

IUCN plant conservation programmes in the Mediterranean

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Mediterranean Plant Specialist Group

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at a glance

- A unique democratic union of more than 1'100 member organizations
- National states, government agencies and NGOs from over 160 countries
- 12'000 scientists in six commissions of expertise
- 1'000 staff in 62 offices worldwide
- A neutral forum for governments, NGOs, scientists, business and local communities to find pragmatic solutions
- UN Observer Status



commissions



Ecosystem Management

- Guiding the management of natural and modified ecosystems



Education and Communication

- Promoting sustainability through education and communication



Environmental, Economic and Social Policy

- Advising on economic and social factors that affect natural resources



Environmental Law

- Advancing environmental laws and its application



Protected Areas

- Advising and promoting terrestrial and marine reserves, parks and protected areas



Species Survival

- Supporting species conservation and protecting endangered species



mission

To influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable





Knowledge products

Red List of species

Red List of ecosystems

Key Biodiversity areas

World database on protected areas



KNOWLEDGE PRODUCTS

Natural Resource Governance Framework: Effectiveness, rights, equity and benefits

IUCN Red List of
Threatened
Species: measures
extinction risk

IUCN Red List of
Ecosystems:
measures risk of
collapse

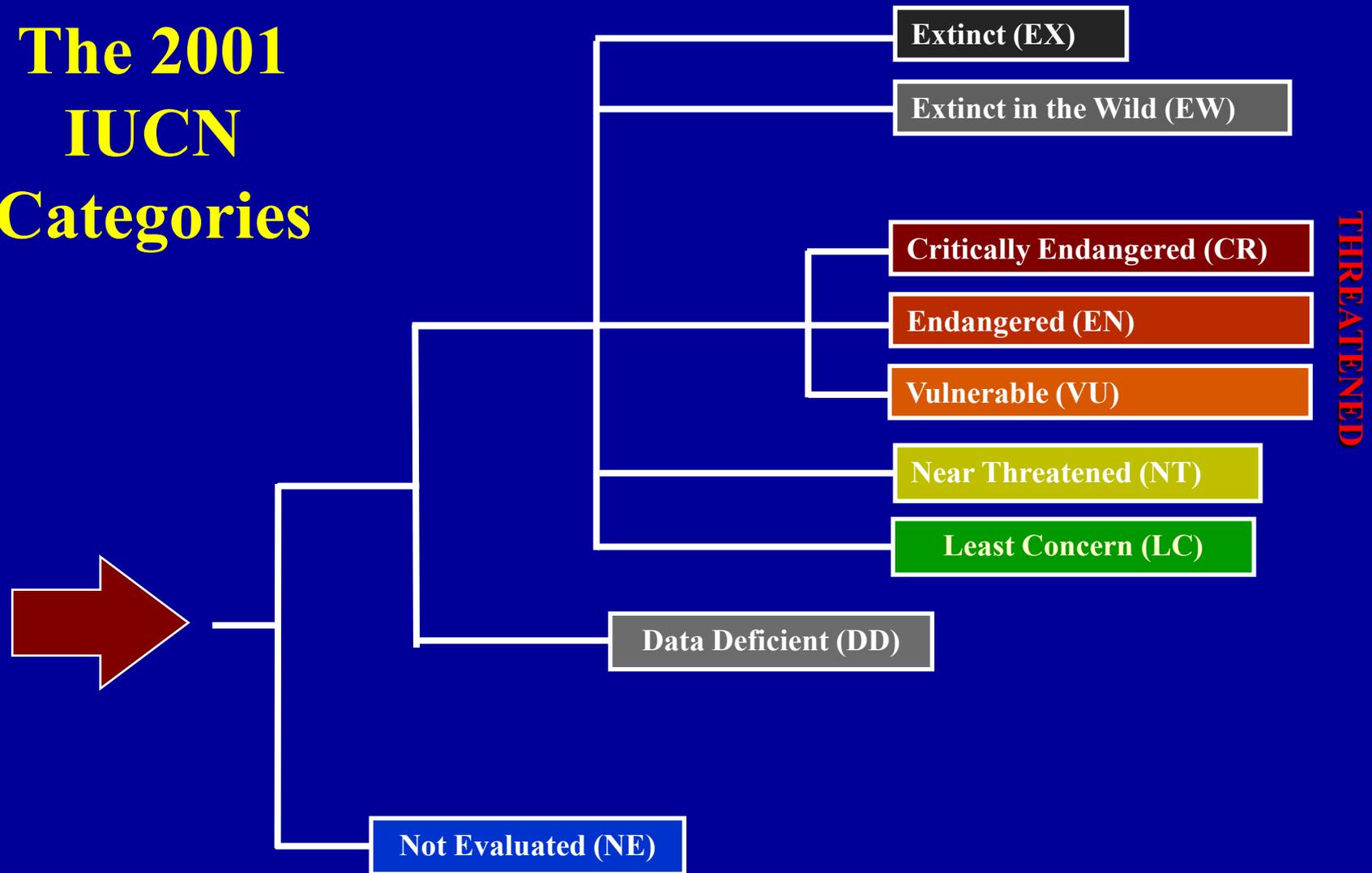
Human
Dependency
on Nature:
values nature's
contribution to
people's
livelihoods

Key Biodiversity
Areas (KBAs):
Sites that contribute
significantly to the
global persistence of
biodiversity

World Database on
Protected Areas
(WDPA):
sites with protected
status



The 2001 IUCN Categories



CRITERIA

A

Population reduction

B

Restricted geographic range

C

Small population size & decline

D

Very small or restricted population

E

Quantitative analysis

Quantitative thresholds

THREATENED CATEGORIES

Critically Endangered (CR)

Endangered (EN)

Vulnerable (VU)



What is the IUCN Red List ?

