ΓΔ Εκπαίδευση και πολιτισμός

Πρόγραμμα διά βίου μάθηση

Natura 2000

-

Greece

PROJECT MOBILITY GREECE 25/9-1/10/2011

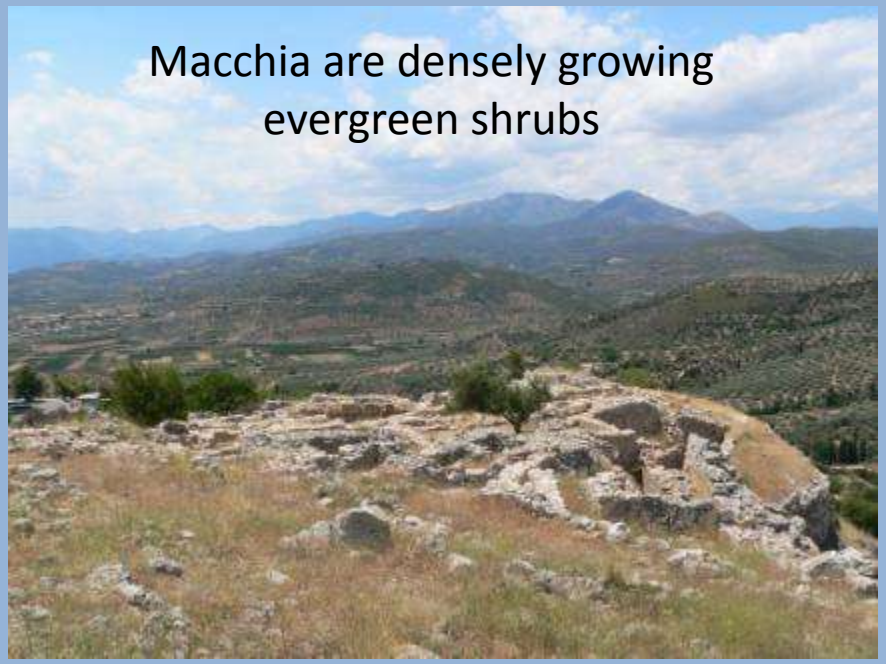
NATURA OPAVA

Czech Republic

www.natura-opava.org

The fauna of Greece is very rich. In fact, it is one of the countries with the highest number of reptile species in Europe…

Dense forests, which used to dominate the landscape in ancient times, irretrievably disappeared. Hard wood of cypresses (*Cupressus sempervirens…*), cedars and oaks was being used to build ships, houses and temples.



Project of Natura Opava

Educational use of the trail called "Ten Stops in the Region of Preveza„

List of Discoveries

1992
- **discovery of new species of *Cerocoma Prevezaenzis* (beetle of Meloidae family)**, named according to the place of finding - described by Miroslav Dvořák, Praha
- **discovery of new species of Elateridae for Greece (beetle of Elateridae family)** - ***Lacon Kapleri*** (described by Oldřich Kapler jr., Praha)

1996
- **discovery of a stone arrowhead of prehistoric man** in Agios Apostoli (Rostislav Morávek, Olomouc)
- **discovery of a stone knife of prehistoric man** in Agios Apostoli (Radim Sokol, Opava)

1997
- **discovery of a stone knife of prehistoric man** in Agios Apostoli (Milan Kubačka, Opava)
- **discovery of tusk part of "forest elephant" *(Loxodonta Antiqua)***, (Rostislav Morávek, Olomouc)

1998
- **another discovery of part of "forest elephant" tusk *(Loxodonta Antiqua)*** in Agios Apostoli (Rostislav Morávek)
- **discovery of new species of sawyer beetle for Western Greece** (beetle of Cerambycidae family) ***Nathrius brevipennis*** (Zdeněk Černý, Praha)
- **discovery of new species of sawyer beetle for Balkan** (beetle of Cerambycidae family) ***Phoracantha semipunctata*** (Zdeněk Černý, Praha)

1999
- **discovery of a stone knife of prehistoric man** in Agios Apostoli (Peter Hort, Ostrava)
- **discovery of rare fungus *Pulcherricium caeruleum*** in Agii Trias (Jiří Lazebníček, Olomouc)
- **discovery of new species of sawyer beetle for Europe** (beetle of Cerambycidae family) ***Phoracantha recurva*** (Zdeněk Černý , Praha)

2000
- **Florist survey of the Amvrakian Bay´s surroundings - 1999-2000** (Jiří Lazebníček, Olomouc)
- **discovery of a stone knife of prehistoric man** in Agios Apostoli (Ondřej Cáder, Opava)
- **discovery of a part of back tooth belonging probably to a "forest elephant" *(Loxodonta Antiqua)*** in Agios Apostoli (Milan Kubačka, Opava)

2001
- **discoveries of stone knives, janglers, scrapers and arrowheads of a prehistoric man** in the site of Agios Apostoli (Miloš Kačírek, Pavel Kolařík, brothers Pavel and Michal Ficeks, Jakub Kubačka, Zdeněk Čerevka and Tereza Šimečková - all of them from Opava)
- **Contribution to knowledge of the fauna of beetles of Cerambycidae family** Greece, 1992-2001 (Zdeněk Černý, Praha). There were 96 species of Cerambycidae beetles discovered in the region.

2002
- **Orchids of the Preveza Peninsula (results of a survey in 1998-2002)** (Daneš Červený, Opava, and Pavel Havránek, Olomouc). There were 42 species of orchids discovered in the region.

