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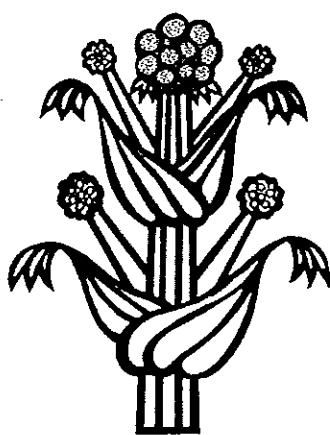


MEDICINAL
PLANT
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Medicinal Plant

Conservation

Bibliography



Volume 2



MEDICINAL
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Medicinal Plant Conservation

Bibliography

Volume 2

Uwe Schippmann

2001

Orders

This volume of *Medicinal Plant Conservation Bibliography* (MPCB) is available through:

IUCN Publications Services Unit, 219c Huntingdon Road, Cambridge, CB3 0DL, United Kingdom,
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Price of ringbound copy GBP £10.00/ US \$15.00

Author's address:

Dr Uwe Schippmann, Medicinal Plant Specialist Group, c/o Bundesamt für Naturschutz,
Konstantinstraße 110, D-53179 Bonn, Fax ++49/228/8491-119.

Published June 2001

ISSN 1433-304x

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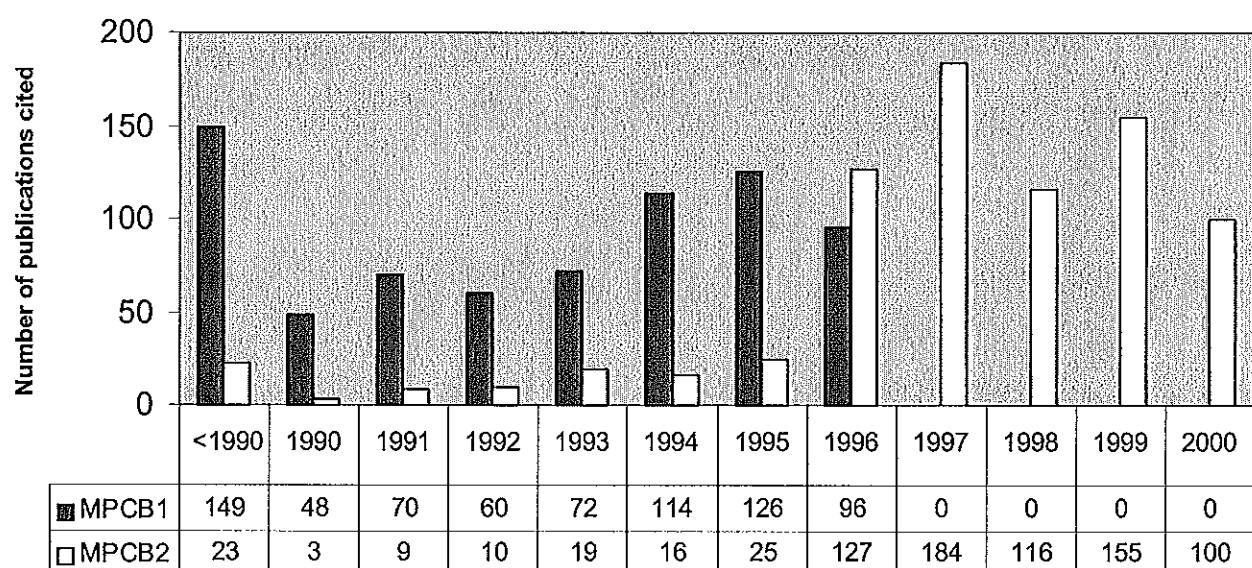
Introduction

One of the major impediments to the advancement of medicinal plant conservation is the difficulty of accessing and analysing the relevant literature. Books and papers on medicinal plants count by the tens of thousands worldwide. The bulk of them relate to pharmacology and medicinal properties or to classical ethnobotanical research. Regrettably, information on distribution, life history, biology, population status, levels of extraction and trade, or resource management of the taxa is scarce. Therefore, information urgently needed for setting plant conservation priorities is rare and scattered.

The *Medicinal Plant Conservation Bibliography* is designed to collect this information from the various sources. It systematically reviews about 70 journals and newsletters for papers with relation to medicinal plant conservation issues. Also, other serial and monographic publications are included.

The first volume included references of the years 1990 to 1996. The present, second volume covers the period 1997-2000. Volume 2 also contains sporadic references from earlier years (see figure 1).

Fig. 1: Years of publication of references cited in volumes 1 and 2 of MPCB



Statistics of volume 2

The second volume of MPCB contains 801 references, 170 of which are accompanied by a review text (21%). 642 papers cited are in English, 99 in German, 27 in Spanish, and 21 in French. 555 references are from the period 1997-2000. A breakdown of the data on countries concerned shows a dominance of India (116 references), followed by USA (46), China (25), South Africa (25), Nepal (24), and Madagascar (20).

Journal coverage

For the period 1997-2000, the following journals and newsletters have been reviewed:

Advances in Economic Botany 11, 12, 13

American Herb Association Quarterly Newsletter

African Ethnobotany Network Bulletin 1, 2

13 (1-4), 14 (1-4), 15 (1-4), 16 (1-4)

Ambio 26 (1-8), 27 (1-8), 28 (1-8)

Amruth 1 (13)

- Australian Journal of Medical Herbalism 11 (1-2), 4, 12 (1-4)
- Australian Wild Herb Bulletin 2 (3)
- Biodiversity and Conservation 6 (1-12), 7 (1-12), 8 (1-12), 9 (1-12)
- Biological Conservation 79-96
- Biological Conservation Newsletter 163-192
- Boletin Informativo del Centro de Medicina Andina 43, 44
- Botanic Gardens Conservation News 2 (8-10), 3 (1-5)
- Conservacion Vegetal 3, 4, 5
- Conservation Biology 11 (1-6), 12 (1-6), 13 (1-6), 14 (1-6)
- Diversity 13 (1-4), 14 (1-4), 15 (1-4), 16 (1-4)
- Drogenreport 16-23
- Economic Botany 51, 52, 53, 54 (1-3)
- Endangered Species Bulletin 22 (1-6), 23 (1-4, 6), 24 (1-6), 25 (1-3)
- Endangered Species Update 14 (1-10), 15 (1-6), 16 (1-6), 17 (1-6)
- Entwicklung und Ländlicher Raum 31 (1-6), 32 (1-6), 33 (1-6), 34 (1)
- Environmental Conservation 24 (1-4), 25 (1-4), 26 (1-4), 27 (1-3)
- Ethnopharmacologia 23, 24, 25, 26
- Etnobotanica. Boletin Informativo del Grupo Etnobotanico Latinoamericano GELA 6, 7
- Fitoterapia 68 (1-6), 69 (1-6)
- Funbotanica Boletin 5, 6
- Global Biodiversity 6 (4), 7 (1-4), 8 (1-4)
- Hamdard Medicus 40 (1-3), 41 (1-4), 42 (1-4), 43 (1-4)
- Herba Polonica 43, 44, 45, 46
- Herbalgram 39-50
- Himalayan Bioresources 3, 4
- ICMAP Newsletter 3, 4, 5, 6, 7
- Indian Forester 123 (1-12), 124 (1-12), 125 (1-12), 126 (1-5)
- International Journal of Alternative and Complementary Medicine 15 (1-12), 16 (1-3)
- Journal of Alternative and Complementary Medicine. Research on Paradigm, Practice, and Policy 3 (1-4, Suppl.), 4 (1-4), 5 (1-6), 6 (1-6)
- Journal of Applied Botany 71 (1-6), 72 (1-6), 73 (1-6), 74 (1-6)
- Journal of Economic and Taxonomic Botany 21 (1-3), 22 (1-3), 23 (1-3), 24 (1-2)
- Journal of Economic and Taxonomic Botany, Additional Series 15, 16, 17
- Journal of Ethnopharmacology 55-74
- Journal of Herbs, Spices and Medicinal Plants 4 (4), 5 (1-3), 5 (4), 6 (1-2), 6 (3-4), 7 (1-4)
- Journal of Medicinal and Aromatic Plant Sciences 19 (1-4), 20 (1-4), 21 (1-4)
- Medicinal and Aromatic Plants Abstracts 19 (1-2), 22(1)
- MFP News 7 (1-4), 8 (2-4), 9 (1-2,4), 10 (4)
- NANMAP. A Bimonthly Newsletter of the Asian Network on Medicinal and Aromatic Plants 23-35
- NAPRECA Newsletter 14 (1)
- Nature and Resources 33 (1-4), 34 (1-4), 35 (1-4)
- Newsletter on TCM Resources 2
- Non Wood News 4, 5, 6, 7
- Oryx 31 (1-4), 32 (1-4), 33 (1-4), 34 (1-4)
- People and Plants Handbook 3, 4, 5
- Pharmaceutical Biology 35 (1-5), 36 (1-5,Suppl.), 37 (1-5), 38 (1-3)
- Phytomedicine. International Journal of Phytotherapy and Phytopharmacology 4 (1-4), 5 (1-6), 6 (1-6), 7 (1-6, Suppl.)
- Plant Conservation News. The SSC Newsletter for Plants 4
- Plant Genetic Resources Newsletter 115, 116, 117, 118, 119, 119 Suppl, 120, 121, 122, 123
- Plant Talk 8-21
- Plantwise Newsletter 1, 2, 3, 4, 6, 7, 8, 9
- Prosea Newsletter 22, 23, 24, 25
- Rainforest Medical Bulletin 5 (1), 6 (1)
- Review of Aromatic and Medicinal Plants 3 (1-6), 4 (1-6), 5 (1-6), 6 (1-5)
- Sabonet News 3 (1-3), 4 (2-3), 5 (1-3)
- Species 28-34

-
- Taxon 46 (1-4), 47 (1-4), 48 (1-4), 49 (1-4)
 TRAFFIC Bulletin 16 (3), 17(1-3), 18 (1-3)
 TRAFFIC Dispatches Feb 1997, April 1998, Sep 1998, Jan 1999, 11, 12, 13, 14, 15
 TRAFFIC North America 2 (1-2), 3 (1-3)
 Tramil Centroamerica. Bolétn Informativo June 1997, Dec 1997, Sep 1998, April 2000
 United Plant Savers Newsletter 1 (1-2), 2 (1), 2 (2), Fall
 Wainimate Newsletter 3 (3), 4 (1)
- World Conservation 1997 (1-4), 1998 (1-4), 1999 (1-4), 2000 (1-2)
 Zeitschrift für Arznei- und Gewürzpflanzen 2 (1-4), 3 (1-4), 4 (1-4), 5 (1-4)
 Zeitschrift für Ökologie und Naturschutz 6 (1-4), 7 (1-4), 8 (1-4), 9 (1-3)
 Zeitschrift für Phytotherapie 18 (1-6), 19 (1-6), 20 (1-6), 21 (1-6)

Explanation of entries

In the bibliography, references are listed alphabetically preceded by a key number given in "()" brackets. Volume 1 used the numbers (100) to (873), numbering in volume 2 starts with (874).

The standard bibliographic information is followed by three descriptor types, each embraced in "<>" brackets: general keyword(s), country reference(s) and taxa/plant group reference(s). For country references, the standard ISO country codes are used (ISO Standard 3166, see Appendix I).

After this, the four digit code number used in the compiler's database is given in "[]" brackets.

The majority of publications in this bibliography are present at the compiler's office (698 references) or were at least seen (47 references). This is designated by a "!!" or "!", respectively. All other references (56) are cited on the basis of secondary sources. The source for this citation is given in "<>" brackets (e.g.: "<fide Hort. Abstr. 64>"). Abbreviations used in this context are explained below.

Translation of titles was made available for those references not in English, German, French or Spanish. They follow the original (if necessary transcribed) title citation.

Signs and abbreviations

The following signs and abbreviations are used in the references and reviews:

!!	Publication present at the compiler's office as original, reprint or photocopy
!	Publication seen by the compiler
ABC	American Botanical Council
AmHerbAssQ	American Herb Association Quarterly Newsletter
(abc)	Review drafted by A.B. CUNNINGHAM
BCN	Biological Conservation Newsletter
BfN	Bundesamt für Naturschutz, Federal Agency for Nature Conservation, Bonn
(djl)	Review drafted by D. LEAMAN
Hort.Abstr.	Horticultural Abstracts
JMAPS	Journal of Medicinal and Aromatic Plant Sciences
MPC	Medicinal Plant Conservation
MPCB	Medicinal Plant Conservation Bibliography
MPSG	IUCN/SSC Medicinal Plant Specialist Group
NHBS	Natural History Book Service

nwfp	Non-wood forest product
RAMP	Review of Aromatic and Medicinal Plants
(roh)	Review drafted by R. OHLEMÜLLER
(schp)	Review drafted by U. SCHIPPmann
s.loc.	Publication without place of publication
s.pag.	Publication without page numbers
TCM, tcm	Traditional Chinese medicine

Acknowledgments

The following experts have contributed literature references to this volume:

M. BAJAJ	S. KING	K.S. RAO
K.H. BATANOUNY	J. DE KONING	H.G. RICHTER
J. BREAUX	S. LAGOS-WITTE	C. ROBBINS
X. BUITRON	J. LAMBERT	J. ROBERTS
N. CROUCH	D. LANGE	E. SCHNEIDER
A.B. CUNNINGHAM	D. LEAMAN	J.M. SCHRÖDER
M. CUNNINGHAM	C. LEON	S. SEIDEMANN
U. DHAR	P. LINDEQUE	C. SMITH OLSEN
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B. HACHFELD	B. MICHLER	C. VICENTE
S. HALLOY	S. MINTER	V. WILLIAMS
K. HARIDASAN	M. MUSTARD	S. ZIEGLER
M. KASparek	S. OLDFIELD	
M.K. KAUL		

I would like to express my thanks to all contributors and review authors mentioned above. I am especially indebted to NATALIE HOFBAUER, BfN, for her continuing and ongoing support during the compilation. Transliterations of several references in Russian have kindly been provided by OLGA BEZ, BfN.

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- (877) Achar, K.P. (1997): Documentation of people's knowledge and perceptions about biodiversity and conservation through People's Biodiversity Register at Mala village Panchayat, Karkala Taluk, Karnataka state. - 47 pp., KSCST & WWF India, Karkala. [5320!!] <ethnobotany/ bioprospecting> <IN>
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- (879) Acworth, J., B. Njombe Ewusi & N. Donalt (1999): Sustainable exploitation of *Prunus africana* on Mt Cameroon. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 205-214, TRAFFIC Europe, s.loc. [5686!!] <collection volumes/ resource management/ sustainability/ policy> <CM> <*Prunus africana*>
- The Mt Cameroon Project is a multilateral project between the government of Cameroon, UK Department for International Development, German GTZ and the GEF. Extensive studies were carried out on the harvest of *Prunus africana* which has its most important population on Mt Cameroon. Preliminary estimates claim a sustained yield of 213 tonnes of fresh bark per annum. This yield is less than the 500 to 1300 tonnes per year which have been exploited from Mt Cameroon in recent years. (schp)
- (880) Airi, S., R. Rawal, U. Dhar & A. Purohit (1997): Population studies on *Podophyllum hexandrum* Royle. A dwindling medicinal plant of the Himalaya. - Plant Genetic Resources Newsletter 110: 29-34. [5185!!] <population status/ threat/ illustration/ map> <*Podophyllum hexandrum*>
- The paper lists the 22 species of the genus *Podophyllum* with a brief indication of their global distribution. Four species occur in the Indian Himalaya, at altitudes between 2100 and 4400 m. The study presents information on *P. hexandrum*, its occurrence, extent of availability, habitat preferences and relationships between morphology and environmental features. Study sites were in Kumaun, western Himalaya, India. A restricted distribution in subalpine-alpine regions was found where its occurrence is limited to specific habitats. It performs best in *Quercus-Abies* forests at low altitudes. The authors report that the species is exploited from the wild on a commercial scale but do not specify the impact that this may have on natural populations. (schp)
- (881) Ake-Assi, L. (1996): Etat des ressources phytogénétiques en Côte-d'Ivoire et en Afrique de l'ouest. In: Rejdali, M. & A. Birouk (Eds.): Diversité biologique et valorisation des plantes médicinales - pp. 39-44, Actes Editions, Rabat. [4972!!] <threat/ population status/ plant parts> <CI>
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- The authors describe the utilization of roots and stems of *Salvadora persica* as tooth sticks throughout Arabia and of *Glycyrrhiza glabra* var. *glandulifera* in the Sultanate of Oman. (schp)
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- The photos in this nicely illustrated book mostly show the habitus of the living plant and to a lesser extent the drugs in use. Plants are arranged in alphabetical order according to their genus name. Two indices in the back list vernacular English and Chinese names. Each entry includes a brief description of the plant, the plant part used and its medical indication. Overall, information on the species is limited and so is the usefulness of this publication. (schp)
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- Two products for the treatment of rheumatic diseases containing *Guaiacum officinale* have been released by the company Cefak. (schp)
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- The short paper gives an interim report on a medicinal plant project carried out in Morocco, Algeria, Tunisia, Libya and Egypt through IUCN. It is sponsored by the Swiss government. For three countries numbers of medicinal plants identified are given, for Egypt threat assessments are summarized (11 Vulnerable, 3 Rare; no plant names). (schp)
- (899) Anon. (1997): Magical herbs in Tibetan medicinal system. - Newsletter of the Asian Network of Medicinal and Aromatic Plants 26: 5-6. [5134!!] <distribution/ collection> <BT/ IN> <*Podophyllum hexandrum/ Saussurea lappa*>
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- This very brief note summarizes the uses of club mosses in India. About 32 species are recorded in India. One literature reference is given. (schp)
- (903) Anon. (1997): State forest news. Collection and collection rate of Minor Forest Products in Gujarat state. From 1991/92 to 1995/96. - MFP News 7(2): 14-15. [5372!!] <collection volumes> <IN> <*Boswellia serrata/ Commiphora wightii*>
- (904) Anon. (1997): Research finds South Africa's *Aloe ferox* industry in need of safeguarding. - TRAFFIC Dispatches February 1997: 2. [5780!!] <resource management> <ZA> <*Aloe ferox*>
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categories/ common name/ habitat> <IN> <*Syzygium travancoricum*>

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The 1-page report summarizes the results of the extensive study carried out by Özhatay et al.(1997) on behalf of DHKD and FFI. (schp)

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(908) Anon. (1998): Contribution to an evaluation of tree species using the new CITES listing criteria. - 440 pp., World Conservation Monitoring Centre, Cambridge. [5774!!] <distribution/ habitat/ population status/ uses/ threat category/ trade> <*Aquilaria malaccensis/ Guaiacum officinale/ Guaiacum sanctum/ Prunus africana/ Pterocarpus santalinus/ Taxus wallichiana*>

In 1994, the 10th Conference of the Parties to CITES adopted Resolution 9.24 which contained new and for the first time detailed technical and scientific criteria for the amendment of its Appendices I and II. The criteria have to be applied in future when a CITES amendment proposal is put forward. To facilitate this assessment, this book summarizes the relevant information for 255 tree species on one-page data-sheets. The following fields which correspond to the CITES criteria are covered: distribution, habitat, population status and trends, role of species in ecosystem, threats, IUCN conservation category, conservation measures, forest management and silviculture. The availability of information on individual tree species varies considerably. (schp)

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The brief report describes examples of illegal harvesting of *Echinacea* species in the state of Montana (US) and the lack of appropriate fines for these frauds. Similar situation is found in ginseng, goldenseal and black cohosh. (schp)

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- (924) Bakshi, N.G., P. Sensarma & D.C. Pal (1999): A lexicon of medicinal plants in India 1. - 552 pp., Naya Prokash, Calcutta. [5921!] <illustration/ common names/ use> <IN>
- (925) Balick, M. (1998): Linking ethnopharmacology and tropical forests. Conservation in Belize. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 71-81, University of Pennsylvania Press, Philadelphia. [6286!!] <ethnobotany/ drug development> <BZ>
- (926) Balick, M.J., F. Kronenberg, A.L. Ososki, M. Reiff, A. Fugh-Bergman, B. O'Connor, M. Roble, P. Lohr & D. Atha (2000): Medicinal plants used by Latino healers for women's health conditions in New York City. - Economic Botany 54: 344-357. [6229!!] <market analysis> <US>
- (927) Balick, M.J., R. Arvigo, G. Shropshire & R. Mendelsohn (1996): Ethnopharmacological studies and biological conservation in Belize. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): Medicinal resources of the tropical forest. Biodiversity and its importance to human health. pp. 326-333, Columbia University Press, New York (Biology and Resource Management). [6165!!] <ethnobotany> <BZ>
- (928) Bandeira, S.O., L. Marconi F. & Barbosa (1996): Preliminary study of threatened plants of Mozambique. In: van der Maesen, L.J.G., X.M. van der Burgt & J.M. van Medenbach de Rooy (Eds.): The biodiversity of African plants. Proceedings 14th AETFAT Congress, 22.-27.8.1994, Wageningen, The Netherlands - pp. 306-309, Kluwer Academic Publishers, Dordrecht, Boston, London. [5238!!] <red list state/ threat> <MZ> <Ansellia gigantea/ Warburgia salutaris>
- (929) Bannerman, J.E. (1997): Goldenseal in world trade. Pressures and potentials. - Herbalgram 41: 51-52. [5198!!] <market analysis> <US> <Hydrastis canadensis>
- (930) Barden, A. (2000): Agarwood. Threatened multi-cultural resource? - TRAFFIC Dispatches 13: 4, 11. [5938!!] <trade/ price> <Aquilaria malaccensis>
- (931) Barden, A., N. Awang Anak, T. Mulliken & M. Song (2000): Heart of the matter. Agarwood use and trade and CITES implementation for Aquilaria malaccensis. - 52 pp., TRAFFIC International, Cambridge. [6087!!] <trade/ legislation/ trade volumes/ collection> <BT/ IN/ ID/ LA/ MY/ MM/ PH/ SG/ TH/ VN> <Aquilaria malaccensis>
- (932) Baricevic, D., A. Zupancic, M. Erzen-Vodenik & A. Seliskar (1997): In situ in ex situ ohranjanje naravnih izvorov zdravilnih in aromatičnih rastlin v Sloveniji [In situ and ex situ conservation of natural resources of medicinal and aromatic plants in Slovenia; in Slovenian]. - Sjemenarstvo 14: 23-29. [5605] <ex-situ> <SI> <Catharanthus roseus/ Podophyllum hexandrum/ Stephania japonica/ Taxus wallichiana> <fide RAMP 4(2)>
- (933) Barnard, P., Ed. (1998): Biological diversity in Namibia. A country study. - 325 pp., Namibian National Biodiversity Task Force, Windhoek. [5799!!] <biodiversity/ legislation> <NA> <Harpagophytum procumbens>
- The book is based on input from 46 contributors. It summarizes the current knowledge of NA's biological diversity at the habitat, species and genetic levels. This national assessment was funded by UNEP and GEF in order to aid Namibia's process of implementing the CBD which the country has ratified in 1997. Chapters: 1. Biophysical and socioeconomic overview (NA is one of the world's driest countries, skirted by the Namib and Kalahari deserts. Annual rainfall is modest and highly variable); 2. Terrestrial and freshwater habitats; 3. Marine habitats; 4. Economics of biodiversity conservation (p.240: summary of Harpagophytum use and its socio-economic importance by M.Strohbach); 5. Environmental legislation; 6. Future priorities. (schp)
- (934) Barnett, R. (2000): Traditional medical practitioners in Kenya. Putting theory into practice. - TRAFFIC Bulletin 18(3): 87-89. [6296!!] <traditional medicine> <KE>
- (935) Barr, A., J. Chapman, N. Smith, G. Wightman & al., Eds. (1993): Traditional aboriginal medicines in the Northern Territory of Australia by aboriginal communities of the Northern Territory. - 650 pp., Conservation Commission of the Northern Territory, Darwin. [5775!!] <ethnobotany/ distribution/ map/ uses/ medicinal properties/ illustration> <AU>
- This book covers 149 species. It has been published by the aboriginal communities of the Northern Territory (NT) themselves. Still this publication has raised