- More than just names and threat categories
- Includes information on distribution (maps), threats, ecological requirements, and conservation actions
- Species assessments are generated through the knowledge of thousands of the world's leading scientists through a peer review process.





IUCN Red List Goal

To provide information and analyses on the status, trends and threats to species in order to inform and catalyse action for biodiversity conservation.





The aims :

- Establish a baseline from which to monitor the change in status of species
- Provide a global context for the establishment of conservation priorities at the local level
- Monitor, on a continuing basis, the status of a representative selection of species (as biodiversity indicators) that cover all the major ecosystems of the world



IUCN Red List assessment: an estimate of **extinction risk**

What is the likelihood of a species becoming extinct in the near future, given current knowledge about **population trends**, **range**, and recent, current or projected **threats**?

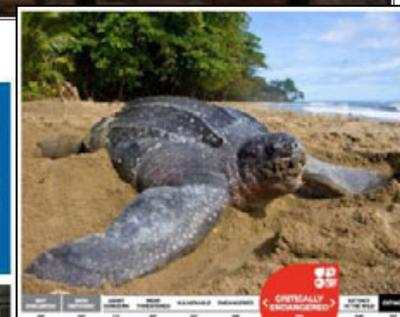
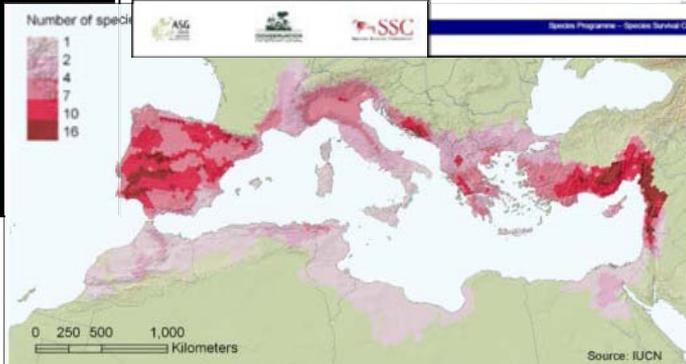
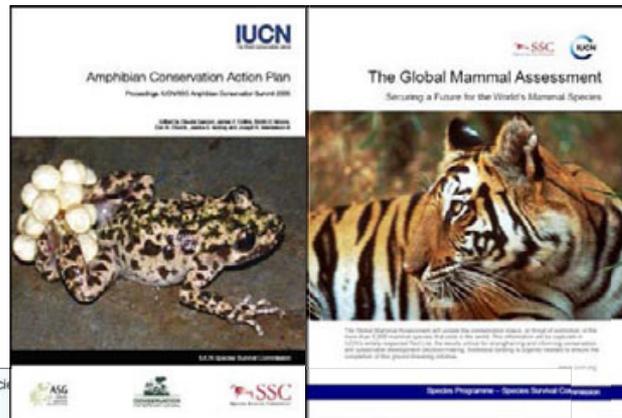
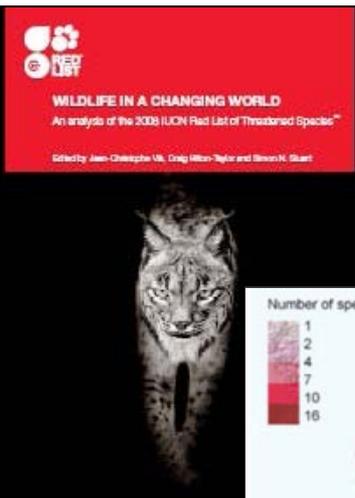
It is not a list of species that are priorities for conservation action



Introduction to the IUCN Red List



- Analysis and information
- Conservation planning and priority-setting
- International conservation policy
- Inform private sector decision-making
- Education and public awareness



The Species Survival Commission (SSC) OBJECTIVES



- To influence decisions and policies affecting biodiversity by providing recommendations and guidelines based on sound interdisciplinary scientific information
- To encourage users of natural resources to adopt modes of production and consumption that promote the conservation of biodiversity
- To increase the capacity to provide timely, innovative, and practical solutions to conservation problems



SSC MEMBERS INCLUDE:

- Scientists
- Field Researchers
- Policy Makers
- Teachers
- Resource Managers



Who are experts on :

- species groups (taxonomic or geographic)
- thematic issues (e.g., conservation breeding)

SSC ACTIVITIES



- Monitor and evaluate the status of species
- Identify threats
- Prioritise actions to reverse threats
- Contribute to global conservation policies, e.g., invasive species
- Produce Action Plans
- Provide advice to IUCN members, governments, NGOs