2003
- **Coleoptera, Blattoidea and Heteroptera in Preveza´s Surroundings, Greece** (Zdeněk Malinka, Opava)
- **Listing the trees on the site of Agios Apostoli, focusing on oaks.** There were recorded 52 trees with a trunk circumference of 2.5 to 9.2 metres (Quercus pubescens, Quercus frainetto, Quercus Cerris and Quercus Virgiliana). Herbarium of these species and their hybrids was handed to Arboretum in Nový Dvůr (CZ). Now it is included in the evidence collections. (Jakub Kubačka, Opava)
- **Significant trees on the Preveza´s peninsula** (Jakub Kubačka, Opava)

2004
- **Contribution to the knowledge of butterflies (Lepidoptera) 1992-2004** (Lubomír Honč, Albertovec)
- **Contribution to the knowledge of amphibians and reptiles (Amphibia, Reptilia), 1988-2004** (Milan Kubačka and Jakub Kubačka, Opava, Ivan Zwach, Rozstání)
- **Contribution to knowledge of birds (Aves) 1998-2004** (František Gazda, Vítkov)
- **List of observed species of mammals (Mammalia), 1992-2004** (Milan Kubačka, Opava)
- **List of observed species of shellfish in Preveza´s region of the Amvrakian Bay in the years of 1992-2004** (Milan Kubačka, Opava)
- **discovery of a fossilized bone of Pleistocene mammal** (joint of shoulder bone), belonging probably to a forest elephant of ***Loxodonta Antiqua*** (Rostislav Morávek, Olomouc)

Co-workers, professional guarantee for the project:

Prof. RNDr. Vítězslav Bičík, CSc. - Department of Zoology and Anthropology, Faculty of Nature Science, University in Olomouc
Ing. Miroslav Frank, CSc. - Head master of the Arboretum at the Silesian Land Museum Opava - Nový Dvůr
Jakub Kubačka - Statutory representative of the Natura Opava, student of anthropology and systematic biology in the Faculty of Natural Science at the Masaryk University in Brno,
Ing. Jiří Lazebníček, corresponding member of the European Committee for Protection of Fungi and their Environment
RNDr. Miloš Holzer, Czech Union of Nature Protection, Olomouc
Ing. Rostislav Morávek, Department of Geology in the Museum of National History in Olomouc
Ing. Zdeněk Malinka, entomologist, Opava
Ivan Zwach, biologist, herpetologist, Rozstání, Czech Republic
Zdeněk Černý - Czech Entomological Society, Praha
RNDr. Milan Kubačka, Natura Opava, biologist, author of publications
Mgr. Petr Pavlíček - director of the Mendel´s Grammar School in Opava
František Gazda, ornithologist, - Moravian Ornithological Society
Milan Pustějovský, - Zoological preparation of mammals and birds (Slavkov near Opava)

Co-operation with Greek colleagues:

Panagiotis Merkuris, Town Hall of Preveza
Vasilis Marmaris, Environmental Society of Preveza (Nature Protection Organization)
Dionysis Papanikos, geologist, Geological Institute of Preveza
Stamatis Zogaris, Hellenic Centre for Marine Research, Athens)

A Contribution to the Understanding of the Prevezian Nature

A Contribution to the Understanding of geology and paleontology (Rostislav Morávek)
A contribution to the understanding of flora (Jiří Lazebníček)
A contribution to the understanding of trees in Agios Apostoli
A contribution to the understanding of orchids (Daneš Červený)
A contribution to the understanding of beetles of family Coleoptera: *Cerambycidae* in Greece (Zdeněk Černý)
A contribution to the understanding of insect (Milan Malinka)
A contribution to the understanding of *Amphibia* and *Reptilia* (Ivan Zwach, Milan Kubačka, Jakub Kubačka)

A Contribution to the Understanding of Beetles
Příspěvek k poznání fauny brouků

Cerasoma preconsularis, Dvořák 1992
(Preveza Ag. Apostoli)
A new species of the world.
Nový druh pro svět.

Psilotrax lorioli Fabricius, 1792
A new species
on the territory of Greece
Nový druh pro území Řecka

Niphona fossulata Mulsant, 1836
In Greece found only
in the eastern part of Macedonia,
for the first time found in the west.
Nový druh pro území Řecka
z Balkanského poloostrova

Phoracantha recurva Newman, 1840
A new species on the territories
of Greece and Europe.
Nový druh pro území Řecka i Evropy

Phoracantha semipunctata Fabricius, 1775
a new species on the territories
of Greece and the Balkan Peninsula