- concerns whether this important intellectual property is given away too freely. In fact the book leaves not much to ask for in terms of information. Each monograph has excellent line drawings and sometimes colour photographs of the plant and a distribution map for NT. It covers the following fields: common names, description, plant part used, therapeutics; where available: results of screening tests, e.g. tannic acid and metal content, essential oils, antimicrobial activity. Also: index on aboriginal names, list of participating communities, table of remedies and much more. (schp)
- (936) Barranco Gomez, M. de los A. & E. Estrado Lugo (1991): Plantas medicinales de los huertos familiares de dos comunidades del estado de Puebla, México. - Revista Chapingo 15(73-74): 61-66. [5055!!] <ethnobotany/ common name> <MX>
- (937) Barrett, B. (1997): Herbs and healing on Nicaragua's Atlantic coast. - Herbalgram 41: 35-48. [5196!!] <traditional medicine/ common names/ plant parts> <NI>
- (938) Barrett, C.B. & T.J. Lybbert (2000): Is bioprospecting a viable strategy for conserving tropical ecosystems? - Ecological Economics 34(3): 293-300. [6185] <bioprospecting> <fide BCN 191>
- (939) Barthlott, W., W. Lauer & A. Placke (1996): Global distribution of species diversity in vascular plants. Towards a world map of phytodiversity. - Erdkunde 50: 317-328. [5430!!] <biodiversity/ methods>
- Although biodiversity and genetic resources are standing items in both the scientific and political fora, no accurate map of plant species diversity exists. The authors have based their map on the data from 1400 floristic and ecological papers. The species numbers of these works were transformed to the standard area of 10,000 km². Ten diversity zones from <100 to >5000 species per 10,000km² are distinguished. Since the data basis mostly covers political areas rather than natural zones, the map had to be extrapolated with climatic data. Six maxima are visible: Choco-Costa-Rica; tropical east Andes; atlantic Brazil; eastern Himalaya-Yunnan; northern Borneo; New Guinea. The tropical maxima are associated with ocean surface temperatures of above 27°C. (schp)
- (940) Basharat, A. (1997): Distribution, morphology and medicinal uses of *Taxus baccata*. - Hamdard Medicus 40(2): 53-54. [5608!] <distribution/ medicinal properties> <*Taxus baccata*>
- (941) Batanouny, K.H. (1999): Wild medicinal plants in Egypt. An inventory to support conservation and sustainable use. - 13-207 pp., Academy of Scientific Research and Technology, Cairo. [5847!!] <common name/ distribution/ identification/ population status/ uses/ illustration> <EG> <*Glycyrrhiza glabra/ Centaurium*>
- The book deals with 13 taxa listed in pharmacopoeias and 39 traditionally used species, most of them native to Egypt. Besides their distribution in the phytogeographical regions in Egypt information is presented on common names, ecology, drug authentication, folk uses, pharmacological actions and economic potential in Egypt. Information is less detailed for the 39 traditionally used taxa but rarely fails to give an assessment in text form of the population status of the taxa in Egypt. IUCN threat categories have not been assigned, though descriptions like 'endangered' or 'vulnerable' are used. Besides *Bryonia cretica* (almost extinct) 13 taxa have been assessed as 'endangered', 9 other taxa are regarded as overcollected or otherwise threatened. (schp)
- (942) Bauer, R. & S. Zschocke (1996): Medizinische Anwendung von *Ginkgo biloba* L. Geschichtliche Entwicklung. - Zeitschrift für Phytotherapie 17: 275-283. [5033!!] <medicinal properties/ tcm/ illustration/ identification/ history> <*Ginkgo biloba*>
- Ginkgo biloba* represents a well known medicinal plant from TCM which has now been introduced into western medicine. The chronology of its use is outlined back from today down to early Chinese literature. While in TCM the seeds play the major role, in western medicine the leaves are exclusively used. (from summary)
- (943) Bedi, Y.S., R.K. Ogra, Kiran Koul, B.L. Kaul & R.S. Kapil (1996): Yew (*Taxus spp.*). A new look on utilization, cultivation and conservation. In: Handa, S. & M. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 443-456, Regional Research Laboratory, Jammu-Tawi. [5128!!] <distribution/ resource management/ cultivation> <IN> <*Taxus wallichiana*>
- (944) Beecher, C.W.W. & C. Gyllenhaal (1993): Medflor. An ethnobiological database. - Journal of Ethnopharmacology 39(3): 223-229. [5079!!] <database/ ethnobotany>
- The literature of ethnobotany is large, diffuse, and frequently difficult to obtain. The authors present in detail the structure of their database which holds ethnobotanical data. Basic information entities are the bibliographic source of a particular piece of information, the organism that is used, and what it is used for and by whom. The authors hope that by providing a standard database structure and non-proprietary dictionaries, a common and interchangeable means can be developed, ready to compare and exchange data. Apparently already four "sites" are using the MEDFLOR standard but it is not said which organizations these are. (schp)
- (945) Bellakhdar, J. (1997): La pharmacopée marocaine traditionnelle. Médecine arabe ancienne et savoirs populaires. - 764 pp., Ibis, Paris. [5535!] <pharmacopoeia/ common names> <MA>
- (946) Belson, N.A. (1997): Marketing biodiversity. The U.S. regulatory structure for natural pro-

- ducts. - Diversity 13(1): 18-21. [5187!!] <legislation> <US>
- (947) Bennett, B.C. & J.R. Hicklin (1998): Uses of saw palmetto (*Serenoa repens*, Arecaceae) in Florida. - Economic Botany 52: 381-393. [5839!!] <uses/ trade/ illustration> <US> <*Serenoa repens*>
- (948) Berger, F. (1940): Die wichtigsten, im europäischen Handel vorkommenden Wurzeln, ihre Erkennung, Verfälschung und Verwendung. - 85 pp., Wien. [6020!!] <identification/ illustration>
- (949) Bernath, J. & E. Nemeth (1997): Medicinal plants in Hungary. - ICMAP Newsletter 4: 7-8. [5114!!] <cultivation/ collection/ trade> <HU>
- The authors briefly discuss the cultivation and collection of medicinal plants in Hungary. The ratio of products of wild collected or cultivated origin is about 50:50. Production of botanical drugs reached 35-40,000 tonnes per year in the late 1980's. The Hungarian Pharmacopoeia comprises 214 drugs derived from 180-200 species. Exports are mainly to DE, AT, IT, NL and CH. Imports take place from HR, EG, RO, RU and US. (schp)
- (950) Bernath, J. & E. Nemeth (1999): Changes in the medicinal plant sector of Hungary since the fall of communism. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 55-65, TRAFFIC Europe, s.loc. [5670!!] <trade/ market analysis/ export volumes> <HU>
- (951) Betti, G.J.R. (1999): The cultivation of medicinal plants. A necessity for supplying the pharmaceutical industry with drug raw material. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 181-182, TRAFFIC Europe, s.loc. [5685!!] <cultivation> <*Harpagophytum procumbens/ Drosera ramentacea*>
- (952) Bhadula, S.K., A. Singh, H. Lata, C.P. Kuniyal & A.N. Purohit (1996): Genetic resources of *Podophyllum hexandrum* Royle, an endangered medicinal species from Garhwal Himalaya, India. - Plant Genetic Resources Newsletter 106: 26-29. [5287!!] <distribution/ map/ threat> <IN> <*Podophyllum hexandrum*>
- The paper presents the results of field surveys which were conducted in different subalpine (2300-3000m) and alpine (3000-3700m) ranges of Garhwal Himalaya to determine the distribution pattern and population polymorphism of *P. hexandrum*. The natural populations are distributed in very restricted and small pockets, population sizes vary from 40-700 plants.
- Numbers of plants are decreasing in all populations. Some have been observed since 1982 and now have disappeared completely, mainly due to anthropogenic activities and over-exploitation. Considerable variation in a range of morphological characteristics exists between the distinct populations. Since exploitation far exceeds natural regeneration, the authors call for local community cultivation programmes. (from summary)
- (953) Bhan, M.K., M.K. Kaul, S.N. Kak & B.L. Kaul (1997): Trends and trade of essential oils. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of aromatic plants - pp. 17-47, Regional Research Laboratory, Jammu-Tawi. [5275!!] <trade volumes/ export> <IN>
- (954) Bhat, K.K.S. (1997): Medicinal plant information databases. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 60-77, FAO, Rome (Non-wood Forest Products 11). [5567!!] <database>
- The author describes a number of electronic databases, mainly on CD-ROM, and distinguishes between secondary (9 objects) and tertiary (30) information sources. On the side of primary publications, which contain the results of original research, he states that app. 25% of all papers on medicinal and related groups of plants appear in less than 10 periodicals. "Approximately 50% of the total volume is contained in some 50 titles. The remaining 50% of this literature is scattered across some 2500 periodicals in a wide range of disciplines." (schp)
- (955) Bhattacharai, N.K. (1996): Some endangered medicinal plants of Nepal. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 671-688, Regional Research Laboratory, Jammu-Tawi. [5131!!] <threat/ common names/ altitude/ uses> <NP> <*Asparagus racemosus/ Dactylorhiza hatagirea/ Daiswa polyphylla/ Fritillaria cirrhosa/ Nardostachys grandiflora/ Picrorhiza scrophulariiflora/ Podophyllum hexandrum/ Rauvolfia serpentina/ Rheum australe/ Rubia manjith/ Swertia chirayita/ Valeriana jatamansi*>
- (956) Bhattacharai, N.K. (1997): Medicinal and aromatic plants of Nepal. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 162-173, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5232!!] <market analysis/ collection volumes/ resource management/ threat> <NP> <*Nardostachys grandiflora/ Picrorhiza scrophulariiflora/ Swertia chirata/ Cinnamomum tamala/ Rheum australe/ Dactylorhiza hatagirea/ Aconi-*

tum/ *Podophyllum hexandrum*/ *Fritillaria cirrhosa*/ *Dioscorea deltoidea*/ *Valeriana jatamansi*/ *Rauvolfia serpentina*>

(957) Bhattacharai, N.K. (1997): Biodiversity-people interface in Nepal. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 78-86, FAO, Rome (Non-wood Forest Products 11). [5568!!] <policy/ collection volumes> <NP> <*Aconitum heterophyllum*/ *Aconitum spicatum*/ *Dactylorhiza hatagirea*/ *Fritillaria cirrhosa*/ *Nardostachys grandiflora*/ *Panax pseudoginseng*/ *Picrorhiza scrophulariiflora*/ *Podophyllum hexandrum*/ *Rheum australe*/ *Dioscorea deltoidea*/ *Dendrobium*/ *Rauvolfia serpentina*>

(958) Bhattacharai, N.K. (1999): Medicinal plants and the Plant Research Division of Nepal. - Medicinal Plant Conservation 5: 7-8. [5735!!] <NP>

(959) Bianchi, A. (1999): *Uncaria tomentosa*. - Non-Wood News 6: 35-36. [5908!!] <trade> <PE> <*Uncaria tomentosa*>

(960) Bianchi, A., P. Iadicicco & B. Loazya (1999): Cat's claw. The healing liana from Amazon forest. Deforestation and the market dynamics of modern panacea. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 183-184, TRAFFIC Europe, s.loc. [5687!!] <export volumes/ threat/ resource management> <PE> <*Uncaria tomentosa*>

(961) Bisset, N.G., Ed. (1994): Herbal drugs and phytopharmaceuticals. Ed. and transl. from 2nd German edition (ed. M. Wichtl). - 566 pp., Stuttgart & Boca Raton, medpharm & CRC Press. [4988] <plant parts/ illustration/ identification/ provenance/ medicinal properties> <fide Taxon 45:412>

(962) Biswas, S. (1991): Rare and endangered plants of economic value. *Coptis teeta* Wall. - MFP News 1(1): s.pag. [5392!!] <distribution/ common names> <IN> <*Coptis teeta*>

(963) Blanco Castro, E. & C. Cuadrado Prieto (s.dat.): Etnobotanica en Extremadura. Estudio de La Calabria y la Siberia extremeñas. - 218 pp., Autoedicion, Madrid. [6295!!] <ethnobotany> <ES>

This book summarizes the ethnobotanical work of the authors in a region of south-central Spain, at the intersection of the provinces Cáceres, Badajoz, Ciudad Real and Toledo. It has been published by the authors themselves. 276 taxa have been identified as being in

use, 56 as medicinal plants for man or animal. The main part consists of a 100-pages floristic catalogue arranged by common names (scientific names in page index). Main information is on the traditional uses as food, fodder, medicine and for technical and cultural purposes. (schp)

(964) Blanco, E. (1998): El control de la explotación de las plantas medicinales en España. - Conservacion Vegetal 3: 7. [5468!!] <review> <ES> <*Thymus*/ *Sideritis*>

(965) Blanco, E., R. Morales & P.P. Pellin (1999): Harvesting and trade of *Thymus* in Spain. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 50-54[+3], TRAFFIC Europe, s.loc. [5669!!] <trade/ market analysis> <ES> <*Thymus*>

(966) Blank, P. & al. (2000): *Guaiacum sanctum*. Population status and trade in Mexico with CITES recommendations. - 54 pp., University of Maryland. Unpublished report, s.loc. [6217!!] <taxonomy/ population status/ morphology/ distribution/ price/ trade volumes> <MX/ US> <*Guaiacum sanctum*/ *Guaiacum coulteri*/ *Guaiacum officinale*/ *Guaiacum unijugum*>

(967) Blaschek, W., R. Hänsel, K. Keller, J. Reichling, H. Rimpler & G. Schneider, Eds. (1998): Hagers Handbuch der pharmazeutischen Praxis. 5. Auflage. Folgeband 2. Drogen A-K. - 909 pp., Springer, Berlin. [6097!!] <identification/ illustration/ uses/ common names/ distribution/ plant parts/ medicinal properties/ provenance/ cultivation/ legislation/ reference/ standard>

(968) Blaschek, W., R. Hänsel, K. Keller, J. Reichling, H. Rimpler & G. Schneider, Eds. (1998): Hagers Handbuch der pharmazeutischen Praxis. 5. Auflage. Folgeband 3. Drogen L-Z. - 858 pp., Springer, Berlin. [6098!!] <identification/ illustration/ uses/ common names/ distribution/ plant parts/ medicinal properties/ provenance/ cultivation/ legislation/ reference/ standard>

(969) Blaszczyk, T. (1999): Anbau der chinesischen Heilpflanzen in Hamm. - Zeitschrift für Arznei- und Gewürzpflanzen 4: 199-202. [5941!!] <cultivation/ tcm> <DE>

(970) Blum, H. (1999): Arzneipflanzen contra Naturschutz? - Gemüsebaupraxis 8/ 1999: 16-17. [5894!!]

(971) Blumenthal, M. (1997): Herbal monographs initiated by numerous groups (WHO, USP, ESCOP, ABC, and AHP) all working towards

- similar goals. - *Herbalgram* 40: 30-38. [5152!!] <legislation/ drug development/ methods/ monograph/ pharmacopoeia> <*Hypericum perforatum*>
- (972) Blumenthal, M. (1999): Monograph update. WHO publishes herbal monographs. ABC, AHP, ESCOP and USP continue monograph publication. - *Herbalgram* 47: 40-45. [5869!!] <pharmacopoeia/ monograph>
- (973) Blumenthal, M. (1999): Market report. Herb market levels after five years of boom. 1999 sales in mainstream market up only 11% in first half of 1999 after 55% increase in 1998. - *Herbalgram* 47: 64-65. [5870!!] <market analysis> <US>
- (974) Bocksch, M. (1996): Das praktische Buch der Heilpflanzen. Kennzeichen, Heilwirkung, Anwendung, Brauchtum. 2nd edition. - 255 pp., BLV, München. [6069!!] <reference/ history>
- (975) Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme, Eds. (1997): Medicinal plants for forest conservation and health care. - 158 pp., FAO, Rome (Non-wood Forest Products 11). [5564!!] <nwfp/ health care/ ipr/ database>
- (976) Bohr, C. (1997): Inkulturnahme von bisher aus Wildsammlung stammenden Wirkstoffpflanzen. - *Drogenreport* 10 (17): 37-39. [5344!!] <cultivation>
- (977) Boiteau, P. (1979): Precis de matière médicale malgache. - 97 pp., La Librairie de Madagascar, s.loc. [5022!!] <medicinal properties> <MG>
- (978) Bombardelli, E. & P. Morazzoni (1997): *Prunus africana* (Hook.f.) Kalkm. - *Fitoterapia* 68: 205-218. [5618!!] <medicinal properties/ pharmacology> <*Prunus africana*>
- (979) Bomme, U. (1998): Situation und Zukunftsperspektiven des Feldanbaues von Heil- und Gewürzpflanzen in Deutschland. - *Zeitschrift für Arznei- und Gewürzpflanzen* 3: 155-161. [5622!!] <cultivation> <DE>
- (980) Bomme, U. (1999): Anbau und Züchtung von *Arnica montana* L. - *Zeitschrift für Arznei- und Gewürzpflanzen* 4: 202-203. [5942!!] <cultivation> <*Arnica montana*>
- (981) Bomme, U. (2000): Anbau und Züchtung von *Arnica montana*. - *Zeitschrift für Phytotherapie* 21: 52. [5957!!] <cultivation> <*Arnica montana*>
- (982) Bond, W. (1983): Dead leaves and fire survival in southern African tree aloes. - *Oecologia* 58: 110-114. [6139!!] <biology> <ZA> <*Aloe ferox*>
- Many aloe species in southern Africa have stems clothed with a layer of persistent dead leaves. The degree of stem coverage is species specific. The suggestion that persistent dead leaves have an insulatory function and are adaptive in fire-prone habitats was tested on *Aloe ferox*. Field surveys demonstrated a significant negative correlation between mortality and degree of stem coverage. The study suggests that harvesting of *Aloe ferox* leaves for medicinal purposes could result in significant mortality in fires. (from summary)
- (983) Borbely, M. (14.11.2000): Save the dietary supplements. - <www.washingtonpost.com/wp-dyn/articles/A15069-2000Nov14.html> (viewed 17.11.00) [6183!!] <US> <*Panax quinquefolius*>
- (984) Borges, J.R. & S. King (2000): *Croton lechleri*. Sustainable utilization of an Amazonian pioneer species. - *Medicinal Plant Conservation* 6: 24-26. [6051!!] <exploitation/ cultivation/ price/ nwfp> <*Croton lechleri*>
- (985) Braun, H. & D. Frohne (1994): *Heilpflanzenlexikon*. 6th edition. - 692 pp., G. Fischer, Stuttgart. [6073!] <reference>
- (986) Brendler, T., J. Grünwald & C. Jänicke, Eds. (1999): *Heilpflanzen* 1999. CD-ROM. - s. pag., Medpharm Scientific Publishers, Stuttgart. [6187!!] <database/ common name/ distribution/ illustration>
- (987) Brett, J.A. (1998): Medicinal plants selection criteria. The cultural interpretation of chemical senses. - *Angewandte Botanik* 72(3/ 4): 70-74. [5648!!] <ethnobotany> <MX>
- (988) Brevoort, P. (1997): Der Heilpflanzenmarkt der USA. Ein Überblick. - *Zeitschrift für Phytotherapie* 18: 155-162. [5035!!] <market analysis/ price/ tcm> <US> <*Panax ginseng*/ *Hydrastis canadensis*/ *Eleutherococcus senticosus*>
- Translated from *Herbalgram* 36, 1996. In the paper the most important herbal medicines of the USA, the development of the market based on selected sales figures, data on export and import, and some data on the buyers of herbal medicines are presented. Also, the US market for TCM is discussed. (from summary)
- (989) Brevoort, P. (1998): The booming U.S. botanical market. A new overview. - *Herbalgram* 44: 33-46. [5729!!] <market analysis> <US>
- (990) Brevoort, P. (1999): Der boomende Heilpflanzenmarkt der USA. Ein neuer Überblick. - *Zeitschrift für Phytotherapie* 20: 99-108. [5818!!] <market analysis> <US> <*Panax ginseng*/ *Echinacea*/ *Serenoa repens*/ *Piper methysticum*>
- (991) Brevoort, P. (1999): The economics of botanicals. The US experience. In: Eskinazi, D. & al.