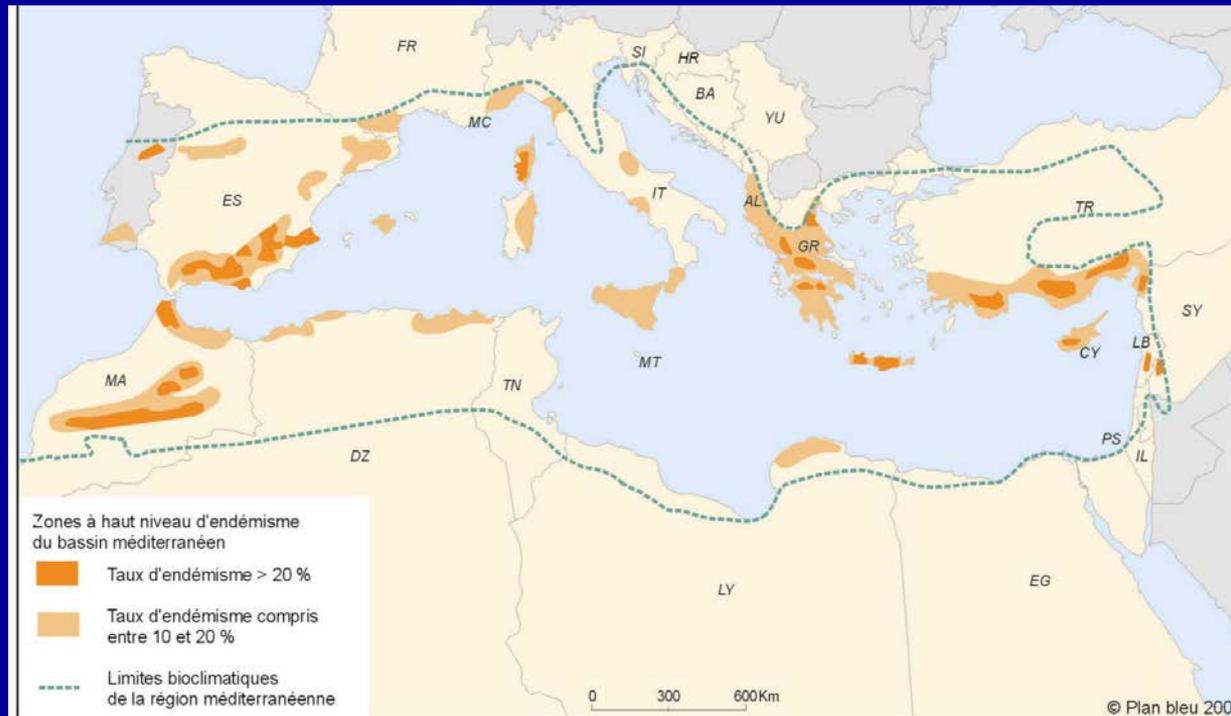
Center for Mediterranean Cooperation

- Established in Malaga (2000)
- Coordinate the activities of the 170 IUCN Mediterranean member organizations and the 650 commission experts
- To influence, encourage and assist Mediterranean societies to conserve nature



Mediterranean Plant Specialist Group (SSC/IUCN)

- Geographical extension of the former Mediterranean **Islands** Plant Specialist Group
- 60 members, 18 countries



MPSG activities 2013 -2016 :

- Defining and conserving Important Plant Areas of the south and east Mediterranean region
- Assessing the conservation status (Red List) of steno-endemic Mediterranean taxa
- Planning and implementing plant conservation projects in the field
- Promoting plant conservation in high endemism areas, especially on mountains and islands
- Highlighting the importance of the conservation of Critically Endangered plant taxa

IUCN plant conservation programmes in the Mediterranean

1. Mediterranean Biodiversity Assessment
2. Red List assessment of Mediterranean priority plant species
3. European Red List of pollinators and medicinal plants
4. Plant for People
5. Freshwater Biodiversity Assessment and Conservation Priorities for the Mediterranean Basin Hotspot
6. Important Plant Areas of the south and east Mediterranean region
7. In situ conservation projects

1. Mediterranean Biodiversity Assessment

Phase I : 2007-2010

Phase II : 2011 – 2015

Red List of vertebrate and selected plant
and invertebrate species in the
Mediterranean region

Goals

- Identify and document those species most in need of conservation action
- Provide an index of biodiversity degeneration and an overview of threats
- Present a context for the establishment of conservation priorities
- Establish a baseline to monitor the status of a selection of representative species as biodiversity indicators

