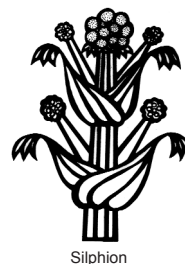


# Medicinal Plant

## Conservation



MEDICINAL  
PLANT  
SPECIALIST  
GROUP

Volume 1

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**IUCN**  
The World Conservation Union

Newsletter of the IUCN Species Survival Commission  
Medicinal Plant Specialist Group



### Chairs's Note

As Co-Chairs of the newly established Medicinal Plant Specialist Group (MPSG), we are very pleased to present this first issue of *Medicinal Plant Conservation* to you. This newsletter is designed to inform you about the work and achievements of the Specialist Group and the developments in medicinal plant conservation. It will be distributed not only to members but to also to the broader public interested in this topic. In the wide range of journals dealing with medicinal plants, we believe that our newsletter is filling a gap by dealing with issues focussed on the **conservation** of these valuable taxa - a field that has been widely neglected so far.

**History of the Group.** In May 1994, the IUCN /SSC *Plant Conservation Subcommittee* recommended that a *Medicinal Plant Specialist Group* should be formed in response to rising concerns from many independent experts about plant conservation issues relating to medicinal plants. Following this meeting, Tony Cunningham and Uwe Schippmann were appointed Co-Chairs of the MPSG. Uwe Schippmann has a taxonomy background and is the head of the plant division of Germany's CITES Scientific

Authority and has broad experience in international trade issues. Tony Cunningham has been carrying out ethnobotanical research for many years and is the African field coordinator for the WWF/UNESCO/KEW *People and Plants Initiative*. He was President of the *International Society of Ethnobiology* from 1992-1994.

**Objectives.** The *Medicinal Plant Specialist Group* is not just another traditional use group. Instead, it will be concentrating its efforts on vulnerable species for which demand exceeds supply from wild populations. Here, the greatest conservation threat is faced by high demand for slow growing, slow reproducing, habitat specific species. The biodiversity prospecting debate needs to be recognized by the MPSG as an issue in which conservation aspects need to be further developed through interaction with the IUCN *Ethics Group* and others. Benefit sharing for the commercialisation of natural resources can be an incentive for their long-term conservation through local communities.

In 1993, WHO, IUCN and WWF have jointly published guidelines for the conservation of medicinal plants. The major task for the MPSG will be to draw up a conservation Action Plan with both taxonomic and geographic focus. The Action plan will review the conservation needs

of taxa and recommend conservation actions sufficient to ensure long-term survival of these species. Action Planning is the best means for the MPSG to play its role as advisory and catalytic committee for other bodies. As a first step, it is proposed to draw up national reports which review existing information on medicinal plants in local, regional and international trade and short-list species for special attention.

**Call for contributions.** To achieve our goal of global coordination of activities in medicinal plant conservation, this newsletter will also serve as a forum to present regional groups and networks, their ongoing projects and achievements such as conferences, meetings, publications, project reports and newsletters. We would like to encourage all members and readers to use this newsletter as a platform to make your work more widely known. Contributions are highly appreciated and should be sent to the editor.

**Acknowledgements.** We want to take the opportunity to thank the Plants Officer of IUCN /SSC, Wendy Strahm, for her continuing efforts and input in making this Specialist Group come alive. Also, we thank Hajo Schmitz-Kretschmer for his work on editing this first Newsletter issue. The production and mailing of this Newsletter was made possible by the support of the German *Federal Agency for Nature Conservation*.

*Tony Cunningham, Uwe Schippmann*

### What is IUCN? What is SSC?



The MPSG is one of 102 Specialist Groups within IUCN's *Species Survival Commission* (SSC). One of the largest and most active of IUCN The World Conservation Union's six volunteer commissions, the SSC network encompasses 6,000 volunteer member scientists, field researchers, government officials and conserva-

tion leaders from 169 countries. SSC members provide technical and scientific counsel for biodiversity conservation projects throughout the world. They provide advisory support to governments, international conventions, and conservation organizations.

The SSC works primarily through its Specialist Groups, most of which represent particular plant and animal groups that are threatened with extinction, or are of special importance for human welfare. A few groups deal with cross-cutting species conservation issues, such as veterinary medicine, conservation breeding and propagation, reintroducing species into their former ranges, invasive species, sustainable use of wildlife. Of the total 102 Specialist Groups about 20 are dealing with plant conservation issues.