Ophrys Scolopax x Gottfrediena

Ophrys Ferrum-Equinum

Ophrys Ferrum-Equinum

Ophrys Gottfrediana

Ophrys apifera

Ophrys bombyliflora

Ophrys tenthredinifera

Ophrys scolopa

Ophrys ferrum-equinum x helenae

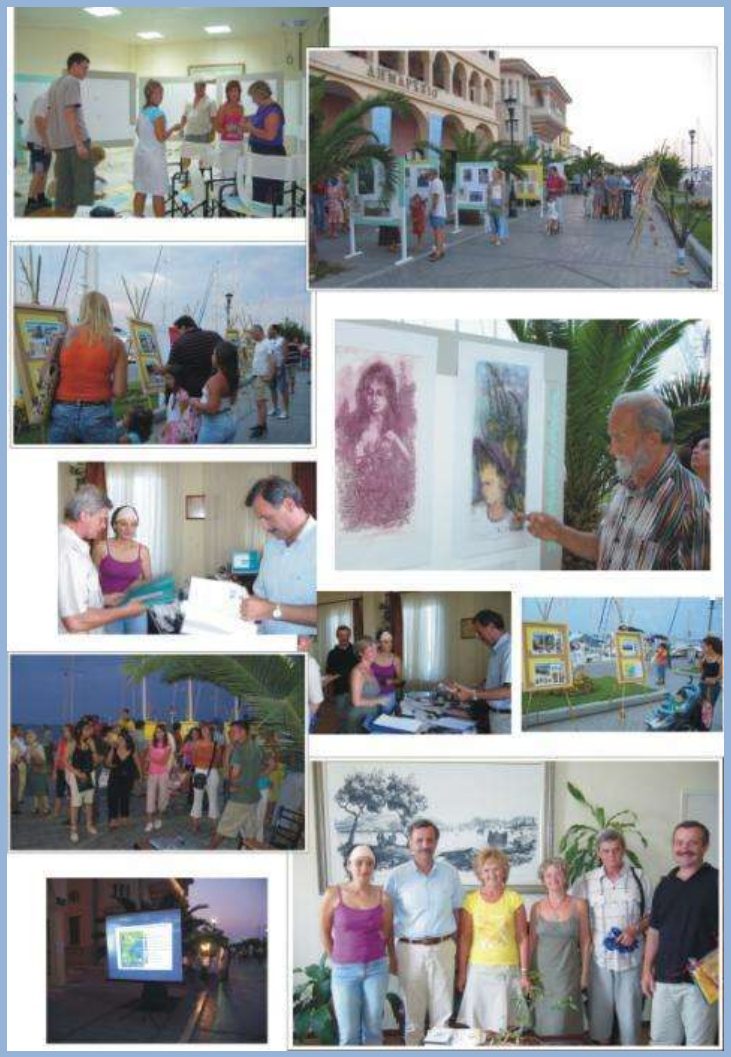
Ophrys scolopax x sphegodes

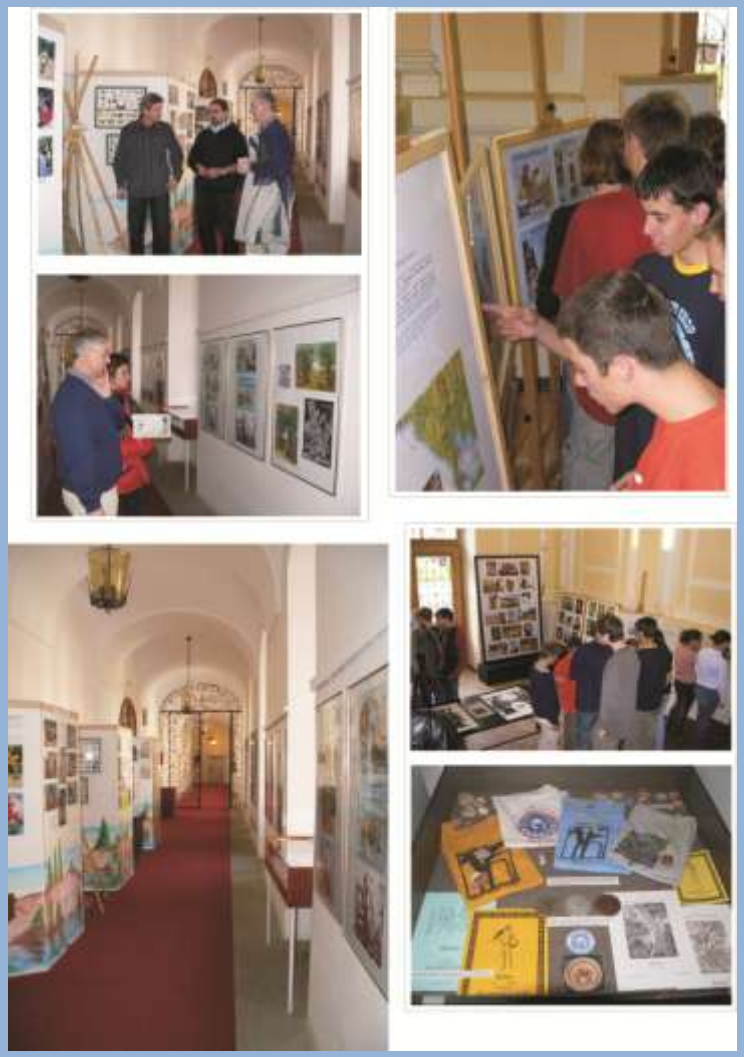
Ophrys spruneri

Ophrys gottfriedana-helenae

Ophrys delphinensis x gottfrediana


Agii Apostoli
(Preveza - Greece)
boundary between sectors
A north-west
B north-east
C south-west
D south-east
ARTA
PREVEZA
Agii Apostoli
AMVRAKIAN GULF
meaningful trees and bushes
Quercus pubescens
Quercus frainetto
Olea europaea
Platanus orientalis
Cupressus sempervirens
Eucalyptus globulus
Ceratonia sp.
Acacia dealbata
Robinia pseudoacacia
Populus sp.
Morus alba
Laurus nobilis
Nerium oleander
Ligustrum lucidum
perimeter trunk (1,30 cm)
A
B
C
D
playground
gateway
fence
orchard
north gate
south gate
oak grove
arbum
church
Agii Apostoli
AMVRAKIAN
GULF
Nicopolis
Preveza
glass-case
100 metre
southern ravine
S
March 2003





Work group1995: Zdeněk Černý, Rostislav Moravek, Ivan Horeczky, Miloš Holzer, Milan Kubačka, Jana Chromková,Milan Paštějovský, Ivan Zwach, Oldřich Kapler, Dagmar