First results

- **Amphibians**

106 sp. assessed, 64% endemic, 25% endangered,
1 sp. extinct

- **Cetaceans**

12 taxa assessed, 60% endangered

- **Endemic freshwater fish**

249 sp. assessed, 100% endemic, 56% endangered,
8 sp. extinct

- **Reptiles**

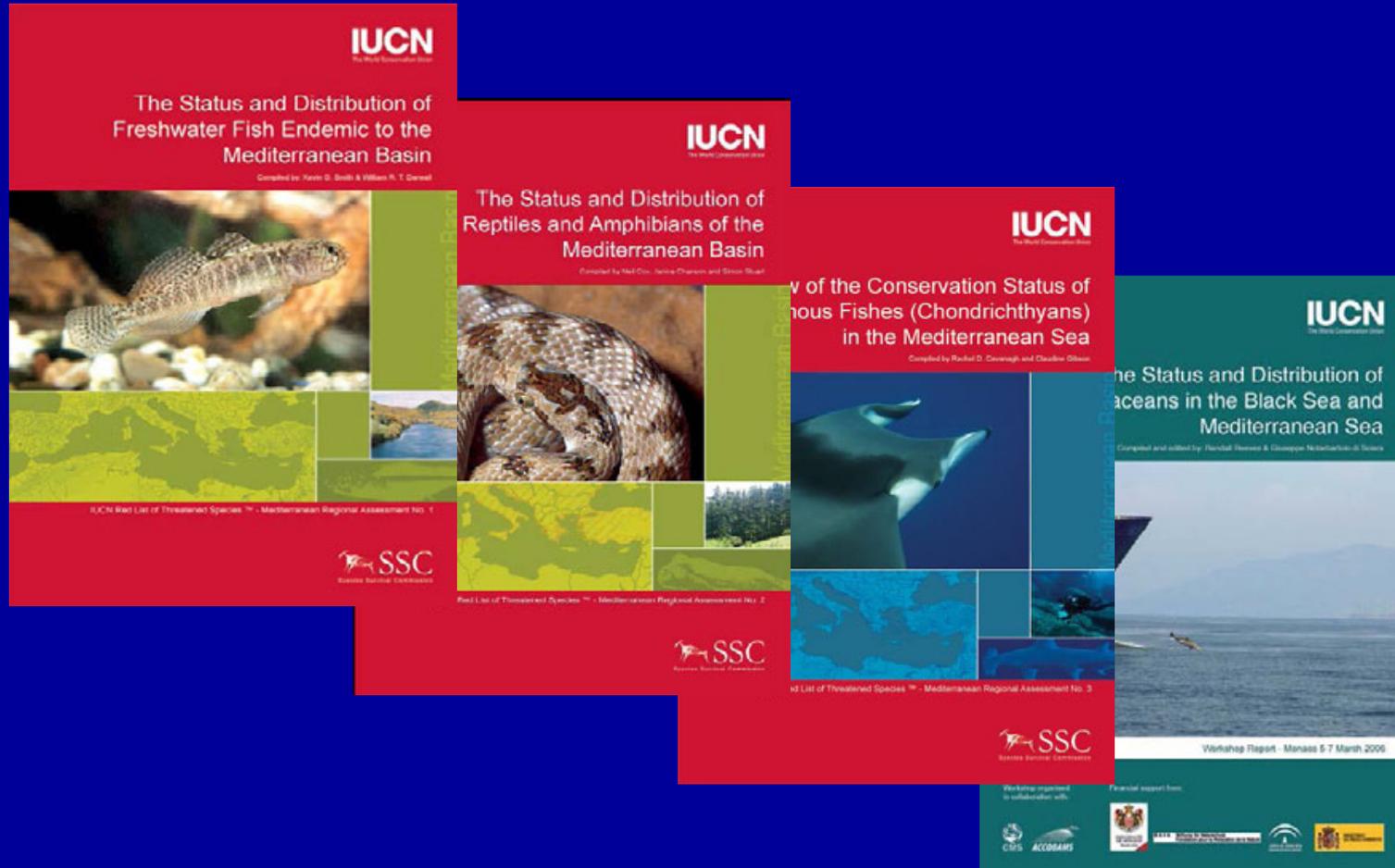
355 sp. assessed, 48% endemic, 13% endangered,
1 extinct

- **Sharks and rays**

71 sp. assessed, 42% endangered, 26% Data Deficient



Med. Red List Series



II. Mediterranean Plant Red List

Goals :

- **To prepare a regional IUCN Plant Red List for the Mediterranean with the following priorities :**
 - Steno-endemics
 - Species protected under policy instruments at European and global level
- **To assist Mediterranean countries in preparing National Plant Red Lists and conservation priorities**

Assessment of steno-endemic plants

- The most vulnerable endemic plants are the steno-endemics (restricted-range or site restricted endemics)
- Their area of occupancy is small and they might be pushed to extinction by any major disturbance
- Their low genetic diversity reduces their ability to adapt to change (for instance climate change)

Outcomes :

- Full Red List assessment of 1'500 Mediterranean steno-endemics
- Analysis of the main threats
- Analysis of the habitats type with threatened steno-endemics
- Analysis of the already taken conservation measures (protected areas, *ex situ* and *in situ* conservation measures)
- Mapping of sites with threatened plants
- Recommendations for conservation actions

2. Red List assessment of Mediterranean priority plant species

- Lead by : IUCN Red List Unit and IUCN-Med
- Goal : Assessment of 1500 Mediterranean endemic Monocots
- Duration : 2011 - 2015
- Funded by : MAVVA
- Work to date : 1411 species identified for assessement, first training meeting in Istanbul, 600 species assigned to experts

