Câmp	Crăguiești
1.	<i>Phyllocardium planum planum</i> (Deshayes)	+	+	+		+	+	+	+	+		+			
2.	<i>Ph. planum stevanovici</i> Marinescu					+									
3.	<i>Dreissenomya aperta</i> (Deshayes)	+					+	+	+						
4.	<i>Dreissena rostriformis</i> (Deshayes)	+	+	+	+			+	+	+				+	
5.	<i>D. rimestiensis</i> (Fontanes)				+										
6.	<i>D. polymorpha</i> (Deshayes)					+									
7.	<i>Limnocardium (Tauricardium) braci</i> (Brusina)	+				+		+						+	
8.	<i>L. (Tauricardium) subsquamulosum</i> Andrusov			+									+		
9.	<i>L. (Tauricardium) petersi nassirica</i> Eberzin	+		+				+	+						
10.	<i>L. (Euxinocardium) botenicum</i> Papaian.	+													
11.	<i>Paradacna abichi</i> R. Hoernes				+						+			+	
12.	<i>P. retowskii</i> Andrusow									+	+		+		
13.	<i>P. okrugici</i> (R. Hoernes)				+										
14.	<i>Valenciennius bonéi</i> Hanganu												+		
15.	<i>Valenciennius annulatus</i> Rousseau				+									+	

Continues.

Table 1 - Continuation.

No.	Species determined / the place of collection	Malovăț	Valley of Urdă	Boereasca Valley	Negoiești	Vișenilor Valley	Bistrița Valley	Chioșmeni Valley	Gârdan Hill	Erghevița Valley	Mojiei Valley	Hinova	Ostrovl Corbului	Obârșia de Câmp	Crăguiești
16	<i>Plagiodacna carinata</i> Deshayes									+					
17	<i>Caladacna</i> <i>steindachneri</i> Brusina	+								+					
18	<i>Lunadacna lunae</i> (Voitești)	+													
19	<i>Stylodacna heberti</i> (Cobălcescu)					+									
20	<i>Prosodacna munieri</i> Sabba	+	+	+				+							
21	<i>P. savae</i> Teissyre					+									
22	<i>P. sturi</i> (Cob.)			+											
23	<i>P. sturi sabae</i> Andreescu									+					
24	<i>P. mrazeci</i> Teissyre					+									
25	<i>Pontalmyra</i> <i>constantiae</i> Sabba	+	+	+				+	+	+					
26	<i>P. subcarinata</i> (Deshayes)					+	+			+				+	
27	<i>P. placida</i> Ștefănescu					+				+					
28	<i>Pseudocatillus medius</i> Eberzin					+									
29	<i>P. pseudocatillus</i> (Barb de Marny)									+					
30	<i>Plagiodacna</i> <i>arcaeformis</i> Wenz						+								
31	<i>Viviparus neumayri</i> <i>neumayri</i> (Brusina)	+	+	+						+					
32	<i>V. neumayri popescui</i> (Cobălcescu)					+		+							
33	<i>V. achatinoides</i> <i>achatinoides</i> (Deshayes)	+	+						+						
34	<i>V. achatinoides</i> <i>glogovensis</i> (Sabba)							+							
35	<i>Bulimus (Tylpoma)</i> <i>speciosus</i> (Cob.)			+				+							

Continues.

Table 1 - Continuation.

No.	Species determined / the place of collection	Malovăț	Valley of Urdă	Boereasca Valley	Negoiești	Vișenilor Valley	Bistrița Valley	Chioșmeni Valley	Gârdan Hill	Erghevița Valley	Mojiei Valley	Hinova	Ostrovl Corbului	Obârșia de Câmp	Crăguiești
36	<i>B. (Tylopoma) berbestiensis</i> (Fontanes)					+									
37	<i>Lithoglyphus decipiens</i> Brusina					+									

Table 2 - The floristic repertory of the Pontian floras from Batoți (BT), Crivina (CV) Crăguiești (CR) and actual correspondents.