*Susan Tressler, IUCN/SSC, Chicago*

### *Silphion* - Our Logo for the Medicinal Plant Specialist Group

Our logo depicts the ancient *Silphion* plant. We have chosen this as the symbol for the *Medicinal Plant Specialist Group* because it reflects the long time that plants have been used and depleted by man. The drawing is taken from a coin from Cyrene which has been kindly made available to us by the Trustees of the British Museum, London (fig. 1). We are especially indebted to Ms Anja Seidl who has prepared the drawing of the *Silphion* logo.

### The *Silphion* Story

Between 570 and 250 BC the majority of coins that were minted in the ancient Cyrene, a city situated in what is now the eastern part of Libya, carried the embossed picture of the *Silphion* plant. This reflects the enormous economic

importance this plant had for the city over four centuries. *Silphion* has been mentioned again and again in classical literature by Plinius, Hippocrates, Dioscorides, Herodot, Theophrast and others, so we know quite well that the economy of Cyrene depended on the utilization and export of *Silphion*. As demand in the Greek and Roman world was great and the supply limited, *Silphion* gained high prices on the international markets.



Fig. 1: Coin from Cyrene showing *Sylphion* (by courtesy of the Trustees of the British Museum, London).

The perennial roots and strongly ribbed annual stems of the *Silphion* plant were eaten in the fresh state and were regarded as a perfume, flavouring agent, and spice. The juice was employed medicinally against a wide range of symptoms and diseases, especially gynaecological ailments - it was a true “multi-purpose species” in the sense of modern economic botany.

It appears that *Silphion* was found only in the dry hinterland between Bengasi and Derna. Attempts to cultivate it seem to have failed, so wild plants remained the source of supply. For the first centuries we can assume that the utilization of this wild plant resource was sustainable. From 250 BC onwards, *Silphion* begins to disappear from the coins. There was a gradual vanishing of *Silphion* from the markets and it seems to have been extinct by the first centuries AD. The progressive extermination of the plant in its range during this period took place after Cyrene was no longer ruled by permanent local residents but by a series of short-term governors who may have tried to maximize the short-term benefits from *Silphion* utilization. This change in harvesting management could be at least one of the reasons for the dramatic decline in its use and its final extinction as an economic resource.

Botanists have for a long time tried to taxonomically identify *Silphion*. It is clear that is

has nothing in common with the North American genus *Silphium* Linnaeus of the Compositae family. *Silphion* obviously belongs to the Apiaceae family. Its generic affinities have been discussed at length by many authors. Names like *Thapsia silphium*, *T. garganica*, *Ferula tingitana*, *F. marmarica*, and *Prangos ferulacea* have been suggested. Judging from the many literature sources revised it is clear that the ancient *Silphion* has at least close affinities to *Ferula tingitana*, species which is rare in Cyrenaica today. *Silphion* may well be a distinct species of its own which became extinct almost 2000 years ago.

What we have before us is an example of over-harvesting and probable extinction of an ancient medicinal plant. *Silphion* reflects both the potential wealth through plant utilization and the possible risks and downfall through over-harvesting. It is well placed as a logo for the MPSG work.

Excellent summaries of the *Silphion* history are given in Moldenke & Moldenke (*Garden Journal 1, 1951, New York*), Gemmil (*Bull. Hist. Medicine 40, 1966*) and Strantz (*Zur Silphionfrage, Berlin 1909*). I want to especially

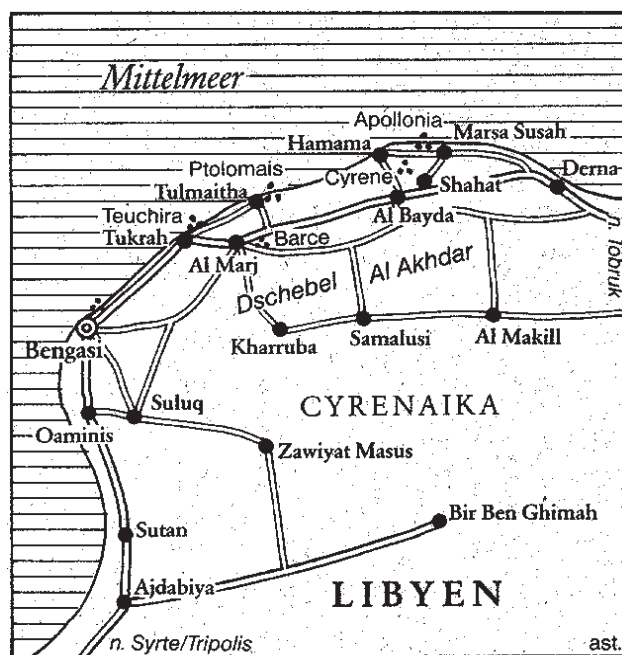


Fig. 2: Location of the town of Cyrene in Libya

thank Heinz Kalheber, Wolfgang Ludwig and Thomas Raus for providing me with numerous sources and their views on the *Silphion* story.