(Eds.): Botanical medicine. Efficacy, quality assurance, and regulation - pp. 183-191, Mary Ann Liebert, Larchmont. [5853!!] <market analysis> <US>

The author describes the United States market for phytomedicines which according to US laws have to be marketed as 'foods' by presenting a series of tables with mostly sales figures: 'Top selling herbs in US commerce', 'US import/ export statistics for ginseng and other medicinal plants 1992', 'Herbal sales in natural food retail stores 1991-1994', 'Native North American medicinal herbs in commercial demand (primarily wild-harvested)', 'Top 50 herbs in US health care practices'. (schp)

(992) Brown, K. (1998): Medicinal plants, indigenous medicine and conservation of biodiversity in Ghana. In: Swanson, T.M. (Ed.): Intellectual property rights and biodiversity conservation. An interdisciplinary analysis of the values of medicinal plants - pp. 201-231, Cambridge University Press, Cambridge. [6131!!] <health care/ traditional medicine> <GH>

(993) Brush, S.B. & D. Stabinsky, Eds. (1996): Valuing local knowledge. Indigenous people and intellectual property rights. - 337 pp., Island Press, Covelo. [5203] <ipr> <fide AmHerbAssQ 13(4):10>

(994) Buchwaldt, C. von (1996): Untersuchungen zum Vorkommen und zur Intensität der Rindennutzung von *Prunus africana* am Mount Cameroon in Kamerun. - 142 pp., Unpublished thesis, Hamburg. [4961!!] <population status/ threat/ cultivation> <CM> <*Prunus africana*>

(995) Buitron C., X. (1999): Ecuador. Uso y comercio de plantas medicinales. Situacion actual y aspectos importantes para su conservacion. - 101 pp., TRAFFIC International, Cambridge. [5848!!] <trade volumes/ legislation/ market analysis/ common name/ uses> <EC> <*Cinchona pubescens*/ *Uncaria tomentosa*/ *Croton*/ *Banisteriopsis caapi*/ *Maytenus*>

(996) Bye, R. & B. Timmermann (1997): International Cooperative Biodiversity Group's programm in Mexico. - Medicinal Plant Conservation 4: 5-6. [5398!!] <ipr/ ethnobotany> <MX>

(997) Byfield, A. & M. Read (1993): Salep in Turkey. - s. pag., FFPS. Unpublished report, s.loc. [5632!!] <collection volumes/ export volumes/ price/ legislation> <TR> <orchids>

(998) Cambornac, M. (2000): Preservation of *Arnica montana*. - Medicinal Plant Conservation 6: 26-27. [6052!!] <resource management/ cultivation/ project> <DE> <*Arnica montana*>

(999) Cameron, M.M. (1996): Biodiversity and medicinal plants in Nepal. Involving untouchables in conservation and development. - Human Organization 55: 84-92. [5285!!] <ethnobotany/ resource management> <NP>

(1000) Caniago, I. & S.F. Siebert (1998): Medicinal plant ecology, knowledge and conservation in Kalimantan, Indonesia. - Economic Botany 52: 229-250. [5619!!] <ethnobotany/ life history> <ID>

(1001) Cano Asseleih, L.M. (1997): Flora medicinal de Veracruz. 1. Inventario etnobotanico. - 606 pp., Universidad Veracruzana, Xalapa. [5490!!] <illustration/ uses/ common name> <MX>

(1002) Carlson, A.W. (1986): Ginseng. America's botanical drug connection to the orient. - Economic Botany 40: 233-249. [4967!!] <history/ cultivation/ trade/ export volumes/ use> <US> <*Panax quinquefolius*>

The paper presents an analysis of the factors that have lead to the continuous exporting of *Panax quinquefolius*, nearly 21,000 metric tonnes in the period between 1821-1983. Over 95% of this material was exported to the Far East, mostly through Hong Kong as the center for re-export. American ginseng became a cultivated crop in the late 1800's. Production in the US is nowadays concentrated in Marathon County in Wisconsin with a production of an estimated 90% of the cultivated American ginseng in the US. (from summary)

(1003) Carlson, T., M.M. Iwu, S.R. King, C. Obialor. & A. Ozioko (1997): Medicinal plant research in Nigeria. An approach for compliance with the Convention on Biological Diversity. - Diversity 13(1): 29-33. [5186!!] <legislation> <NG>

(1004) Carlson, T.J.S. (1998): Ethnomedical field research, medicinal plants and public health. - Rainforest Medical Bulletin 5(1): 7-8. [5459!!] <policy/ ethnobotany/ drug development>

(1005) Cech, R.A. (1997): An ecological imperative. Growing a future for native plant medicinals. - United Plant Savers Newsletter 1(2): 1, 4-5. [5991!!] <threat/ collection volumes> <US> <*Hydrastis canadensis*/ *Mahonia aquifolium*/ *Mahonia nervosa*/ *Anemopsis californica*/ *Coptis chinensis*>

(1006) Cech, R.A. (1999): Balancing conservation with utilisation. Restoring populations of commercially valuable medicinal herbs in forests and agroforests. - Herbalgram 45: 18, 58-60. [5821!!] <cultivation> <US> <*Panax quinquefolius*/ *Hydrastis canadensis*/ *Cimicifuga racemosa*>

(1007) Chakravarti, V. (1998): Vulnerable and threatened plants of economic value. *Aconitum ferox* Wall. ex Ser. - MFP News 8(3): 22. [5495!!] <threat categories/ population status/ distribution/ common name/ uses> <IN> <*Aconitum ferox*>

(1008) Chakravarti, V. (1998): Vulnerable and threatened plants of economic value. *Angelica glauca*. - MFP News 8(2): 17. [5511!!] <threat categories/ cultivation/ uses> <IN> <*Angelica glauca*>

(1009) Chakravarti, V. (1998): Vulnerable and threatened plants of economic value. *Dactylorhiza hatagirea*. - MFP News 8(4): 18. [5593!!] <common name/ threat category/ uses/ cultivation> <*Dactylorhiza hatagirea*>

(1010) Chand, K. (1996): Medicinal plants sourcebook. India. - 598 pp., International Library Association, Dehra Dun. [5462!!] <encyclopedia/ bibliography> <IN>

This publication provides information on all facets of medicinal plant issues in India. It is organised into 3 parts, subdivided into 22 chapters: (a) Institutions: information on the objectives, research areas and resources of government and non-government organisations, university research centres as well as phytopharmaceutical research and manufacturing companies. (b) Education, information services and publications: information on audiovisual material, books, consultants, events, extension services, information systems and services, libraries, and periodicals. This part includes information on various databases. (c) Products, miscellaneous services and resources: information on analytical facilities, certification, gardens, germplasm banks, etc. (schp)

(1011) Chandel, K.P.S. & Neelam Sharma (1996): In vitro conservation of diversity in medicinal plants of northwest Himalaya. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 741-752, Regional Research Laboratory, Jammu-Tawi. [5133!!] <cultivation> <*Aconitum heterophyllum*/ *Gentiana kurroo*/ *Nardostachys jatamansi*/ *Picro-rhiza kurrooa*/ *Podophyllum hexandrum*/ *Rauvolfia serpentina*/ *Rheum emodi*/ *Saussurea lappa*>

(1012) Chander, R. (1996): A report on INMED-PLAN database. In: Lay Cheng Tan, M. Ruiz Perez & M. Ibach (Eds.): Non-timber forest product databases. pp. 53-58, CIFOR, Jakarta (CIFOR Special Publication). [5597!!] <database> <IN>

(1013) Charron, D. & D. Gagnon (1991): The demography of northern populations of *Panax quinquefolius* (American ginseng). - Journal of Ecology 79: 431-445. [4970!!] <collection> <CA> <*Panax quinquefolius*>

The population dynamics of 4 natural populations of *P. quinquefolius* were observed in southern Quebec. Objectives were to determine whether ginseng populations at the northern limit of the species' range are stable, declining or expanding, and whether or not these populations can tolerate harvesting. The demographic analysis carried out by transition matrix models used the size, expressed in numbers of leaves, for the state classification. The authors discuss reproductive, mortality and growth rates and conclude that populations in Quebec are associated with stable mature forest habitats. The study also demonstrates that only a small percentage of individuals (0-16%) can be harvested in certain years but harvesting should not necessarily be allowed. (from summary)

(1014) Chatterjee, R. (1952): Indian *Podophyllum*. - Economic Botany 6: 342-354. [6149!!] <distribution/ collection volumes/ cultivation> <IN> <*Podophyllum hexandrum*/ *Podophyllum sikkimensis*>

(1015) Chatterjee, S. & S. Dey (1997): A preliminary survey of the status of *Taxus baccata* in Tawang district of Arunachal Pradesh. - Indian Forester 123: 746-754. [5627!!] <distribution/ map/ trade/ altitude> <IN> <*Taxus baccata*>

(1016) Chaudhari, D.C. (1993): Agarwood from *Aquilaria malaccensis* Lam. (*A. agallocha* Roxb.). - MFP News 3(4): 12-13. [5394!!] <common names/ medicinal properties/ collection> <IN> <*Aquilaria malaccensis*>

(1017) Chaudhary, L.B. & R.R. Rao (1998): Notes on the genus *Aconitum* L. (Ranunculaceae) in North-West Himalaya (India). - Feddes Repertorium 109: 527-537. [5537!!] <identification/ illustration/ distribution/ threat> <IN> <*Aconitum*>

(1018) Chazdon, R.L. & F.G. Coe (1999): Ethnobotany of woody species in second-growth, old-growth, and selectively logged forests of north-eastern Costa Rica. - Conservation Biology 13: 1312-1322. [6298!!] <ethnobotany> <CR>

(1019) Cheek, M., S. Cable, E.N. Hepper, N. Ndam & J. Watts (1996): Mapping plant diversity on Mount Cameroon. In: van der Maesen, L.J.G., X.M. van der Burgt & J.M. van Medenbach de Rooy (Eds.): The biodiversity of African plants. Proceedings 14th AETFAT Congress, 22.-27.8.1994, Wageningen, The Netherlands - pp. 110-120, Kluwer Academic Publishers, Dordrecht, Boston, London. [5237!!] <biodiversity> <CM>

(1020) Chemli, R. (1997): Plantes medicinales et aromatiques de la flore de Tunisie. In: Heywood, V.H. & M. Skoula (Eds.): Identification of wild food and non-food plants of the Mediterranean

- region. Proceedings of the first Regional Workshop of the MEDUSA Network, 28-29 June 1996, Chania, Greece. pp. 119-125, CIHEAM, Chania (Cahiers Options Méditerranées 23). [6346!!] <traditional medicine> <TN>
- (1021) Chemli, R., A. Elaissi, F. Messelmanni & M.S.J. Simmonds (1999): Ex-situ conservation of Tunisian medicinal plants. The creation of a botanic garden. - Medicinal Plant Conservation 5: 13. [5741!!] <ex-situ/ botanic garden> <TN>
- (1022) Chevallier, A. (1996): The encyclopedia of medicinal plants. A practical reference guide to over 550 key herbs & their medicinal uses. - 336 pp., Dorling Kindersley, London. [5389!!] <encyclopedia/ illustration/ medicinal properties>
- (1023) Chopra, K. (1993): The value of non-timber forest products. An estimation for tropical deciduous forests in India. - Economic Botany 47: 251-257. [5552!!] <nwfp/ economics> <IN>
- (1024) Choudhary, D.K., B.L. Kaul & S. Khan (1998): Cultivation and conservation of *Podophyllum hexandrum*, an overview. - Journal of Medicinal and Aromatic Plant Sciences 20: 1071-1073. [5945!!] <trade/ cultivation> <*Podophyllum hexandrum*>
- The paper claims that *P. hexandrum* is over-exploited at its natural stands in high altitudes in the Himalayas. The authors call for cultivation programmes as primary conservation measure and briefly report on their seed germination trials (dormancy, seed germination, development of seedlings, fertilizers, irrigation). (schp)
- (1025) Chung Fong-Joo (1996): Interests and policies of the state of Sarawak, Malaysia, regarding property rights in plant derived drugs. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 201-204, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5305!] <ipr/ legislation/ policy/ bioprospecting/ benefit sharing> <ID>
- (1026) Chung, R.C.K. & Purwaningsih (1999): *Aquilaria malaccensis* Lamk. In: Oyen, L.P.A. & N.X Dung (Eds.): Essential-oil plants. pp. 64-67, Backhuys, Leiden (Plant Resources of South-East Asia 19). [5801!!] <common name/ distribution/ trade/ medicinal properties/ cultivation> <*Aquilaria malaccensis*>
- (1027) Cielsa, W.M. (1998): Non-wood forest products from conifers. - 124 pp., FAO, Rome (Non-wood Forest Products 12). [5662!!] <uses> <*Taxus brevifolia*>
- (1028) Clay, J.W. & C.R. Clement, Eds. (1993): Selected species and strategies to enhance income generation from Amazonian forests. - 260 pp., FAO, Rome. [5163!!] <nwfp/ market analysis/ resource management/ common names/ distribution/ uses/ collection volumes/ cultivation>
 <*Croton cajucara*/ *Copaifera multijuga*/ *Carapa guianensis*>
- (1029) Cole, N.H.A. (1996): Diversity of medicinal plants in West African habitats. In: van der Maesen, L.J.G., X.M. van der Burgt & J.M. van Medenbach de Rooy (Eds.): The biodiversity of African plants. Proceedings 14th AETFAT Congress, 22.-27.8.1994, Wageningen, The Netherlands - pp. 704-713, Kluwer Academic Publishers, Dordrecht, Boston, London. [5239!!] <biodiversity/ habitat/ methods>
- (1030) Concannon, J.A. & T.E. DeMeo (1997): Goldenseal. Facing a hidden crisis. - Endangered Species Bulletin 22(6): 10-12. [5338!!] <illustration> <US> <*Hydrastis canadensis*>
- (1031) Cordova, B., S. Chalukian & W. Colon (1996): Identificacion, recoleccion y propagacion de germoplasmo para la conservacion de especies nativas con potencialidades medicinales. - Mesoamericana 1(2-3): 3. [5100] <fide BCN 168>
- (1032) Cortes-Maramba, N.P. (1998): Medicinal plants in the Philippines. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 169-176, University of Pennsylvania Press, Philadelphia. [6292!!] <traditional medicine> <PH>
- (1033) Cotton, C.M. (1996): Ethnobotany. Principles and applications. - 424 pp., John Wiley and Sons, Chichester. [4923] <ethnobotany> <fide RAMP 2:342, Taxon 46:203>
- (1034) Couplan, F. & P. Danton (2000): L'harpagophytum. Un cadeau d'Afrique à menager. - La Garance Voyageuse 50: 16-19. [6032!!] <illustration> <*Harpagophytum procumbens*>
- (1035) Cragg, G.M., M.R. Boyd, M.R. Grever & S.A. Schepartz (1993): Conservation of biodiversity and the potential for development of pharmaceutical crops. Drug discovery and development at the US National Cancer Institute. In: Iwu, M.M. (Ed.): Proceedings of the international conference on industrial utilisation of tropical plants and conservation of biodiversity - Enugu. [6205] <drug development> <fide Soforowa (1996)>

- (1036) Craib, C. (1999): Zur Ökologie von *Harpagophytum procumbens* ssp. *transvaalense* in der Nord-Provinz Südafrikas. - Kakteen u. a. Sukkulanten 50: 249-253. [5826!!] <cultivation/ reproduction> <ZA> <*Harpagophytum procumbens*>
- (1037) Cranz, H. (1998): Medicinal plants and phytomedicines within the European community. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 193-197, University of Pennsylvania Press, Philadelphia. [6293!!] <legislation>
- (1038) Crouch, N. & T. Arnold (1997): The national medicinal plants database for South Africa (Medbase). - Plant Life 17: 24. [5377!!] <database/ traditional medicine> <ZA>
- The brief paper gives some concise information on the development as well as the objectives and structure of this database. Medbase is an extension of PRECIS, a holistic information base on plant life of South Africa. Its primary objective is to facilitate responsible land use in South Africa and to form a basis for policy makers in regard to the conservation and appropriate exploitation of the state's medicinal (muthi) plants. Three independent, Access-based components provide information on (1) biological, ecological and conservation aspects, (2) horticultural aspects including propagation and cultivation and, (3) ethnomedicinal aspects of the 260 most important medicinal plant species of South Africa. (roh)
- (1039) Crouch, N., G. Smith, R. Symmons & M. Tomalin (2000): *Gasteria croucheri*. The magical impundu of the Zulu. - British Cacti and Succulent Journal 18(2): 70-78. [6058!!] <distribution/ taxonomy/ threat/ cultivation/ traditional medicine> <ZA> <succ/ *Gasteria croucheri*>
- (1040) Crouch, N., R. Symmonds, G. Nichols & T. Crouch (1998): Propagation techniques and cultivation ideas for *Mondia whitei* (Periplocoaceae), a Zulu muthi of distinction. - Plant Life 18: 26-27. [5375!!] <cultivation> <ZA> <*Mondia whitei*>
- (1041) Crouch, N.R., G.F. Smith, G. Nichols, J.A. Burden & J.M. Gillmer (1999): A species recovery contribution for *Haworthia limifolia* var. *limifolia*, the umathithibala of the Zulu. - Aloe 36: 8-13. [5962!!] <taxonomy/ distribution/ uses/ threat/ cultivation> <ZA> <*Haworthia limifolia*>
- (1042) Cunningham, A.B. (1988): Over-exploitation of medicinal plants in Natal/ KwaZulu. Root causes. - Veld and Flora 74: 85-87. [4969!!] <collection/ threat> <ZA> <*Ocotea bullata*>
- (1043) Cunningham, A.B. (1992): Subsistence, sand and seasonal food. People and plant use in marginal areas of southern Africa. - Veld and Flora 78(3): 80-83. [4068!!] <ethnobotany>
- (1044) Cunningham, A.B. (1992): The role of ethnobotany and indigenous knowledge in conservation of plant genetic resources. - Dinteria 23: 119-131. [4900!!] <ethnobotany/ ipr> <NA> <*Protea gauguedii*/ *Harpagophytum procumbens*/ *Pterocarpus angolensis*>
- (1045) Cunningham, A.B. (1996): People, park and plant use. Recommendations for multiple-use zones and development alternatives around Bwindi Impenetrable National Park, Uganda. - 58 pp., UNESCO, Paris (People and Plants Working Paper 4). [5160!!] <resource management/ nwfp/ endemism/ plant parts> <UG>
- (1046) Cunningham, A.B. (1997): The "Top 50" listings and the medicinal plants action plan. - Medicinal Plant Conservation 3: 5-7. [4992!!] <policy/ methods>
- The paper outlines the proposed strategy of the IUCN/ SSC Medicinal Plant Specialist Group to identify the 50 most threatened medicinal plants worldwide. (schp)
- (1047) Cunningham, A.B. (1997): Identification guide of *Prunus africana*. Bark and products in international trade. - Medicinal Plant Conservation 3: 18-20. [4998!!] <trade volumes/ products/ collection/ distribution/ identification/ cultivation> <*Prunus africana*>
- The international trade structure, the trade commodities (bark, extract) and the products of *Prunus africana* are identified and described. (schp)
- (1048) Cunningham, A.B. (1997): *Prunus africana*. Sustainable utilization in Kenya. Workshop report. WWF People and Plants Programme, phase 2. 18-21 March 1997. - [6] pp., Unpublished report, Betty's Bay. [5021!!] <project/ policy/ action plan> <KE> <*Prunus africana*>
- (1049) Cunningham, A.B. (1997): An Africa-wide overview of medicinal plant harvesting, conservation and health care. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 116-129, FAO, Rome (Non-wood Forest Products 11). [5572!!] <trade volumes/ plant parts/ export volumes/ import/ cultivation> <*Rauvolfia vomitoria*/ *Voacanga africana*/ *Griffonia simplicifolia*/ *Gloriosa superba*/ *Harpagophytum procumbens*/ *Harpagophytum zeyheri*/ *Prunus africana*/ *Pausinystalia johimbe*>
- This paper gives an overview of medicinal plant harvesting for the commercial trade in traditional medicines and its relevance to conservation and the self-sufficiency of traditional medical practitioners. The

- most vulnerable species are popular, slow reproducing species with specific habitat requirements and a limited distribution. Although in theory sustainable use of bark, roots or whole plants is possible, the high level of input of resources in terms of money and manpower required for intensive management of slow-growing species in multiple-species systems is unlikely to be found in most African countries. Cultivation of alternative supply sources of popular, high conservation priority species is therefore essential. (from summary)
- (1050) Cunningham, A.B. (1997): Review of ethnobotanical literature from eastern and southern Africa. - The African Ethnobotany Network Bulletin 1: 23-87. [5825!!] <ethnobotany/ bibliography>
- (1051) Cunningham, A.B. (1999): *Prunus africana* (Rosaceae) bark. Trade, conservation and the industrial "footprint" of Europe on a forest tree species in Africa and Madagascar. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 78-84, TRAFFIC Europe, s.loc. [5673!!] <market analysis/ legislation/ resource management> <CM/ MG> <*Prunus africana*>
- (1052) Cunningham, A.B. (1999): The management of non-wood forest products in protected areas. Lessons from a case study of multiple-use in Bwindi Impenetrable National Park, Uganda. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 143-159, FAO, Rome. [5970!!] <nwfp/ policy/ uses/ common names/ plant parts/ medicinal properties/ cultivation> <UG>
- (1053) Cunningham, A.B. (2000): Applied ethnobotany. People, wild plant use and conservation. - 300 pp., Earthscan, London (People and plants conservation manuals). [6252!!] <ethnobotany>
- This detailed manual on wild plant resources sets out the approaches and field methods involved in participatory work between conservationists, researchers and the primary resource users. Supported by 97 excellent illustrations, 16 tables and 22 text boxes, it explains how local people can learn to assess the pressures on plant resources and what steps to take to ensure their continued availability. This guide is invaluable for all those involved in resource management decisions regarding plants and diversity, and in particular those studying or working in conservation, rural development and park management. (from summary)
- (1054) Cunningham, A.B. & U. Schippmann (2000): *Griffonia simplicifolia*, calling for information on a west African medicinal plant in trade. - Medicinal Plant Conservation 6: 23-24. [6050!!] <trade/ price> <CI/ GH> <*Griffonia simplicifolia*>
- (1055) Cunningham, M. (1997): Cash from Catha. Africa's multi-million dollar medicinal trade. - Africa Environment and Wildlife 5(6): 14. [5271!!] <trade/ cultivation> <KE/ ET/ SO/ YE> <*Catha edulis*>
- (1056) Cunningham, M., A.B. Cunningham & U. Schippmann (1997): Trade in *Prunus africana* and the implementation of CITES. - 52 pp., Bundesamt für Naturschutz, Bonn. [5167!!] <market analysis/ trade volumes/ export/ resource management/ threat> <*Prunus africana*>
- The report reviews the current international trade in *Prunus africana* and makes recommendations for a better implementation of its listing in Appendix II of CITES. Trade structure and volumes are summarized and identification help for the main commodities unprocessed bark and bark extracts is presented. (schp)
- (1057) Daly, D.C. (1992): The National Cancer Institutes' plant collections programm. Update and implications for tropical forests. In: Plotkin, M. & L. Famolare (Eds.): Sustainable harvest and marketing of rain forests products - pp. 224-230, Island Press, Washington. [4702] <vide Gruisen, J.v., 22.11.96>
- (1058) Danimihardja, S. (1996): PROSEA databases. In: Lay Cheng Tan, M. Ruiz Perez & M. Ibach (Eds.): Non-timber forest product databases. pp. 59-64, CIFOR, Jakarta (CIFOR Special Publication). [5598!!] <database>
- (1059) Dauer, A. (1998): *Areca catechu* L. Arecae pericarpium. Arecae semen. Wissenswertes über die Betelpalme und die aus ihr gewonnenen Drogen. - Drogenreport 11 (20): 12-15. [5816!!] <uses> <*Areca catechu*>
- (1060) Davis, D.E. (1999): Medicinal and cultural uses of plants in the southern Appalachians. Past, present and future. - Ethnopharmacologia 25: 46-56. [5884!!] <ethnobotany> <US>
- (1061) Davydov, M. & A.D. Krikorian (2000): *Eleutherococcus senticosus* (Rupr. & Maxim.) Maxim. (Araliaceae) as an adaptogen. A closer look. - Journal of Ethnopharmacology 72: 345-393. [6144!!] <medicinal property/ history/ illustration> <*Eleutherococcus senticosus*>
- While concentrating mainly on the medicinal properties of this and other ginseng species, the paper has an interesting historic overview of the use history, especially about the shift from *Panax ginseng* to *E.S.* According to the authors this was partly induced by

