

ISE Newsletter



December 2003, Volume 3, Issue 2

Editorial

Dear fellow members of the ISE

2004 will be a busy year for our society, I therefore, wish you a very fruitful and challenging professional year, but also happiness, health and prosperity in your private life.

Come and participate in the joint conference in Canterbury. We are looking forward for ethnopharmacological interaction with the other organising societies. Join ISE-, GA- and other expert people in the conference on TCM, Traditional Chinese Medicine, just the 2 days before the Canterbury meeting.

Have a closer look into this new issue of the ISE Newsletter and you will find a whole bunch of interesting information: E.g. a conference report from an ISE co-organised meeting in December in London; four new contributions from students sharing their abstracts of thesis work. Send them a comment, ask questions, and contact them if you are working in a related field. If you want to learn more about active societies in a similar field to our interests, have a look at the article on The Society for Medicinal Plant research (GA). While reading this tempting article don't forget to become or remain an active ISE member and to publish in our journal (see therefore News from Elsevier). The Journal of Ethnopharmacology was able to rise its impact factor to 1.3 in the last year, a significant rise and the first time well above 1! Maybe also due to your contributions!

With best regards,
Barbara Frei Haller, Editor

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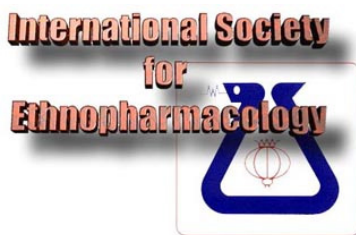
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Upcoming ISE conferences 2004

*Ninth International Congress of the International Society for Ethnobiology
in collaboration with
The 45th Annual Meeting of the Society for Economic Botany
and
The 8th International Congress of the International Society of
Ethnopharmacology*

**Hosted by the Department of Anthropology at the University of Kent,
Canterbury, UK, 13th - 17th June, 2004**



Ethnobiology, Social Change and Displacement

Plenaries

Opening Keynote by **Sir Iain Prance**, formerly Director of the Royal Botanic Gardens, Kew

The Plenary Sessions sponsored by the the International Society of Ethnobiology will focus on the following themes:

- **Ethnobiology and the science of humankind** (**Brent Berlin**, University of Georgia)
- **The Ethnobiology of Food Security** (**Christine Padoch**, New York Botanical Garden)
- **The Politics of Indigenous Biological Knowledge** (**Arun Agrawal**, McGill University)
- **The Evolution of Ethnobiological Diversity** (**Javier Caballero**, the Universidad Nacional Autónoma de México Botanical Garden)

In addition there will be Plenary Sessions sponsored and organised by the International Society of Ethnopharmacology, the Society for Economic Botany and Terralingua. (Arranged so far)

- **A Plenary Address** (subject to be announced) by **Gordon Hillman** of University College, London (*sponsored by the Society for Economic Botany*)
- **The Global Atlas of Traditional Medicine** by **Gerard Bodeker** of Oxford University (*sponsored by the International Society of Ethnopharmacology*)
- **Ecosystem Health and Biocultural Diversity: a transdisciplinary perspective** by **David Rapport** of the Universities of Guelph and Western Ontario (*sponsored by Terralingua*)

Panel Sessions

- **Ethnobiology and the Science of Humankind: a retrospective** (Roy Ellen)
- **Local Agricultural Products: ethnobiology and the protection of geographical origin** (Philippe Marchenay and Laurence Bérard)
- **Traditional ecological knowledge and coping strategies amongst rural Indonesians** (Roy Ellen and Raj Puri)
- **Local Assessments of Environmental Change** (Paul Sillitoe)
- **The ethnobiology of mobility, displacement and migration in indigenous lowland South America** (Miguel N. Alexiades and Roy F. Ellen)
- **The ethnobiology of mobility, displacement and migration in Central Africa** (Sarah A. Laird and Edmond Dounias)
- **Palms and ethnoecology: cultural and economic resources for the tropics** (Manuel J. Macía)
- **Traditional Environmental Knowledge and Change** (Serena Heckler and Stanford Zent)
- **Homegardens** (Serena Heckler)
- **Wild food plants and health in the Mediterranean Area and Europe** (Ramón Morales and Manuel Pardo de Santayana)
- **Ethnoecology of tropical lowland South America** (Kevin Jernigan)
- **Intercultural health care: closing the loop from practice to policy** (Miguel Alexiades and Helen Newing)

- **People and Plants of the Dry Tropics** (The Eden Project)
- **Cultured Trees: Transformations in Agroforestry Systems** (Stefanie Klappa and Diane Russell)
- **Indigenous Peoples, Cultural Heritage and Forced Resettlement** (Joji Cariño, Debra Harry and Marcus Colchester)
- **Markets, Migration, and Agricultural Change** (Valerie Imbruce and Christine Padoch)
- **Knowledge and Ecology in Medical Ethnobotany** (John Richard Stepp)
- **Health Care in the Ancient Mediterranean Cultures through Time** (Alain Touwaide)
- **Gender issues in ethnobotanical and ethnobiological research and related development practice** (Patricia Howard)
- **Ethnobiological knowledge in a changing society: a review of contemporary work from Malaysia** (Nor Hafizah Selamat)
- **Ethical and Legal Issues in Ethnobiology** (Kelly Bannister)
- **Traditional local knowledge and practices for environmental management : digging up old practices or forging new knowledge systems ?** (Yildiz Aumeeruddy-Thomas)
- **A Panel in Honour of Gordon Hillman** (Ehud Weiss and Andrew Fairbairn)
- **The Ethnobotany of Crop Diversity and Evolution** (Pablo Eyzaguirre)
- **Ethnobotany in the British Isles** (Monique Simmonds)
- **A global index of biocultural diversity** (David Harmon and Jonathan Loh)
- **Methods for assessing the cultural transmission of ecological knowledge** (Gary Martin)
- **Botany in Action** (A panel sponsored by Botany in Action which will illustrate the work of the program in supporting young ethnobotany researchers.)

