
SEMCLIMED

« Impact du changement climatique sur la flore méditerranéenne et actions de conservation »

Interreg IIIB-MEDOCC (Sept.2006-April 2008)



Field Trip
28-9-07

WORKSHOP
“Climate Change Impacts on Mediterranean Plant Diversity”



Chrysoskalitissa - Aspri Limni



Chrysoskalitissa is a small village, situated at 76 km far from Chania, at the Southwestern coast of Crete.

The most important sightseeing is the Monastery of Panagia Chrysoskalitissa. It is not known with certainty when the monastery was founded, but the name of the monastery is mentioned by Hieronymo Semitecolo in 1639 when he sailed around the coasts of West Crete

in order to map the coast line for the Venetian regime that feared an approaching Turkish invasion.

The church - built in 1894 - is dedicated to The Passing Away of Virgin Mary and to the Trinity. The icons are done by the painters Vlachakis and Polakis, while the old icon of The Passing Away of Virgin Mary is said to be several hundreds of years old.

The name of the monastery which means Virgin Mary with the Gold Step, refers to the legend telling us that the monks made from the purest gold the last of the steps up to the monastery, while it was still rich. During the Turkish period the monastery had to hand over the gold step to the sultan in order to prevent him from stripping the Patriarchate in Constantinople of its privileges. Another legend says that the gold step is certainly still existing, but you are able to see it, only if you have a pure and innocent heart. A third legend claims that the gold step has never existed, and the rumour of it is the result of the monks having made a hollow step in order to hide their treasures in it, when and if the monastery was attacked.



Micro-reserve Aspri Limni (Chrysoskalitissa, SW Crete)

The Micro - reserve of Palm groves with *Phoenix theophrasti* is located near to the monastery in an area called Aspri Limni (White lake). It is proposed as Microreserve in the frame of Cretaplant - LIFE project and covers an area of 2.2 hectares holding the Westernmost population known of the Cretan palm tree (Map 1).

This species of palm tree is a rare endemic of the Aegean region. It is found in Crete and SW Turkey (Datca peninsula), in small sandy moist valleys or rocky areas in close proximity to the sea. It is known by the common name “phinikas” or “vagi”, and its largest known population is located in Vai, East Crete.

It was identified as a new species in 1967 by the Swiss botanist Werner Greuter. He gave this palm tree that name, in honour of the father of Botany, Theophrastos (372-287 b.c.), who first mentioned the existence of Phoenix in Crete, in his work entitled “The natural history of the plants”

It is a dioecious tree, meaning that there are distinct trees carrying only female or male flowers. It reaches up to 10 m in height, produces suckers and it has one to several main trunks. It flowers from April until May and in October the fruits mature. The close relatives of the *Phoenix theophrasti* are the Date palm (*P. dactylifera*) which differs by its edible fruits and the *P. canariensis*, which is cultivated extensively as ornamental in Crete. It differs by its single, taller, non-suckering and more robust stem.

This habitat is included in Annex I of the Habitats Directive and is considered as a priority for conservation. The species *Phoenix theophrasti* is protected by the Greek Presidential Decree 67/81 and the Bern Convention, and is included in the Annexes II and IV of the Habitats Directive. In 1973, the population of VAI was declared an “Aesthetic Forest Preserve” (P.D. 121/73, FEK 170/A’/73) and is now protected by the national legislation.

Among the activities of the CRETAPLANT project, were the detailed mapping of the area (Map 1) and the installation of a permanent monitoring system for the purposes of studying the abiotic and biotic factors that affect the existence of the protected species (Photo 1)

Vegetation and Flora



Campanula saxatilis L. subsp. *saxatilis*

The surrounding area of the monastery of Chrysoskalitissa is covered by characteristic phryganean vegetation intermixed with maquis, garigue and other scrubs. The following species predominate: *Erica manipuliflora*, *Pistacia lentiscus*, *Ceratonia siliqua*, *Anthyllis hermanniae*, *Calicotome villosa* etc. Studies carried out in this area revealed geographical distribution. Gypsum steppe vegetation dominated by the perennial grass *Lygeum spartum* is found

near Chrysoskalitissa. *Juniperus oxycedrus* and *J. phoenicea* arborescent matorrals are found in the inner zone together with an evergreen sclerophyllous scrub dominated by *Pistacia lentiscus*, *Ceratonia siliqua* and *Olea europaea*.