*Uwe Schippmann*

### Membership

By December 1994, in a first phase of invited membership more than 30 members have been invited to join the group. Members were selected on the basis of strategic geographic location, professional interest, and their role as people who could network within their regions.

At present, the geographical focus of group members is as follows:

Africa	11	Europe	3
Asia, temperate	6	Northern America	2
Asia, tropical	7	Southern America	8
Australasia	1	Pacific	1

### Concept and Working Programme

A draft concept and working programme was prepared in May 1994 and sent out to all prospective members. Substantial comments were received from Sarah Laird, Danna Leaman, Sonia Lagos-Witte, Christine Leon, Nina Marshall, and Vinay Tandon and have been incorporated. We are most grateful for these contributions. The redrafted version has been mailed to all members with this issue of *Medicinal Plant Conservation*. For all others, copies can be obtained through the editor.

The MPSG has not yet met, its programme and working concept will be discussed at its first meeting. In preparation of this meeting we would like to gather viewpoints in writing. We would therefore ask all MPSG members to comment on this draft and communicate your views to Tony Cunningham. The next issue of our newsletter could be used as platform for an

exchange of opinions on our concept and working programme. We want to specially draw your attention to the idea of drafting national reports which review existing information on medicinal plants and short-list species for special attention.

In 1993, WHO, IZUCN and WWF published the Guidelines on the conservation of medicinal plants. A few remaining copies in English, French or Spanish are available at the IUCN office in Gland.

### Fundraising

As all other Specialist Groups, the MPSG has no regular budget allocated to it from IUCN. All funds to support the group, its meetings and projects have to come from outside. Efforts are being made to rise external funding.

Fund raising from users, governmental and non-governmental organizations will be carried out in collaboration with the SSC Financial Development Officer and the Executive Officer. Funds should be raised primarily to promote specific projects which the MPSG has highlighted as priority action but also for the technical support of the Specialist Group itself.

### First Meeting

Meetings on a regular basis are essential for the group's goal of international coordination of the various medicinal plant conservation efforts. We hope that MPSG meetings can be held annually. To save expenses, we have decided to tie the meetings of the MPSG into ethnobotanical or other conferences which part of our group members are attending.

We plan to meet at least once before the next IUCN General Assembly which is scheduled for

14-23 October 1996 in Montreal, Canada. The best option would be a meeting in early 1996. This would give us some time for raising travel funds for at least some of our members which otherwise would not be able to attend. A possible option would be the *Forum on Indigenous Plant Use* which is held in Cape Town, South Africa, in January 1996.

If members are aware of any other meeting or conference which would be a convenient option for tying our meeting into, please make this information available to the co-chairs.

### CITES News



Most of you are aware that the Ninth Conference of the Parties to CITES was held in November 1994 in Ft. Lauderdale, USA.

Important decisions were taken that will contribute to the conservation of a range of plant species through monitoring and international trade controls. On the plant side, the conference was dominated by the highly controversial timber issues. However, in the background another important change was going on: The conference discussed and accepted proposals to list medicinal plants threatened by trade in Appendix II of the Convention, thus moving away from the traditional horticultural focus and opening CITES for the field of medicinals.

Out of a total of 13 medicinal plant proposals (all but one proposed by India) three taxa were accepted: *Prunus africana* (proposed by Kenya), *Aquilaria malaccensis*, and *Taxus wallichiana*. Also, a fourth species, *Pterocarpus santalinus*, is partly traded for its medicinal value. All of these taxa are significantly traded and are of commercial importance.

While the commercial trade in wild collected material is completely banned in Appendix I, Appendix II still allows for a controlled international trade in field collected plants. The

new listings are valid as of 16 February 1995. For the above mentioned Appendix II taxa, basically an export permit of the country of export is required. For *Prunus africana* and *Aquilaria malaccensis*, all parts and derivatives are controlled. In *Taxus wallichiana*, the medicinal products are excluded. In *Pterocarpus santalinus*, the listing covers the primary products only.