The International Society of Ethnopharmacology Panels and Workshop:

PANEL 1. SAFETY MATTERS: SIDE EFFECTS OF PLANTS USED IN INDIGENOUS MEDICINE AND THEIR IMPACT ON PUBLIC HEALTH

Michael Heinrich of the *School of Pharmacy, London University, UK*,
michael.heinrich@amsl.ulsop.ac.uk

In this symposium safety issues relating to the use of medicinal and food plants will be addressed. There is a growing concern both for the direct toxic effects of some elements of our diet and medicine and of the interaction of some elements of these diets with medication taken by patients. While many herbal medical products are certainly safe, others like members of the genus *Aristolochia* have recently been shown to be of great toxicological concern. One of the main misunderstandings about medicinal and food plant is 'a plant is safe because it has been used for a long time'. We need a balanced assessment of the benefits and risks of using specific herbal medical products. The safety of herbal drugs has been relatively well studied for European herbal medical products, but even there many questions remain unanswered (and often even unasked). In this symposium, examples from Europe will serve as a guide for developing a novel research agenda, which truly matters to indigenous people. Some of these attempts have been under way for a long time (e.g. the TRAMIL project), but has neither received the funding nor the scientific attention they receive. Such a symposium will also contribute to the development of an ethnopharmaceutical approach to indigenous medicine, which will allow the integration of the various research strategies used in the study of medicinal plants.

PANEL 2. ETHNOPHARMACOLOGY IN EUROPE AND THE NEAR EAST

Cristina Inocência of the *Universidad de Murcia, Spain*, cpretel@um.es

The study of active compounds present in natural products traditionally used by local populations of Europe and the Near East is gaining new strength through innovative approaches that look at the combined use of natural products as food and medicine, mostly those derived from plants.

Simultaneously fieldwork is in progress in several countries in order to recover as much information as possible before the acculturation process makes access to this knowledge impossible, leading perhaps to its extinction. Here, mountainous areas still hold great promise, especially in southern Europe where several groups are currently working. Most medicinal plants traditionally used in Europe and the Near East are Endemic, thus their sustainable use and conservation is a major concern for regional authorities. The evaluation of possible conflicts between the development of traditional uses and the preservation of wild populations is crucial here.

The Near East is still a very rich area of traditional local medical practices. This knowledge is now recorded in many areas of these countries, but consistent approaches to ethnopharmacology among the various ethnic groups are lacking. The medicinal practices of the Bedouins have been investigated repeatedly, but Kurdish, Azeri, Gypsy, etc. traditions have not been well investigated from an ethnopharmacological viewpoint. The impact of Western Phytotherapy in Urban areas of the Near East is increasingly strong and is therefore influencing the rural traditional communities, especially in Lebanon, Turkey, Syria, Israel and Jordan.

PANEL 3. ETHNOPHARMACY AND MIGRATION

Andrea Pieroni of the *University of Bradford, UK*, a.pieroni@etnobotanica.de

Ethnopharmacy is the interdisciplinary science that deals with the study of pharmaceuticals, considered in relation to cultural determinants, which characterise the uses of these means in a given human group. It involves studies of the identification, classification and cognitive categorisation of the materials used to prepare the remedies (ethnobotany, ethnozoology, ethnopharmacognosy), of the preparation of the pharmaceutical forms (ethnopharmaceutics), of the claimed ascribed effects of such preparation (ethnopharmacology) and, last but not least, on the socio-medical aspects implied in these uses (ethnomedicine, pharmacy practice).

Since displacements and migrations always occurred in the past in many areas of the world and are very much at the centre of anthropological and ethnobiological focus today, to analyse dynamics and exchanges of Traditional Knowledge related to the use of biological remedies and also industrial pharmaceutical means among diverse human groups represents a wonderful horizon for better understanding cultural adaptation mechanisms in the medico-pharmaceutical field.

When physical or mental borders divide populations, such as in the case of small ethnic groups amongst larger dominant cultural frameworks, or in areas along ethnic borders, cultural identities diverge, and also the use of pharmaceuticals may become a tool to strengthen or negotiate identities, while at the same time osmosis of experiences in using medicinal remedies can take place, sometimes dictated by the dominance of the majority code, but sometimes even not.

PANEL 4. POTENTIAL CONTRIBUTIONS OF ETHNOPHARMACOLOGY RESEARCH FOR DEVELOPMENT OF TRADITIONAL COMMUNITIES

Elaine Elisabetsky of the *Universidade Federal do Rio Grande do Sul, Brazil*, elisasky@ufrgs.br

The outcomes from medicinal plant research can result in diverse impacts at different levels. The discovery of a prototype drug may determine the quality of life in chronic diseases, or even the very survival of afflicted individuals. For society in general, the identification of local and natural sources of chemical entities that, more often than not, must otherwise be imported, may have significant impact in local economies, and is therefore central to an autonomous management of health policies. From the industry perspective, the pharmaceutical sector mobilizes important capital volumes, the search for prototype drugs alone involving hundreds of millions US dollars. Likewise, the development of safe and effective herbal drugs is of relevance for both economic and health policy perspectives. In a yet broader view, the prospect of drug discovery from plants has been used as a conservationist argument, therefore relevant in human ecology terms.

The following discussion will focus on the idea, promoted in different forums since the early 80s (to a great extent incorporated at the Convention of Biodiversity), that the marketing of medicinal plants based drugs could be a significant economic activity for biodiversity rich countries and its communities, ultimately contributing to the conservation of biological and cultural diversity. Because ethnopharmacology concepts and data can be useful to communities a variety of ways, including sustainable development, financial matters, appropriate health care, culturally sensitive health care programs and practices, the understanding of how would be western drugs actually dealt with in different cultural contexts, this panel discusses how can Ethnopharmacology contribute to development(s) in traditional communities.