- scarcity of true ginseng. The species was first collected between 1830 and 1841 and is today marketed as Siberian ginseng. (schp)
- (1062) Dawson, I. & R. Rabevohitra (1996): Status of *Prunus africana* resources in Madagascar. - 10 pp., Unpublished report, Nairobi. [5562!!] <population status> <MG> <*Prunus africana*>
- In 1996, the International Centre for Research in Agroforestry (ICRAF), in collaboration with two Malagasy institutions, carried out a field survey on *P. africana* in Madagascar in the three main distribution areas. Objectives were to assess its status in reserves, to determine the level of threat through exploitation, and to evaluate the degree of cultivation. The authors conclude that *P. africana* resources are severely threatened in Madagascar by bark exploitation, especially in protected areas. They claim that "no attempt whatsoever is made at sustainable harvesting of the resources in the regions we visited, with all collection by the felling of trees, and we saw no evidence of planting of *P. africana*". (schp)
- (1063) Dawson, I.K. (1997): *Prunus africana*. How agroforestry can help save an endangered medicinal tree. - Agroforestry Today 9(2): 15-17. [5807!!] <cultivation> <MG> <*Prunus africana*>
- (1064) Dawson, I.K. & W. Powell (1999): Genetic variation in the African montane tree *Prunus africana*, an endangered medicinal species. - Molecular Ecology 8: 151-156. [5905!!] <biology> <*Prunus africana*>
- (1065) Dayao, B.M. (1996): The APINMAP and its databases. In: Lay Cheng Tan, M. Ruiz Perez & M. Ibach (Eds.): Non-timber forest product databases. pp. 71-77, CIFOR, Jakarta (CIFOR Special Publication). [5600!!] <database>
- (1066) De Lange, H., S. Tennant, P. Botha, C. Klein & G. Nichols (1989): Micropropagation and the trade in indigenous medicinal plants. - Veld and Flora 75(2): 60-61. [4964!!] <micropropagation> <ZA> <*Siphonochilus aethiopicus*/ *Eucomis autumnalis*/ *Eucomis bicolor*/ *Sandersonia aurantiaca*/ *Littonia modesta*/ *Gloriosa virescens*>
- (1067) Dempsey, D. & I. Hook (2000): Yew (*Taxus*) species. Chemical and morphological variations. - Pharmaceutical Biology 38: 274-280. [6318!!] <*Taxus baccata*>
- Needles and twigs of various *Taxus* species are presently of commercial importance as the natural sources of some anticancer agents. To determine inter- and intraspecific morphological similarities the authors have collected needles of six *Taxus* (the species names are not given) and of 25 varieties of *Taxus baccata* in an arboretum. Needle dimensions, stomata length and numbers and the content of Paclitaxel were examined. Significant intra-specific differences were found to occur between the varieties of *T. baccata*, but no "sufficiently distinctive inter-specific differences of taxonomic value" were obvious between the species. (schp)
- (1068) Dennis, F. (1999): The trade in medicinal plants in the United Kingdom. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 19-32[+4], TRAFFIC Europe, s.loc. [5667!!] <trade/ legislation/ market analysis> <GB>
- (1069) Dennis, F. & G. Owusu-Afriyie (1999): Development of medicinal plant gardens in Aburi, Ghana. - Botanic Gardens Conservation News 3(3): 37-39. [5980!!] <cultivation> <GH>
- (1070) Dery, B.B., R. Otsyina & C. Ng'atigwa (1999): Indigenous knowledge of medicinal trees and setting priorities for their domestication in Shinyanga region, Tanzania. - 87 pp., ICRAF, Nairobi. [6001!!] <cultivation/ uses/ common name> <TZ>
- (1071) Dhar, U., R.S. Rawal & J. Upreti (2000): Setting priorities for conservation of medicinal plants. A case study in the Indian Himalaya. - Biological Conservation 95: 57-65. [6313!!] <threat/ population status> <IN>
- The paper aims at developing a method of identifying species with highest priority of conservation action in a given area, here the Indian Himalaya. The authors have created two numerical indices which reflect the quantified needs of industrial supply (use value index - UVI) and the biological sensitivity index (SI) which includes the mode of harvesting, the distribution and the cultivation potential. The importance value index (IVI) is combining the two, thus considering perceptions of priority from both users' and conservationists' perspective. When viewed separately, the priorities of UVI and SI do not match in most cases. Using the IVI, the paper identifies 20 top ranking medicinal plants for conservation in each life form herbs, shrubs and trees. (schp)
- (1072) Dhar, U., S.S. Samant, R.S. Rawal & S. Sharma (1997): Studies on biota and resource use pattern of the natives within Askot wildlife sanctuary of Kumaun Himalaya. - Tigerpaper 24(4): 12-18. [5214!!] <habitat/ threat> <IN> <*Picerorhiza kurrooa*/ *Podophyllum hexandrum*/ *Dactylorhiza hatagirea*/ *Nardostachys grandiflora*/ *Saussurea costus*>
- (1073) Diniz, M.A., O. Silva, M.A. Paulo & E.T. Gomes (1996): Medicinal uses of plants from Guinea-Bissau. In: van der Maesen, L.J.G., X.M. van der Burgt & J.M. van Medenbach de Rooy (Eds.): The biodiversity of African plants. Proceedings 14th AETFAT Congress, 22.-27.8.1994,

- Wageningen, The Netherlands - pp. 727-731, Kluwer Academic Publishers, Dordrecht, Boston, London. [5241!!] <uses/ medicinal properties/ common names/ plant parts> <GW> <*Cryptolepis sanguinolenta*/ *Terminalia macroptera*>
- (1074) Dobriyal, R.M., G.S. Singh, K.S. Rao & K.G. Saxena (1997): Medicinal plant resources in Chhakinal watershed in Northwestern Himalaya. - Journal of Herbs, Spices and Medicinal Plants 5: 15-27. [5325!!] <ethnobotany/ economics> <IN> <*Picrorhiza kurrooa*/ *Dioscorea deltoidea*/ *Podophyllum hexandrum*/ *Valeriana jatamansi*/ *Jurinea macrocephala*>
- (1075) Dolidas & V.V. Agarwal (1991): Fruit drug plants of India. - 250 pp., Kalyani, New Delhi. [5259!!] <common names/ distribution/ habitat/ uses> <IN>
- (1076) Dounias, E., W. Rodrigues & C. Petit (2000): Review of ethnobotanical literature for central and west Africa. - The African Ethnobotany Network Bulletin 2: 5-117. [6136!!] <bibliography/ ethnobotany>
- This extensive bilingual (French and English) literature review covers 27 countries of central and western Africa. Only data on cultivated plants were excluded from the survey. More than 4600 bibliographic references constitute the basis for this review. The authors announce that these will soon be available at a searchable internet site. In the paper, only 600 references are listed, 400 of which are referred to in the text. Of special interest is a list of 20+ searchable databases available on the web. Medicinal plants s.str. are dealt with on four pages of the text. This paper contains a tremendous wealth of information. (schp)
- (1077) Drummond, R.B., M. Gelfand & S. Mavi (1975): Medicinal and other uses of succulents by the Rhodesian African. - Excelsa 5: 51-56. [5166] <ethnobotany> <ZW> <fide Oldfield (1997)>
- (1078) Dubé, S. & F. Gasengayire (1997): Plantes médicinales et medicines traditionnelles en Afrique. - 80 pp., Unpublished report, s.loc. [4953!!] <project/ encyclopedia>
- The authors describe the various medicinal plant projects of IDRC in Africa. He gives a brief summary and contact addresses. In a second and third part of the book activities of other organizations are outlined. (schp)
- (1079) Dubey, K.P. (1997): Himalayan yew (*Taxus baccata*) conservation. A vegetative approach. - Indian Forester 123: 1150-1154. [5625!!] <cultivation> <IN> <*Taxus baccata*>
- (1080) Duke, J.A. (1985): CRC handbook of medicinal herbs. - 677 pp., CRC, Boca Raton. [6100!] <reference/ standard>
- (1081) Duke, J.A. (1997): Phytomedicinal forest harvest in the United States. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 147-158, FAO, Rome (Non-wood Forest Products 11). [5574!!] <nwfp/ illustration> <US> <*Hydrastis canadensis*/ *Panax quinquefolius*/ *Podophyllum peltatum*/ *Podophyllum hexandrum*/ *Rauvolfia serpentina*/ *Dioscorea villosa*/ *Taxus brevifolia*/ *Lycopodium lucidulum*>
- (1082) Dürbeck, K. (1991): Handelsförderung für Produkte aus Arznei-, Gewürz- und ätherischen Ölplanten. Ein GTZ-PROTRADE-Projekt. - Drogenreport 4 (Sonderausg.): 135-143. [5107!!] <policy>
- (1083) Dürbeck, K. (1995): Nichtholzforstprodukte aus Vietnam. - Drogenreport 8 (13): 45-47. [5110!!] <market analysis> <VN>
- (1084) Dürbeck, K. (1996): Scope of value addition for medicinal plant products through local industries in Asia, Africa and Latin America. In: Atti convegno internazionale. Coltivazione e miglioramento di piante officinali, Trento, Italy, 2-3.694 - pp. 273-278, Ist. Sperimentale per l'Assestamento Forestale, Trento. [5279] <market analysis/ resource management> <fide RAMP 3:261>
- (1085) Dürbeck, K. (1999): Demand stimulated sustainable supply for endangered Nepalese medicinal plants. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 155-163, TRAFFIC Europe, s.loc. [5682!!] <resource management/ cultivation> <NP> <*Lycopodium*/ *Nardostachys*>
- (1086) Dürbeck, K., & R. de Rehmann (1996): Verfügbarkeit von Information und Technologie-transfer zur lokalen Konstruktion von Felddestillen in El Salvador. - Drogenreport 9 (15): 53-55. [5347!!] <SV> <*Schisandra chinensis*>
- (1087) Dutfield, G. (1997): Between a rock and a hard place. Indigenous peoples, nation states and the multinationals. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 24-33, FAO, Rome (Non-wood Forest Products 11). [5565!!] <ipr/ bioprospecting/ policy>
- (1088) Dutfield, G. (2000): Intellectual property rights, trade and biodiversity. Seeds and plant varieties. - 238 pp., Earthscan, London. [6282!!] <ipr/ legislation/ bibliography>

- The author elaborates the various legal aspects of intellectual property rights in the field of plant trade and illustrates this with seven case studies (Kani and jeevani; Agaruna; terminator technology, turmeric, neem; quinoa; basmati rice). A most valuable feature of this book is the annotated bibliography of 60 pages with keywords and abstract for each reference. (schp)
- (1089) Dutta, R. & P. Jain (2000): CITES listed medicinal plants of India. An identification manual. - 85 pp., TRAFFIC India & WWF India, New Delhi. [6221!!] <identification/ legislation/ illustration> <IN>
- This bilingual booklet describes Indian medicinal plant species protected by CITES. Besides photos of the drug and a line drawing of the plant's habit, information on uses, common names and a rough description of the raw drug is given. The distribution data only relate to India although some species also occur in other countries. No medicinally used orchids (all included in CITES App. II) are covered. Some Euphorbia species are not succulent and hence not protected. The biggest shortcoming, however, is that the information under the heading "Form in which International Trade is Permitted" is erroneous since it only summarizes the information contained in the CITES Annotations (= footnotes) and does not refer to the general App. II regulations. (schp)
- (1090) Eaves, M.K. (1999): The economics of botanicals. The European experience. In: Eskinazi, D. & al. (Eds.): Botanical medicine. Efficacy, quality assurance, and regulation - pp. 175-182, Mary Ann Liebert, Larchmont. [5852!!] <market analysis>
- In western Europe, botanicals or plant-based medicines represent a significant part of usual drug therapy. In Germany, France, Italy, Austria, and Switzerland, plant drugs and phytomedicines are an integral part of conventional medicine. In addition to their extensive over-the-counter (OTC) use, they are also widely prescribed. Germany is the largest phytomedicine market in Europe by a large margin. The report describes the overall market size for phytomedicines and herbal remedies by presenting a number of sales tables. Also, a list of the 145 'most relevant' herbal drugs is presented. The general conclusion of the report is that the European phytomedicines market is considerably larger than indicated by previously available figures. (schp)
- (1091) Eben-Ebaj, S., B. Ewusi, C. Asanga & J. Nkongo (1992): An evaluation of the quantity and distribution of *Pygeum africanum* on the slopes of Mt Cameroon. - DSF, Limbe (Divisional Service of Forest Report). [5808] <distribution/ population status> <CM> <*Prunus africana*> <fide Herbalgram 43:53>
- (1092) Ebert, K. (1982): Arznei- und Gewürzpflanzen. Ein Leitfaden für Anbau und Sammlung. - 221 pp., Wissenschaftliche Verlagsgesellschaft, Stuttgart. [6028!!] <plant parts/ trade volumes/ cultivation/ reference>
- (1093) Edwards, D.M. (1993): The marketing of non-timber forest products from the Himalayas. The trade between east Nepal and India. - 24 pp., ODI, Regent's College, London (Rural Development Forestry Network Paper 15 b). [4703] <trade/ nwfp> <IN/ NP> <fide Gruisen, J.v., 22.11.96>
- (1094) Elisabetsky, E. & L. Costa-Campos (1996): Medicinal plant genetic resources and international cooperation. The Brazilian perspective. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 111-120, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5301!] <ipr/ legislation/ policy/ bioprospecting/ benefit sharing>

- (1095) Ellenberger, A. (1999): Assuming responsibility for a protected plant. Weleda's endeavour to secure the firm's supply of *Arnica montana*. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 127-130, TRAFFIC Europe, s.loc. [5679!!] <cultivation/ resource management> <CH> <*Arnica montana*>
- (1096) Erdelen, W.R. & Kusnaka Adimihardja, H. Moesdarsono & Sidik (1999): Biodiversity, traditional medicine and the sustainable use of indigenous medicinal plants in Indonesia. - Indigenous Knowledge and Development Monitor 7(3): 3-6. [6057] <ID> <fide Cunningham, A.B.>
- This paper provides an overview of trade in jamu, a system of herbal medicine which originated in Java and has spread to Bali and many other islands of the Indonesian archipelago. A strong point of this paper is that it emphasizes the dynamic nature of traditional systems of medicine. The authors point out that the majority of rare medicinal plant species are trees, with 25% of the most important jamu sources collected from the forests. In concluding this paper, the authors make seven recommendations which centre around thorough taxonomic inventory of plant species in jamu, research on their geographic distribution and habitat requirements, the need for sustainable use and monitoring based on an adaptive management approach. (abc)
- (1097) Ertug, F. (2000): An ethnobotanical study in central Anatolia (Turkey). - Economic Botany 54(2): 155-182. [6112!!] <ethnobotany/use> <TR>
- (1098) Eskinazi, D., M. Blumenthal, N. Farnsworth & C.W. Riggins, Eds. (1999): Botanical

medicine. Efficacy, quality assurance, and regulation. - 222 pp., Mary Ann Liebert, Larchmont. [5837!!] <pharmaceutical products>

The book summarizes the results of the 1994 'Symposium on Botanicals. A role in US Health Care?'. Its more than 30 papers by well-known authors have been divided in five parts (no. of papers): What are botanicals and how are they currently used? (4), How can we know that botanicals work? (9), How can we know that these products are safe? (5), How can we ensure that botanical preparations will be of good quality? (6), and How do regulations affect the market place and impact the cost of health care? (7) One important question was, however, not asked: How does wild harvesting of medicinal plants affect their populations? Conservation impacts of phytomedicinal usage of plants are not addressed throughout the book. (schp)

(1099) Etkin, N.L. (1998): Indigenous patterns of conserving biodiversity. Pharmacologic implications. - Journal of Ethnopharmacology 63: 233-245. [5836!!] <ethnobotany/ traditional use> <NG>

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(1101) FAO, Ed. (1997): Domestication and commercialization of non-timber forest products in agroforestry systems. - 297 pp., FAO, Rome (Non-wood forest products 9). [5001!!] <nwfp/ cultivation>

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(1103) Feinsilver, J.M. & I.H. Chapela (1996): Will biodiversity prospecting for pharmaceuticals strike "green gold"? - Diversity 12(2): 20-21. [5620!!] <bioprospecting>

(1104) Feistel, B. & F. Gaedcke (2000): Analytische Identifizierung von Radix Harpagophyti procumbentis und zeyheri. - Zeitschrift für Phytotherapie 21: 246-251. [6207!!] <medicinal

properties> <Harpagophytum procumbens/Harpagophytum zeyheri>

(1105) Fernandez Alvarez, M.D. & J. Breaux (1998): Medicina popular, magia y religion en el Bierzo. - 321 pp., Mueso del Bierzo, Ponferrada. [5532!!] <ethnobotany> <ES>

(1106) Fernández-Lopez, C., A.M. Fernández-Ocaña, M. Martos-Gilabert & I. Ortúñoz-Moya (1996): Plantas medicinales y útiles en la península Ibérica. 1700 especies y 18000 aplicaciones. - 156 pp., Herbario Jaén, Jaén. [5018!!] <medicinal properties> <ES>

(1107) Fetisow, A.A., S.W. Dmitriew & O.J. Djatlova (1988): Sapasi dikorastuschich lekarstwennich rastenij w jugo-wostotschnich rayonach Moskowskoj oblasti [Reserves of wild medicinal plants in the south-eastern districts of the Moscow district; in Russian]. - Rastitel'nye Resursy 24(3): 352-357. [4968!!] <RU>

(1108) Figueiredo, G.M., H.F. Leitao-Filho & A. Begossi (1993): Ethnobotany of Atlantic forest coastal communities. Diversity of plant uses in Gamboa (Itacurucá islands, Brazil). - Human Ecology 21(4): 419-430. [6201!!] <ethnobotany/ common name/ uses>

(1109) Fischer, J. (1998): Devil's claw. - Flamingo November: 21-25. [5898!!] <project/ illustration> <NA> <Harpagophytum procumbens>

(1110) Fleurentin, J. & M. Todisco (1999): French regulations concerning the use and commercialisation of medicinal plants. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 74-77[+8], TRAFFIC Europe, s.loc. [5672!!] <legislation/ trade volumes> <FR> <Glycyrrhiza glabra>

(1111) Fongood, T. (1996): Conservation by cultivation. Pygeum tree planting project. - Biological Resources 1(2): 14. [5008!!] <cultivation> <Prunus africana>

The short report provides some quantitative details of a *Prunus africana* plantation campaign (country not mentioned, probably Cameroon) which started in March 1996 and aims at planting up to 2000 trees until 1997. (schp)

(1112) Ford, B.A. (1995): Status of deerberry, *Vaccinium stamineum* L. (Ericaceae), in Canada. - Rhodora 97 (891): 255-263. [4924!!] <population status/ distribution/ map/ habitat/ biology> <CA/ US> <*Vaccinium stamineum*>

- (1113) Forero Pinto, L.E., J.F. Chavez Rodriguez & H. Yesid Bernal (2000): Agrotecnología para el cultivo de sangre de drago o sangregrado. In: Martínez A., J.V., H. Yesid Bernal & A. Caceres (Eds.): Fundamentos de agrotecnología de cultivo de plantas medicinales Iberoamericanos - pp. 157-190, Convenio Andres Bello, Santafé de Bogota. [6061!!] <cultivation> <*Croton lechleri*>
- (1114) Fortin, D., M. Lo & G. Maynart (2000): Plantes médicinales du Sahel. - 278 pp., Enda, Dakar. [6123!!] <common name/ use/ medicinal property>
- (1115) Foster, P.F. & V.L. Sork (1997): Population and genetic structure of the West African rain forest liana *Ancistrocladus korupensis* (Ancistrocladaceae). - American Journal of Botany 84: 1078-1091. [5577!!] <ecology/ population status/ habitat/ reproduction/ medicinal properties> <CM> <*Ancistrocladus korupensis*>
- (1116) Foster, S. (1997): Medicinal plant development in the United States. In: Vance, N.C. & J. Thomas (Eds.): Special forest products. Biodiversity meets the marketplace - pp. 26-38, US Department of Agriculture, Washington. [5411!!] <market analysis> <US> <*Hydrastis canadensis*/ *Panax quinquefolius*/ *Eleutherococcus senticosus*/ *Hamamelis virginiana*/ *Taxus brevifolia*/ *Cypripedium acaule*/ *Echinacea purpurea*/ *Echinacea pallida*>
- (1117) Foster, S. (1999): Black Cohosh. *Cimicifuga racemosa*. A literature review. - Herbalgram 45: 35-50. [5820!!] <taxonomy/ history/ ethnobotany/ uses/ bibliography> <*Cimicifuga racemosa*>
- (1118) Franke, R., R. Schenk & G. Abel (2000): *Cimicifuga racemosa* (L.) Nuttal. Ein Kandidat für Inkulturnahme. - Zeitschrift für Arznei- und Gewürzpflanzen 5: 62-67. [6301!!] <cultivation/ collection/ distribution> <*Cimicifuga racemosa*>
- (1119) Franz, C. (1993): Domestication of wild growing medicinal plants. - Plant Research and Development 37: 101-111. [6339!!] <cultivation>
- (1120) Freiburghaus, F., P. Meyer & H. Pfander (1997): Geheimnisse des Safrans. - Naturwissenschaftliche Rundschau 51(3): 91-95. [5319!!] <uses/ trade/ cultivation> <*Crocus sativus*>
- (1121) Fremuth, W., A. Schopp-Guth, M. Mersinlari, P. Hoda & L. Dinga (1999): Assessment of the sustainable use of medicinal plants from the Ohrid and Prespa region. - 67 pp., ECAT & Euronature, Tirana, Rheinbach. [5973!!] <market analysis> <AL> <*Salvia*/ *Sideritis raeseri*/ *Hypericum perforatum*/ *Thymus*/ *Origanum*/ *Dictamnus albus*/ *Centaurea cyanus*>
- (1122) Gachathi, F.N. (1996): The Plants for Life database. In: Lay Cheng Tan, M. Ruiz Perez & M. Ilbach (Eds.): Non-timber forest product databases. pp. 65-70, CIFOR, Jakarta (CIFOR Special Publication). [5599!!] <database> <KE>
- (1123) Galambosi, B. (1996): Experiences of cultivating *Gentiana lutea* L. in Finland. In: Dipartimento de Botanica ed Ecologia (Ed.): Atti del Convegno "Genziana e specie amaro-aromatiche. Ricerche ed applicazioni". pp. 139-142, Università degli Studi, Camerino (L'Uomo e l'Ambiente 19). [5766!!] <cultivation> <FI> <*Gentiana lutea*>
- (1124) Galambosi, B., N. Takkunen & M. Repcak (2000): The effect of regular collection of *Drosera rotundifolia* in natural peatlands in Finland. Plant density, yield and regeneration. - Suoseura 51(2): 37-46. [6091!!] <collection/ resource management/ sustainability> <FI> <*Drosera rotundifolia*>
- This is one of the rare cases where research is focussed directly on resource management practices. *D. rotundifolia* is collected in Finland commercially for 10 years. In an experimental study the authors investigated the effect of harvest on the regeneration of natural populations at 37 sample plots during 1993-99. They found that the plants regenerate well from the seed bank stock of the peat. On the basis of these findings a sustainable harvesting scheme was initiated among the collectors. They are obliged to leave 5-10 plants per m² to spread seed and to ensure natural regeneration of the sundew populations. (schp)
- (1125) Garcia, R. & C. Roersch (1996): Política de manejo y utilización de los recursos florísticos en la República Dominicana. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 147-160, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5302!!] <ipr/ legislation/ policy/ bioprospecting/ benefit sharing> <DO>
- (1126) Gebbers, D. (1999): Bedeutung der traditionellen Medizin in Afrika und möglicher Beitrag der Heilkundigen zur Erhaltung natürlicher Ressourcen. - Geoid 1: 34-40. [5843!!] <traditional medicine> <KE>
- (1127) Geetha, K.R. (1996): The Botanical Garden, University of Agricultural Sciences, Gandhi Krishi Vignana Kendra, Bangalore, India. - Botanic Gardens Conservation News 2(7): 41-43.