Červenec 2000

Work group: 2003 Milan Kubačka, Dimitrios Partenidis, Jiří Lazebníček, Zdeněk Černý, Lukáš Zwach, Rudolf Gula, Katerina Šolnyová, Ivan Zwach, Daniel Červený

duben 2006

2005

1995







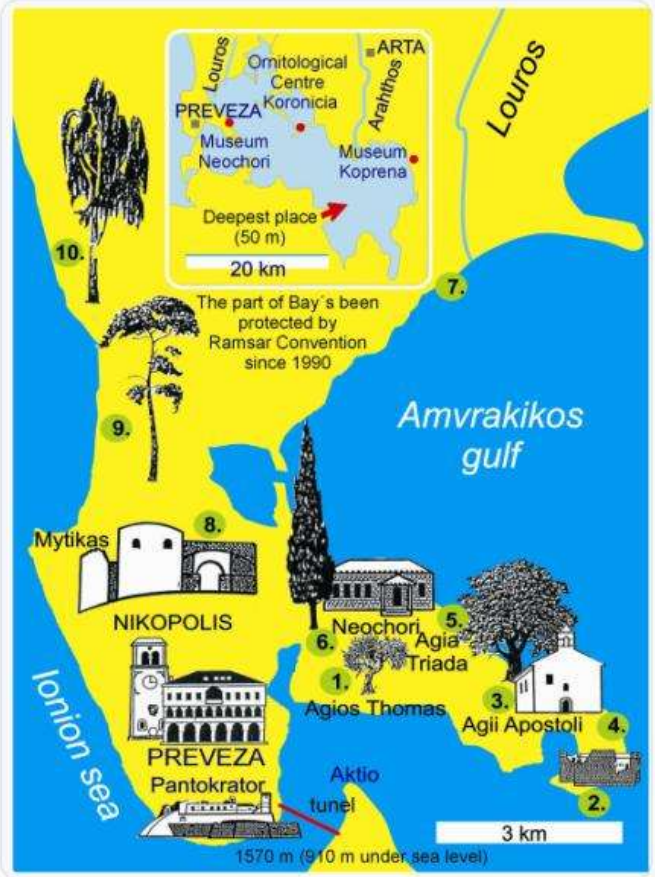






Iva Mrázková

Δέκα στάσεις στην εξοχή της Πρέβεζας Ten stops in the nature of Prevezian region




1. A quarry in Ag. Thomas
Το λατομείο του Αγ. Θωμά


2. Limestone hill with medieval fortress
Ασβεστολιθικός λόφος με μεσαιωνικό οχυρό


3. A park in Ag. Apostoli
Ένα πάρκο στους Αγ. Αποστόλους


4. Geological profile of a seashore in Ag. Apostoli
Το γεωλογικό προφίλ μιας ακτής στους Αγ. Αποστόλους


5. Amvrakia Bay and the seaside in Ag. Apostoli
Ο κόλπος της Αμβρακίας και η παραλία των Αγ. Αποστόλων


6. The settlement of Neochori with a natural history museum
Ο οικισμός του Νεοχωρίου με το Μουσείο Φυσικής Ιστορίας


7. Swamp, moor and bulrush areas
Βάλτοι, έλη και βούρκοι


8. Nikopolis and its surroundings
Η Νικόπολη και τα περίχωρά της


9. Forests on the Ionian Sea coast
Δάση στις ακτές του Ιόνιου Πελάγους


10. The Ionian Sea and its beaches
Το Ιόνιο και οι παραλίες του

Students who participate in international meetings in Agios Apostoli will visit all the ten sites in the frame of professional program. There are professional leaders who inform the students of the interesting sights being right on the place. The professional program of the camp is aimed at the professional fields of geology, botany, entomology, hydrobiology, herpetology and ornithology. Pupils and students are involved in the nature science research of the Preveza´s region. Interesting findings of the research are published in the Regional Natural Museum in Neochori.

Stop No. 1 "Quarry in Agios Thomas"

Characteristics:

It is the limestone quarry near Agios Thomas. Quarried limestone belongs to the set-up of Dinar mountain range. It comes from Jurassic period of the Mesozoic Era. The entire wider surrounding near Preveza belongs to the Ionian zone of the outer Hellenides. It was formed by Alpine folding which created the range mountain line of Dinar-Hellenic stage.

The geological structure of Preveza´s surroundings is formed by bedded rocks only (limestone, sandstone, clay slate), it means the rocks of younger systems: Mesozoic, Tertiary and Quaternary. Here you may also find some paleontological evidence from the Jurassic period. On the western side, the quarry is surrounded by dense macchia vegetation.

Educational Objective:

Origin of limestone

Use of limestone in building and chemical industry

Reduce of soil acidity by using the lime

Stop No. 2 "Macchias, pastures, skrape fields" - Limestone hill with medieval fortress

Characteristics:

The region forms a mosaic of different types of macchia the skrape fields which are now partly used as pastures (sheep, goats). It is a side-road from the village called Agios Apostoli at the altitude of approximately 100 metres. In the impenetrable vegetation of macchia there are mainly *Pistacia lentiscus and Pistacia terebinthus)*, *Cistus salviaefolius,* sometimes there are also other impenetrable brushwoods of bushes and mainly dwarf trees in which prevails *Myrtus communis*. However, there were identified even the species of *Laurus, Rubus* (blackberry), *Nerium oleander* (oleander), *Sarcopoterium spinosum,* then also *Ilex aquifolium)* and individually appearing *Cupressus sempervirens.* As a result of regular pasturing, there are also extensive dense herbaceous vegetations (frygana) - often intensely aromatic ones (species of thyme, rosemary, salvia, mint, sapa, etc.).