WORKSHOP: “DATA COLLECTION AND MANAGEMENT IN ETHNOPHARMACOLOGY”

Sarah Edwards (coordinator) of the *School of Pharmacy, London University, UK* and **Nina Etkin** *Department of Anthropology, University of Hawaii, Honolulu, Hawaii USA*,
S.Edwards@rbgkew.org.uk

This workshop will predominantly focus on field-based methods of data collection and management. The methods employed in ethnopharmacological research draw on a number of interdisciplinary approaches. The *integration* of field techniques used in ecology, ethnography, medical anthropology and botany will be stressed, including how they can meaningfully be linked to pharmacological data. Application of interdisciplinary findings to improve health care in marginalized regions will be emphasised. Whereas ethnopharmacology is assumed by some to be synonymous with “bioprospecting,” drug development is only one aspect of the discipline - by no means a consensus objective. Compliance with legal regulations at the local, national and global levels is, of course, a prerequisite of all ethnopharmacological research, and in many countries will impact, and possibly prevent, legitimate collection of materials and/or data. It is the responsibility of field researchers to ensure that they abide by existing legislation (e.g., CBD, CITES). Also important is that data collection and management is undertaken in an ethical manner, without compromising the concerns of local collaborators, and with respect of their intellectual property rights. Hands-on ethnographic exercises will include diverse interview modalities, sampling, cognitive tasks and cultural domain analysis, discourse-centred methods, and scaling. The orchestration of quantitative and qualitative approaches, and the coordination of varied and triangulated methodologies will be stressed. Practical advice will also be offered on how to build a database to meet field collection requirements, using basic systems analysis techniques and Microsoft Access as an example. Data management using a well-structured database will greatly facilitate data analysis at a later stage of research. Database development will be examined, including entity modelling, normalisation, table relationships and record keys.

For further information please visit:

<http://www.kent.ac.uk/anthropology/ice2004/>

For registration and booking:

<http://www.kent.ac.uk/anthropology/ice2004/confcosts.html>

If you have any queries about any aspect of the Congress, please email the Congress Administrator at ice2004@kent.ac.uk

Preliminary Announcement

CHINESE HERBAL MEDICINES

Jodrell Laboratory Royal Botanic Gardens Kew

June 11 (evening), 12th 2004

You are cordially invited to a “one” day conference at the Royal Botanic Garden Kew on *traditional Chinese plant based medicine* organized , among others, by the Society for Medicinal Plant research (GA) and the International Society for Ethnopharmacology (ISE). This conference will focus on the botanical material used in Traditional Chinese Medicine (TCM), their pharmacological effects and clinical effectiveness, the importance of authentication and quality control as well as on natural products isolated from TCM remedies.

PROGRAMME

FRIDAY 11th

17:30-18:00 Registration

18:00-19:00 PLENARY Introductory lecture – *Overview of Chinese medicinal plants and their impact in the West*. Prof Kelvin Chan, Hong Kong Baptist University (to be confirmed)

Attendees can then go to their hotels but it is hoped that they will form groups to go out to eat/drink together. A new hotel near the river Thames has opened close to Kew where we will be seeking a block booking rate.

SATURDAY 12th

9:00-9:30 Registration

9:30-10:15 PLENARY LECTURE *Authentication of Chinese herbs* – Prof Monique Simmonds (Royal Botanic Gardens Kew)

10:15-11:00 Three short presentations

11:00-11:30 COFFEE BREAK

11:30-12:15 PLENARY LECTURE *Toxicological aspects* – Prof Paul But (Chinese University of Hong Kong) (to be confirmed)

12:15-13:00 Three short presentations

13:00-14:30 Buffet hot lunch and attended poster session

14:30-15:15 PLENARY LECTURE *Chemical and biological activity studies on Chinese plants* Prof R Bauer (Institute for Pharmacognosy, Graz)

15:15-16:00 Three short presentations

16:00-16:30 TEA BREAK

16:30-17:00 Two short presentations

17:00-17:30 PLENARY LECTURE *Clinical aspects* (N.N.)

17:30 onwards Wine and snacks with guided tours of Kew Gardens.

Further details will be available in early 2004. Local contact persons in London are Prof. Monique Simmonds (Kew), Prof. Peter Houghton (Kings College) and Prof. Michael Heinrich (School of Pharmacy, U London).

**Please visit the GA (<http://ga-online.org>) or
ISE (<http://www.ethnopharmacology.org>) WebPages
or email ‘phyto@ulsop.ac.uk’**

Conference Report

Anti-inflammatory and anti-infective natural products

The search for novel anti-inflammatory and anti-infective agents of natural origin was the focus of a two day meeting held on 15th and 16th of December 2003 at the Royal Pharmaceutical Society's Headquarters in London. Aside from the RPS GB, our society – the International Society for Ethnopharmacology, the Phytochemical Society of Europe and the Academy of Pharmaceutical Sciences co-organised this event. Many of the speakers were drawn from a European Union sponsored consortium funded through the Fifth Framework Programme and co-ordinated by **Michael Heinrich** of the School of Pharmacy, Univ. London. About 100 participants mostly from Britain, but also from other European countries and some from abroad had the opportunity to interact with colleagues from diverse backgrounds, but with a common interest in plants with potential pharmaceutical applications.