No.	TAXON	ACTUAL CORESPONDENT	BT	CV	CR
1.	<i>Pinus</i> sp.		+		
2.	<i>Pseudotsuga</i> cf. <i>taxifolia</i> Britt.	<i>P. taxifolia</i> Britt.	+		
3.	<i>Taxodium dubium</i> (Sernberg) Heer	<i>T. distichum</i> Rich.	+		
4.	<i>Sequoia gigantea</i> L.	<i>S. gigantea</i> L.	+		
5.	<i>Glyptostrobus europaeus</i> (Brongn.) Unger	<i>G. pensilis</i> (Stount) Koch	+		
6.	<i>Magnolia</i> sp. aff. <i>M. acuminata</i>	<i>M. acuminata</i> L.	+		
7.	<i>Sassafras subtriloba</i> (Konno) Tanai et Onoe	<i>S. tzumu</i> Hemsl <i>S. sassafras</i> Krarst	+		
8.	<i>Liquidambar europaea</i> Al. Braun	<i>L. styraciflua</i> L.	+		+
9.	<i>Platanus platanifolia</i> (Ett.) Knobloch	<i>P. occidentalis</i> L.	+		
10.	<i>Alnus cecropiaefolia</i> (Ettingsh.) Berger	uncertain	+	+	
11.	<i>Alnus ducalis</i> (Gaudin) Knobloch	<i>A. serrulata</i> (Ait.) Wild.	+		
12.	<i>Alnus</i> sp.				+
13.	<i>Laurophyllum</i> sp.			+	
14.	<i>Betula insignis</i> Gaudin	<i>B. luminifera</i> Winkler	+		
15.	<i>Betula pseudoluminifera</i> Givulescu	<i>B. luminifera</i> Winkler	+		
16.	<i>Betula</i> cfr. <i>macropylla</i> (Goepp.) Heer	<i>B. papryfera</i> Marsh.			
17.	<i>Carpinus grandis</i> Ung.	<i>C. betulus</i> L.	+	+	
18.	<i>Ostrya</i> sp. aff. <i>O. virginiana</i> (Miller) C. Koch	<i>O. virginiana</i> (Mill.) K.Koch	+		
19.	<i>Fagus silesiaca</i> Walth. et Zast.	<i>F. grandifolia</i> Her.	+	+	+
20.	<i>Fagus sylvatica</i> L.	<i>F. sylvatica</i> L.	+		
21.	<i>Fagus pliocaenica</i> Saporta	<i>F. sylvatica</i> L.	+		
22.	<i>Castanea</i> cf. <i>sativa</i> Miller	<i>C. sativa</i> Mill.	+	+	

Continues.

Table 2 - Continuation.

No.	TAXON	ACTUAL CORESPONDENT	BT	CV	CR
23.	<i>Castanea kubinyii</i> Kovats	<i>C. vesca</i> Gaertn. (syn. <i>C. sativa</i> Mill.)	+		
24.	<i>Castanea gigas</i> (Goepp.) Iljinsk.		+		
25.	<i>Castanea atavia</i> Ung.	<i>C. sativa</i> Mill.	+		
26.	<i>Castanea</i> cf. <i>crenata</i> Sieb. et Zucc.	<i>C. crenata</i> Siebold & Zucc.	+	+	
27.	<i>Quercus drymeja</i> Ung.	<i>Q. serrata</i> Thbg.	+	+	
28.	<i>Quercus pontica</i> C. Koch <i>miocaenica</i> Kubat	<i>Q. pontica</i> C. Koch	+	+	
29.	<i>Quercus</i> cf. <i>kodorica</i> Kolakovski	<i>Q. mirbeckii</i> Durieu and <i>Q. hartwissiana</i> Steven	+		
30.	<i>Quercus</i> cf. <i>macrantheroides</i> Andreanszky	uncertain	+		
31.	<i>Quercus kovatsi</i> E. Kovacs	<i>Q. petraea</i> (Matt.) Liebl.	+	+	
32.	<i>Quercus</i> cf. <i>pseudocastanea</i> Goeppert	<i>Q. muehlenbergii</i> Engelmann	+		
33.	<i>Quercus</i> cf. <i>muehlenbergii</i> Engelmann	<i>Q. muehlenbergii</i> Engelm.	+		
34.	<i>Quercus</i> sp.		+		
35.	<i>Ulmus pyramidalis</i> Goeppert	<i>U. americana</i> Wild.	+	+	
36.	<i>Zelkova zelkovefolia</i> (Ung.) Buz. et Kotl.	<i>Z. crenata</i> Spach – <i>Z. carpinifolia</i> Pallas	+		
37.	<i>Juglans acuminata</i> Al. Braun	<i>J. regia</i> L.	+		
38.	<i>Carya serraefolia</i> (Goepp.) Krausel	<i>C. amara</i> (Michx.f.) Nutt. ex Elliott and <i>C. tomentosa</i> Sarg.	+	+	
39.	<i>Pterocarya paradisiaca</i> (Ung.) Ilj.	<i>P. caucasiaca</i> C. A. Mey.	+	+	
40.	<i>Acer tricuspidatum</i> Bronn	<i>A. rubrum</i> L.	+		
41.	<i>Acer integerrimum</i> (Viv.) Massal.	<i>A. pictum</i> Thbg.	+		
42.	<i>Acer</i> cf. <i>campestre</i> L. Giv.	<i>A. campestre</i> L.	+		
43.	<i>Berchemia multinervis</i> (Al. Br.) Heer	<i>B. volubilis</i> D.C. = <i>B. scadens</i> (Hill.) C. Koch	+		
44.	<i>Rhamnus</i> cf. <i>gaudini</i> Heer	<i>R. grandifolius</i> Fisch. et. Meyer	+		
45.	<i>Vitis teutonica</i> Al. Braun	<i>V. cordifolia</i> Michx. and <i>V.</i> <i>vulpina</i> L. = <i>V. cordifolia</i> Michx.	+		
46.	<i>Cornus</i> sp.	<i>C. mas</i> L.	+	+	
47.	<i>Populus populina</i> (Brognt.) Knobloch	<i>P. canadensis</i> Moench.	+	+	
48.	<i>Byttneriophyllum tiliaefolium</i> (Al. Br.) Knobloch et Kvacek	No have	+		
49.	<i>Salix</i> sp.		+		
50.	<i>Typha latissima</i> A. Br.	<i>T. latifolia</i> L.	+		
51.	<i>Phragmites oeningensis</i> Al. Br.	<i>Ph. communis</i> Trin.	+		
52.	<i>Diospyros anceps</i> Heer	<i>D. virginiana</i> L.	+		
53.	<i>Lonicera</i> sp.	No have	+		
54.	<i>Dicotylophyllum elongatum</i> Givulescu		+	+	

