Combining abilities, creating synergies and enhancing the performance of parks for sustainable development policies

#### **International Conference**

#### «Green Areas: A level for sustainable local development»

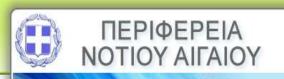
26/6/2014, RODOS PALACE HOTEL, Rhodes

















#### Rhodes: Wild growing and endemic flora.

#### Potentialities of exploitation - Parks



Dr. Nikolaos Theodoridis,

Forester - Environmentalist, Decentralized Administration of Aegean



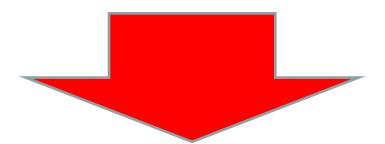
Konstantinia Sot. Papastergiou, Forester – Environmentalist, M.Sc., Municipality of Rhodes

#### THE FLORA IN THE ISLANDS

- Rhodes is the largest island of Dodecanese and is situated in the SE Aegean.
- Due to position, (latitude and proximity to three continents), the suitable conditions for the development of a wide variety of flora were created.
- Rift island.



- The small number of plant species is due to the isolation of the islands.
- The difficulty for their expansion because of the sea creates the conditions for

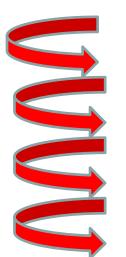


the genesis and settlement of endemic species

#### To this, contribute:



- the time of the islands' creation,
- their age,



- the distance among them,
- the distance from the mainland and
- the topographical and geomorphological conditions.



 The amount of plant species of Dodecanese in the western islands (Karpathos, Kasos, Atypalaia, etc) is similar to the one of the southern Greek mainland, Cyclades and Crete.

• While in the eastern islands (Rhodes, Tilos, Halki, etc) is similar to the one of Marmaris and Asia Minor.



 Different composition and development of plant communities in ravines, mountain slopes, plains due to the soil composition and the microclimate.





Equisetum telmateia





# PHYTOGEOGRAPHY -WILD PLANTING FLORA

 The Greek space is divided to 13 phytogeographical departments



Total flora of Dodecanese 1.40 taxa. The flora of four islands (Rhodes, Halki, Simi, Tilos) is consisted by 1.432 taxa, of which the 1.220 are wild growing.

Most of them (1.156) are present in Rhodes.



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	Ρόδος	Χάλκη	Σύμη	Τήλος	
Ενδημικά taxa	142	44	68	42	
Τοπικά ενδημικά	14	5	3	0	-
Ευρύτερα ενδημικά	128	39	65	42	
Μεσογειακά taxa	652	246	244	224	
Ευρυ-μεσογειακά	291	120	125	124	-
Στενο-μεσογειακά	155	51	50	43	
Δυτικο-μεσογειακά	1	1	0	0	
Νοτιο-μεσογειακά	4	0	0	0	
Ανατολικο-μεσογειακά	201	74	69	57	
Ιρανο-Ανατολικά taxa	19	1	2	1	
Ευρείας εξάπλωσης	343	101	109	107	
Μεσογειακά-Ατλαντικά	31	6	8	9	-
Μεσογειακο-Ιρανο-					
Τουρανικά	108	47	41	47	
Παλαιοεύκρατα	146	43	44	40	
Εύκρατα	16	0	5	3	
Υποτροπικά & τροπικά	6	0	0	NTERBEG I	VC
Κοσμοπολίτικα	36	5	11 1	INNOVATION & INVIRONMENT REGIONS OF EXPROPE SHARING SI	OLUTIONS