Novel Anti-inflammatory medicines

In his keynote lecture **Giovanni Appendino** from the University of *Piemonte Orientale* in Italy highlighted the potential role of compounds from plants commonly used in the kitchen and how much novel discoveries we can expect in widely known and commonly used plants: 'The kitchen connection – Anti-inflammatory natural products from food plants and spices'. Our rapidly expanding knowledge of targets in the pro-inflammatory signalling pathway allows us to re-assess the biochemical-pharmacological effects of such commonly used kitchen herbs as *Capsicum* (chilli). Key to these studies was the discovery of the vanilloid receptors, a class of ion channels involved in chemo-, mechano-, and thermosensation as well as in neurogenic inflammation and pain. Implicitly, all this is a truly ethnopharmacological research effort **Anna Jäger** from the Danish School of Pharmaceutical sciences reported on her research on plants used by the Zulu in South Africa and the species' effects on cyclooxygenase 1 and 2 explaining that in many cases more than one class of compounds makes important contributions to the

pharmacological effects. Core to her interest has been to further develop these local resources, so that they can be properly characterised and studied resources are used. Thus the main goal is to further the local usage and not to search for novel treatments for our medical systems.

Other speakers included

- **Bernd Fiebich** from the University Hospital in Freiburg, Germany summarising recent findings on the pharmacological profile and clinical effectiveness of Devil's Claw (*Harpagophyti Radix*)
- **Paul Bremner** and Michael Heinrich from the School of Pharmacy, Univ. London summarising our current understanding of the use of and natural products isolated from them in terms of their action specifically against the ubiquitous transcription factor, nuclear factor kappa B (NF- κ B)
- **Eduardo Muñoz B.** from the University of Córdoba, Spain providing an overview on the cell cycle and its potential for novel targets in the development of chemotherapeutic agents like anti-mitotics.
- **M. Lienhard Schmitz** from the University of Bern in Switzerland and Yinon Ben-Neriah from the Hadassah University Medical Centre in Jerusalem, Israel -two experts in the NF- κ B-pathway – discussing various aspects of this pathway and their potential for assessing the biological activities of drug candidates.

Raphael Mechoulam from Jerusalem, Israel presented the second keynote lecture on 'Cannabinoids in chronic inflammatory conditions'. Since the earliest written records preparations derived from *Cannabis sativa* have been used as medicines throughout Europe and Asia, especially in the treatment of pain and inflammation. Cannabis already has a high rate of acceptance and interest throughout the general population, making research into this species and its use as a new medicine one of the most exciting and promising current research areas. He provided an overview of his 40 year relationship with this fascinating topic from the original identification of the various cannabinoids in the early 1960s to his most

recent interest in synthetic derivatives for use as anti-inflammatory and immunosuppressive agents. Δ^9 -Tetrahydrocannabinol isolated by his group in 1964 is, of course, the core compound responsible for the hallucinogenic effect, but seems to be of little relevance for the extracts' anti-inflammatory effects. His later research, led among others to the identification of the cannabinoid receptors and the endogenous transmitter anandamide. In his view cannabis holds great potential for developing novel non-psychoactive, anti-inflammatory medicines.

ANTI-INFECTIVE NATURAL PRODUCTS

A second focus of the symposium were anti-infective natural products with presentations by **Simon Gibbons** from the London School of Pharmacy on his recent research on plants as sources of bacterial resistance modulators and anti-infective agents. **Colin Wright** from the University of Bradford focused on anti-malarial agents most notably cryptolepine and its derivatives as well as of phytomedicines from *Artemisia annua* currently developed specifically as locally available resources in order to control this devastating illness in the worst affected regions of Africa.

Several short lectures and posters also provided insight into the activities of research

laboratories from such diverse countries as Brazil, México, Turkey and Spain. The conference demonstrated the enormous potential of natural product research as well as the urgency to start multidisciplinary projects on natural products. The health situation in many regions of the world is deteriorating very fast, the biomedical armament against many infectious diseases is loosing its strengths and the European population is more and more suffering from chronic, ageing related diseases like rheumatoid arthritis. Both high quality phytomedicines and pure natural products are of great interest in the context of multidisciplinary ethnopharmacology.

In June of this year the next regional conference with a participation of the International Society for Ethnopharmacology will be held once more in London jointly with the Society for Medicinal Plant Research (GA) focusing on herbal medicines derived from traditional Chinese medicine and organised by Peter Houghton and colleagues (see section Upcoming conferences).

Michael Heinrich
Centre for Pharmacognosy and Phytotherapy
The School of Pharmacy, Univ. London, UK

Abstracts of Student's Thesis

The Pharmacognostic Study of *Lycium* Species in China.

Peng Yong (PhD candidate)

Email address: 01400622@hkbu.edu.hk

Supervisors: Dr. Zhao Zhongzhen, School of Chinese Medicine, Hong Kong Baptist University, Hong Kong

Funding institutions: The University Grants Committee of Hong Kong

Fructus *Lycii* (Gou Qi Zi) is the dried fruit of *Lycium barbarum* L., belongs to the Family of *Solanaceae*. It has been used as food and medicine for more than two thousand years in China. Ethnopharmacologically, Fructus *Lycii* (Gou Qi Zi) is widely used as a tonic Chinese medicinal material (CMM) for the treatment of general debility with deficiency of vital essence and impaired vision.

According to the Pharmacopoeia of the People's Republic of China, only the species *L. barbarum* is listed for medicinal use as Fructus *Lycii* (Gou Qi Zi).

The component of fruit of *Lycium barbarum* L. mainly contains *Lycium barbarum* polysaccharides(LBP), which are the active principles with immuno-stimulating activities, and carotenoids representing eyesight improvement.

The main purpose of my PhD project is to make a systematic investigation to the resource of *Lycium* species distributed in China and make a systematic taxon on the *Lycium* genus in China by all kinds of method, i.e. morphological identification, FTIR spectroscopy identification, and molecular identification. In other hand, it also establish a quality standardization protocol to control the standard of Fructus *Lycii* (Gou Qi Zi) used as CMM and its related prescriptions.

Fig: The original plant of *Lycium barbarum* L.