As for typical birds, there are *Lanius senator, Oenanthe hispanica* and warblers. As for precious butterflies, you can find here *Charaxes jasius, Hiparchia fatua,* palpares, numopteras and more of ones. Even with your eyes closed, you can recognize the cicadas of *Lyristes* which can be easily identified according to their "cutting". At the top of the highest hill there is the Turkish fortress which is the popular place for outings of participants of our camp.

Educational Objective:

Importance of pasturing the herbaceous vegetation for preservation of species composition of plants;

Effects of carbon dioxide dissolved in water to rise the skrape fields;

The Turks in troubled history of the Greeks.

Stop No. 3 "Park" in Agios Apostoli"

Characteristics:

It is very precious due to the remnants of oak trees which are many thousands years old - with the domination of *Quercus pubescens* and Hungarian oak *Quercus frainetto* and ancient centuries-old olives *Olea europea.* Spring aspect is characterized by ubiquitous cyclamens *genus of Cyclamen*, appearance of beautiful carrot-shaped plant - *Smyrnium perfoliatum* and many other plant species.

In 1991 there was the new species of pyrophor discovered here, i.e. *Lacon Kapler* (named after a Czech entomologist Kapler who as the first man found it right here). The most outstanding kind of butterflies is represented by *Callimorpha quadripunctaria,* birds are represented by *Strix aluco* and *Otus scops* - both species nest in hollow trees, fully provided by the old trees.

In the fallen oak leaves, you can find the smallest lizard - *Ablepharus kitaibelii* whose northernmost finding locality is in the Hills of "Kováčovské" in the region of Southern Slovakia. There are abundant green lizards *(Lacerta viridis)* and the lizards of Balcan *(Lacerta trilineata)* sunbathing on the olive tree trunks and hunting. The region around Agios Apostoli and the little church undoubtedly belong to the most valuable sites on the instructive trail.

Ing. Jiří Lazebníček, a mycologist from Olomouc, found here the rare, dark-coloured fungus from the family of Trogossitidae - Pulcherricium Caeruleumere in the year of 1999, which confirmed the value of this place.

Educational Objective:

Exemplary ecosystem of an old oak-tree forest

A little church on which you can demonstrate the destructive power of earthquakes (cracks in the walls) and sea erosion which will be the reason for its collapse from a high cliff to the sea waters in a few years (within ten years there has been a move of the cliff towards the back wall of the small church by 3 meters).

Stop No. 4 "Geological profile of the Sea Coast in Agios Apostoli"

Characteristics:

On the high wall of the shore, exposed by erosion effects of the sea, you can see the layers of the period of Alluvium which are easily identifiable (layer of own plough soil and the plough soil enriched with marl); and you can also see the layers formed during the period of Tertiary (marl layer which is temporarily flooded; the layer of whitish slate scan from which there are shells of gastropods falling down *(Gourmya family)*. Currently, little hermits of *Clinabarius family* use them as their "small houses". And finally the layer of carbonized vegetable matter which was permanently flooded in the past.

Here on the uncovered shore, there was the discovery of parts of tusk and a bone (femur) of the "forest elephant" *(Loxodonta Antiqua)* which had lived here in the period of Pleistocene. It was the discovery of Dr. Rostislav Morávek - National History Museum in Olomouc in the year of 1998. It was even 5 meters tall animal creature, taller than a mammoth, whose tusks were longer than 3 metres. The radiocarbon method has shown that the tusk parts which were found are 35,000 years old (with tolerance of +/- 2500 years).

On the same place, there have been stone tools of Neolithic human being - i.e. stone knives, arrowheads - found here since 1998. All these findings are in the exhibition of the Natural science Museum in Neochori.

Educational Objective:

Origin and age of geological layers

Settlement of Neolithic human being, the ways of his life and production of stone tools

Bionomics of the newly discovered beetle *Cerocoma prevezaensis* (its parasitic relationship to bees of *Tropidotilla litoralis* forming passageways in the layer of whitish slate scan

Stop No. 5 "Amvrakian Bay and its Coastline in Agios Apostoli"

Characteristics:

Natural conditions in the bay are significantly different from those in the sea. The bay is connected to the open sea in the place of strait between Preveza and Cape Aktio. This is the place of the famous naval battle of ship fleet of rebellious Antonius and Cleopatra with government troops of Pompei, which was filmed too.

System of water exchange in the bay is very poor. Moreover, there is also the fact that the river Arachtos empties into the bay on the averted northern side. The river drains out a large part of Epirus basins between Ioannina and north-south mountain axis of Greece. Diversity of living conditions of the bay is reflected in the fact that many marine organisms, animals and plants do not like this environment, and therefore they miss here completely. On the other hand, some other organisms have perfectly adapted to this environment. And due to the fact that they do not have their competition of the "purely" sea organisms here, they simply occupied this region and they procreated themselves to the unusual extent. For example, the echinodermatas, which are still in the Preveza´s harbour represented by ugly holothuroidea, are not present at all further behind the first little peninsula of Agia Triada. While on the other hand, the beautiful fish called Salaria pavo - which is unique in Preveza - here occupies every boulder protruding from the sandy sea bottom. As the geological layers show, it means the layers that emerged above the sea level due to action of tectonic forces (Greece belongs to the tectonically active regions), similar conditions to those we can witness by ourselves were present here in the Bay also in the period of Tertiary. By the way, we have not found any evidence showing that the sea was sometimes prevailing here. It has always been the bay, lake or swampland.