- [5580!!] <ex-situ/ cultivation> <IN> <Pterocarpus santalinus>
- (1128) Germosen-Robineau, L., Ed. (1996): Farmacopea Caribena. - 370 pp., Ediciones Emile Desormeaux, Santo Domingo. [5379] <pharmacopoeia> <fide BCN 174>
- (1129) Giraldo-Tafur, C. (1996): Medicina tradicional de las mujeres Siona del Reasguardo de Buenavista en el río Putumayo. - Caldasia 18: 227-238. [5038!!] <ethnobotany/ common names/ plant parts> <CO>
- (1130) Girón, L., I. López, J.M. Duro & F. Nave (1997): Diagnóstico del estado de conservación de la flora medicinal utilizada por los Garífunas de Livingston. - TRAMIL-Centroamérica, Guatemala. [5047] <ethnobotany/ threat> <GT> <fide Tramil Boletín Informativo>
- (1131) Giron, L.M. & A. Caceres (1994): Estado de conservacion de la flora util de Guatemala. Trabajo presentado en el Seminario-Taller "Plantas utiles amenazadas de la cuenca del Caribe", Santo Domingo, Republica Dominicana, 28.2.-4.3.1994. - 11 pp., Unpublished paper, s.loc. [5315!!] <red list state/ threat/ threat categories/ plant parts/ life history/ uses> <GT>
- (1132) Gleich, M., D. Maxeiner & M. Miersch (2000): Life counts. Eine globale Bilanz des Lebens. - 288 pp., Berlin Verlag, Berlin. [6280!!] <diversity>
- (1133) Grady, L.T. (1999): Worldwide harmonization of botanical standards. In: Eskinazi, D. & al. (Eds.): Botanical medicine. Efficacy, quality assurance, and regulation - pp. 147-168, Mary Ann Liebert, Larchmont. [5851!!] <pharmacopoeia/ plant parts>
- Worldwide about 35 pharmacopoeias exist with diverging sets of monographed vegetable drugs. The paper discusses the advantages of harmonization of pharmacopoeial standards, above all the need to look for those species that are used and monographed in a variety of countries. Secondly, the need for streamlining quality standards is outlined. A 15-page appendix lists various botanicals of interest to the United States Pharmacopoeia giving their pharmaceutical names and the plant parts used. (schp)
- (1134) Gragson, T.L. (1997): The use of underground plant organs and its relation to habitat selection among the Puna Indians of Venezuela. - Economic Botany 51: 377-384. [5613!!] <ethnobotany> <VE>
- (1135) Green, C.L. (1995): Natural colorants and dye stuff. - 116 pp., FAO, Rome (Non-wood forest products 4). [4193!!] <nwfp/ trade volumes/ export/ market analysis> <other Bixa/ Pterocarpus santalinus/ Acacia/ Mallotus>
- (1136) Grifo, F. & J. Rosenthal, Eds. (1997): Biodiversity and human health. - 380 pp., Island Press, Washington. [5204] <policy> <fide RAMP 4:136>
- This book brings together leading thinkers on the global environment and biomedicine to explore the human health consequences of the loss of biological diversity. Based on a two-day conference sponsored by the NIH, the NSF and the Smithsonian Institution, the book opens a dialogue among experts from the fields of public health, biology, epidemiology, botany, ecology, demography, and pharmacology on this vital concern. (S. Burgiel)
- (1137) Groombridge, B. & M.D. Jenkins, Eds. (1996): Assessing biodiversity status and sustainability. - 104 pp., WCMC, Cambridge (WCMC Biodiversity Series 5). [5010!!] <methods/ policy>
- The aim of this publication is to outline approaches which are suitable for the use of developing countries to assess, with reference to various socio-economic factors, the status and sustainability of national biodiversity. In an annex a comparative overview of the major biodiversity assessment techniques is given. (from summary)
- (1138) Grünwald, J. (2000): European herbal market update. - ICMAP News 7: 10-11. [6064!!] <market analysis>
- (1139) Grünwald, J. & A. Goldberg (1996): The herbal remedies market in the US. - Drugs Made In Germany 40: 86-90. [5832!!] <market analysis/ pharmaceutical industry> <US>
- (1140) Grünwald, J. & K. Büttel (1996): The European phytotherapeutics market. - Drugs Made In Germany 39: 6-11. [5831!!] <market analysis/ pharmaceutical industry>
- (1141) Guiry, M.D. (27.10.2000): Uses of seaweed. Seaweed home page. - <<http://seaweed.ucg.ie/SeaweedUsesGeneral/SeaweedUses.htm>> (viewed 6.11.2000) [6170!!] <uses>
- (1142) Gupta, V. & V.K. Srivastava (1995): Kalmegh. A valuable NTFP for N.W. India. - Journal of Non-Timber Forest Products 2: 76-78. [5293!] <cultivation> <IN> <Andrographis paniculata>
- (1143) Gurib-Fakim, A., J. Gueho & M. Sewraj-Bissoondoyal (1997): The medicinal plants of Mauritius 1. - International Journal of Pharmacognosy 35(4): 237-254. [6202!!] <ethnobotany/ common name/ uses> <MU>

- (1144) Hachfeld, B. & U. Schippmann (2000): Conservation data sheet 2. Exploitation, trade and population status of *Harpagophytum procumbens* in southern Africa. - Medicinal Plant Conservation 6: 4-9. [6040!!] <trade volumes/ resource management/ threat/ exploitation/ legislation> <NA/ BW/ ZA> <*Harpagophytum procumbens*>

This 5-page paper summarizes the current knowledge about the trade and population status of *Harpagophytum procumbens* in the area of its major utilization, i.e. Namibia, Botswana and South Africa. Special emphasis is on the levels of harvest and export. However, the figures in table 1 for Namibian export volumes have obviously been misformatted and had to be corrected in the next issue of the journal (Medicinal Plant Conservation 7, page 17). Legislation and conservation measurements in the three countries are summarized, as well as a note on the cultivation efforts underway and on the similar species *H. zeyheri* which is also used to some extent although not covered by the official drug monograph. (schp)

- (1145) Haggag, M.Y. (1997): Herbal medicine in Egypt. In: Heywood, V.H. & M. Skoula (Eds.): Identification of wild food and non-food plants of the Mediterranean region. Proceedings of the first Regional Workshop of the MEDUSA Network, 28-29 June 1996, Chania, Greece. pp. 45-55, CIHEAM, Chania (Cahiers Options Méditerranéennes 23). [6344!!] <traditional medicine> <EG>

- (1146) Halloy, S. (1994): Relevamineto rápido de recursos alternativos. In: Guzmán, R. (Ed.): Plan de manejo. Reserva de vida silvestre Ríos Blanco y Negro, Anexo 4 - pp. 421-457, FAN & Wildlife Conservation Society, Santa Cruz. [5048!!] <ethnobotany/ threat> <BO> <*Satureja parvifolia*/ *Werneria poposa*/ *Senecio graveolens*>

- (1147) Halloy, S. (1995): Conservación e investigación ex situ de recursos genéticos del noroeste Argentino en Nueva Zelanda. In: Brown, A.D. & H.R. Grau (Eds.): Investigación, conservación y desarrollo en selvas subtropicales de montaña - pp. 239-249. [5117!!] <ex-situ> <AR/ NZ>

- (1148) Hammer, K. (1995): Die großen Sammlungen von Arznei- und Gewürzpflanzen in Deutschland. Eine vergleichende Sichtung. - Drogenreport 8 (12): 11-16. [5322!!] <ex-situ> <DE>

- (1149) Hammer, K., H. Knüppfer & H.D. Hoang (1997): Koreanische Heilpflanzen. Eine Liste der kultivierbaren Arten. - Drogenreport 10 (16): 57-59. [5345!!] <cultivation> <KP>

- (1150) Hammer, M.L.A. & A.E. Bean (1997): Madagascar's 'forgotten' periwinkle. - Plant Talk 9: 30-31. [5006!!] <distribution/ threat/ threat

categories/ population status> <MG> <*Catharanthus coriaceus*>

The authors present the results of a student excursion to MG. New populations of *C. coriaceus* were found in the central plateau and in the south of MG. Based on these findings the primary habitat is redefined and the IUCN threat category is assessed as Rare. (schp)

- (1151) Handa, S.S. & M.K. Kaul, Eds. (1996): Supplement to cultivation and utilization of medicinal plants. - 849 pp., Regional Research Laboratory, Jammu-Tawi. [5125!!] <cultivation/ distribution/ pharmacology>

- (1152) Hänsel, K. (1997): Die Gelbwurzel. *Curcuma domestica* Val., *Curcuma xanthorrhiza* Roxb. Porträt zweier Arzneipflanzen. - Zeitschrift für Phytotherapie 18: 297-306. [5193!!] <pharmacology> <*Curcuma xanthorrhiza*>

- (1153) Hardalova, R. (1997): The use of medicinal plants in Bulgaria and their protection. In: Newton, J. (Ed.): *Planta Europaea*. Proceedings of the first European Conference on the conservation of wild plants, Hyères, France, 2-8 September 1995 - pp. 184-187, Plantlife, London. [4917!!] <market analysis/ legislation> <BG>

- (1154) Hardin, G. (1968): The tragedy of the commons. - Science 162: 1243-1248. [5428!!] <resource management>

- (1155) Hargono, D. (1998): Indonesia. The utilization of medicinal plants for primary health care. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 144-148, University of Pennsylvania Press, Philadelphia. [6290!!] <traditional medicine/ health care> <ID>

- (1156) Haridasan, K., G.P. Shukla & B.S. Beniwal (s.dat.): Medicinal plants of Arunachal Pradesh. - 32 pp., State Forest Research Institute, Itanagar (SFRI Information Bulletin 5). [5316!!] <distribution/ habitat/ uses/ plant parts/ common names> <IN> <*Podophyllum hexandrum*/ *Rauvolfia serpentina*/ *Aconitum heterophyllum*/ *Aquilaria agallocha*/ *Coptis teeta*/ *Panax*>

- (1157) Harnischfeger, G. (2000): Sustainable supply of wildcrafted medicinal plant drugs. Steps towards a balance between economy and conservation. - Medicinal Plant Conservation 6: 13-14. [6045!!] <policy/ resource management>

- (1158) Harnischfeger, G. (2000): Sustainable supply of wildcrafted medicinal plant drugs. Aspects towards a balance between economy and conservation. - ICMAP News 7: 12-14. [6063!!] <policy/ resource management>

- (1159) Harnischfeger, G. (2000): Proposed guidelines for commercial collection of medicinal plant material. - *Journal of Herbs, Spices and Medicinal Plants* 7(1): 43-50. [6199!!] <legislation/ certification>

The paper presents draft guidelines for "Good Harvesting Practices" (GHP) which aim at setting standards for ensuring that wild collection of medicinal plants is sustainable. Besides other requirements relating to the collection, processing, storage, and documentation, the guidelines contain a section on the collection itself with 14 paragraphs. Of these only three deal with conservation precautions. 2.14 states: "The danger of plant extinction should be avoided through special care to avoid overharvesting within a particular collecting area." This is too general and not helpful in practice. These draft GHP guidelines are strongly focussing on the quality of the collected material and too little on sustainability issues. (schp)

- (1160) Haugen, C. & P.B. Durst (1997): Directory of selected tropical forestry journals and newsletters. 2nd edition. - 130 pp., FAO, Bangkok (RAP Publication 17/ FORSPA Publication 19). [5414!!] <bibliography>

The bibliography lists 449 serial publications with standardized data on order information and a summary of the publication's focus. It is arranged by continents but also provides for an alphabetical index of publication titles for easy access. In an appendix, internet addresses on forest resources are listed. (schp)

- (1161) He Shan-An (1998): Utilization and conservation of medicinal plants in China with special reference to *Atractylodes lancea*. In: Tomlinson, T.R. & O. Akerele (Eds.): *Medicinal plants. Their role in health and biodiversity* - pp. 161-168, University of Pennsylvania Press, Philadelphia. [6291!!] <traditional medicine/ threat/ cultivation> <CN> <*Atractylodes lancea/ Glycyrrhiza uralensis*>

Identical with He Shan-An & Ning Sheng (1997). (schp)

- (1162) He Shan-An & Ning Sheng (1997): Utilization and conservation of medicinal plants in China with special reference to *Atractylodes lancea*. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): *Medicinal plants for forest conservation and health care*. pp. 109-115, FAO, Rome (Non-wood Forest Products 11). [5571!!] <threat/ cultivation> <CN> <*Atractylodes lancea/ Cistanche deserticola/ Glycyrrhiza uralensis/ Gastrodia elata*>

The authors state that about 1000 plant species are commonly used in Chinese medicinal plant preparations. 80% in terms of species and 60% in terms of volume are collected from the wild. The demand for medicinal plant material has grown at an annual rate of 9% since 1979. At present more than 250 species are

being commercially cultivated, the main crops are listed. The authors claim that genetic erosion is particularly strong for species which are both cultivated and wild collected but they do not give any rationale for this opinion. The case study for *Atractylodes lancea* only summarizes some data on morphological and chemical variation within the species. (schp)

- (1163) He, Z.D., Q.H. Shi, X. Zhao, Y.I. Zhang & C.R. Yang (1995): [The function and application of the database of plant resources and chemistry; in Chinese with English summary]. - *Journal of Plant Resources and Environment* 4: 49-55. [5310] <database> <CN> <fide RAMP 2:73>

- (1164) Heinrich, M. (1998): Roter Lapacho-Tee. - *Zeitschrift für Phytotherapie* 19: 39-42. [5424!!] <medicinal properties> <*Tabebuia impetiginosa/ Tabebuia avellaneda/ Euphorbia tirucalli*>

- (1165) Heinrich, M. (1998): Indigenous concepts of medicinal plants in Oaxaca, Mexico. Lowland Mixe plant classification based on organoleptic characteristics. - *Angewandte Botanik* 72(3/4): 75-81. [6118!!] <ethnobotany> <MX>

- (1166) Heinrich, M. & J. Leimkugel (1999): Arzneidrogen im deutschen und europäischen Arzneibuch. - *Zeitschrift für Phytotherapie* 20: 264-267. [5849!!] <provenance/ pharmacopoeia>

- (1167) Hendrian, R. (21.11.1997): *Rauvolfia serpentina* (L.) Benth. ex Kurz (Pule Pandak, Java). Published in *Explorasi* 3(1): 8. - <www.bogor.indo.net.id/rauvolfia.htm> (viewed 13.4.1999) [5712!!] <morphology/ distribution/ uses/ threat> <ID> <*Rauvolfia serpentina*>

- (1168) Henkel, R. (1993): Coca (*Erythroxylum coca*) cultivation, cocaine production, and biodiversity loss in the Chapare region of Bolivia. In: Churchill, S.P. & al. (Eds.): *Biodiversity and conservation of neotropical montane forests. Proceedings of a symposium* - pp. 551-560, New York Botanical Garden, New York. [5063] <cultivation> <BO> <*Erythroxylum coca*> <fide Hort. Abstr. 66>

- (1169) Hersch-Martinez, P. (1997): Medicinal plants and regional traders in Mexico. Physiographic differences and conservational challenge. - *Economic Botany* 51: 107-120. [5037!!] <market analysis/ threat> <MX> <*Valeriana edulis/ Smilax aristolochiaefolia/ Chirantodendron pentadactylon/ Hintonia latiflora/ Guaiacum coulteri/ Talau-ma mexicana*>

This paper provides a detailed analysis of the exchange of different medicinal plant species across different ecological zones in Mexico, based on an analysis of medicinal plants sold in two regional trade houses. 69%

- of medicinal plants received by these warehouses were from more remote locations. Two species which are becoming increasingly difficult to get (and are being substituted by other species) are *Smilax aristolochiae-folia* (Smilacaceae) and *Valeriana edulis* (Valerianaceae). (abc)
- (1170) Heywood, V. & M. Skoula, Eds. (1997): Identification of wild food and non-food plants of the Mediterranean region. Proceedings of the first Regional Workshop of the MEDUSA Network, 28-29 June 1996, Chania, Greece. - 165 pp., CIHEAM, Chania (Cahiers Options Méditerranéennes 23). [6340!] <traditional medicine/nwfp>
- (1171) Heywood, V. & M. Skoula, Eds. (1998): Wild food and non-food plants. Information networking. Proceedings of the second MEDUSA Regional Workshop, 1-3 May 1997, Port El Kantaoui, Tunisia. - 326 pp., CIHEAM, Chania (Cahiers Options Méditerranéennes 38). [5834!] <traditional medicine>
- (1172) Hiller, K. & M.F. Melzig, Eds. (1999): Lexikon der Arzneipflanzen und Drogen 1. A-K. - 455 pp., Spektrum, Heidelberg. [5879!!] <common name/ plant part/ medicinal property/ illustration/ distribution/ history/ standard>
- (1173) Hiller, K. & M.F. Melzig, Eds. (1999): Lexikon der Arzneipflanzen und Drogen 2. L-Z. - 443 pp., Spektrum, Heidelberg. [6011!!] <reference/ common name/ plant part/ medicinal property/ illustration/ distribution/ history>
- (1174) Hilton-Taylor, C., Ed. (2000): 2000 IUCN red list of threatened species. - 61 pp., IUCN, Gland & Cambridge. [6347!!] <red list>
- (1175) Hirsch, U. (1999): Certification of sustainably harvested products. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 167-171, TRAFFIC Europe, s.loc. [5683!!] <resource management> <GE>
- (1176) Hmamouchi, M. (1997): Plantes médicinales, aromatiques, condimentaires, médicinales et toxiques au Maroc. In: Heywood, V.H. & M. Skoula (Eds.): Identification of wild food and non-food plants of the Mediterranean region. Proceedings of the first Regional Workshop of the MEDUSA Network, 28-29 June 1996, Chania, Greece. pp. 89-108, CIHEAM, Chania (Cahiers Options Méditerranéennes 23). [6345!!] <traditional medicine> <MA>
- (1177) Hocking, G.M. (1997): A dictionary of natural products. Terms in the field of pharmacognosy relating to natural medicinal and pharmaceutical materials and the plants, animals and minerals from which they are derived. - 994 pp., Plexus, Medford. [5607] <encyclopedia> <fide RAMP 4(3)>
- (1178) Hoffmann (1998): Über 'Cure-dent'-Holz (Teil I) und die Schwierigkeiten der Nachhaltskontrolle eines forstlichen Nebenproduktes (Teil II). - Wald-Info 23: 25-28. [5454!!] <resource management/ price> <CI/ GH> <Garcinia affzellii>
- (1179) Hoffritz, J. (1999): Grüne Aussichten. Deutsche Kräutermedizin ist auch in Amerika ein Hit. - Die Zeit 7: 22. [5629!!] <market analysis> <DE>
- (1180) Höft, M., S.K. Barik & A.M. Lykke (1999): Quantitative ethnobotany. Applications of multivariate and statistical analyses in ethnobotany. - 46 pp., UNESCO, Paris (People and Plant Working Paper 6). [6000!!] <ethnobotany/ methods>
- (1181) Höft, R. & M. Höft (1997): A profile of ethnobotany in Africa. - The African Ethnobotany Network Bulletin 1: 5-22. [5824!!] <ethnobotany>
- (1182) Holley, J. & J.T. Williams (1996): India uniquely positioned to capitalize on abundant medicinal plant heritage. - Diversity 12(3): 35-36. [4927!!] <policy/ traditional medicine> <IN>
- (1183) Hondelmann, W. (1990): Safeguarding germplasm of medicinal and aromatic plants in the Federal Republic of Germany. - Newsletter of Medicinal and Aromatic Plants 1990/ 2: 55-62. [6310!!] <ex-situ> <DE>
- (1184) Honnep, S. (2000): Dispensing TCM in Germany. - TRAFFIC Bulletin 18(2): 51. [5996!!] <tcm> <DE>
- (1185) Honnep, S. & V. Homes (2000): Zurück zu den Wurzeln. - WWF-Journal 3/ 2000: 25-28. [6062!!] <illustration> <NP> <Nardostachys jatamansi>
- (1186) Honnep, S., V. Homes & R. Melisch (2000): Gegen alles wächst bald kein Kraut mehr. - WWF-Journal 4/ 2000: 14-19. [6213!!] <policy>
- (1187) Hoppe, B. (1998): Tendenzen bei der Vermarktung einheimischer Arznei- und Gewürzpflanzen in Deutschland und Schlussfolgerungen für den deutschen Arznei- und Gewürzpflanzenan-

bau. - Drogenreport 11 (19): 52-54. [5815!!] <market analysis/ cultivation> <DE>

(1188) Hu Shiu-Ying (1999): An enumeration of Chinese materia medica. 2nd edition. - 287 pp., Chinese University Press, Hong Kong. [5935!!] <pharmacopoeia/ common names> <CN>

This book is a reference list to the Chinese pharmacopoeia. In its first part 2270 drugs of plant, animal and mineral origin are listed in tabular form. They are arranged by their Chinese names which were transliterated in the Roman alphabet using the Wade system. Additional columns list the Chinese name in Chinese, the scientific botanical name (or several if all linked to the same Chinese name), the English name and the official pharmaceutical name. The second part of the book is a systematic summary of the entries of part 1. It covers 1,716 plant species, 120 animals, 79 minerals and 41 miscellaneous preparations. The vascular plants are arranged by their families. (schp)

(1189) Hu Zhi-Hao (1997): Medicinal and aromatic plants in mountain development in China. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 108-112, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5229!!] <resource management/ tcm> <CN> <*Panax pseudoginseng*/ *Panax zingiberensis*/ *Panax ginseng*/ *Coptis teeloides*/ *Coptis omeiensis*/ *Fritillaria delavayi*/ *Fritillaria pallidiflora*/ *Fritillaria cirrhosa*/ *Taxus*/ *Sinopodophyllum*/ *Diphylenia*/ *Amomum villosum*/ *Amomum xanthioides*>

(1190) Hurlbert, D. (1999): Endangered Echinacea, what threat, which species, and where? - United Plant Savers Newsletter 2(1): 4,6. [5983!!] <collection/ threat> <US> <Echinacea>

(1191) Hurlbert, K. (1997): Finding the building blocks of new medicines. - Missouri Botanical Garden Bulletin 85(4): 16-17. [5188!!] <drug development>

(1192) Husain, A. (1998): Exploitation of medicinal plants. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 82-102, University of Pennsylvania Press, Philadelphia. [6287!!] <medicinal property/ history/ use/ trade/ cultivation/ exploitation> <*Dioscorea deltoidea*/ *Rauvolfia serpentina*/ *Duboisia*/ *Glycyrrhiza glabra*/ *Podophyllum*/ *Taxus brevifolia*/ *Panax ginseng*/ *Panax quinquefolius*>

(1193) Hutchinson, B., E. Suarez, R. Fortunato, A.M. Beeskow, R. Bye, G. Montenegro & B. Timmermann (2000): Conservation and ethnobo-

tanical programs of the Bioactive Agents from Dryland Biodiversity of Latin America Project. - Arid Lands Newsletter 48. [6222] <fide NWFP Digest-L 1/ 2001>

(1194) INRENA & INMETRA (1997): Manual para el aprovechamiento de la "uña de gato" en bosques naturales. - 50 pp., Instituto Nacional de Recursos Naturales, Lima. [5247!!] <distribution/ identification/ cultivation/ trade volumes/ export/ illustration/ plant parts> <PE> <*Uncaria tomentosa*/ *Uncaria guianensis*>

(1195) IUCN & TRAFFIC (15.2.2000): Analyses of proposals to amend the CITES Appendices. Prepared by the IUCN Species Survival Commission and the TRAFFIC Network for the 11th Meeting of the Conference of the Parties to CITES. - <www.iucn.org/themes/ssc/cites/index.html> (viewed 5.3.2000) [5953!!] <threat/ distribution/ population status/ trade> <*Harpagophytum procumbens*/ *Adonis vernalis*/ *Cistanche deserticola*/ *Camptotheca acuminata*/ *Panax ginseng*/ *Guaiacum sanctum*>

Before each Conference of Parties to CITES a report is prepared by IUCN & TRAFFIC which gives additional data on the proposals that have been submitted to amend the Appendices. For the 11th CITES conference, again a number of horticultural and medicinal species were proposed. In datasheets of 2-4 pages much additional information on distribution, habitat availability, population status, utilisation, trade, identification problems, conservation measures, and management was put together with many references and personal communications. (schp)

(1196) IUCN & TRAFFIC (1997): Analyses of proposals to amend the CITES Appendices submitted to the tenth Meeting of the Conference of the Parties, Harare, Zimbabwe, 9-20 June 1997. - 206 pp., IUCN, s.loc. [5103!!] <threat/ distribution/ population status/ trade> <*Camellia chrysanthia*/ *Hydrastis canadensis*/ *Picrorhiza kurrooa*/ *Nardostachys grandiflora*>

Before each Conference of Parties to CITES a report is prepared by IUCN and TRAFFIC which provides additional data on the proposals that have been submitted by CITES parties to amend the Appendices. For the 10th CITES conference a number of horticultural and timber species were proposed and also the medicinal plant taxa *Hydrastis canadensis*, *Nardostachys grandiflora* and *Picrorhiza kurrooa*. In datasheets of 2-4 pages a wealth of additional information on distribution, habitat availability, population status, utilisation, trade, identification problems, conservation and management are summarized. Particularly interesting are the detailed references for each taxon. The medicinal reviews were prepared by Nina Marshall. (schp)