Antioxidative and Neuroprotective Properties of *Ptychopetalum olacoides* Benth (Olacaceae)

***Ionara Rodrigues Siqueira* (PhD)**

Email address: ionara@vortex.ufrgs.br

Supervisors: Prof. Carlos Alexandre Netto and Prof. Dr. Elaine Elisabetsky Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

Funding institutions: Programa de Pós Graduação em Ciências Biológicas - Bioquímica

Alcoholic infusions of roots of *Ptychopetalum olacoides* Benth (PO, Olacaceae), known as Marapuama, are used in Brazilian Amazon as “nerve tonics”. PO is used mainly by elders to treat CNS disorders (such as consequences of strokes, general fatigue, tremors, and alertness). Oxygen free radicals have been reported to be involved in the pathways underlying several degenerative diseases, as well as in the physiological decline associated with aging. Accordingly, PO has been used to treat symptoms associated with various diseases in which free radicals are likely to be implicated. This research has shown that an ethanol extract of PO (POEE) acted as superoxide, peroxy, and NO scavenger *in vitro*. Moreover, the acute administration of POEE in mice leads to significant reduction on free radical generation, lipid peroxidation and protein-bound carbonyl content, and increased activities of the antioxidant enzymes catalase and glutathione peroxidase, pertinent indexes of oxidative status, in diverse brain structures. In addition, POEE protected rat hippocampal slices against ischemic injury, the by improving mitochondrial activity, while preventing the increased levels of free radicals generation that usually accompany such circumstances. *Ptychopetalum olacoides* seems to contain useful neuroprotective compounds and, therefore, deserve further scrutiny. The therapeutic action claimed for PO could be due, in part, to its multifaceted antioxidant activity. This study is associated with the Patent number PI 0205432-9 at INPI, Brazil.

Ethnobotanica study of Turkmen people, Golestan Province, north of Iran

Abdol- Basset Ghorbani (MSc candidate)

Email address: dahne@khayam.ut.ac.ir

Supervisor: Dr. Hossein Akhiani, Department of Biology, Faculty of Science, University of Tehran, Iran

Collaborator: Dr. Narges Yassa, Department of Pharmacognosy, Faculty of Pharmacy, University of Tehran, Iran

Funding Institution: (no special funding so far)

We studied medicinal plants used by the Turkmens of Golestan and Khorasan Province, north of Iran during an 18 months period of field research.. Turkmens of Iran are culturally an isolated ethnic group, the inhabitants of Golestan and Khorasan Provinces. Interviews were taken with people of an average of 63 years, who were experts in medicinal plant use, as well as midwives, bonesetters, or with further specialisation.

Information on medicinal plants, disease treatment, and administration of the plant material were documented. It was followed by comparison with other information cited in the scientific and popular literature to trace their antique usages. Some endemic and popular plants with high potential for phytochemical and pharmacological analysis were then selected.

Another specific goal of this work was to start new distribution records for 1) *Mandragora turcomanica* Mizg. an endangered species, which has been conserved by the local people from extinction in this region.; 2) the uses of *Euphorbia* sps. containing carcinogenic compounds and also the high rate of cancer (especially oesophagus cancer) in the region; and 3) also local uses of some endemic species like *Parrotia persica*., an interesting target for future phytochemical analysis. More ethnobotanical work is urgently needed in this region of the world, otherwise valuable local knowledge on medicinal plants will be lost soon.

A Comparison of Ethnomedical Treatments of *Diabetes mellitus* (Ayurveda and Traditional Chinese Medicine)

Sarah K. Khan (MS, MPH, PhD candidate)

Email address: skkhan@pipeline.com

Supervisor: Michael J. Balick, New York Botanical Garden, Bronx, NY

University/Institution: City University of New York, NY, NY/New York Botanical Garden

Funding Institutions (past and present): Fulbright, Phipps Botany in Action, Council of the American Overseas Research Centers

Ayurveda, loosely translated as the “science of life,” is a South Asian healing tradition that is several millennia old. Classical Ayurvedic texts describe “prameha” as a urinary abnormality. “Madhumeha,” one of the twenty subtypes of prameha, is comparable to conventional medical descriptions of Type I and II *Diabetes mellitus* (DM). Classical applications of Ayurvedic treatments to alleviate symptoms associated with madhumeha were evaluated. A prospective and retrospective clinical study was conducted to determine what classical formulations were most prescribed by two Ayurvedic physicians to treat DM at a clinic in Jamnagar, Gujarat. Three classical formulations were prescribed: Chandraprabha guggulu vati (CPGV), Dhatri haridra, and Tejapatra pushkarmula. Of the three prescribed, CPGV was prescribed the most (70%). Based on a review of the medical literature, a large number of the plants (93%) used in CPGV show some type of effect. A review of the individual plants revealed multiple effects for many conditions: Cardiovascular (20%), *Diabetes mellitus* (10.7%), Antioxidant (9%), Immunomodulating (7.6%), and Antiinflammatory, Analgesic (4.5%). Research to evaluate Ayurvedic diagnosis of madhumeha and the multi-therapeutic classical Ayurvedic formulations to treat *Diabetes mellitus* Type II is warranted.

Student's Viewpoint

Challenge for Ethnobotanical Study in Iran



Pre-islamic tombstones in meadows of the study area

When I was a child I used to collect some wild plants for food and medicine and spent most time in nature. When I grew up and passed childhood, I lost “my nature”, but I had great interest in medicinal plants, because I believed that some plants have great potential for healing diseases. Then, I got a BSc in plant biology and came back to nature. But, it had really changed so that I couldn’t compare it with the past. Later I entered MSc courses in Botany and found an opportunity to come back to my community and do something for my own people: It was really important for me to use my knowledge about plants for people. But when someone asked me about a plants name in Turkmen language and I couldn’t answer, I was wondering if this plants have Turkmen names at all and if yes, why I don’t know them. I decided to visit some old people in my village and asked them about plants and their uses, then I went to other villages searching persons who are experts in plant uses. In most cases I heard this reply: “There was a really expert elder man or woman in the village but

unfortunately he (she) died”. I started to feel the urgent need for continuing this kind of research. As I found out that I could chose this subject for my thesis, I made up my mind and decided to do it. And it was the start of my story as a student of ethnobotany, to study the ethnobotany of Turkmen people in the north of Iran.