This stop is one of the few places in the instructive trail which can be reached only on foot (most others are accessible on roads and also on the roads for cars). On the way to the Bay, we go through macchia vegetation were *Cleopatra Gonepteryx* flies around. And caterpillars live on the evergreen plant of macchia - *Rhamnus alaternus.*

Along the coast you can see reed growing *(Phragmites sp.)* and the high plant replacing bamboo *(Arundo donax).* On the beach you can find a number of washed-up clusters of egg boxes of Bolinus brandaris (genus *Murex)*, shells of Ranatras, Pectinidae and other marine molluscs. We can find here also cuttle-fish bones and shells of naturally prepared crabs and other marine animals. We can often see fishing silver seagulls *Lalur argentatus* and *Sterna hirundo.* However, the greatest attraction in the Bay belongs to dolphins *(Delphinus delphis),* one of them is pictured in the heraldry of Preveza town, and also giant water turtles *(Caretta caretta).*

Educational Objective:

The difference between the sea and bay in terms of animal species representation

Symbiotic relationship between the crab of Dardanus callidus and Actinia equina.

Protection of the Amvrakian Bay

Stop No. 6 "Settlement of Neochori with the Natural Science Museum"

Characteristics:
The priority belongs to the exhibition of natural expositions of the Museum and visits to the School of Environmental Education. It is very good to compare the original flora and the flora planted in gardens (e.g. *Hibiscus sp.*, *Nerium Oleander, Bougainvillea spectabilis, Punica granatum, Morus alba, Ficus carica,* etc.).
In nearby Agios Trias there is probably the most grandiose eucalyptus in the entire region *(Eucalyptus camaldulensis)*.
In the spring of 2000, we started planting in the botanical garden at the museum. The garden should include trees and herbs typical of this region. The plants will be labelled with names. The garden will include a pergola too. The first part of the pergola was installed in the spring of 2000.

Educational Objective:
Comparison of three ecosystems represented as Dioramas.
Food chains in different ecosystems.
Viewing collections of prepared animals in the natural science exhibition - diversity of animal species.
Viewing interior of the Greek School of Environmental Education.
Tour of the village of Neochori with identifying plants in the gardens.
Walk to the biggest eucalypt tree in neighbouring Agios Trias.
Excursions to the lemon and olive park.

Stop No. 7 "Swamplands and Reed Areas"

Characteristics:
The Amvrakian Bay´s marshes and swamplands were included to the World Natural Heritage of high scientific value, according to the Ramsar Convention of 1977. Mainly for this reason, one of the stops on the instructive trail was located in the area of artificially created bay in the eastern direction of Nikopolis. Here - accompanied by communities of water, marsh and wetland birds - is the place for nests of many species of birds. The most beautiful and also the most precious ones of them include *Himantopus Himantopus.*

Educational Objective:
Meeting the ecosystem of wetlands.
Observation and identification of bird species.
Importance of wetlands in the countryside

Stop No. 8 "Nikopolis and its Neighbourhood"

Characteristics:
In addition to historically valuable Antique monument (winner of the Battle of Aktio had this town built in honour of this victory), Nikopolis is also considered as an interesting place in terms of natural science. The inside area near the museum building is overgrown
by the fennel abundantly spread around here in the Balkan *(Foeniculus vulgare),* the fennel is a host plant of *Papilio machaon.*
The strictly protected greenish turtle *(Testudo hermannii)* and snakes of the group of grass snakes - colubers (e.g. *Coluber gemonensis),* these ones are quite common here in the region.
It is quite interesting to see the tree frogs of *Hyla arborea* which take their rest on the fragrant fennel even during the strongest sunlight.

Educational Objective:
Protected animals and people in busy places, protection of rare animals.
Viewing and meeting the history of this cultural monument

Stop No. 9 "Forest vegetation of the Ionian Sea Coastline

Characteristics:

The place is located west of Nicopolis. The place is widely used by holidaymakers (wide gravel beach). There is continuous growth of eucalyptus trees *(Eucalyptus camaldulensis)*, the tree is originally from Australia, it is widely grown here in the Mediterranean Sea too. In the Cetraceous and Tertiary times, *Eucalyptus* was growing in Central Europe too, even in the territory of our country! Its wood is used in building industry as fuel... The stand vegetation is also used in the original homeland for drying swamps. The wood is resistant to decomposition. Leaves are used for production of the drug called *eucalypti folium* - strongly aromatic with camphoric and contractive taste, used in medicine, perfumery and production
of candies. At this place, *Eucalyptus* provides its users with deep shade. Not only the users but mostly the sparrows of *Passer hispaniolensis*. It is the suitable place for their nesting in colonies. There is a pine forest slightly continuing behind the eucalyptus forest in its northern part. This community of *Pinus halepensis,* typical for its long needles and cones seated on the thicker branches, is accessible by walking on foot just a few metres from the beach. On the high layer of pine needles (which is actually litter material), there are dense growths of bush-rope of *Smilax aspera,* often forming beautifully dark walls, and freshly green ones in the springtime, at the edge of the growth. In the shade, you can find here also *Ruscus aculeatus, Ilex aquifolium, Myrtus communis* and many other plants, including the beautiful yellow sorrel which is a common weed here.

Educational Objective:

Meeting the ecosystem of eucalyptus and pine forest
Notice of "sterility" of the eucalyptus growth, comparison with locust growth in our country.
Observation of Spanish sparrows living in colonies.

Stop No. 10 "Ionian Sea and Beaches"

Characteristics:
Tourists on the beach can admire *Eryngium maritinum* and *Glaucium flavum.* The by-passing walkers will certainly face the oval-shaped (like a "flat" egg) brown formations occurring in greater or lesser quantities on the beach. They are rhizomes of sea-plant of *Posidonia oceanica*, it means the rhizomes which are shaped by the sea waves and then ejected to the beach.