3. European Red List of pollinators and medicinal plants

- Lead by : IUCN Red List Unit and IUCN Regional Office for Europe
- Goal : Red List assessment of 300 species
- Duration : 2011 - 2014
- Funded by : European Community

4. Plant for People (saving our future)

Conserving the world's most important trees, crop wild relatives and medicinal plants

- Lead by : IUCN Global Species Programme and SSC
- Red List assessment of 1' 500 crop wild relatives, medicinal plants and timber trees species + conservation priorities
- Key Biodiversity Areas for useful wild plants
- Duration : 2013 – 2016
- Related to Aichi Target 13 : maintain genetic diversity of plants and of wild relatives

5. Freshwater Biodiversity Assessment and Conservation Priorities for the Mediterranean Basin Hotspot

- Lead by : IUCN Global Species Programme and Freshwater Biodiversity Unit
- Goal : Assessment and Conservation of aquatic plants, fishes, dragonflies, ...
- Duration : 2012 - 2014
- Funded by : MAVA and Critical Ecosystem Partnership Fund



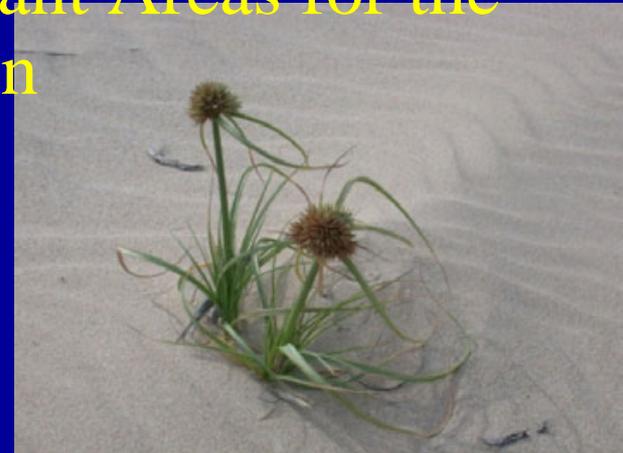
6. Important Plant Areas of the south and east Mediterranean region

- Phase I : Priority sites for conservation (2009 – 2011)
- Phase II : Conserving wild plants and habitats for People in the south and east Mediterranean (2013 – 2016)



Context for the project

- This project was conceived to support the creation of an Ecosystem Profile for the Mediterranean region by the Critical Ecosystem Partnership Fund (CEPF)
- The goal was to ensure that plant priorities were included in the Profile document which outlines biodiversity priorities in the region
- There was few data on Important Plant Areas for the South and East Mediterranean region



Goals of the project

To identify Important Plant Areas using existing data, with :

- PlantLife IPA methodology
- WWF methodology on important forest areas
- Data on species of IUCN/SSC

To prepare documents for :

- The CEPF fundings
- Conservation work in the region
- Future programmes of IUCN, PL et WWF

IPAs Criteria

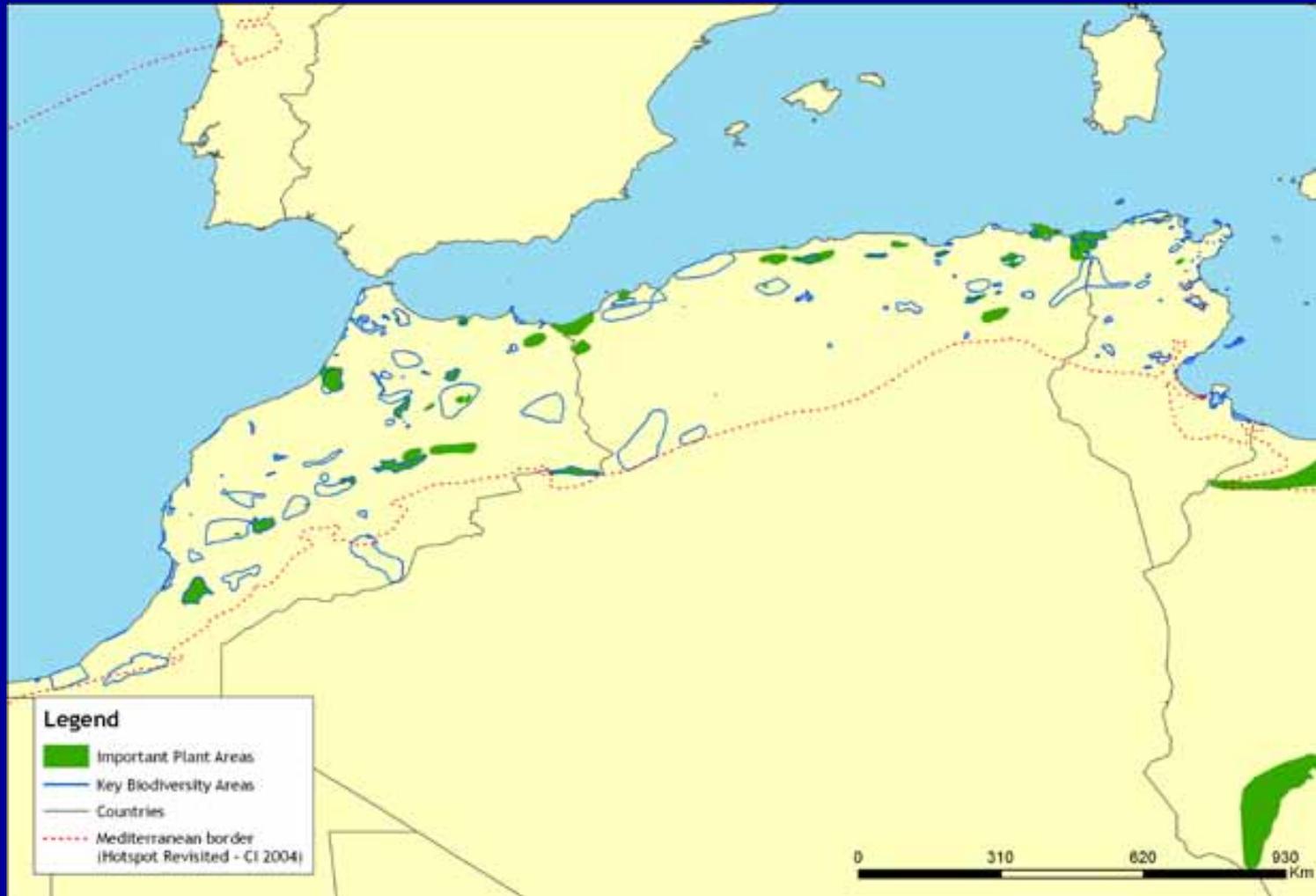
- **A** – The site holds significant populations of **species of global or regional concern** (presence of threatened species)
- **B** – The site has **exceptionally rich flora** in a regional context in relation to its **biogeographic zone** (species richness)
- **C** – The site is an **outstanding example of a habitat type of global or regional importance** (presence of threatened habitats)