When I came to the people they didn’t accept me right away. They thought that I wanted to steal their knowledge, but when I explained my purposes, they accept me with open arms and frank cooperation started. It was really interesting for me to explore nature with old people, ask them about plants, their names and to learn about the informants thoughts about the plants.

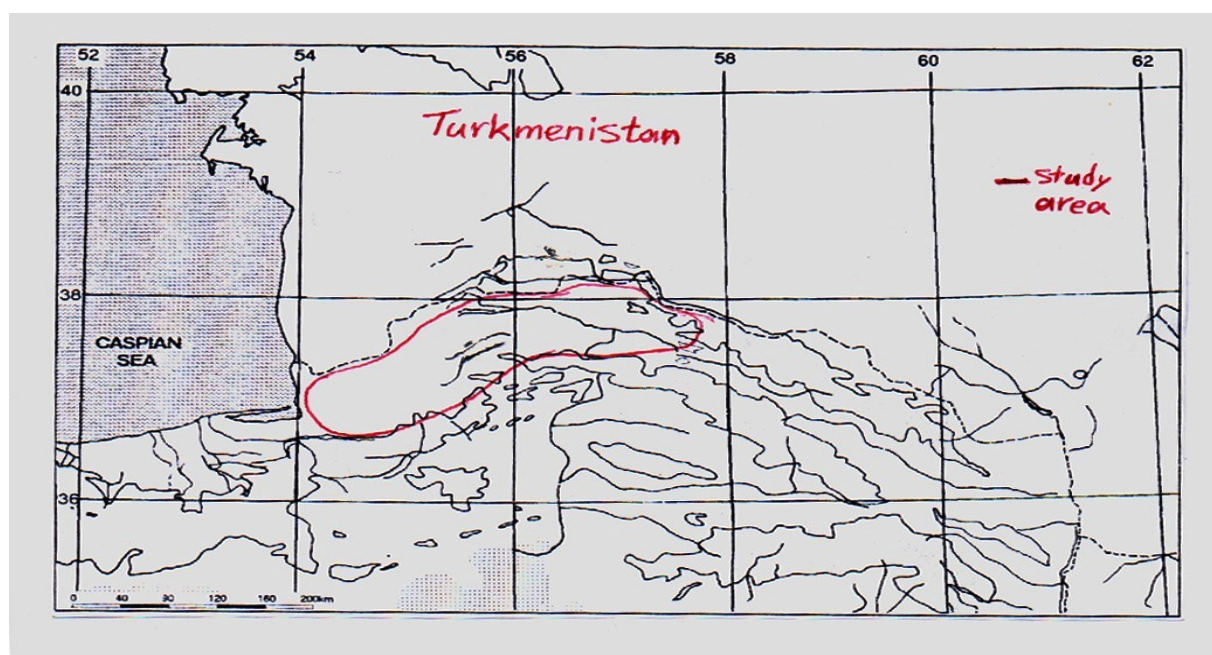
Golestan Province is located in SE of Caspian sea and clearly divided into mountains and plains following the direction of Alborze Range. The plain part is connected with plain and desertic parts of Turkmenistan and the mountainous part at the boundary of Golestan National Park faces with Kopetdagh Range.

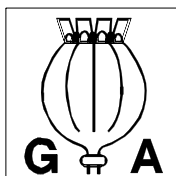
Turkmens are the biggest ethnic group in the area and mostly reside in the northern Province in the plain part. Even the name of Turkmen Sahara comes from these settlements. In the past, most of them were Bedouins and stockholders but today some of them settle in villages and towns and have become both, farmers and stockholders. Following the plains of this Province along political boundaries of Iran and Turkmenistan, ranges of these settlements continue to the north of Khorassan Province.

In my project I was facing several problems. First of all there was a lack of respect to this ethnobotanical study, even on the academic side. Secondly, I had no expert supervisor who had really deep insights into ethnobotanical research. Whereas the most important handicap was, that I had no facilities to go to remote areas. Nevertheless, I continued my work. Now I'm at the end of my courses and still many things remain to be done. I'm eager than ever to continue my research and work in the field of ethnobotany to become a PhD candidate. I have to search for funds and an expert supervisor. I have ideas and plans to continue my research and expand it to Turkmens of southern Turkmenistan. A comparison of these two political and

ecological different regions and their respective ethnobotanical heritage could be very interesting. I don't know why my supervisor accepted my project in the beginning, but I know he felt the same urgent need for this kind of research in the region. Maybe he thought that I'm the one who could achieve it with regard of A. Barrera words "The best Ethnobotanist would be a member of an ethnic group who, trained in both botany and anthropology, and it would be even better - for him and his people- if his study could result in economic and cultural benefits for his own community". I would like to evaluate phytochemically the potential plants that I have found and will find if I will be able to continue my research. I would like to help to develop new drugs or new formulations and to develop the region of the Turkmens. Maybe you, as a reader, have ideas how I could proceed, or you are even interested to supervise such a project! Please contact me under the email address or postal address cited below!

Abdol- Basset Ghorbani
dahne@khayam.ut.ac.ir
 Department of Biology,
 Faculty of Science,
 University of Tehran, Iran





GESELLSCHAFT FÜR ARZNEIPFLANZENFORSCHUNG e.V.

