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# IDENTIFICATION, CONSERVATION AND USE OF WILD PLANTS OF THE MEDITERRANEAN REGION – THE 'MEDUSA' NETWORK

**M. Skoula \***

**P. Griffee, \*\***

**V.H. Heywood \*\*\***

\* Mediterranean Agronomic  
Institute at Chania - GREECE

\*\* School of Plant Sciences,  
The University of Reading - UK

\*\*\*FAO - ITALY

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**MOTS-CLES:**

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## INTRODUCTION

Wild plants have always been significant in all cultures of the Mediterranean region, being used for food, medicines, fuel and many other purposes. The great interest in the use of wild plants has been based on the assumption that plant resources will be available on a continuing basis. However, no concerted effort has been made to ensure this in the face of the threats posed by overexploitation caused by increasing demand, increasing human population and extensive destruction of the plant-rich habitats of the Mediterranean ecosystems. The Mediterranean basin contains approximately 25 000 species, about half of which are endemic to the region (Quézel 1985, Greuter 1991, Heywood 1995), and is one of the world's major centres of plant diversity (Davis *et al.* 1994), as well as being one of the centres of diversity for crop plants. Many crop relatives occur in the Mediterranean basin (Harlan 1995; Heywood and Zohary 1995; Zohary and Hopf 1993)

Agriculture and animal husbandry has been practised in the Mediterranean basin for 10 000 years and most of the ecosystems have been modified by human action (Cowling *et al.* 1996). Today many plants occur in small, fluctuating and poorly dispersed populations as a result of habitat fragmentation and face extinction or severe genetic loss, but detailed information is lacking. For most of the endangered plant species no conservation measures have been taken and the reserve networks are inadequate. Additionally, knowledge on the use of plant genetic resources by traditional societies is now threatened with extinction.

The Global plan of Action, adopted by 150 countries and the European Community at the International Technical Conference on Plant Genetic Resources, convened by FAO in June 1996,

promotes the conservation and use of wild plants for food and agricultural production. The Mediterranean preparatory meeting for the Conference emphasised the need to develop under-utilised species of the region for food and non-food use, including stress-tolerant species.

### **ESTABLISHMENT OF A NETWORK**

A network on the 'Identification, Conservation and Use of Wild Plants in the Mediterranean Region' called MEDUSA, was formally established during this workshop. This network is currently (1996-1997) financially supported by the Directorate General I of the European Union, CIHEAM, and MAICH.

The eventual aim of the Network is to propose methods for the economic and social development of rural areas of the Mediterranean Region, using ecologically-based management systems that will ensure the sustainable use and conservation of plant resources of the area. These plant genetic resources are of actual or potential importance to agriculture, various industries and human health, and consequently will improve the quality of life. The particular goal of the Network, is the exploration of possibilities for the sustainable utilisation of such resources as alternative crops for the diversification of agricultural production for improved product quality.

### **ORGANIZATION – MEMBERSHIP**

The network includes members who are representatives of International Organisations (CIHEAM-MAICH, IUBS-ICMAP, FAO, IPGRI-WANA, LEAD) and form the Steering Committee, and representatives of Institutions from countries of the Mediterranean basin (initially Morocco, Algeria, Tunisia, Egypt, Turkey, Greece, Italy, France, Spain and Portugal), acting as the Focal Point Co-ordinators. It is envisaged that the Network will include eventually members from all the Mediterranean countries and from relevant National Institutions and other International Organisations.

The Steering Committee, in collaboration with the Focal Point Co-ordinators, will seek further funds, while the Focal Point Co-ordinators will try to find additional support from their own countries in order to ensure the continuation of the activities during the following years.

The Network members will meet once per year while the Steering Committee will meet several times in order to monitor and plan activities.

### **OBJECTIVES OF THE NETWORK**

The objectives of the Network are:

- The identification of native and naturalised plants of the Mediterranean Region, according to the use categories defined by Cook (1995):
  1. Food (including food and beverages, for humans)
  2. Food additives (incl. processing agents and additive ingredients used in food preparations)
  3. Animal food (including forage and fodder for vertebrates)

4. Bee plants (including pollen or nectar sources for honey production)
  5. Invertebrate foods (including plants eaten by invertebrates useful to humans e.g. silkworms)
  6. Materials (including woods, fibres, tannins, latex, resins, essential oils, waxes, oils)
  7. Fuels (including fuelwood, charcoal, fuel alcohol)
  8. Social Uses (including masticatories, smoking, hallucinogens, psychoactive drugs, contraceptives, abortifacients, plants used for ritual or religious purposes).
  9. Vertebrate Poisons (including both accidental or useful poisonous plants e.g. hunting, fishing)
  10. Non-Vertebrate Poisons (including accidental and useful poisons e.g. mollusci-, herbi-, insecti-, bacteria-, and fungicides)
  11. Medicines (including human and veterinary uses)
  12. Environmental Uses (including ornamentals, barrier hedges, wind-breaks, soil improvers, erosion control, indicators of heavy metals, pollution or underground water)
  13. Genetic resources (including wild relatives of major crops)
- The creation of a Regional Information System that will include: scientific plant name and authority, vernacular names, plant description, chemical data, distribution, habitat description, uses, conservation status, present and past ways of trading, marketing and dispensing, and indigenous knowledge (ethnobiology and ethnopharmacology), including references to literature sources.
  - Preliminary evaluation of the conservation status and potential utilisation in agriculture of these plants as alternative minor crops.

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