Sites can qualify if they satisfy one, two or all three criteria

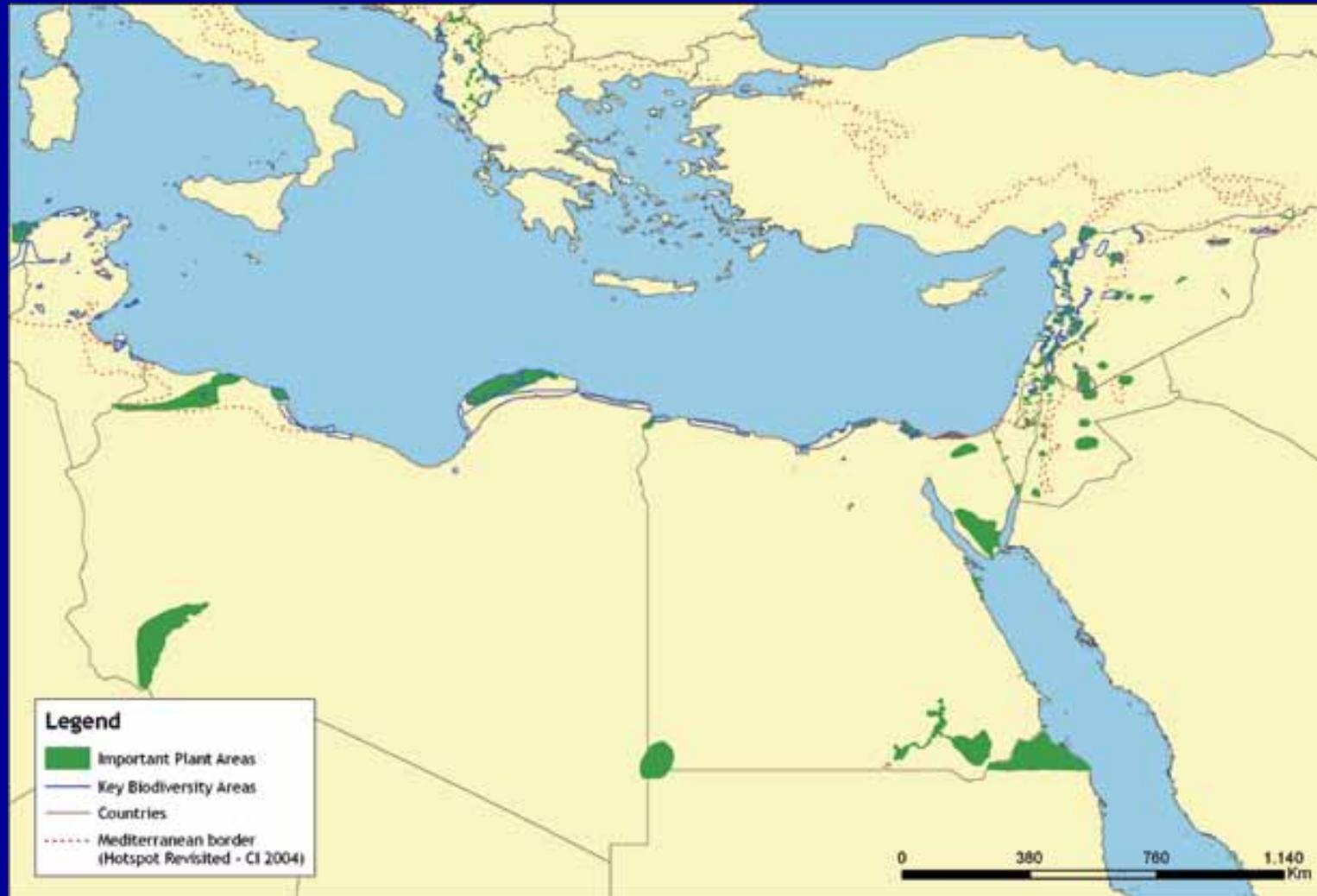
Main results (1)