- (1197) Institut für Demoskopie Allensbach (1997): Wichtigste Erkenntnisse aus der Studie Naturheilmittel 1997. - 6 pp., Unpublished report, Allensbach. [4934!!]
- (1198) Iqbal, M. (1993): International trade in non-wood forest products. An overview. - 100 pp., FAO, Rome. [5162!!] <trade/ nwfp> <Cinchona/ Plantago ovata/ Plantago psyllium/ Hyoscyamus muticus/ Atropa belladonna/ Duboisia/ Digitalis/ Glycyrrhiza glabra/ Rauvolfia serpentina/ Cephaelis ipecacuanha/ Cephaelis acuminata/ Cassia/ Panax/ Berberis/ Catharanthus roseus>
- (1199) Iqbal, M. (1995): Trade restrictions affecting international trade in non-wood forest products. - 39 pp., FAO, Rome (Non-wood Forest Products 8). [5161!!] <legislation/ trade/ nwfp>
- (1200) Ivancheva, S. & B. Stantcheva (2000): Ethnobotanical inventory of medicinal plants in Bulgaria. - Journal of Ethnopharmacology 69: 165-172. [5948!!] <ethnobotany/ plant part> <BG>
- (1201) Iwu, M.M. (1996): Biodiversity prospecting in Nigeria. Seeking equity and reciprocity in intellectual property rights through partnership arrangements and capacity building. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 209-219, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5299!] <ipr/ legislation/ policy/ benefit sharing/ bioprospecting> <NG>
- (1202) Jain, A. (1994): Vulnerable and threatened plants of economic value. *Panax pseudo-ginseng* Wall. (The Himalayan Ginseng). - MFP News 4(3): 21. [5391!!] <distribution/ cultivation> <IN> <*Panax pseudoginseng*>
- (1203) Jain, A. (1994): Threatened plants of economic value. *Swertia chirayta* syn. *S. chirata* (Family Gentianaceae). - MFP News 4(4): 19. [5393!!] <distribution/ cultivation> <IN> <*Swertia chirata*>
- (1204) Jain, A. (1995): Vulnerable and threatened plants of economic value. *Saussurea lappa* (kuth, kur, pachak). Family Compositae, Asteraceae. - MFP News 5(3): 13. [5308] <threat/ common names/ distribution/ cultivation> <IN> <*Saussurea costus*> <fide RAMP 2:6>
- (1205) Jain, A. (1996): Improvement of natural regeneration in *Pterocarpus santalinus*. - Indian Forester 122(9): 783-787. [5073!!] <cultivation> <IN> <*Pterocarpus santalinus*>
- (1206) Jain, A. (1996): Vulnerable and threatened plants of economic value. *Picrorhiza kurroa*. - MFP News 6(3): 12. [5369!!] <threat categories/ distribution/ common name> <IN> <*Picrorhiza kurroa*>
- (1207) Jain, A. (1996): Vulnerable and threatened plants of economic value. *Podophyllum emodi* Wall. (now *P. hexandrum* Royle). - MFP News 6(4): 11. [5370!!] <threat categories/ distribution/ common name> <IN> <*Podophyllum emodi*/ *Podophyllum hexandrum*>
- (1208) Jain, A. (1997): Vulnerable and threatened plants of economic value. *Dioscorea deltoidea*. - MFP News 7(2): 12. [5368!!] <threat categories/ distribution/ common name/ habitat> <IN> <*Dioscorea deltoidea*>
- (1209) Jain, A. (1997): Vulnerable and threatened plants of economic value. *Aconitum deinorhizum*. - MFP News 7(1): 18. [5367!!] <threat categories/ distribution/ common name> <IN> <*Aconitum deinorhizum*>
- (1210) Jain, A. (2000): Regulation of collection, transit and trade of medicinal plants and other non-timber forest products in India. A compendium. - 529 pp., TRAFFIC India & WWF India, New Delhi. [6223!!] <legislation> <IN>
- This very comprehensive book describes the legislative policies, regulations and forest acts not only on the national Indian level (part 1) but also in detail for all Indian states and Union Territories (part 2: 20 chapters). For each state an introduction summarizes the state legislation and each of the numerous legal acts is cited in its relevant parts. Also listed are the names of the NTFP species occurring there. It is, however, a pity that the book does not have a full species index for easy references. (schp)
- (1211) Jain, S.K., Ed. (1997): Contributions to Indian ethnobotany, 3rd edition. - 322 pp., Scientific Publishers, Jodhpur. [5136!] <ethnobotany> <IN>
- (1212) Jato, J., P. Symonds, D. Thomas, Z. Tchoundjeu & C. Mbi (1993): Conserving a rare medicinal plant. The case of *Ancistrocladus korupensis* (Ancistrocladaceae). In: Proceedings of the 5th OAU/ STRC symposium on African traditional medicine and medicinal plants - OAU/STRC, Lagos. [6206] <*Ancistrocladus korupensis*> <fide Soforowa (1996)>
- (1213) Jato, J.G., J.E. Simon, P. Symonds, A. Koufani & A.B. Njamnshi (1996): Rules and

regulations on the collection in Cameroon of biological materials for biological testing and drug discovery. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 121-125, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5296!] <ipr/ legislation/ drug development/ policy/ bioprospecting> <CM>

(1214) Jayaraman, U. (1996): Economic importance of the genus *Diospyros* L. (Ebenaceae) in India. - Indian Forester 122(11): 1040-1045. [5076!] <uses> <IN> <timber/ *Diospyros*>

(1215) Jha, P.K., K.K. Shrestha, M.P. Upadhyay, D.P. Stimart & D.M. Spooner (1996): Plant genetic resources of Nepal. A guide for plant breeders of agricultural, horticultural and forestry crops. - Euphytica 87: 189-210. [5307!] <altitude> <NP>

(1216) Johnson, T. (1998): CRC ethnobotany desk reference. - 1211 pp., CRC Press, Boca Raton. [5523!] <ethnobotany/ standard>

(1217) Johnston, B.A. & D. Malone (1999): States pass legislation curtailing harvest of wild *Echinacea*. - Herbalgram 46: 67. [5845!] <legislation> <US> <*Echinacea purpurea*/ *Echinacea angustifolia*>

(1218) Jong, W. de, M. Melnyk, L. Alfaro Lozano, M. Rosales & M. Garcia (1999): Uña de gato. Fate and future of a Peruvian forest resource. - 16 pp., CIFOR, Jakarta (CIFOR Occasional Paper 22). [5330!] <uses/ medicinal properties/ habitat/ trade/ trade volumes/ exploitation/ resource management/ legislation/ policy> <PE> <*Uncaria tomentosa*/ *Uncaria guianensis*>

(1219) Joshi, D.N. & G.S. Rawat (1997): Need for conservation and propagation of alpine and sub-alpine medicinal plants of north-west Himalayas. - Indian Forester 123: 811-814. [5626!] <threat/ resource management> <IN>

(1220) Kala, C.P. (2000): Status and conservation of rare and endangered medicinal plants in the Indian trans-Himalaya. - Biological Conservation 93: 371-379. [5995!] <threat/ population status> <IN> <*Dactylorhiza hatagirea*/ *Gentiana kurroo*/ *Picrorhiza kurrooa*/ *Podophyllum hexandrum*/ *Saussurea lappa*>

The author criticizes that both the red data book and the random selection of species for CAMP workshops are not based on sound field data for their threat assessments. He carried out an ethnobotanical interview

survey with local amchis and a field investigation of random plots of different habitat types. The methods of the latter remain a bit unclear, it appears that numbers of individuals and ground coverage have been extrapolated to arrive at regional density figures. While not stating which set of taxa he had started off with, the author gives a list of 23 rare and endangered medicinal plants. Of these, 2 are included in the national red list and 15 had been evaluated by a 1998 CAMP workshop. After all, the CAMP process cannot be too bad. (schp)

(1221) Kalesnik, F.A. & A.I. Malvarez (1996): Uso antrópico potencial de las especies vegetales nativas y naturalizadas del Bajo Delta del Río Parana, Argentina. - Vida Silvestre Neotropical 5: 12-21. [4772!] <ethnobotany> <AR>

(1222) Kan Tae-suk (1999): TRAFFIC and its medicinal plant work. In: TRAFFIC East Asia (Ed.): Proceedings of the workshop on the conservation of medicinal plants, Seoul, 25.11.1998 - pp. 23-33, TRAFFIC East Asia. Unpublished report, Hong Kong. [5876!] <legislation> <KR>

(1223) Kapahi, B.K. & Shashi Kant (1998): *Dioscorea deltoidea* (*Dioscorea* bibliography 1931-1994). - 138 pp., Bishen Singh Mahendra Pal Singh, Dehra Dun. [5522!] <bibliography> <*Dioscorea deltoidea*>

(1224) Kapil, R.S., Y.K. Sarin, R. Kapoor, Y.S. Bedi & S.N. Sharma (1996): Indian Ginseng. Its present status and future perspectives. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 497-508, Regional Research Laboratory, Jammu-Tawi. [5129!] <taxonomy/ distribution/ map/ identification/ threat/ cultivation> <IN> <*Panax pseudoginseng*/ *Panax*>

(1225) Kapur, S.K. (1996): Studies on commercial Indian Aconites. Atis. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 247-253, Regional Research Laboratory, Jammu-Tawi. [5127!] <distribution/ illustration/ pharmacognosy> <IN> <*Aconitum heterophyllum*/ *Aconitum kashmericum*>

(1226) Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams, Eds. (1997): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15-17 May 1996. - 232 pp., International Development Research Centre, New Delhi (INBAR Technical Report 15). [5226!] <resource management/ threat/ market analysis>

(1227) Kasperek, M. (1997): African Network on Medicinal and Aromatic Plants founded at Abuja,

Nigeria. - Medicinal Plant Conservation 4: 18. [5406!!] <network/ policy> <NG>

(1228) Kasperek, M. (1998): Biodiversity conservation in German development cooperation. 2nd edition. - 65 pp., BMZ & GTZ, Bonn. [5413!!] <biodiversity/ policy/ project>

The brochure provides an overview of ongoing financial, technical and human resources cooperation projects carried out by the German Gesellschaft für Technische Zusammenarbeit (GTZ) in the field of implementing the Biodiversity Convention. Worldwide, Germany is supporting about 160 projects in which the conservation and sustainable use of biological diversity constitute the focus or a major subactivity. However, no projects relate specifically to medicinal plants (3 in the 1st edition) although medicinal plant aspects may be present in a number of projects with wider scope. Clearly, GTZ does not have a medicinal plant or NTFP focus. (schp)

(1229) Kasperek, M. & U. Grimm (1999): European trade in Turkish salep with special reference to Germany. - Economic Botany 53: 396-406. [5917!!] <trade volumes/ uses/ legislation> <TR> <orchids>

Salep is prepared from bulbs of terrestrial orchids many of which are threatened for various reasons. The use of salep has a long history in TR. The paper reveals that it is still used there as medicine, drink and as a binder in ice-cream. Substitutes increasingly enter the market, but export figures do not distinguish between true salep and substitutes. The officially reported Turkish export of 75,100 kg salep in 1993 certainly refers more to substitutes. The authors estimate that about 10-20 mio orchids are collected annually in TR. The information given on EU legislation is out-dated since July 1997, i.e. 2 years before the paper appeared. This is due to the long time span between receipt (2.2.97) and acceptance (3.6.99) of the paper by Econ. Bot. (from summary)

(1230) Kaul, M.K. (1997): Medicinal plants of Kashmir and Ladakh. Temperate and cold arid Himalaya. - 173 pp., Indus Publishing, New Delhi. [5043!] <ethnobotany/ traditional use/ illustration/ common names/ distribution/ habitat> <IN> <fide Kaul, M.K.; RAMP 3:259>

(1231) Kaul, M.K. & Kiran Kaul (1996): Studies on medico-ethnobotany, diversity, domestication and utilization of *Picrorhiza kurroa* Royle ex Benth. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 333-348, Regional Research Laboratory, Jammu-Tawi. [5042!!] <ethnobotany/ traditional use/ distribution/ habitat/ illustration/ cultivation> <IN/ NP> <*Picrorhiza kurroa*>

The paper gives threat category ratings for the Indian Himalayan provinces Jammu and Kashmir, Himachal Pradesh and Uttar Pradesh, but does not provide much evidence nor references for these assessments. Extraction and export volumes are few and often

claimed to be "not available". The species is presented as a threatened resource mainly to underline the claimed need for propagation which the author describes in the major part of the paper. He found germination to be poor under ex situ conditions. Vegetative multiplication showed encouraging results. Traditional uses of the species are listed as well as a number of plants which have been found in markets as adulterants. The taxonomic relationship with the similar *P. scrophulariiflora* is not discussed. (schp)

(1232) Kay, D. (1999): The Wildlife Protection Act and traditional medicines. In: Anon.: Healthy people, healthy wildlife. Proceedings of the second Australian symposium on traditional medicine and wildlife conservation - pp. 11-13, Environment Australia, Melbourne. [6039!!] <legislation/ traditional medicine> <AU>

(1233) Keita, A. (1996): Exploitation des plantes médicinales au Mali. In: Rejdali, M. & A. Birouk (Eds.): Diversité biologique et valorisation des plantes médicinales - pp. 81-86, Actes Editions, Rabat. [4974!!] <legislation> <ML>

(1234) Keller, K. (1997): Aktuelle rechtliche Position und Zukunft des pflanzlichen Arzneimittels in Deutschland und in der Europäischen Union. - Herba Polonica 43: 466-488. [5612!!] <legislation> <DE>

(1235) Keller, K. (1999): Pflanzliche Arzneimittel in der EU. - Herba Polonica 45: 290-293. [5934!!] <legislation>

(1236) Kelso, B.J. (1998): 'Herbal renaissance' threatens Europe's medicinal and aromatic plant. - Plant Talk 14: 12. [5461!!] <review>

The short report summarizes the findings of the Lange (1998) report on the medicinal plant trade in Europe. (schp)

(1237) Keplinger, K., G. Laus, M. Wurm, M.P. Dietrich & H. Tepner (1999): *Uncaria tomentosa* (Willd.) DC. Ethnomedicinal use and new pharmacological, toxicological and botanical results. - Journal of Ethnopharmacology 64: 23-34. [5947!!] <ethnobotany/ medicinal properties> <*Uncaria tomentosa*>

(1238) Kgathi, D.L. (1988): The grapple trade in Botswana. - Botswana Notes and Records 20: 119-124. [5432!!] <trade/ price/ market analysis> <BW> <*Harpagophytum procumbens*>

(1239) Khalil, M. (1998): Biodiversity and the conservation of medicinal plants. Issues from the perspective of the developing world. In: Swanson, T.M. (Ed.): Intellectual property rights and biodiversity conservation. An interdisciplinary analysis of the values of medicinal plants - pp. 232-

- 253, Cambridge University Press, Cambridge. [6132!!] <ipr> <GH>
- (1240) Khan, A.U. (1996): Appraisal of ethnobotanical incentives to promote conservation of *Salvadora oleoides* Decne. The case for creating a resource area. - *Biological Conservation* 75: 187-190. [5311!!] <ethnobotany/ threat> <PK> <*Salvadora oleoides*>
- (1241) King, S.R., E.N. Meza, T.J.S. Carlson, J.A. Chinnock, K. Moran & J.R. Borges (1999): Issues in the commercialization of medicinal plants. - *Herbalgram* 47: 46-51. [5871!!]
- (1242) Kisgeci, J. (1999): Anbau von Arzneipflanzen im ehemaligen Jugoslawien. - *Zeitschrift für Arznei- und Gewürzpflanzen* 4: 97-98. [5940!!] <cultivation> <YU>
- (1243) Kloppenburg Jr., J.R. & M.J. Balick (1996): Property rights and genetic resources. A framework for analysis. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): *Medicinal resources of the tropical forest. Biodiversity and its importance to human health.* pp. 174-190, Columbia University Press, New York (Biology and Resource Management). [5265!!] <bioprospecting/ ipr/ benefit sharing>
- (1244) Koenen, E. von (1977): *Heil- und Giftpflanzen in Südwestafrika.* - 272 pp., Akademischer Verlag, Windhoek. [6090!!] <common name/ distribution/ use> <NA>
- (1245) Koerper, H. & A.L. Kolls (1999): The Silphium motif adorning ancient Lybian coinage. Marketing a medicinal plant. - *Economic Botany* 53: 133-143. [5949!!] <ethnobotany/ history>
- (1246) Koerper, H.C. & Moerman, D.E. (2000): Coinage of Greek Cyrenaica, the Silphium economy, and exaggerated advertising. - *Herbalgram* 48: 46-49. [6026!!] <history>
- (1247) Konda Reddy, C.V. (1972): Red Sanders and its history of utilisation. - *Indian Forester* 98: 589-593. [6138!!] <history/ trade volumes> <IN> <*Pterocarpus santalinus*>
- Besides four lively historic photos taken at the occasion of confiscations of Red Sanders timber, this article gives a splendid overview of its use history, extensively citing from old colonial documents. The oldest source dealing with Red Sanders dates back as early as 1681. In these days, the timber was mainly used for dyeing purposes. Today, the wavy grained timber is very much sought after by Japanese traders. The useful paper has many hard facts about trade volumes and prices over the centuries and decades. (schp)
- (1248) Kossmann, I. & C. Vicente (1992): Salud y plantas medicinales. Nuestra capacidad de estar sanos por naturaleza. - 195 pp., Planeta Tierra, Buenos Aires. [5147!!] <health care/ traditional medicine> <AR>
- (1249) Koyuncu, M. (1995): Medicinal and aromatic plants in Turkey. - s. pag., FAO. Unpublished report, Ankara. [5341!!] <export/ common name/ plant parts> <TR> <*Gentiana lutea*/ *Lycopodium clavatum*/ *Ophrys*/ *Orchis*/ *Cyclamen*/ *Sternbergia*/ *Leucojum*/ *Galanthus*/ *Fritillaria*>
- (1250) Krautstein, H. (2000): Medizin und Artenschutz, ein schwieriges Verhältnis. - *Schrot und Korn* 12/ 2000: 30-34. [6210!!] <policy>
- (1251) Krishnan, R.M., H. Rammohan & B.R. Ramesh (1997): Ecological database of some south Indian medicinal plants. - *Journal of Economic and Taxonomic Botany* 21: 625-637. [5628!!] <database/ ecology/ distribution> <IN>
- The paper outlines the method used to establish a database to primarily explain the ecology and distribution patterns. Herbaria, literature and field work data for some 300 selected medicinal plants are stored. The major use of the database is to aid in habitat conservation. (schp)
- (1252) Kufchock, P. (1997): TRAFFIC examines U.S. wildflower trade. - *TRAFFIC USA* 16(2): 11-13. [5182!!] <trade> <US> <geophytes/ orchids>
- (1253) Kuipers, S.E. (1997): Trade in medicinal plants. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): *Medicinal plants for forest conservation and health care.* pp. 45-59, FAO, Rome (Non-wood Forest Products 11). [5566!!] <trade volumes>
- (1254) Kumar, S., J. Singh, N.C. Shah & V. Ranjan (1997): Indian medicinal and aromatic plants facing genetic erosion. - 219 pp., Central Institute of Medicinal & Aromatic Plants, Lucknow. [5524!!] <common name/ habitat/ distribution/ map/ use/ threat> <IN> <*Aconitum*/ *Aquilaria malaccensis*/ *Coptis teeta*/ *Dactylorhiza hatagirea*/ *Dioscorea deltoidea*/ *Gentiana kurroo*/ *Nardostachys grandiflora*/ *Podophyllum hexandrum*/ *Picrorhiza kurrooa*/ *Pterocarpus santalinus*/ *Rauvolfia serpentina*/ *Taxus wallichiana*>
- The 17-page introduction (with a somewhat awkward layout) summarizes a range of conservational aspects of medicinal plants: rarity, plant endemism, categories of threat, and strategies for conservation. Following are 65 data-sheets of 1-4 pages (including 6 *Aconitum* and 5 *Berberis* species). The sheets have a standard layout and

include the following information: common and trade names, botanical description, flowering and fruiting time, habitat, distribution in India (including a dot map), distribution in other countries, major chemical constituents, biological activity, plant parts used, therapeutics, economic significance, status in the country, and conservational strategies. The taxonomic coverage includes all 10 Indian CITES plants. (schp)

(1255) Kupke, J., A. Schwierz & B. Niefind (2000): Arznei- und Gewürzpflanzen in Osteuropa. Anbau, Verarbeitung und Handel in 18 ausgewählten MOE-Ländern. - ZMP, Bonn (Materialien zur Marktberichterstattung 34). [6279] <market analysis> <fide Liersch, R., 2.3.2001>

(1256) Laird, S. (1999): The management of forests for timber and non-wood forest products in central Africa. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 51-60, FAO, Rome. [5967!!] <nwfp/ uses/ common names/ plant parts> <timber/ Pausinystalia johimbe>

(1257) Lambert, J., J. Srivastava & N. Vietmeyer (1997): Medicinal plants. Rescuing a global heritage. - 61 pp., World Bank, Washington DC (World Bank Technical Paper 355). [4960!!] <health care/ trade volumes/ cultivation> <CN/ IN> <Gentiana kurroo/ Picrorhiza kurrooa/ Rauvolfia serpentina/ Dioscorea deltoidea/ Aconitum heterophyllum/ Azadirachta indica>

This report highlights the efforts China and India are making to ensure the long-term survival of their medicinal plant resources on which the health care of 2 billion people is based. Production and sales values from 1975-1995 are tabled for China. For India the demand and supply of some Himalayan taxa is tabled, e.g. Picrorhiza kurrooa with a demand of >5000 tons and a supply of <100 tons. (schp)

(1258) Lambert, J., J. Srivastava & N. Vietmeyer (1996): Medicinal plants. Rescuing a traditional heritage. - 62 pp., Unpublished report, Washington. [4933!!] <health care/ trade volumes> <CN/ IN>

Based on a detailed description of the current status and protection efforts of medicinal plants in China and India (the world's greatest users of medicinal plants), this report presents future implications for the protection of medicinal plant biodiversity on a global scale. It outlines the role of medicinal plants in both local and international trade as well as the implications of informal medicinal plant markets. (roh)

(1259) Lange, D. (1997): Trade in botanical drugs in Bulgaria. - Medicinal Plant Conservation 3: 13-14. [4994!!] <export/ trade volumes> <BG>

The author has identified BG as the most important European source country for botanical drugs. 7-10 t are

collected and processed each year and 6.2 t are exported. Of this, 4.4 t or 68% are exported to Germany. Around 300 species are involved in the export industry. A table of export volumes to 8 importing countries from 1987-1994 is presented. (schp)

(1260) Lange, D. (1997): Trade figures for botanical drugs world-wide. - Medicinal Plant Conservation 3: 16-17. [4997!!] <trade volumes>

Using trade figures from an UNCTAD database the author identifies the 12 leading countries of export and import, respectively, in the botanical drug trade. The annual value of this trade is estimated as 800 million US\$ annually. The world leading country of export is China, main importing countries are Hongkong, Japan and Germany. (schp)

(1261) Lange, D. (1997): Report looks into health of medicinal plants. - Plant Talk 9: 12. [5005!!]