The flora of the area is rich in endemic and rare species. Inside the Micro-reserve more than 130 plant taxa have been found until now and 14 out of them are endemic and threatened to Crete (Table 1).



Viola scorpiuroides Coss.

Milia village

Milia is located in a semi-mountainous region in the province of Kissamos (at about 500 m. altitude), in the Prefecture of Chania, the closest village being Vlatos, about 4.5 kilometers away. It is built on a mountain slope which forms one side of a valley and is situated in an area unique for its expansive variety of plants and trees



A stream crossing the property during the wintertime serves as a natural boundary between the two slopes, each of which enjoys a different kind of soil and vegetation. It is this which provides Milia .

One of the slopes consists of a schist-like rock, and is graced by chestnut trees, plane trees, acorn trees and cone-bearing trees, while the other slope of limestone hosts aromatic herbs, various flower-bearing bushes, olive trees, pear and wild pear, and carob trees, in addition to impressive rocky masses. You may be fortunate enough to catch sight of the rare vulture *Gypaetus barbatus*, the bone-eating vulture or “kokkalas” (Cretan common name), while strolling around on the rocky masses punctured with mammoth hollows.

Milia won the first prize in an international competition for ecotourism in 2003 which was organized by Skal International through 54 nominees.

Until 1982, when the decision was made for environmental improvements and the restoration of the mediaeval settlement, Milia was a place where irresponsible human activities, especially fires and over-grazing, had resulted in the erosion of soil and a diminished water supply, cultivable earth and abundant water having been two of the most notable and precious attributes of the place at one point.



Table 1.: Endemic ,Rare,Treatened and protectected species in the Chrysoskalitissa microreserve

	Species	Endemic to Crete (*) & Karpathos (**)	Red Data Book (1)	Habitat directive (92/43 EEC)	Presidentia I Decree 67/1981 (2)	Bern Convention 1992 (3)
1	Alkanna sieberi DC.	*			Y	N
2	Allium rubrovittatum Boiss. & Heldr.	**			N	N
3	Asperula rigida Sm.	*			N	N
4	Bellevalia brevipedicellata Turril	*	V		Y	N
5	Campanula saxatilis subsp. saxatilis					
6	Cymodocea nodosa (Ucria) Asch.				N	Y
7	Hypericum trichocaulon Boiss & Heldr.	*			N	N
8	Limonium elaphonisicum A. Mayer	*			N	N
9	Petromarula pinnata (L.) A. DC.	*			N	N
10	Phoenix theophrasti Greuter		V	II/IV	Y	N
11	Scutellaria sieberi Benth.	*			N	N
12	Teucrium alpestre Sm.	*			N	N
13	Verbascum arcturus L.	*			N	N
14	Viola scorpiuroides Coss.		R		Y	N