Educational Objective:
Importance of the Mediterranean Sea and its protection against pollution.
Keeping the beaches clean.
Protection of plants on the beach, especially Eryngium maritinum (ornamental plant which is often taken away by holidaymakers).

Throughout the excursions to every individual stops, the participants are reminded to respect the principles of nature protection.
First of all, it is strictly forbidden to catch and kill animals (transporting turtles or lizards is a criminal act). Plants must not be unnecessarily torn out, bulbs of the plants must not be taken away. It is forbidden to make a fire here (high fire hazard)! The wildlife animals must not be disturbed. Litters and wastes must not be left in the open nature.

Natura 2000

Natura 2000

Natura 2000 is an ecological network of protected areas in the territory of the European Union.

- In May 1992, the governments of the European Communities adopted legislation designed to protect the most seriously threatened habitats and species across Europe. This legislation is called the Habitats Directive and complements the Birds Directive adopted in 1979. These two directives are the basis of the creation of the Natura 2000 network of protected areas.

Special Protection Areas (SPAs) - „Birds areas“

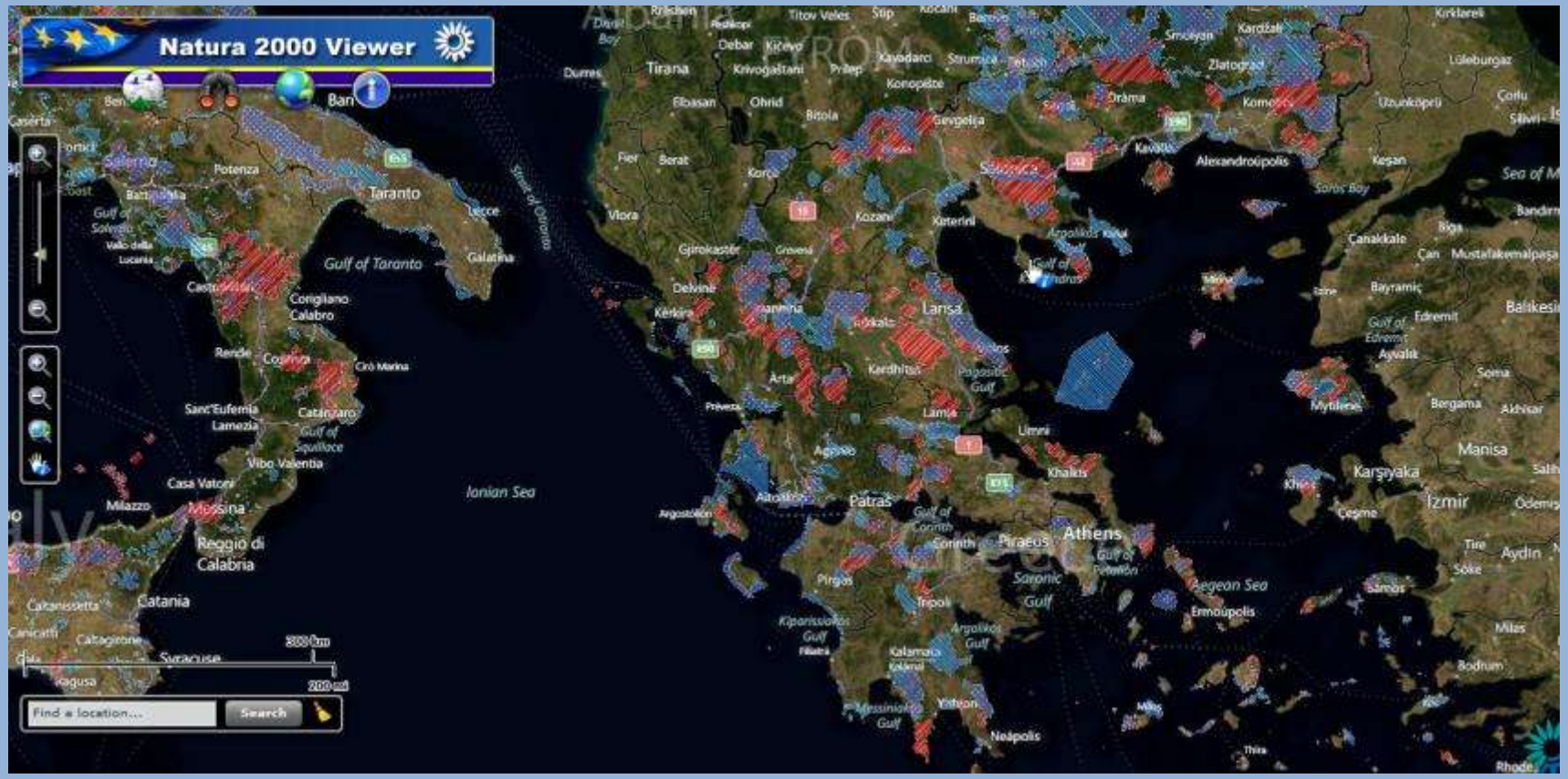
Special Areas of Conservation (SACs)

Natura 2000

- Natura 2000 protects around 18% of land in the 27 EU countries.