The Society for Medicinal Plant Research (GA)

The Society for Medicinal Plant Research "Gesellschaft für Arzneipflanzenforschung - GA" was founded in 1953 in Bad Camberg, Germany, for the purpose of fostering and promoting scientific work related to medicinal plants. Whereas in the beginning their therapeutic aspect was the Society's principal concern, the main focus soon changed to all general aspects of medicinal plant research, including research, production, cultivation, breeding, and therapy.

Over the years GA developed into an international scientific society with at present about 1200 members from 75 countries. The official language now is English. The scientific interests of GA nowadays cover all aspects of medicinally used natural products such as agricultural science, biology, chemistry, pharmacy, pharmacognosy, pharmacology and medicine.

In the same year 1953 *Planta Medica* was founded as the official journal of the society. With 2.289, it currently has the highest impact factor of all journals in this field.

The Society's internal information for members are published in the GA-Newsletter twice a year and in our homepage (www.ga-online.org)

Annually GA organizes big congresses on medicinal plant research in major European cities, and every 5 years joint meetings with related European and North American scientific societies. Besides GA sets up and supports smaller symposia and workshops on specific topics related to natural product research for the possibility of an intense exchange of experts in various fields.

In addition, GA has established four permanent committees which elaborate and disseminate information on the following topics: 1) Biological and Pharmacological Activities of Natural Compounds, 2) Breeding and Cultivation of Medicinal Plants, 3) Manufacturing and Quality Control of Herbal Medicinal Products and 4) Regulatory Affairs on Herbal Medicinal Products.

Another major concern of GA is the encouragement and assistance of young scientists in all those fields. Generous travel grants for the annual meetings and various awards give young scientists ample possibilities to receive support.

Hence there are many reasons to become a member, among others, e.g.

- To join a group of people interested in the same field.
- To promote science and the dissemination of medicinal plant research
- To get informed on all activities of GA in first priority
- To receive a financial discount in many areas related to GA
- To get financial support for attending the scientific annual congress of GA
- To get a free copy of the Abstract Book of the annual GA congress if you are not able to attend
- To subscribe *Planta Medica* at a reduced subscription rate
- To become active in the planning of the future of GA.

The next annual congress will be a joint meeting of GA and other European Societies with the American Society of Pharmacognosy in Phoenix Arizona (31 Jul - 4 Aug 04; www.phcog.org). Also in 2004 there will be a joint meeting of ISE and GA on Traditional Chinese Medicine in the Royal Botanical Gardens, Kew, UK on June 12-13, 04.

More information about GA and more links to further activities you find under www.ga-online.org
Application forms are also available there.

For personal inquiries, please contact the GA Secretary:

Dr. Renate Seitz, Gesellschaft für Arzneipflanzenforschung

Emmeringer Str. 11, D - 82275 Emmering, Germany

Tel. and Fax: +49-8141-613749, e-mail: GA-Secretary@t-online.de

Impressum

ISE Newsletter, Bulletin of the International Society for Ethnopharmacology
2 issues per year

Barbara Frei Haller, PhD (Editor)
bfreihaller@bluewin.ch
Bröl 25, CH-7530 Ardez/ Switzerland

Michael Heinrich, Prof. (Co-Editor)
Michael.heinrich@ulsop.ac.uk

Deadline for next issue: 01.03.04

As part of the Newsletter's general policy we want to share the personal views of the authors with our readers. Unless otherwise stated the opinions expressed in this newsletter are the ones of the authors and do not necessarily represent the opinion of the ISE, its board or the editors of the newsletter.

Request for information

Significance of forest-derived nutrition and medicinals to human health

We've been working on a literature review on nutritional and medicinal roles of wild rainforest products in contributing to human health. We have found considerable documentation about such products and their possible or assumed role in health. However, we have been surprised to find very little regarding their actual significance for health and nutrition. Documents already identified include the following: Chapters in Hladik, C.M. et al. (eds.), 1993 Tropical Forests, People and Food: Biocultural Interactions and Applications to Development, vol. 13, Man and the Biosphere. UNESCO and The Parthenon Publishing Group, Paris, Lancs, New York.

Melnyk, M.A., 1995 The Contributions of Forest

Foods to the Livelihoods of the Huottuja (Piaroa) People of Southern Venezuela. Thesis submitted for the degree of Doctor of Philosophy-University of London, London.

This seems very few considering the claims often made. But maybe we have missed something ...?

We need to identify and obtain publications and references, including synthesis or case studies, that address the actual health role of forest products. Part of the difficulty we face is that such information may be scattered over many disciplines, making it easy to overlook key publications. We would appreciate your help. Thank you very much.

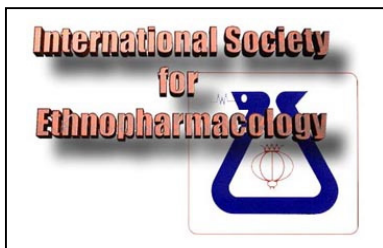
Misa Kishi, MD, DrPH

Center for International Forestry Research (CIFOR)

Please send your messages to: Hety Herawati, Center for International Forestry Research (CIFOR)
h.herawati@cgiar.org

More Upcoming Conferences

- April 21-24, 2004 - Macquarie University, Sydney Australia -- Indigenous Knowledge and Bioprospecting, http://www.ocs.mq.edu.au/~cjone005/index_conference.htm
- July 19-22, 2004 – Dakar, Senegal – 4th International Conference & Exhibition on Traditional Medicine; Traditional Healing and HIV/AIDS. <http://www.africa-first.com/4thICTM.asp>



Web-site: www.ethnopharmacology.org

Membership Application 2004

Name: _____

Full address: _____

City: _____

ZIP code: _____

Country: _____

Phone: _____

FAX: _____

Email: _____

I was a member in 2003 : Yes _____ No _____

Membership fees (tick appropriate):

USA, Canada, Europe, Australia, New Zealand, Israel, Japan, Singapore, Hong Kong
Kuwait, UAE, Saudi Arabia 175 US\$ (incl. JEP)

Other countries, 135US\$ (incl. JEP)

All Students, 135US\$ (with certification*) (incl. JEP)

Membership alone (excl. JEP) US, Canada etc. 50 US\$

Membership alone (excl. JEP) all others countries 25 US\$

Students (with certification*) free

Check or money order **in US dollars only** payable to the *International Society for Ethnopharmacology*
Individual subscriptions are for personal use only, not for library or corporate purposes.