These new listings are a challenge for the CITES system due to the foreseeable problem of implementation: The parts and derivatives appearing in trade (bark, leaves, powder, chips) are difficult to identify. Yet it is clear that these species are overexploited and in need of regulation.

We regard these new listings as a case study for the ability of CITES to contribute to the conservation of medicinal plants threatened by international trade. The Indian and Kenyan authorities, as proponents of these proposals, have now the obligation to prepare identification sheets for these commodities. The MPSG should get involved in the process of implementation by offering its help in drafting identification guides and training of customs staff. If you have information in which forms the newly listed taxa are traded internationally please contact Uwe Schippmann. Also samples of these taxa in their prominent trade form would be most welcome. They could be the basis for photographic tables to be produced as identification guides for customs staff.

The CITES conference has also decided to carry out *Significant Trade Studies* in the major plant groups. This process is coordinated by Noel McGough (UK CITES Scientific Authority). It was explicitly stated that this process should include a study on Appendix II medicinal plants. A review of all medicinal plants taxa presently listed on Appendix II will be given in the next issue of *Medicinal Plant Conservation*.

*Uwe Schippmann*

## Medicinal Plant Trade into Germany

A preliminary survey carried out by Lewington in 1992 (*Medicinal plants and aplant extracts. A review of their importation into Europe, Traffic International, Cambridge, 1993*) revealed that Germany is one of the main centers of medicinal plant trade worldwide. In a new study carried out in 1994 by D. Lange-Osten and funded by the German Ministry of Environment the imports of medicinal plants into Germany were investigated. The new study compiled a computerized list of more than 1500 medicinal plant taxa entering Germany with detailed information on trade names, taxonomy, distribution, and other biological data. Of further interest were the provenances of these medicinal plants, the commodities which the plants or their active components are traded in, and whether the plants are wild harvested or from cultivation.

Most of the medicinal plants are imported as dried material, some as extracts, and only a few as fresh material (e.g. *Drosera* sp., *Passiflora incarnata*), the latter mainly used for homeopathic treatments. In the first half of 1993 the main exporting countries for dried plants to Germany were Sudan, India, followed by Poland, Hungary, Bulgaria, Albania, China, Chile and Argentina. It is difficult to collect precise data concerning the origin and the quantities of the medicinal plant species involved because each company treats this information as being their confidential know-how. Also, the German customs records are of little help because tariff headings of medicinal plants are mostly unspecific this making the information almost useless.

A report will be published in 1995. Also, a follow-up study focusing on the population status of the taxa imported will be funded by the German government this year.

*Uwe Schippmann*

## FAO - Non-Wood News

In March 1994, the Non-Wood Products and Energy Branch of FAO has published the first volume of the bulletin *Non-Wood News*. The publication of 47 pages is most informative and summarizes a large number of activities, events, and processes that are going on in this field. The bulletin can be obtained from C. Chandrasekharan (address below). Volume 2 is in press.

## Conferences and Meetings

27-30 August 1995, International Symposium on Medicinal and Aromatic Plants, Amhurst, USA (Enquiries: L. L. Cracker, Dept. of Plant and Soil Sciences, University of Massachusetts, Amhurst, MA 01003, USA)

6-9 September 1995, Global Conference on Traditional Health Systems and Policy, Green College, Oxford University, United Kingdom (Enquiries: G. Bodeker, PO Box 59748, Washington DC, 20012-9748, USA)

10-15 September 1995, NAPRECA Symposium, Makerere University, Uganda (Enquiries: E. Dagne, address below)

25-29 September 1995, 4. International Botanic Gardens Conservation Congress, Perth, Australia (Enquiries: Congress West, PO Box 1248, West Perth, W.A. 6872, Australia)

February 1997, 2. World Congress on Medicinal and Aromatic Plants for Human Welfare, Argentina (Enquiries: WOCMAP Secretariat, Englaan 1, 6703 ET Wageningen, Netherlands)

## List of members

The following list of members is as of 30 April 1995. Please look through it and advise the editor on all errors. The data have been taken from the Membership Records. Information on E-Mail-numbers of members will be provided in the next issue of *Medicinal Plant Conservation*.

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Copies of the newsletter are available from the editor. Contributions for the next issue of *Medicinal Plant Conservation* in autumn 1995 are most welcome and should be sent to the editor either as printouts or, preferably, as word processing files. Files in ASCII or Word Perfect for Windows, Version 6.0, are equally welcome.

**The Medicinal Plant Specialist Group is co-chaired by:**

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Any article that is not signed by an author's name is in the responsibility of the Co-Chairs.