The paper reviews the market report on medicinal plants by McAlpine, Thorpe & Warrior which lists 25 major threatened medicinal plants most of which are well-known to conservationists. The reviewer sheds a critical light on the somewhat weak information background which the results of the report are based on. (schp)

(1262) Lange, D. (1997): Trade in plant material for medicinal and other purposes. - TRAFFIC Bulletin 17(1): 20-32. [5189!!] <trade volumes/ market analysis/ legislation> <DE>

(1263) Lange, D. (1998): Washingtoner Artenschutzübereinkommen. Erkennung von Wirkstoffpflanzen. Handbuch zur Lehreinheit. Version 1.0-De. Stand 15.2.1998. - 102 pp., Bundesamt für Naturschutz, Bonn. [5409!!] <plant parts/ identification/ common names/ trade>

The handbook is part of a training unit directed towards customs officers and CITES staff. The unit aims at a better awareness of medicinal plants in international trade. Main sections comprise the basic rules of pharmaceutical nomenclature, an introduction to plant morphology and plant parts used for drugs, an overview on trade volumes and the custom tariff headings used in the Harmonized System. In an Appendix, 19 CITES listed species and 7 species of Annex D of the CITES-EU-Regulation are presented by way of datasheets with information on synonyms, common names, distribution, protection, look-alike drugs. (schp)

(1264) Lange, D. (1998): Europe's medicinal and aromatic plants. Their use, trade and conservation. - 77 pp., TRAFFIC International, Cambridge. [5641!!] <threat/ trade volumes/ plant parts/ life history/ legislation> <AL/ BG/ DE/ ES/ FR/ GB/ HU/ TR> <Adonis vernalis/ Arctostaphylos uva-ursi/ Arnica montana/ Cetraria islandica/ Drosera rotundifolia/ Gentiana lutea/ Glycyrrhiza glabra/ Gypsophila/ Menyanthes trifoliata/ Ruscus aculeatus/ Sideritis/ Paeonia/ Primula/ Thymus>

The report examines the exploitation of native European medicinal and aromatic plants, investigates the trade in

them and makes recommendations for legal and sustainable use of the taxa involved. It has been based on country-specific surveys which were carried out by consultants in AL, BG, FR, DE, HU, ES, TR and GB during 1994-1997. At least 2000 medicinal plant taxa are used commercially, of which 1200-1300 species are native to Europe. At least 90% of the latter are exclusively wild collected. The report outlines the trade structures and analyses the international trade data from the UNCTAD Comtrade database. 15 species or species groups are described in detail. A table in the back lists all taxa with threat status which are subject to legislation. (schp)

- (1265) Lange, D. (1999): Status and trends of medicinal and aromatic plant trade in Europe. An overview. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 1-4, TRAFFIC Europe, s.loc. [5665!!] <trade volumes>
- (1266) Lange, D. (1999): Conservation data sheet 1. *Adonis vernalis*. - Medicinal Plant Conservation 5: 19. [5744!!] <common name/ distribution/ uses/ cultivation/ trade/ threat categories> <*Adonis vernalis*>

- (1267) Lange, D. (1999): Identification training for medicinal and aromatic plants covered by CITES and EU Regulation 2307/ 97. Lecture script. Version 2-En. 25.5.99. - 98 pp., Bundesamt für Naturschutz, Bonn (BfN-Skripten 11). [5783!!] <identification/ legislation> <*Aloe ferox*/ *Aquilaria malaccensis*/ *Bletilla striata*/ *Cibotium barometz*/ *Dendrobium nobile*/ *Dioscorea deltoidea*/ *Gastrodia elata*/ *Guaiacum*/ *Hydrastis canadensis*/ *Nardostachys grandiflora*/ *Panax quinquefolius*/ *Picrorhiza kurrooa*/ *Podophyllum hexandrum*>

The handbook is part of a training unit directed towards customs officers and CITES staff. The unit aims at a better awareness of medicinal plants in international trade. Main sections comprise the basic rules of pharmaceutical nomenclature, an introduction to plant morphology and plant parts used for drugs, an overview on trade volumes and the custom tariff headings used in the Harmonized System. In an Appendix, 19 CITES listed species and 7 species of Annex D of the CITES-EU-Regulation are presented by way of datasheets with information on synonyms, common names, distribution, protection, look-alike drugs. (schp)

- (1268) Lange, D. (2000): Conservation and sustainable use of *Adonis vernalis*, a medicinal plant in international trade. Plant species conservation monographs 1. - 88 pp., Landwirtschaftsverlag, Münster-Hiltrup. [6124!!] <distribution/ trade volumes/ habitat/ legislation/ threat/ price> <BG/ HU/ RO/ RU/ DE/ UA> <*Adonis vernalis*>

This review is the first of a new series of monographs published by the German Federal Agency for Nature

Conservation focussing on the conservation status of taxa threatened by over-utilization. *Adonis vernalis* has long been used for its medicinal properties in the treatment of heart diseases. The report summarizes available information on the species' biology and use, resource management and legislation in the countries of export, and analyses its conservation status. While facing extinction risks by both habitat loss and over-harvesting for international trade, the species may benefit from the recommendations presented by the author. At a price of DM 19.80 the book is a bargain. (schp)

- (1269) Lange, D. & M. Mladenova (1997): Bulgarian model for regulating the trade in plant material for medicinal and other purposes. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 135-146, FAO, Rome (Non-wood Forest Products 11). [5573!!] <legislation/trade volumes/ export/ resource management> <BG> <*Adonis vernalis*/ *Arctostaphylos uva-ursi*/ *Asarum europaeum*/ *Glycyrrhiza glabra*/ *Primula veris*>

This country-focussed paper gives a comprehensive overview of the structure of trade in medicinal plants in Bulgaria. Annually more than 10,000 tonnes are harvested, 60% of which is exported. About 2/3 of this material is imported by DE. Around 750 of the 3567 vascular plant species in BG are utilized to some extent. Of these, 200-300 species are commonly used, most of these are wild collected, an estimated 20-25% are cultivated. A major part of the paper is dedicated to outlining the Bulgarian legislation which not only prohibits the collection or export of some species. It also contains a quota system which is applied to now 23 species. Quota are set annually based on scientific research and are adjusted geographically and in terms of volumes. (schp)

- (1270) Lange, D. & U. Schippmann (1997): Trade survey of medicinal plants in Germany. - 119 pp., Bundesamt für Naturschutz, Bonn. [4768!!] <trade/ market analysis/ trade volumes/ legislation> <DE> <*Chrysanthemum cinerarifolium*/ *Anacyclis pyrethrum*/ *Quassia amara*/ *Panax*/ *Glycyrrhiza*/ *Cinchona*/ *Origanum vulgare*/ *Salvia officinalis*>

The report reviews the general trade structure and legal background of the medicinal plant market in Germany. More than 1500 plant taxa were discovered to be present in trade. Provenances are worldwide, the important patterns are discussed. Import and export data are summarized on the basis of German trade statistics. Also, the species protected by CITES and German national legislation are tabulated. The analysis of imports and exports from 1991 to 1994 emphasizes the important role of Germany in the international trade in medicinal and aromatic plant raw materials. (schp)

- (1271) Lange, D. & U. Schippmann, Eds. (1999): Checklist of medicinal and aromatic plants and their trade names covered by CITES and EU

Regulation 2307/ 97. Version 3.0. - 48 pp., Federal Agency for Nature Conservation, Bonn (BfN-Skripten 8). [5658!!] <common names/ legislation>

More than 200 medicinal plant species are included in the Appendices of CITES and therefore need import and/ or export permits in international trade. The publication lists the accepted names of these taxa and their synonyms and cross-refers them to several thousand common names that are used in regional and international trade. The checklist is aimed to support the work of CITES implementation officers but also provides a valuable tool for all professionals involved in the trade. (schp)

(1272) Lange, J. (1996): Kräutergärten in Deutschland. Eine Bestandsaufnahme nach Bundesländern. - 52 pp., Unpublished report, s.loc. [5029!!] <cultivation>

(1273) Lange-Osten, D. (1997): Trade in medicinal plants. A German case study. In: Newton, J. (Ed.): *Planta Europaea*. Proceedings of the first European Conference on the conservation of wild plants, Hyères, France, 2-8 September 1995 - pp. 178-179, Plantlife, London. [4916!!] <market analysis/ trade volumes> <DE>

(1274) Lange-Osten, D. (1997): Ausverkauf der Wildpflanzen. - Globus 8-9/ 1997: 12-18. [5112!!] <trade/ market analysis>

The paper summarizes results of a trade survey on medicinal plants in Germany. The full report was published by Lange & Schippmann (1997). (schp)

(1275) Laus, G. & K. Keplinger (1997): Radix Uncariae tomentosae (Willd.) DC. Eine monographische Beschreibung. - Zeitschrift für Phytotherapie 18: 122-126. [5032!!] <medicinal properties/ illustration/ identification/ monograph> <Uncaria tomentosa>

Macroscopic and microscopic features of the drug are given and photos of the commodities presented. (schp)

(1276) Lay Cheng Tan, M. Ruiz Perez & M. Ibach, Eds. (1996): Non-timber forest product databases. - 94 pp., CIFOR, Jakarta (CIFOR Special Publication). [5591!!] <database/ nwfp>

A number of databases on non-timber forest products have been established over recent years but any information available is mostly scattered and poorly advertised. The Center for International Forest Research (CIFOR) has conducted a survey on NTFP databases and has held a workshop in December 1995. This publication includes 8 papers. It provides the summary results of the survey, brief reports on the databases and the conclusions from the workshop. (from summary)

(1277) Lay Cheng Tan, M. Ruiz Perez & M. Ibach (1996): Survey on non-timber forest product databases. In: Lay Cheng Tan, M. Ruiz Perez & M.

Ibach (Eds.): Non-timber forest product databases. pp. 1-21, CIFOR, Jakarta (CIFOR Special Publication). [5594!!] <database>

(1278) Le The Trung, Nguyen Liem, Tran The Tang & Chu Quoc Tuong (1996): On the utilization and conservation of medicinal plant genetic resources at Ba Vi National Park. In: Plant genetic resources in Vietnam. Proceedings of the national workshop on strengthening of the plant genetic resources programme, Hanoi, Vietnam, 28-30 March 1995 - pp. 89-90, Agriculture Publishing, Hanoi. [5289] <ethnobotany> <VN> <fide RAMP 3:6>

(1279) Le Tung Chau (1996): Medicinal plant genetic resources in Vietnam. In: Plant genetic resources in Vietnam. Proceedings of the national workshop on strengthening of the plant genetic resources programme, Hanoi, Vietnam, 28-30 March 1995 - pp. 71-78, Agriculture Publishing, Hanoi. [5288] <threat/ ethnobotany> <VN> <fide RAMP 3:6>

(1280) Leakey, R.R.B. (1995): Domestication potential of *Prunus africana* in sub-saharan Africa. UNESCO/ UNEP workshop on biodiversity conservation and utilization, 24-28 July 1995. - 13 pp., Nairobi. [5809] <cultivation> <*Prunus africana*> <fide Herbalgram 43:53>

(1281) Leaman, D. (1996): The medicinal ethnobotany of the Kenyah of east Kalimantan (Indonesian Borneo). - 353 pp., Doctoral Thesis, University of Ottawa, Ottawa. [5515!!] <ethnobotany> <ID>

The hypothesis that plant materials are selected and valued for use in traditional remedies based on their biological activity was examined in the context of the health, culture, and environment of the Kenyah people in the Apo Kayan Plateau, East Kalimantan, Indonesian Borneo. In an ethnobotanical survey conducted in 3 Kenyah villages in the Apo Kayan, 403 remedies involving 203 plant species were documented. Locally important remedies and taxa were identified, and the distribution of knowledge within the Kenyah communities was evaluated using a new quantitative medicinal importance value index based on cencensus. (djl)

(1282) Leaman, D. (1998): Medicinal plants for survival. - Plant Talk 13: 14. [5380!!]

The paper gives a summary of the international conference "Medicinal Plants for Survival", held in Bangalore from 16-19 February, 1998. (schp)

(1283) Leaman, D. (1998): How many medicinal plants are threatened with extinction? - Plant Talk 14: 4. [5460!!] <threat>

The one-page report gives an estimate that some 10,000 medicinal plant species may be threatened world-wide.

- (1284) Leaman, D. (1999): International conference "Medicinal Plants for Survival". - Medicinal Plant Conservation 5: 22. [5746!!] <IN>
 The paper gives a summary of the international conference "Medicinal Plants for Survival", held in Bangalore from 16-19 February, 1998. (schp)
- (1285) Leaman, D. & U. Schippmann (1998): Medicinal plants. An unhealthy outlook. - World Conservation 2/ 1998: 16-17. [5455!!] <policy>
- (1286) Leaman, D., R. Yusuf, H. Sangat-Roemanatty & J.T. Arnason (1996): The contribution of ethnobotanical research to socio-economic and conservation objectives. An example from the Apo Kayan Kenyah. In: Padoch, C., N.L. Peluso & C. Danks (Eds.): Borneo in transition. People, forests, conservation and development. pp. 245-255, Oxford University Press, Kuala Lumpur (South-East Asian Social Science Monographs). [4728!!] <ethnobotany/ common names/ threat/ trade> <ID> <Aquilaria beccariana>
- (1287) Lee Young-Jong (1999): The importance of conserving medicinal plants. In: TRAFFIC East Asia (Ed.): Proceedings of the workshop on the conservation of medicinal plants, Seoul, 25.11.1998 - pp. 13-22, TRAFFIC East Asia. Unpublished report, Hong Kong. [5875!!] <KR>
- (1288) Lee, S. & S. Honnep (2000): Der Schatz des "Göttlichen Landmanns". - WWF-Journal 4/ 2000: 30-31. [6215!!] <policy/ tcm>
- (1289) Lee, S. & S. Kang (2000): Workshop on conservation of medicinal plants. - Medicinal Plant Conservation 6: 30-31. [6054!!] <KR>
- (1290) Lee, S.K.H. (1998): Attitudes of Hong Kong Chinese towards wildlife conservation and the use of wildlife as medicine and food. - 65 pp., TRAFFIC East Asia, Hong Kong. [5954!!] <market analysis> <HK>
- (1291) Leith, J. (13.1.2000): Devil's claw. Sustainable harvesting of and fair trade in medicinal plants. - <www.positivehealth. com/permit/articles/ herbal/claw36.htm> (viewed 14.1.2000) [5897!!] <threat/ sustainability/ project/ illustration> <NA> <Harpagophytum procumbens>
- (1292) Lejoly, J. (1996): The contribution of PHARMEL database to the knowledge of the non-wood forest products. In: Lay Cheng Tan, M. Ruiz Perez & M. Ibach (Eds.): Non-timber forest product databases. pp. 23-29, CIFOR, Jakarta (CIFOR Special Publication). [5595!!] <database>
- (1293) Lentz, D.L. (1993): Medicinal and other economic plants of the Paya of Honduras. - Economic Botany 47(4): 358-370. [5054!!] <ethnobotany> <HN>
- (1294) Leon, C. (1997): From safety to conservation. In: Newton, J. (Ed.): Planta Europaea. Proceedings of the first European Conference on the conservation of wild plants, Hyères, France, 2-8 September 1995 - pp. 188, Plantlife, London. [4918!!] <tcm/ safety>
- (1295) Lev, E. & Z. Amar (2000): Ethnopharmacological survey of traditional drugs in Israel at the end of the 20th century. - Journal of Ethnopharmacology 72: 191-205. [6141!!] <medicinal property> <IL>
 The survey presented in this paper covered selected markets in medicinal materials belonging to various religious and ethnic communities. The study yielded information on 310 medicinal materials of which 264 belonged to plant species (85.1%), 20 to animal species (6.5%), 19 to minerals (6.5%) and seven others (2.3%). Analysis of the data showed that a significant proportion of the materials were of local origin (51.5%) and some were imported from other countries. The species are tabled indicating the common and scientific name, the part used and the medicinal use. (from summary)
- (1296) Levieille, G., G. Wilson, J.R. Robin & M. Cambornac (2000): In-vitro micropropagation of Harpagophytum procumbens and H. zeyheri (Devil's Claw). - Medicinal Plant Conservation 6: 10-11. [6042!!] <cultivation> <Harpagophytum procumbens/ Harpagophytum zeyheri>
- (1297) Liebmann, R. (1999): United Plant Savers. Protecting native medicinal plants in the USA. - Medicinal Plant Conservation 5: 14. [5743!!] <US>
- (1298) Liebmann, R. & al. (1998): Industry and organizations form partnership for goldenseal conservation. - Herbalgram 44: 58-59. [5886!!] <policy> <US> <Hydrastis canadensis>
- (1299) Ling Hsieh (1997): Erschließung und Nutzung der Ginkgo-Ressourcen in China. - Holz-Zentralblatt 123(50): 785-786. [5602!!] <uses/ cultivation volumes> <CN> <Ginkgo biloba>
 Ginkgo biloba is cultivated in 27 of the 31 provinces of China. Approximately 7000-8000 tons of seeds are produced annually. The cultivation is rapidly increasing. 20-25 million new trees are cultivated each year. Overall production of leaves for medicinal uses is assessed at 20,000 tons annually. 3750-4500 kg of dried leaves can be produced by a plantation of 1 ha. (schp)
- (1300) Lombard, C. (2000): The Sustainably Harvested Devil's Claw Project in Namibia. - Medicinal Plant Conservation 6: 9-10. [6041!!] <resource management/ price/ exploitation> <NA> <Harpagophytum procumbens>

- (1301) Lou Zhi-Cen, Zhao Dawen & Shen Yuan (1991-1997): Arzneibuch der chinesischen Medizin. Monographien des Arzneibuches der Volksrepublik China 1990 und 1995. Loseblattsammlung. Grundwerk 2. Auflage 1991, 6. Ergänzungslieferung 1997. Übersetzt von E. Stoeger. - s. pag., Deutscher Apotheker Verlag, Stuttgart. [5333] <pharmacopoeia> <CN> <fide Lange, D.>
- (1302) Lutomski, J. & P. Gorecki (1999): Drogenkunde und Phytotherapie in Polen. - Zeitschrift für Phytotherapie 20: 209-214. [5868!!] <market analysis/ price/ cultivation/ pharmacopoeia> <PL>
- (1303) Lyke, J. (2000): The Plant Conservation Alliance. - Medicinal Plant Conservation 6: 11-12. [6043!!] <network/ policy> <US>
- (1304) Lyke, J. (2000): The Medicinal Plant Working Group. - Endangered Species Bulletin 25(1-2): 20-21. [6226!!] <policy> <US>
- (1305) Macilwain, C. (1998): When rhetoric hits reality in debate on bioprospecting. - Nature 392: 535-540. [5536!!] <bioprospecting>
- (1306) Madulid, D.A. (1996): Guidelines and policies on collection of biological specimens in the Philippines. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, Oct 20-22, 1994. pp. 205-208, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5298!] <ipr/ legislation/ policy/ bioprospecting> <PH>
- (1307) Maggs, G.L., P. Craven & H.H. Kolberg (1998): Plant species richness, endemism, and genetic resources in Namibia. - Biodiversity and Conservation 7: 435-446. [5442!!] <uses> <NA> <Harpagophytum procumbens>
- (1308) Mahto, L.B. (1999): Vanda. Famous for its ornamental and medicinal value. - MFP News 9(1): 8-9. [5872!!] <cultivation/ uses> <Vanda>
- (1309) Mahunnah, R.L.A. & K.E. Mshigeni (1996): Tanzania's policy on biodiversity prospecting and drug discovery programme. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, 20-22. 10. 94. pp. 221-228, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5306!] <ipr/ legislation/ policy/ bioprospecting/ benefit sharing> <TZ>
- (1310) Maikhuri, R.K., K.S. Rao, K.G. Saxena & R.L. Semwal (1999): Traditional crops in the central Himalayas. - Plant Genetic Resources Newsletter 120: 1-7. [5992!!] <cultivation>
- (1311) Maikhuri, R.K., S. Nautiyal, K.S. Rao & K.G. Saxena (1998): Medicinal plant cultivation and biosphere reserve management. A case study from the Nanda Devi Biosphere Reserve, Himalaya. - Current Science 74(2): 157-163. [5513!!] <distribution/ uses/ resource management/ illustration/ cultivation> <IN> <Saussurea costus/ Dactylorhiza hatagirea>
- (1312) Maikhuri, R.K., S. Nautiyal, K.S. Rao & K.G. Saxena, K.G. (1998): Role of medicinal plants in the traditional health care systems: A case study from Nanda Devi Biosphere Reserve. - Current Science 75(2): 152-157. [5514!!] <health care/ traditional medicine> <IN>
- (1313) Manandhar, N. (1999): Conservation of medicinal plants in Nepalese forests. Problems and perspectives. - Medicinal Plant Conservation 5: 3-4. [5732!!] <NP>
- (1314) Mander, M. (1998): Marketing of indigenous medicinal plants in South Africa. A case study in KwaZulu-Natal. - 151 pp., FAO, Rome. [5912!!] <market analysis/ trade> <ZA>
- Over 400 species are marketed in large quantities within KwaZulu-Natal. The market study describes the demand, supply, current marketing practices, potential and limitations within the medicinal plant market and makes recommendations for decision-makers. The work is based on interviews and market observations and is presented in a wide range of tables, graphics and photographic illustrations. Many tables are plant species related and contain data on prices, annual trade volumes or the changes in the location of key supply areas which have shifted to more remote locations over the years. In an ideal world, each country with internal or external medicinal plant commerce would have a solid market study like this one. (schp)
- (1315) Maramorosch, K. (1999): Conservation of threatened medicinal forest plants through mutually profitable agreements. - Technology 6: 269-273. [6147] <fide Leaman, 30.10.2000>
- (1316) Marquard, R., T. Müller, A. Ceylan H. Bayram & H. Otan (1996): Origanum-Wildsammlungen aus der Türkei. Gehalte und Zusammensetzung des ätherischen Öls. - Zeitschrift für Arznei- und Gewürzpflanzen 1(3): 134-137. [5004!!] <collection/ taxonomy/ distribution> <TR> <Origanum onites/ Origanum syriacum/ Origanum majorana>
- "Oregano" in trade is collected from a number of taxa of the genera *Origanum* and *Lippia*. The paper mostly

