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MIPSG-MEDITERRANEAN ISLANDS PLANT SPECIALIST GROUP CONSERVATION OF MEDITERRANEAN ISLAND PLANTS STRATEGY FOR ACTION

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THE MEDITERRANEAN ISLANDS PLANT SPECIALIST GROUP

The idea of a Mediterranean Islands Plant Specialist Group (MIPSG) arose from an international conference on the 'Knowledge and Conservation of the Mediterranean Islands Flora' held in Corsica, France in October 1993. The participants were able to assess the threats facing the flora of the Mediterranean islands, and to realise how few conservation actions have been implemented. They therefore decided the creation of a group of specialists concentrating on conservation of the Mediterranean island flora

The MIPSG was officially formed at the beginning of 1995. At present, it is composed of 30 members, representing the different Mediterranean Islands. It falls under the authority of the Species Survival Commission (SSC), one of the six volunteer commissions of IUCN – The World Conservation Union.

The general objectives of the MIPSG are:

- to evaluate and monitor changes in Mediterranean island plant diversity;
- to establish, co-ordinate and implement conservation Action Plans;
- to promote sustainable conservation of flora and habitats with decision-makers and the public.

THE MEDITERRANEAN FLORA AND THE ISLANDS

There are nearly 10 000 islands in the Mediterranean Basin, of all sizes and origin, a result of a varied paleogeography. Their wide ranges of sizes, altitude, substrates and morphologies, as well as human activities, have resulted in the evolution of a highly diversified flora.

The countries of the Mediterranean Basin contain almost 25'000 vascular species, a large share of which, approximately 60 %, are Mediterranean endemics, and 35 %, regional endemics (Greuter, 1991).

On the larger Mediterranean islands, the rate of endemism (local endemics) is usually around 10% :

Corsica	12 %
Sicily	10 %
Sardinia	10 %
Crete	10 %
Cyprus	6 %
Malta	1.6 %
Balearic Islands	7 %
Dalmatian Islands	9 %

Many useful and/or cultivated species originate in the Mediterranean Basin. This group of taxa includes many ecotypes and traditional cultivars, adapted to very different climatic and ecological situations. These traditional cultivars constitute very important resources, from both a cultural point of view as well as for important plant genetic resources. Many of these plants have been used by humans since the Neolithic and are widely cultivated throughout the World. The role of the Mediterranean Basin, and specially the islands, as a reservoir for plant genetic resources is therefore becoming increasingly important. Many Mediterranean taxa present tremendous potential for use, particularly for the pharmaceutical, food, and bioenergy industries (Valdés Castrillón & Hernández Bermejo 1995; Heywood & Zohary 1995).

CURRENT STATE OF KNOWLEDGE AND THREATS

The lack of data on species distribution means that it is difficult to make a completely objective assessment of the current situation, particularly for the smaller islands. More information is needed about the habitats as well as the ecology and biology of the species concerned, in order to organise conservation programmes for species and their habitats.

Despite the enormous shortage of data on species distribution, the number of taxa in the different categories of threats can be estimated for the larger islands on the basis of the Red Lists drawn up for IUCN by the World Conservation Monitoring Centre (WCMC).

Threatened taxa on large Mediterranean islands
Globally threatened taxa

Island(s)	Ex	E	V	R	I	Total	% of threatened taxa
Balearic	1	10	14	43	1	69	5 %
Corsica	1	8	27	10	1	47	2 %
Sardinia		11	30	21	1	63	3 %
Sicily	1	11	26	45	4	87	3 %
Crete		11	61	118	3	193	11 %
Malta	1		1	10	4	16	2 %
Cyprus		9	14	22	6	51	3 %

Key : Ex Extinct R Rare
E Endangered I Insufficiently documented
V Vulnerable % of taxa threatened = number of threatened taxa as % of the total number of island taxa

Source : WCMC, Donna Smith, pers. comm. (1996)

The figures in the tables above must be interpreted with caution as they have been based on former IUCN criteria, and their application may vary greatly depending on the WCMC data source.

New IUCN categories for Red Lists established by the Species Survival Commission in 1994 are for the most part based on quantitative criteria, and provide a stricter and more defensible method for determining conservation status (IUCN, 1994). The application of these new categories to endemic Mediterranean island taxa is a priority for our Specialist Group.