- 207 IPAs have been identified
- 40% of IPAs identified coincide with sites important for other taxa (mammals, birds, amphibians)
- 75% of IPAs contain locally endemic species found only within one country
- 60% of IPAs contain very restricted species
- Few IPAs are officially protected

South-West Mediterranean IPAs



South-East Mediterranean IPAs



Algeria

21 IPAs



Main results (2)

Most significant threats to the IPAs :

- Overgrazing (67%)
- Deforestation (46%)
- Tourism / Development (41%)
- Agricultural intensification (34%)
- Unsustainable Plant exploitation (33%)

Few IPAs are included in protected areas



Main results (3)

First preliminary list of restricted range plant species for North Africa and the Middle East

- 1195 species occur within less than 5' 000 km²
- 50% of them occur over less than 100 km²



Recommendations

1. Recognise IPAs as internationally significant priority sites for conservation
2. Incorporate IPAs into protected areas networks
3. Update management plans for protected areas, taking account of plant needs
4. Encourage communities whose livelihoods depend on plant resources to participate in IPA conservation planning activities
5. Improve the knowledge on plants and habitats in South and East Mediterranean

Phase II : Conserving wild plants and habitats for People in the south and east Mediterranean (2013 – 2016)

OBJECTIVES

To build institutional and community capacity for plant conservation in North African and Middle Eastern countries through :

- The provision of **comprehensive and up to date information** on plant species and habitats in the region
- Undertaking **direct conservation action** to address threats to plants on selected IPAs
- Strengthening the **capacity** of plant conservation stakeholders
- **Raising awareness** of the importance of plant conservation in the region, in the context of the project results

COMPONENT 1: DATA

Outcome: Improved knowledge of the status of plant diversity across ten countries in the south and east Mediterranean region

- **Field investigations** to enable detailed mapping of priority IPAs (boundaries, habitats and target species)
- **Threat assessments** of selected priority species and the development of a list of **threatened habitats**
- Integrate existing and new IPA information on the publicly available IPA web database.

COMPONENT 2: CONSERVATION ACTION

Outcome: Direct conservation actions are implemented at field level on selected IPAs

- Update/develop protected area **management plans** for IPAs in protected areas to take account of actions needed for plants. Implement the resulting conservation measures.
- Use **community-led processes** to address threats to IPAs outside protected areas focusing on those who depend on plant resources. Implement the resulting conservation measures

COMPONENT 3: CAPACITY

Outcome: The regional network of conservation stakeholders has been strengthened

- **Training** for: i) plant experts ii) Site based conservation practitioners
- Establish national and regional plant conservation **networks**
- National and sub-regional meetings
- Develop guidelines on incorporating plant conservation (IPAs) into national legislation, biodiversity strategies & action plans.

COMPONENT 4: AWARENESS

Outcomes: Stakeholders at national and international level are aware of the importance of plant conservation and the activities and achievements of the project

- Production of a series of *technical documents*
- *Demonstration days* on IPAs to promote conservation work undertaken
- Promote project at intergovernmental meetings

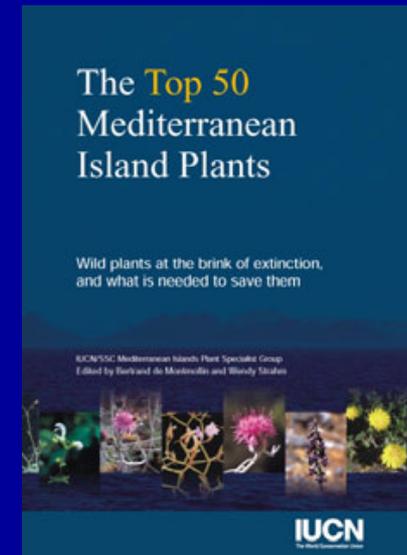
7. In situ Plant Conservation projects

Mediterranean Plant Specialist Group
SSC/IUCN



The Top 50 Mediterranean Island Plants

- Initiated in 2003
- Financed by the MAVA Foundation
- Contributions from 80 specialists
- Published in 2005 (F+E)
- Translated into Greek and Spanish in 2007



Sicily

- *Abies nebrodensis* CR
- *Bupleurum dianthifolium* CR
- *Bupleurum elatum* CR
- *Calendula maritima* CR
- *Hieracium lucidum* CR
- *Petagnaea gussonei* EN
- *Pleurotus nebrodensis* CR
- *Viola ucriana* CR
- *Zelkova sicula* CR