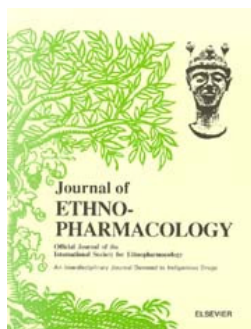
* I certify that the individual named above is a full-time student:

Signature of Major Professor or Registrar: _____

Title: _____

Institution: _____

Return to: Prof Anna Jäger, Department of Medicinal Chemistry, The Danish University of
Pharmaceutical Sciences, 2 Universitetsparken, 2100 Copenhagen O, Denmark. E-mail: ankj@dfuni.dk



News from Elsevier:

Announcement of restructuration of Editorial Board (published in issue 90/2004/1)

Editorial from Rob Veerport, Editor-in-Chief (published in issue 90/2004/3)

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Announcement

We are pleased to announce that the Editorial team of the *Journal of Ethnopharmacology* has recently been restructured. Professor Robert Verpoorte has taken on the role of Editor-in-Chief while Professor Doel D. Soejarto and Professor Peter J. Houghton will continue as Editors in the same capacity. Professor Michael Heinrich has taken on the role of Reviews Editor (see Editorial, Vol. 89/1, November 2003) including book reviews. We would like to acknowledge their contributions and thank them for their dedication and continued support of the journal.

In addition, three new Associate Editors have been appointed. They are:

- Dr. Pulok K. Mukherjee, Joint Director, School of Natural Product Studies, Dept. of Pharmaceutical Technology, Jadavpur University, Kolkata, India
- Dr. Guillermo Schmeda Hirschmann, Instituto de Quimica de Recursos Naturales, University of Talca, Chile
- Professor J. van Staden, Professor of Botany and Director, Research Centre for Plant Growth & Development, Scottsville, Pietermaritzburg, South Africa

A centralised Editorial office in Leiden has been established. We will soon be introducing an electronic submission

tool for our authors. Please note that all manuscripts with the exception of reviews and book reviews should be submitted to:

Prof. Dr. R. Verpoorte
Editor-in-Chief, *Journal of Ethnopharmacology*
Division of Pharmacognosy, Institute of Biology
Leiden University
P.O. Box 9502
2300 RA Leiden
The Netherlands

We would like to acknowledge the tremendous efforts of Anneke Poels and Pauline de Graaf in setting up and organising the office. Thank you Anneke and Pauline!

We wish our new editorial team great success and much pleasure and personal satisfaction in their new positions.

Kim Briggs
Senior Publishing Editor
Elsevier

Editorial

Recently I accepted the responsibility of Editor-in-Chief of the *Journal of Ethnopharmacology* — a challenging task, as I find this journal of great importance for the following reasons.

The core of present day global medicines is based on traditional medicines. However, most of the traditional medicines in the world have not yet been studied in much detail. The present day possibilities of high throughput screening, genomics, proteomics, metabolomics and the more holistic approach of system biology offer great new and exciting perspectives for studying the activity of these traditional medicines. These new approaches have an enormous potential of finding new leads for developing drugs, proving synergism of compounds and, last but not least, also for finding new targets for drug development. These novel approaches as well as the classical approaches, will also be very important for confirming traditional applications and identify possible risks, and should benefit further the holders of the traditional medicinal knowledge. Risks are inevitable with the use of any medication.

Because traditional medicines play a major role worldwide in primary healthcare, a better understanding of their activity, side effects and toxicity will be of great value for their efficient application. The journal plays an important role in spreading such knowledge in the scientific world. This can be learned from the fact that many pharmacology journals cite articles from the *Journal of Ethnopharmacology*, thus bringing knowledge about traditional medicines to the forefront of pharmaceutical research.

For obvious reasons, the majority of research articles in the journal come from academic research groups in countries with a rich tradition of medicinal plants. Funds in academia are limited if compared with the pharmaceutical industrial resources for drug development. So we must use our limited

resources in an optimal way and, by publishing our results, earn the credits necessary to obtain further support for our research. A measure for the relevance of our research is the number of times our studies are cited. Relevance is primarily dependent on the topics of the research, for example the plant(s) used and the applications. But also the relevance of the methods used to study the biological activity of the plant. For example to show that a plant contains antioxidants by only a chemical assay has little relevance, evidence for in-vivo activity is eventually required to have any meaning for the application of the plant. Another point is being realistic about what is activity. By comparing with proper controls one can at least make a rough estimation about the required dose of plant material needed for having an activity. That value should be compared with the amounts used in traditional medicine. Unfortunately frequently this teaches us that the activity found is not strong enough to explain the traditional use. We should be careful in calling plants or compounds active in bioassays if this is not at a concentration that is reasonable if compared with the control compounds in the assay. In the coming year, we will be asking a number of experts to write brief recommendations for studying certain activities in terms of assays to be used and the assessment of what one could call active and, thus, would be interesting for further studies. This, I believe, would be of great help for us to use our limited research funds in the most effective way. It will improve the relevance of our studies, and eventually raise the impact of our papers and help to further develop a general acceptance of medicinal plants as safe and effective medicines and to find new leads and targets for drug development.

Rob Verpoorte
Editor-in-Chief