Natura 2000 in Greece

- Greece includes at its National List **241 Special Areas of Conservation (SAC)** and has declared **202 Special Protected Areas (SPA) - „Birds areas“.**



AMVRAKIKOS KOLPOS, DELTA LOUROU KAI ARACHTHOU (PETRA, MYTIKAS, EVRYTERI PERIOCHI)

„Bird Area“ (SPA)

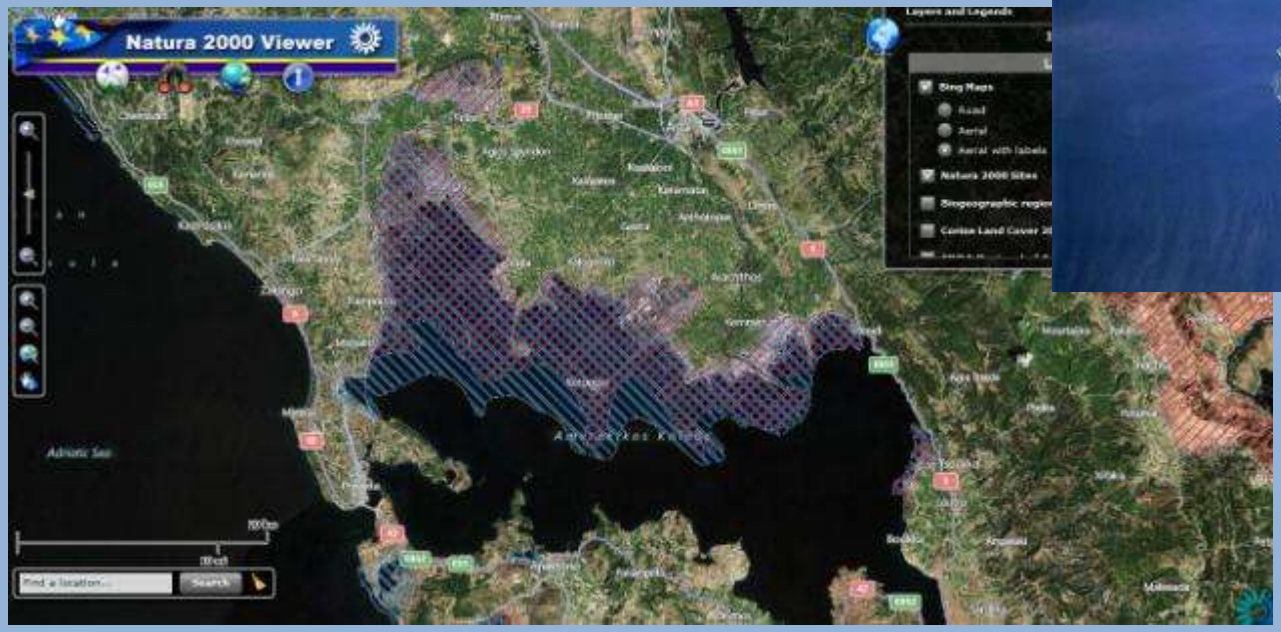
Special Areas of Conservation (SAC)

One of the largest enclosed gulfs in Greece

- 01-Aug-1996 and 01-Sep-2006
- 28.787 Ha

Formed by the deltas of the Louros and Arachtos rivers

It consists of brackish lagoons, a sandy coastal strip, saltmarsh…..



SPECIES Covered by Article 4 of Directive 79/409/EEC and listed in Annex II of Directive 92/43/EEC

Kareta obecná, Hawksbill sea turtle, Tortue imbriquée, Żółw szylkretowy, (*Eretmochelys imbricata)*

Orel mořský *(Haliaeetus albicilla*), White-tailed Eagle, Pygargue à queue blanche, Orliak morský, Bielik

Wintering

Pelikán bílý, Great White Pelican, Pélican blanc, Pelikan różowy, Pelikán ružový, (*Pelecanus onocrotalus)*

Bukáček malý, Little Bittern, Blongios nain, Μικροτσικνιάς, Bączek, (*Ixobrychus minutus)*

Bukač velký, Eurasian Bittern-
Great Bittern, Butor étoilé,
Ήτασρος, Bąk zwyczajny,
Bučiak veľký, (*Botaurus stellaris)*

Pisila čáponohá, Black-winged Stilt, Échasse blanche, Szczudłak zwyczajny,
(*Himantopus himantopus)*

Tuleň středomořský,
Mediterranean Monk Seal, Phoque moine de Méditerranée, Mniszka śródziemnomorska, Tuleň mníšsky, Μονάτοσς Μονάτοσς, (*Monachus monachus)*

Vodní buvol, Water Buffalo, Bubalus bubalis, Byvol arni, Bawół domowy (*Bubalus bubalis)*

EKVOLES ACHERONTA (APO GLOSSA EOS ALONAKI) KAI STENA ACHERONTA

For Special Areas of Conservation (SAC)

The inland part of the site consists of arable cultivation and a gorge with cliffs, deciduous forest and scrub. The coastal delta includes brackish marshes and low, scrub-dominated hills. Human activities include arable agriculture, livestock-farming, recreation and hunting.

Land use: agriculture (60%), tourism/recreation (20%).

01-Aug-1996 - 01-Sep-2006

4627.67 Ha

Covered by Article 4 of Directive 79/409/EEC and listed in Annex II of Directive 92/43/EEC and site assessment for them

Užovka čtyřpruhá,
Four-lined Snake,
(Elaphe quatuorlineata)

Užovka podplamatá (*Natrix tesellata)*

Želva zelenavá, (*Testudo hermanni*), Tortue d'Hermann, Żółw grecki, Korytnačka zelenkastá, Hermann's tortoise

Želva vroubená, (*Testudo marginata),* Marginated tortoise, Żółw obrzeżony

Želva bahenní (*Emys orbicularis)*
European pond turtle, Cistude,
Żółw błotny, Korytnačka močiarna