PROPOSALS FOR NEW PROTECTED AREAS

Mehedinți County has a rich paleontological inventory, particularly Myo-Pliocene formations. A series of outcrops or newly discovered different occasions offer great „fossil deposits”, true outdoor paleontology museums. Openings spectacular as those of Vișenilor Valley, Batoți, Crivina, Malovăț or Erghevița attracted the attention of researchers who have published comprehensive inventory, especially molluscs, and plant fossils. A special place Crivina and Erghevița sites first plant fossils, and the second for the transition fauna the Pontian from Dacian.

The succession dominated by clayey deposits from Crivina includes a rich fossil vegetal association. The fossil vegetal remains appear, for the most part of their, as coarse vegetal detritus, frequently preserving more or less entire leaf remains and rarely complete ones.

The arguments for declaring the Batoți site as protected area are:

- In the deposits of this site were identified 50 species of macrofloras.
- By the stratigraphical position, the flora from Batoți is the only Pontian Early know till now in Romania; from the palynology point of view it is not known such a rich and varied microflora both in Romania and in the neighboring country.
- Based on the identified palaeoflora and on their actual correspondents, there is possible to make palaeoecology and palaeogeographical interpretations, following the realization of a reconstitution of the environment conditions specific to that period.
- In Southeast of Batoți 14 skeleton fragments of *Elephas trogontherii* had been found (Paveloiu, 1985); they are of great importance in knowing the evolution of the Quaternary living beings. This is the reason why the region was intended to be protected by including it in a natural reservation.
- Batoți will be declared a natural region that comprises values of the natural patrimony, which needs its protection for preserving those values of national scientific interest.

Erghevița is the only site where you can study the Pontian/Dacian of the Western Basin Dacic. The site has the advantage of being in a hidden area of vegetation and relatively hard accessible. The Fauna of the Erghevița completes an inventory that includes forms Pontian palaeontological sturdy, well-developed, indicating a long evolution of brackish water, along with new Dacian forms of freshwater.

CONCLUSIONS

The research of Pontian paleontological sites allows the following general observations on these levels:

- Malovăț Reserve is only declared a protected natural area in Mehedinți County.
- Vișenilor Valley site is the representatives section for the Pontian deposits from the Danube-Motru sector and one of the most interesting outcrops of the Romanian and Dacian.

- The Chioșmeni Valley site disappeared because depository sterile from Husnicioara open pit.
- The Erghevița Site is the only place in the Western Basin where you can study the limit Pontian/Dacian and with paleontological content of the Pontian and Dacian molluscs.
- The Batoți site is a deposit of reference concerning the importance of micro- and macroflora from Batoți in the frame of the paleofloristic heritage of Romania. But this site is covered for strengthening bank of Danube. In this situation, the Crivina site with a paleoflora similar to Batoți is the only outcrop for future researches.

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