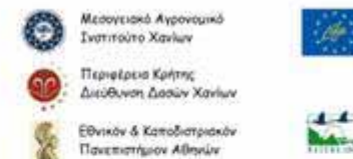
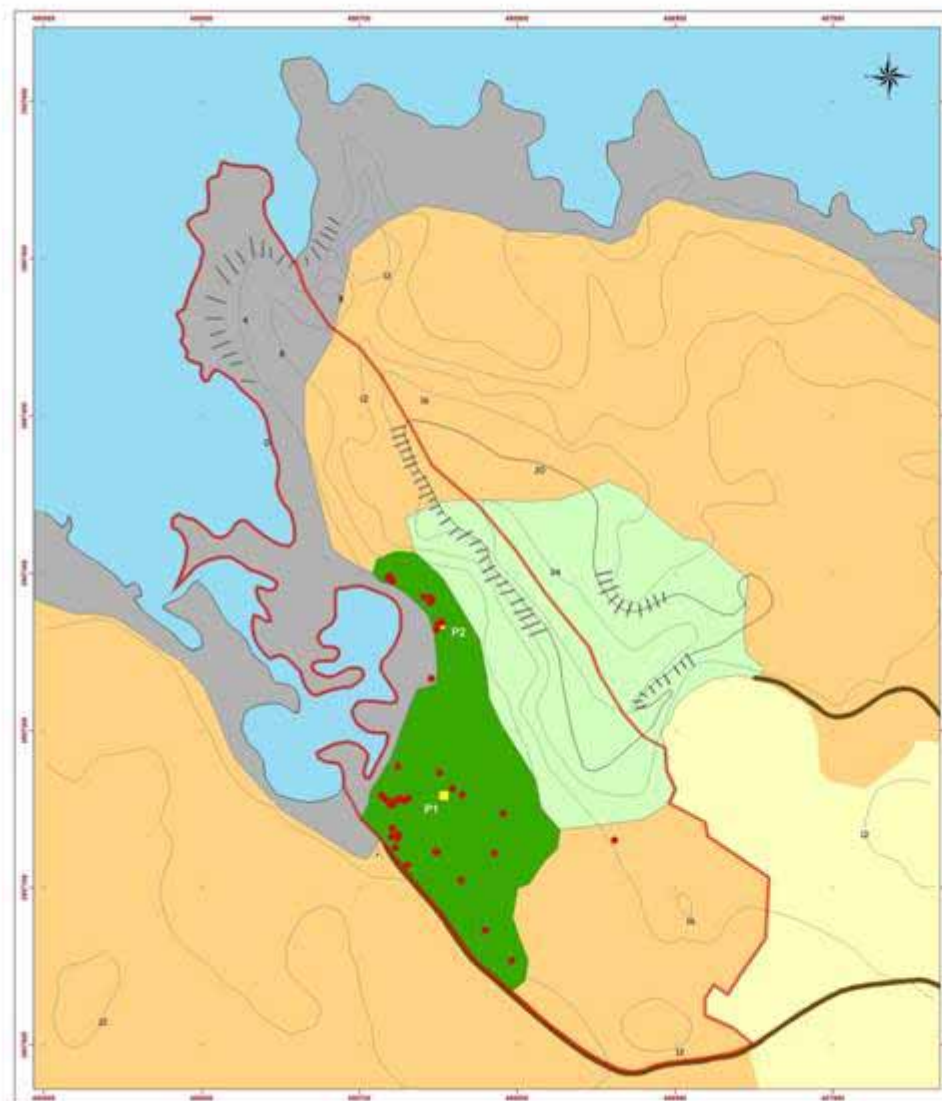
(1) Phitos, D., Strid, A., Snogerup, S., Greuter, W. 1995. The red data book of rare and threatened plants of Greece. WWF.Greece

[E=endangered V= vulnerable R=rare

(2) Y if the taxon is protected by the Presidential Decree 67/1981, N (if not)

(3) Y if the taxon is protected by the Bern Convention1992, N (if not)

Map 1: Chrysoskalitissa microreserve



LIFE - ΦΥΣΗ
ΠΡΟΓΡΑΜΜΑ "CRETAFLANT"
 "Τύπος Δίκτυο Μικρο-αποθέματος Φυτών στη Δυτική Κρήτη"
 LIFE 04/NAT/GR/000104

Χάρτης του Μικρο-Αποθέματος του φυτού *Phoenix theophrasti*
 (περιοχή: Ασπρη Λίμνη - ΧΡΥΣΟΣΚΑΛΙΤΙΣΣΑ)

Κλίμακα: 1:1.500



ΥΠΟΜΝΗΜΑ

- *Phoenix theophrasti*
- ▲ Σημείο αναφοράς
- Χωροσταθμικές (ισοδύναμη 20 m)
- Χωροσταθμικές (ισοδύναμη 4 m)
- |||| Βράχια
- Αγροτικός δρόμος
- Όρια Μικρο-Αποθέματος (Πλάτος = 2191 m, Εύρος = 2.52 km)
- Προτεινόμενες δογματοληπτικές επιφάνειες 100 m²

Οικότοποι Natura 2000

- Φωνικοδάση του *Phoenix*
- Γλυφικές καλλιέργειες
- Δενδροειδείς θαμνώνες με *Juniperus phoenicea*
- Φρύγανα από *Sarcopoterium spinosum*
- Αποκερμαίνουσες βραχώδεις οκλίες με βλάστηση στη Μισογύνη με ενδημικά *Limonium spp.*