#### HABITAT TYPES

#### **COASTAL ECOSYSTEMS**

- 1. Sandy and gravelly shores
- 2. Cliffs
- 3. Saline habitats

#### **BUSHES**

- 1. Brushwood
- 2. Maquis vegetation and shrubs

#### **GRASSLANDS**

- 1. Dry grasslands
- 2. Wet grasslands
- 3. Temporary lakes

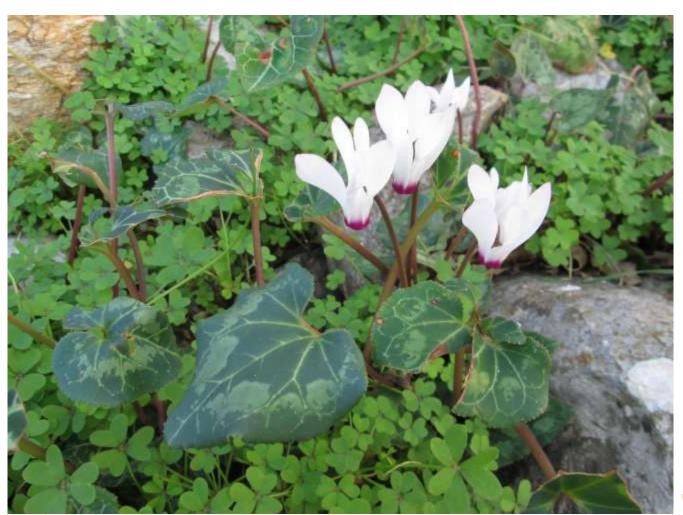
#### **FORESTS**

- 1. Coniferous forests
- 2. Deciduous and evergreen broadleaf

MOUNTAIN VEGETATION

**CHASMOPHYTIC VEGETATION** 





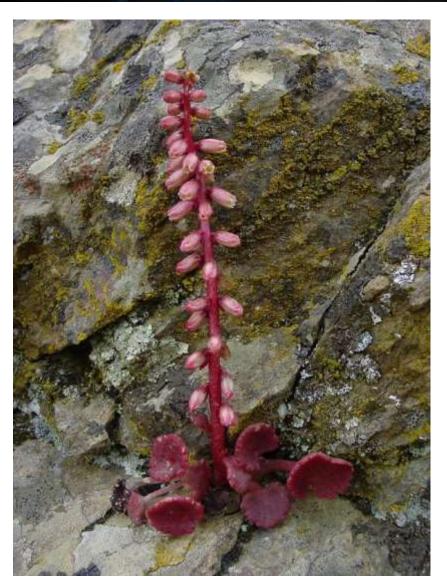
#### Cyclamen repandum





#### Consolida arenaria





#### Umbilicus albido-opacus





#### Anthemis rhodensis

(Foto: G. Pastrikos)



Belongs to the family of daisyand chamomile.

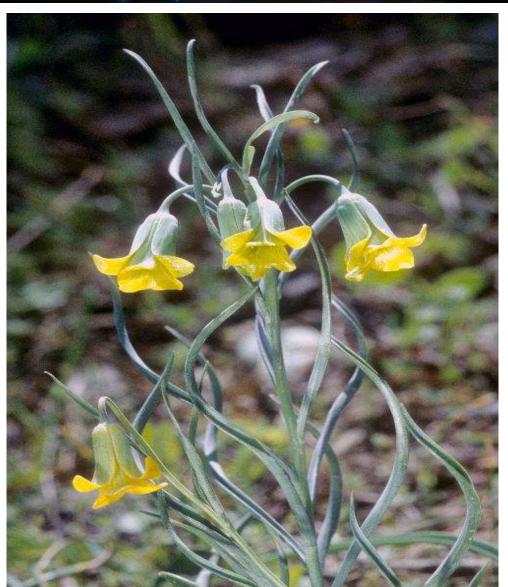




#### Silene salamandra

(Foto: Michael Hassler)





#### Fritillaria rhodia

(Foto: Johannes Flohe)

Rare species





• Paeonia rhodia (Foto: G. Pastrikos)









#### **Onopordum rhodense**

(Foto: G. Pastrikos)

- Rare and endemic plant of Rhodes.
- Protected by international treaties signed by Greece.
- Included in the Red List of endangered species by IUCN.





#### Ophrys fusca ssp. eptapigiensis

(Foto: Michael & Ulrike Hassler)





#### Ophrys fusca ssp. lindia

(Foto: Michael & Ulrike Hassler)





#### Ophrys halia

(Foto: G. Pastrikos)







 Ophrys holosericea ssp. oreas

(Foto: Michael & Ulrike Hassler)





 Allium rhodiacum

«A new species from Rhodes!»





#### Campanula rhodensis







# • Centaurea lactucifolia





#### POTENTIALITIES OF EXPLOITATION

Hybrid Parks

In situ observation

Trade



#### A. Hybrid Parks

#### **Basic Purpose:**

The best service of financial, social, environmental purposes within the framework of sustainable development policies and policies for the mitigation of climate change.



#### The case of Rhodes

 The creation of a Mediterranean Park in the hinterland of Rhodes: Opportunity for the projection of the exceptional natural environment of the island with the development of a domestic tourism with nature loving, recreational and educational activities.

• **Purpose**: The enhance of tourists' flow to the islands' mainland.



#### **SUGGESTION**

The "Mediterranean Park" next to the dam of the lake "Gadoura".





#### Identification of species with a guide and experiential approach

- **Purpose**: Meeting the Greek flora
  - ✓ Easily accessible area (500 acres).
  - ✓ With appropriate infrastructure for tours, sports, site viewing, tasting local products.
  - ✓ View points to the lake.
  - ✓ Parking area.
  - ✓ Picnic areas.



#### **B.** In situ observation

- Organization of group tours for people who are involved with botany, photography, painting, etc. in areas with rare plants.
- Organization of excursions for observation and shooting of the species during the period of flowering.
- Thorough study and monitoring precedes in order to find the elements or conditions that contributed to the creation and the presevation of the certain species.



#### C. Trade

- Many plants and seeds of the flora of Rhodes and the other islands of Dodecanese, are marketed <u>legally or not</u> and sold by companies of Europe and USA.
- Most of them were exported from Greese recently or in the past without the necessary permits.
- In many of them, new cultivations and varieties or crosses have been done.
- These species, either ornamental or for beekeeping, either medicinal or for beverage production, can be cultivated on marginal soils especially in terms of fertility, for commercial and ornamental purposes.



#### Σας ευχαριστούμε πολύ! Thank you!



Asyneuma gigantium