However, the following generalisations may be made for the larger Mediterranean islands :

- the percentage of threatened taxa is on average 4 % (between 2 % for Corsica and 11 % for Crete);
- the number of taxa considered as threatened with extinction is relatively high, and it is for these plants that priority conservation actions must be implemented quickly.

Island ecosystems face the following main threats (Grenon and Batisse, 1989; Ramade 1990; Brigand 1991; Heywood 1995):

- Urban development along the coasts
- Pollution
- Agriculture and livestock farming
- Tourism development
- Water management
- Fires
- Invasive species

Legal protective measures are in general scarce, and poorly implemented. Protected areas are insufficient in number, and the management of existing protected areas needs sometimes to be improved.

THE ACTION PROGRAMME

The Action Programme of the MIPSG for the conservation of the flora of the Mediterranean Islands includes following objectives :

- to improve and integrate current knowledge on flora, habitats, threats, protected areas, and conservation players;
- to propose *in situ* and *ex situ* conservation measures for flora and habitats related to the specific needs of the islands;
- to draw up conservation Action Plans that define and prioritise conservation actions for species, habitats, sites or entire islands;
- to promote the value of insular ecosystems in development;
- to organise a research and monitoring network for biodiversity in the islands and archipelagos;
- to disseminate conservation-related information to decision-makers and players, and to enhance awareness of the public and policy-makers.

These principles are expanded in the 'Conservation of Mediterranean Island Plants - 1. Strategy for Action' published in October 1996 (Delanoë & al. 1996). This Programme will be integrated into the IUCN Mediterranean Programme in preparation.

CURRENT ACTIVITIES OF THE MIPSG

The 50 most threatened species (TOP 50 Programme)

Within the framework of the TOP 50 Programme of the IUCN Species Survival Commission, the MIPSG is establishing the list of the 50 most threatened species for the whole Mediterranean islands.

Preliminary lists have been drawn up for each island or group of islands, by the members of the network, using the new IUCN Red List categories. On a first step, the following categories are selected :

- EW : Extinct in the Wild
- CR : Critically Endangered
- EN : Endangered

A synthetic list with 50 taxa will be drawn up for the whole Mediterranean islands. A presentation sheet will be attached to each species of this list, with information about :

- General characteristics of the taxon
- Its global distribution and the criteria for the new definitions of the Red List categories
- The state of knowledge concerning ecology, biology and uses
- The threats
- The existing protection measures
- Suggestions for protection measures
- The bibliography related to the taxon and its habitats These data will be published and will be used :
- For drawing up conservation action plans
- For the preparation of lists of legally protected species
- For the determination of protected areas for flora and habitats

Database

The IUCN Species Survival Commission (SSC) is developing a new database concept: the Biodiversity Conservation Information System (BCIS) in order to co-ordinate the data flow from its 7000 specialists. The goal of this system is to provide a tool to store and organise data on species geographic distribution, number and status in an electronic format. An essential part of this concept is that the system must be of immediate help throughout the SSC network in providing a tool to improve the daily work of each expert in organising his own data.

The MIPSG has been chosen to evaluate the first version of this data management system during the year 97.

IUCN Mediterranean Programme

The World Conservation Congress decided in October 1996 in Montreal to establish a Mediterranean Office and Programme.

A number of topics have been already identified by the Members in 1995 and included in the Resolution of the World Conservation Congress:

- Biomes :
- Islands
- Wetlands
- Arid lands / Desertification
- Mediterranean Forests Issues :
- Species (terrestrial and marine)
- Integrated coastal management
- Protected Areas

A provisional Committee is now elaborating the Programme in coordination with national IUCN committee and the Mediterranean members of IUCN.

The MIPSG takes an active part in the development of this Programme, notably in preparing the insular sub-programme. The Mediterranean Agronomic Institute of Chania in Crete has proposed to host the island focal point.

Dissemination of information and public awareness

Information must be distributed to MIPSG members and to other biodiversity conservation players. Public awareness about nature protection is also a priority.

The MIPSG is at the moment preparing :

- a Newsletter which will be published by the Botanical Garden of Palermo in Sicily
- A Homepage on Internet
- A publication on the most endangered plants of the Mediterranean islands

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