Πηγή: "Προστασία Μικρο-αποθέματος Φυτών 2004-2010"
 (ΕΡΕΥΝΑ - ΠΡΟΤΕΙΝΟΜΕΝΕΣ ΔΟΓΜΑΤΟΛΗΠΤΙΚΕΣ ΕΠΙΦΑΝΕΙΕΣ 100 m²)

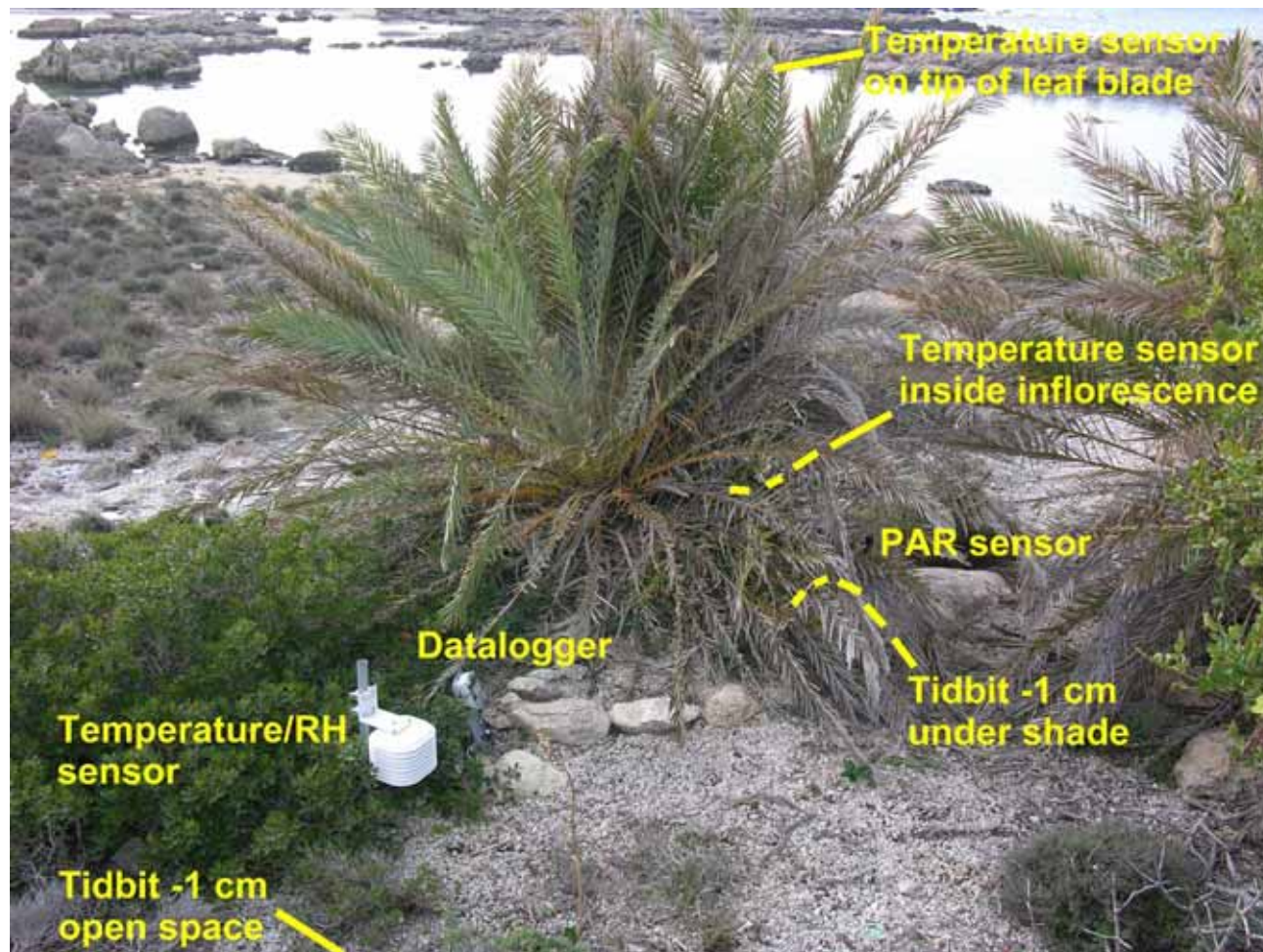


Photo 1: Monitoring station in Chrysoskalitissa microreserve