Field conservation project :

Biscutella rotgesii (Corsica)

Threatened by :

- Road building
- Invasive species
- Fire
- Overgrazing

Conservation measures :

- Legal protection
- Microreserves
- Ex situ conservation



Partners : Conservatoire botanique de Corse
Université de Corse
Office de l'environnement de la Corse

Field conservation project :

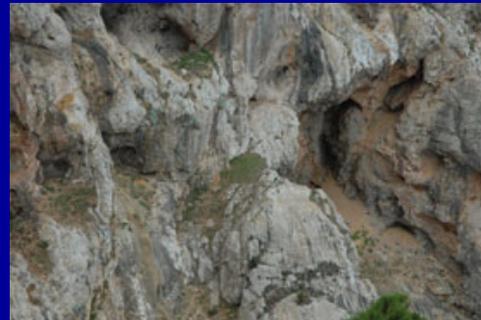
Naufraga balearica (Balearic Islands - Mallorca)

Threatened by :

- Drought
- Competition with other plants
- Overgrazing

Conservation measures :

- Management of goats flocks
- Microreserves
- *Ex situ* conservation (seed banks and botanical gardens)



Partners : Universitat de le Illes Balears
Jardi Botanic de Soller

Field conservation project :

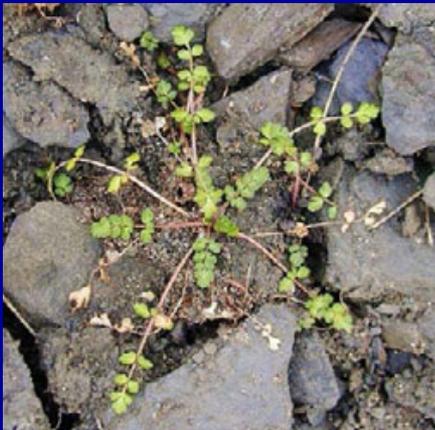
Apium bermejoi (Balearic Islands - Menorca)

Threatened by :

- Drought
- Competition with other plants
- Caterpillars

Conservation measures :

- Reintroductions in new sites
- Watering
- Microreserves
- *Ex situ* conservation (seed banks and botanical gardens)



Partners : Universitat de le Illes Balears
Jardi Botanic de Soller
Consell Insular de Minorca

Calendula maritima

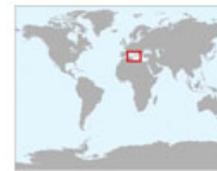
Consiglio provinciale di
Trapani (Sicilia)

Institut Klorane

Dipartimento di Biologia
Ambientale e della
Biodiversità, Università di
Palermo



NOT EVALUATED	DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	EW	EX



Geographical range

www.iucnredlist.org
www.iucn.org/plants
Help Save Species
www.arkive.org

Species of the Day: Sea Marigold

The **Sea Marigold**, *Calendula maritima*, is listed as 'Critically Endangered' on the IUCN Red List of Threatened Species™. This bright yellow flower is found in Sicily and surrounding islets, growing on the decaying remnants of nitrogen-rich sea grass that is washed ashore.

The Sea Marigold is primarily threatened by the encroachment of urban developments on its natural habitat. Since there are currently no legal measures in place to protect this attractive plant, it also faces the threat of collection for its beautiful flowers. In addition to these threats, it has in recent years had to aggressively compete with an alien invasive species, the Iceplant or Hottentot Fig.

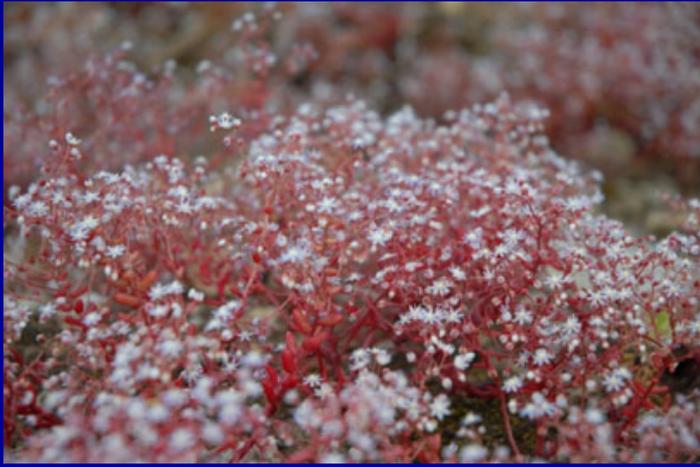
For now, it is only the Nature Reserves "Saline di Trapani e Paceco" and "Isole dello Stagnone di Marsala" that offer the Sea Marigold protection. Last year, this species was chosen as the official symbol of the province of Trapani. This decision will be accompanied by conservation measures in the field.



Species of the Day
is sponsored by



The production of the IUCN Red List of Threatened Species™ is made possible through the IUCN Red List Partnership: IUCN (including the Species Survival Commission), BirdLife International, Conservation International, NatureServe and Zoological Society of London.



Thank you for your attention