- deals with cultivation trials but also presents a distribution map of the main eastern Mediterranean taxa: *O. onites*, *O. majorana* and *O. syriacum*. (schp)
- (1317) Marshall, N. (1999): Search for a cure in Africa gets increasingly difficult. - TRAFFIC Dispatches January: 1, 11. [5638!!] <project>
- The short paper summarizes the findings of Marshall (1998). (schp)
- (1318) Marshall, N. (1999): TRAFFIC East/Southern Africa completes medicinal wildlife study. - Medicinal Plant Conservation 5: 12-13. [5740!!]
- The short paper summarizes the findings of Marshall (1998). (schp)
- (1319) Marshall, N. & V. Homes (2000): Der Heiler ist nah, der Arzt unerreichbar. - WWF-Journal 4/2000: 34-35. [6214!!] <policy/ health care>
- (1320) Marshall, N.T. (1998): Searching for a cure. Conservation of medicinal wildlife resources in east and southern Africa. - 112 pp., TRAFFIC International, Cambridge (Species in Danger). [5589!!] <trade/ threat/ plant parts/ life history> <BW/ ER/ ET/ KE/ LS/ MG/ MW/ MZ/ NA/ SO/ SZ/ TZ/ UG/ ZA/ ZM/ ZW>
- In 1996, TRAFFIC East/Southern Africa initiated a 18-month review of the trade in plant and animal medicinals in east and southern Africa and Madagascar, with the aim of identifying species most in need of conservation, management and research attention. The review contains information about trade patterns, markets, source areas, and impacts of harvest. Relevant information was collected in 17 countries. The survey reveals that local traditional medicinal purposes dominate the trade in medicines in the region. International trade is of minor importance. Over 100 indigenous plant species were identified as conservation or management priorities on a national basis. Recommendations for an improved resource management are given. (from summary)
- (1321) Masood, E. (1997): Medicinal plants threatened by over-use. - Nature 385 (6617): 670. [5016!!] <threat>
- (1322) Mavi, S. & S. Shava (1997): Traditional methods of conserving medicinal plants in Zimbabwe. - Botanic Gardens Conservation News 2(8): 36-37. [5145!!] <traditional use/ resource management> <ZW>
- (1323) Mayer, J.G. & F.C. Czygan (1999): *Vitex agnus-castus* L., der oder das Keuschlamm. - Zeitschrift für Phytotherapie 20: 177-182. [5819!!] <history/ uses> <*Vitex agnus-castus*>
- (1324) Mayer, J.G. & F.C. Czygan (2000): *Arnica montana* L. oder Bergwohlverleih. Ein kultur-historischer Essay und über die Schwierigkeiten, einen solchen zu verfassen. - Zeitschrift für Phytotherapie 21: 30-36. [5955!!] <history> <*Arnica montana*>
- (1325) Mayer, J.G. & F.C. Czygan (2000): Die Ringelblume, *Calendula officinalis* L. Kulturgeschichtliches Porträt einer Arzneipflanze. - Zeitschrift für Phytotherapie 21: 171-178. [6197!!] <history> <*Calendula officinalis*>
- (1326) McCaleb, R. (1998): The medicinal plant marketplace. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 55-67, University of Pennsylvania Press, Philadelphia. [6285!!] <market analysis>
- (1327) McChesney, J.D. (1996): Biological diversity, chemical diversity, and the search for new pharmaceuticals. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): Medicinal resources of the tropical forest. Biodiversity and its importance to human health. pp. 11-18, Columbia University Press, New York (Biology and Resource Management). [5263!!] <drug development>
- (1328) McGuffin, M. (1999): AHPA goldenseal survey measures increased agricultural production. - Herbalgram 46: 66-67. [5842!!] <collection volumes/ cultivation> <US> <*Hydrastis canadensis*>
- (1329) McGuffin, M. (1999): Analysis of 1998 Goldenseal survey results. - 6 pp., Unpublished report for AHPA, s.loc. [5854!!] <market analysis/ cultivation> <US> <*Hydrastis canadensis*>
- Key findings of the survey are: (1) 265,000 pounds (=120,310 kg) dry weight of goldenseal root was wild collected in 1998; (2) 6,500 pounds (= 2,951 kg) dry weight of goldenseal was harvested from cultivated sources in 1998; (3) 140 acres (= 56.7 ha) were under cultivation with goldenseal in 1998; (4) 200,000 pounds (= 90,800 kg) are projected to be collected from these currently cultivated sources over the next four years, i.e. 50,000 pounds (= 22,700 kg) annually.
- (1330) McGuffin, M. (1999): Having our goldenseal, and growing it too. - United Plant Savers Newsletter 2(1): 3. [5982!!] <cultivation/ collection volumes> <US> <*Hydrastis canadensis*>
- (1331) McKeown, K.A. (1999): Echinacea gives the United States an opportunity to put conservation policies into practice. - Diversity 15(3): 17-19. [5951!!] <legislation/ threat> <US> <*Echinacea*>
- (1332) McKinley Klein, W. (1998): The role of botanical gardens and arboreta in traditional medicine. A personal reflection and case study. In:

- Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 120-133, University of Pennsylvania Press, Philadelphia. [6288!!] <botanic garden>
- (1333) McVeigh, S. (2000): Good medicine for bad soil. - Farmer's Weekly August 11: 9-10. [6133!!] <cultivation> <ZA> <*Harpagophytum procumbens*>
- (1334) Mehrotra, B.N. (1996): Collection of biological materials in biodiversity prospecting in India. Problems and solutions. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 161-165, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5303!] <ipr/ legislation/ policy/ bio-prospecting/ benefit sharing> <IN>
- (1335) Melisch, R. (2000): Ohne Naturschutz keine Medizin. - WWF-Journal 4/ 2000: 4-5. [6212!!] <policy>
- (1336) Melisch, R., P. Fomenko & B. Hejda (1997): The status of *Panax ginseng* in the Russian far east and adjacent areas. A matter for conservation action. - Medicinal Plant Conservation 4: 11-13. [5402!!] <collection/ trade/ price> <RU> <*Panax ginseng*>
- The paper presents data on collection volumes and prices in the Sino-Russian border area. The legal protection is described and confiscations listed in a table. (schp)
- (1337) Melisch, R., S. Honnepf & V. Homes (2000): Heilkraft aus der Wildnis. Medizin und Artenschutz. - Dr. med. Mabuse. Zeitschrift im Gesundheitswesen 25 (123): 52-55. [6331!!]
- (1338) Mendelsohn, R. & M.J.Balick (1997): Valuing undiscovered pharmaceuticals in tropical forests. - Economic Botany 51: 328. [5603!!] <economics>
- Attention is drawn to an error in a previous paper by the same authors. (RAMP)
- (1339) Mendoza Castelan, G., J. Garcia Perez & E. Estrada Lugo (1997): Catalogo y usos terapeuticos de plantas medicinales que se comercializan en fresco en el mercado Sonora. - 137 [135] pp., Universidad Autonoma Chapingo, Chapingo (Materiales para la Docencia 2). [5491!!] <ethnobotany/ common name> <MX>
- (1340) Menghini, A. (1996): La coltivazione di *Gentiana lutea* L. in differenti località italiane [Cultivation of *Gentiana lutea* L. in different Italian locations; in Italian with English summary]. In: Istituto Sperimentale per l'Assestamento Forestale e per l'Alpic. (Ed.): Atti convegno internazionale. Coltivazione e miglioramento di piante officinali - pp. 133-148, Trento. [5067] <cultivation> <IT> <*Gentiana lutea*> <fide Hort.Abstr.67>
- (1341) Meza, E.N., Ed. (1999): Desarrollando nuestra diversidad biocultural. 'Sangre de Grado' y el reto de su produccion sustentable en el Peru. - 259 pp., Universidad Nacional Mayor de San Marcos, Lima. [5779!!] <common name/ collection> <PE> <*Croton/ Croton lechleri*>
- (1342) Mikus, B. & A. Plescher (1997): Die Bärentraube *Arctostaphylos uva-ursi* (L.) Sprengel. Vorkommen und Verbreitung in den Nordsee-anrainerstaaten. - Drogenreport 10 (18): 6-9. [6317!!] <distribution/ illustration> <DK/ GB/ NO> <*Arctostaphylos uva-ursi*>
- 90 tonnes of *Foliae Uvae-ursi* are used in Germany annually for tea and extract production. It is exclusively wild collected and imported into Germany from Spain, Italy, Austria, Switzerland, the Baltic states, Russian Federation, Belarus and Bulgaria. The authors have searched for the species in the North Sea neighbouring countries using earlier collection data. Few populations were found in Norway and Scotland while the species was not found again in Denmark, the Shetlands and the Orkneys. Change of land use is regarded as reason for the decline. The results clearly show that similar studies are needed in the countries of exported for this significantly traded species. (schp)
- (1343) Mills, J., C.S. Robbins & S.K.H. Lee (2000): Conservation measures and international trade controls for wild and cultivated ginseng. - United Plant Savers Newsletter 2(2): 23-24. [5990!!] <threat> <*Panax ginseng/ Panax quinquefolius*>
- (1344) Minter, S. (1997): The conservation of medicinal plants. - Herbs 22(3): 4-5. [5563!!] <policy>
- (1345) Mladenova, M. (1999): The management system of harvesting of medicinal plants in Bulgaria. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 85-98, TRAFFIC Europe, s.loc. [5674!!] <market analysis/ legislation/ resource management/ export volumes> <BG> <*Adonis vernalis*>
- (1346) Moerman, D.E. (1991): The medicinal flora of native North America. An analysis. - Journal of Ethnopharmacology 31: 1-42. [5431!!] <methods/ database> <US>

This paper analyses the plants of North America which have been used medicinally by native North Americans. The relative importance of 232 plant families of North America for medicinal use is assessed using a method based on residuals obtained from regression analysis. The Commelinidae produce by far the lowest number of medicinally used species, whereas the Asteridae and Hamamelidae contain the most medicinally used species in North America. The role of selected families and subclasses in medicinal usage is discussed. (schp)

- (1347) Moerman, D.E. (1997): Heilpflanzen aus Nordamerika. - Zeitschrift für Phytotherapie 18: 20-33. [4952!!] <database/ traditional medicine> <US> <Ephedra>

The author reports on his database which contains 25,025 entries on 2865 species used as traditional remedies by the native Americans. He compares this taxon pool with the native flora and the threatened species of North America. On this basis he describes the typical medicinal plant as common, perennial, big, wide-spread and distinct. Comparing his taxa set with the Endangered Species Act he finds that 1.35% of the total flora are threatened but only 0.08% of the medicinal species are. (schp)

- (1348) Moerman, D.E. (1998): Native American ethnobotany. - 927 pp., Timber Press, Portland. [5473!!] <ethnobotany/ uses/ medicinal properties> <US/ CA>

The book contains data on 4029 taxa (species, subspecies, varieties) from 1200 genera from 242 families. It records a total of 44,691 different uses of these plants by 291 native American societies. Of these usages, 24,945 are recorded to be medicinal, 11078 are as food, 2567 as fibers and 607 as dyes. 2582 species included in this encyclopedia were used medicinally by native Americans, many of which for a variety of purposes. For Achillea millefolium alone 355 medicinal uses are recorded. (schp)

- (1349) Molur, S. & S. Walker, Eds. (1998): Conservation Assessment and Management Plan (C.A.M.P.) workshop report. Selected medicinal plants of northern, northeastern and central India. Lucknow 21-25 January 1997. - 64 pp., Zoo Outreach Organization, CBSG India, Coimbatore. [5390!!] <threat categories/ trade/ habitat/ distribution/ altitude/ population status/ decline> <IN> <Aquilaria malaccensis/ Dactylorhiza hatagirea/ Dioscorea deltoidea/ Gloriosa superba/ Nardostachys jatamansi/ Nepenthes khasiana/ Panax pseudoginseng/ Picrorhiza kurrooa/ Podophyllum hexandrum/ Rauvolfia serpentina/ Saussurea costus/ Taxus wallichiana>

A CAMP workshop was conducted for 75 medicinal plant taxa of northern (38), northeastern (19) and central (18) India to assess their status in the wild. It was attended by 45 specialists from 25 institutions. Using the IUCN red list categories 33 taxa were assessed as Critically Endangered, 17 as Endangered and 16 as Vulnerable. Exploitation from the wild and

trade is considered to be the main cause of threat for 89% of the species under review. Recommendations for conservation action are proposed for each taxon. (schp)

- (1350) Montserrat, R. & H. Borgtoft Pedersen (1996): Bibliografia sobre botanica economica, etnobotanica y manejo sustentable en el Ecuador. - Funbotanica Boletin 3: 8-43. [5918!!] <ethnobotany/ bibliography> <EC>

- (1351) Moran, K. (1996): Returning benefits from ethnobiological drug discovery to native communities. - Renewable Resources Newsletter 14: 11-16. [5292] <benefit sharing> <fide RAMP 3:6>

- (1352) Moran, K. (1997): Healing Forest Conservancy project in Nigeria on ethnobotanical research and benefit sharing. - Medicinal Plant Conservation 4: 3-4. [5396!!] <benefit sharing/ ethnobotany> <NG>

- (1353) Mors, W.B., C. Toledo Rizzini & N. Alvares Pereira (2000): Medicinal plants of Brazil. - xlviii+501 pp., Reference Publications, Algonac. [6358]
 <fide Taxon 50(2): 645>

- (1354) Müller, E. (1998): Anbau der Medizinpflanze Raicilla (*Psychotria ipecacuanha*) im intervenierten Naturwald durch eine Kleinbauernkooperative im Norden Costa Ricas. - Wald-Info 23: 29-32. [5439!!] <cultivation> <CR> <Psychotria ipecacuanha>

- (1355) Mulliken, T. (1998): New support for medicinal plants. - TRAFFIC Dispatches September: 9. [5640!!] <policy>

- (1356) Mulliken, T. (1999): An overview of medicinal plant activities in TRAFFIC. - TRAFFIC Dispatches 12: 6-8. [5850!!] <trade>

- (1357) Mulliken, T. (2000): Implementing CITES for Himalayan medicinal plants *Nardostachys grandiflora* and *Picrorhiza kurrooa*. - TRAFFIC Bulletin 18(2): 63-72. [5997!!] <taxonomy/ distribution/ use/ trade/ collection/ legislation/ illustration> <NP/ IN/ BT/ CN/ PK> <*Nardostachys grandiflora*/ *Picrorhiza kurrooa*>

- (1358) Murangi, F. (1999): Directorate exploring ways of protecting Devil's Claw. Forestry takes action on illegal harvesting. - New Era 5.-7.Feb.1999; 15. [5772!!] <resource management/ legislation> <NA> <*Harpagophytum procumbens*>

- (1359) Mustalish, R.W., B. Evans, C. Tucker & K. Klein (1996): Development of a phytohabitat index for medicinal plants in the Peruvian Amazon. In: Craker, L.E., L. Nolan & K. Shetty (Eds.): International symposium on medicinal and aromatic

plants, Amherst, Massachusetts, 27-30 August 1995. pp. 123-131, ISHS, Leiden (Acta Horticulturae 426). [5286!] <habitat/ methods> <PE> <*Croton lechleri*/ *Uncaria tomentosa*/ *Myrciaria dubia*>

(1360) Nadeem, M., L.M.S. Palni, A.N. Purohit, H. Pandey & S.K. Nandi (2000): Propagation and conservation of *Podophyllum hexandrum* Royle, an important medicinal herb. - Biological Conservation 92: 121-129. [5880!] <cultivation> <*Podophyllum hexandrum*>

The paper deals with propagation trials for this over-utilized species using vegetative propagation, seed germination and in-vitro tissue culture techniques. The authors call for easy-to-use methods which could be carried out by local farmers as an alternate high-value crop. (schp)

(1361) Nair, M.N.B. & N. Ganapathi, Eds. (1998): Cure for the 21st century. Biodiversity, conservation and utilization of medicinal plants. Proceedings of the seminar UPM, Serdang, Malaysia, 15-16.10.1998. - 162 pp., University Putra, Serdang. [5931!] <cultivation/ collection/ nwfp> <MY>

(1362) Nambiar, V.P.K. (1999): Development of protocols for the cultivation of selected tropical medicinal plants in India. - Medicinal Plant Conservation 5: 8. [5736!] <cultivation> <IN>

(1363) Nautiyal, N.R., M.C. Nautiyal & A.N. Purohit, Eds. (1997): Harvesting herbs 2000. Proceedings of a seminar on Harvesting Herbs 2000, Medicinal and Aromatic Plants. An Action Plan for Uttarakhand. - 196 pp. [5930] <trade/ cultivation/ traditional medicine/ cultivation> <IN> <fide Vedams Homepage, 27.1.00>

(1364) Nde Shiembo, P. (1999): The sustainability of eru (*Gnetum africanum* and *Gnetum buchholzianum*). An over-exploited non-wood forest product from the forests of central Africa. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 61-66, FAO, Rome. [6194!] <nwfp> <*Gnetum africanum*/ *Gnetum buchholzianum*>

(1365) Ndibi, P.B. & E.J. Kay (1997): The regulatory framework for the exploitation of medicinal plants in Cameroon. The case of *Prunus africana* on Mount Cameroon. - Biodiversity and Conservation 6: 1409-1412. [5181!] <threat/ legislation/ resource management> <CM> <*Prunus africana*>

The authors argue that the current over-utilization and depletion of *P. africana* in Cameroon is partly due to a lack of compliance with existing regulations like the ban on felling of trees and the requirement for the main industrial user, Plantecam, to plant 5 ha of *P. africana* annually. One out of several causes for the excessive exploitation of the species especially around Mt Cameroon was the fact that export licenses issued were much larger than corresponding exploitation permits which triggered illegal harvesting. As a field observation the authors report that no re-growth from the stump was found in ten trees which had been felled some 20 years ago. (schp)

(1366) Neuwinger, H.D. (1998): Afrikanische Arzneipflanzen und Jagdgifte. Chemie, Pharmakologie, Toxikologie. - 960 pp., Wissenschaftliche Verlagsgesellschaft, Stuttgart. [5763!] <uses/ common name/ illustration> <*Aloe secundiflora*/ *Rauvolfia vomitoria*/ *Gloriosa superba*/ *Khaya senegalensis*>

(1367) Neuwinger, H.D. (2000): Traditional African medicine. A dictionary of plant use and applications. - 600 pp. [6271] <fide Koeltz 077207>

(1368) Nguyen Tap (1996): Preservation of threatened rare valuable medicinal plants in Vietnam. In: Plant genetic resources in Vietnam. Proceedings of the national workshop on strengthening of the plant genetic resources programme, Hanoi, 28-30 March 1995 - pp. 91-95, Agriculture Publishing, Hanoi. [5290] <threat/ cultivation/ policy> <VN> <fide RAMP 3:6>

(1369) Nichols, G.R. & K.H. Pegel (1989): Is there an answer to the mass extinction of Africa's medicinal flora? - Newsletter of Medicinal and Aromatic Plants 1989/ 2: 45-48. [6309!] <collection/ threat/ ex-situ> <ZA> <*Scilla*/ *Ocotea bullata*/ *Siphonochilus natalensis*>

(1370) Nuvoli, F. (1996): La legislazione italiana sulle piante officinali. Sintesi evolutiva e proposte [Italian legislation on official plants. Developmental synthesis and proposals; in Italian with French and English summaries]. - Rivista Italiana EPPOS 19: 237-243. [5065] <legislation> <IT> <fide Hort.Abstr.67>

(1371) Ocampo Sanchez, R. (1999): Conservacion y domesticacion de plantas medicinales del tropico humedo. - Medicinal Plant Conservation 5: 13-14. [5742!] <botanic garden/ cultivation> <CR>

(1372) Ocampo Sanchez, R.A. & R. Valverde (2000): Manual de cultivo y conservacion de plantas medicinales. - 147 pp., Tramil, San Jose. [6086!] <cultivation>

(1373) Odamten, G.T., E. Laing & D.K. Abbiw (1996): The economic value and potential for plant-derived pharmaceuticals from Ghana. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): Medicinal resources of the tropical forest. Biodiversity and its importance to human health. pp. 251-260, Columbia University Press, New York (Biology and Resource Management). [5267!!] <plant parts/ common names/ export> <GH>

(1374) Odenthal, K.P. (1998): *Vitex agnus-castus* L. Traditional drug and actual indications. In: Capasso, F., F. Basso, R. de Pasquale, F.J. Evans & N. Mascolo (Eds.): Proceedings of the 2nd International Symposium on Natural Drugs, Mareteia, Italy, 28.9.-1.10.1997. pp. 160-161, (Phytotherapy Research 12, Suppl. 1). [5644] <medicinal properties> <*Vitex agnus-castus*> <fide RAMP 5(1)>

(1375) Ohlemüller, R. (1999): Internet Sites. - Medicinal Plant Conservation 5: 26-27. [5750!!]

(1376) Ohlendorf, W. (1997): Domestication and crop development of *Duboisia* spp. (Solanaceae). In: Leakey, R.R.B, A.B. Temu, M. Melnyk & P. Vantomme (Eds.): Domestication and commercialization of non-timber forest products in agroforestry systems. pp. 183-187, FAO, Rome (Non-wood forest products 9). [5144!!] <cultivation> <AU> <*Duboisia myoporoides*/*Duboisia leichhardtii*>

Leaves of *D. myoporoides* and *D. leichhardtii* are traditionally used by aboriginal people in Australia as a source of the narcotic pituri. In the 1940's there was a large-scale trade in leaves of this species as a source of tropane alkaloids. Between 1945-1952, plantation trials were established, but then lapsed. These were resumed by Boehringer Ingelheim (the main buyer of the leaves) in Australia in the mid-1960's. This has been very successfull, with sophisticated methods developed for planting, field maintenance and harvesting. Since the 1980's, all raw material from *Duboisia* has been derived from cultivated plants and not from the wild. (abc)

(1377) Oldfield, S. (1997): Cactus and succulent plants. Status survey and conservation action plan. - 212 pp., IUCN, Gland, Cambridge. [5165!!] <collection/ ethnobotany/ threat> <SA/ KE/ BW/ ZW/ MX> <*Haworthia limifolia*/ *Aloe ferox*/ *Gasteria croucheri*/ *Euphorbia duseimata*/ *Lophophora williamsii*>

The Action Plan was prepared by the IUCN Cacti and Succulent Specialist Group. It contains both taxon and region specific accounts and calls for field research, in situ and ex situ protection, effective legislation, trade controls, and education efforts. Succulents used for medicinal purposes are only mentioned in a few

sections, namely in southern Africa. Of those, only *Aloe ferox* is used on a commercial basis. (schp)

(1378) Oldfield, S., C. Lusty & A. MacKinven (1998): The world list of threatened trees. - 650 pp., World Conservation Press, Cambridge. [5520!!] <red list/ distribution/ threat categories>

The data provided in this book (and in the accompanying CD-ROM) have been developed by WCMC jointly with IUCN/ SSC. It identifies tree species which are threatened with extinction and records information on their distribution, uses, ecology, the threats they face and conservation measures in place. More than 10000 tree species have been reviewed, 95 were found to be extinct, 976 (17) Critically endangered, 1319 (33) Endangered and 3609 (91) Vulnerable on a global scale. The number of species for which medicinal uses are recorded are given in brackets. This is one of the first studies in which the new IUCN threat categories have been applied. (schp)

(1379) Olsen, C.S. (1996): Eight new economically important alpine plant communities in central Nepal. - 33 pp., Unpublished report, Copenhagen. [5118!!] <habitat> <NP> <*Nardostachys grandiflora*/ *Dactylorhiza hatagirea*/ *Picrorhiza scrophulariiflora*/ *Aconitum orochryseum*/ *Rheum australe*/ *Lycopodium clavatum*>

(1380) Olsen, C.S. (1997): A qualitative assessment of the sustainability of commercial non-timber forest product collection in Nepal. - 26 pp., Unpublished report, Copenhagen. [5119!!] <population status/ collection/ price/ habitat> <NP> <*Swertia chirayita*/ *Nardostachys grandiflora*/ *Dactylorhiza hatagirea*/ *Aconitum orochryseum*/ *Aconitum heterophyllum*/ *Picrorhiza scrophulariiflora*/ *Valeriana jatamansi*/ *Rheum australe*/ *Lycopodium clavatum*/ *Dioscorea deltoidea*>

(1381) Olsen, C.S. (1997): Medicinal plants, markets and margins. Implications for development in Nepal Himalaya. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 189-206, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5235!!] <market analysis/ trade volumes> <NP> <*Swertia chirata*/ *Nardostachys grandiflora*/ *Picrorhiza scrophulariiflora*/ *Dactylorhiza hatagirea*/ *Aconitum orochryseum*/ *Rheum australe*>

(1382) Olsen, C.S. (1998): The trade in medicinal and aromatic plants from central Nepal to northern India. - Economic Botany 52: 279-292. [5651!!] <market analysis/ trade> <NP> <*Swertia chirayita*/ *Nardostachys grandiflora*/ *Dactylorhiza*

hatagirea/ Aconitum orochryseum/ Aconitum heterophyllum/ Picrorhiza scrophulariiflora/ Valeriana jatamansi/ Rheum australe/ Lycopodium clavatum/ Dioscorea deltoidea>

The paper describes the collection and trade from Gorkha district in central NP to Delhi in northern IN. Currently 35 species are traded and further 13 from the district are traded elsewhere. App. 3700 people are engaged in commercial collection. While collection is not important in the south of the district, it involves 25-100% of the households in the rest of the district. Commercial collection constitutes 15-35% of poor households' annual income. Marketing margin analysis of the six main products traded shows that collectors' net margins average 46.6% of the Delhi wholesale price. Almost all species are wild collected. The total medicinal plant trade from NP to IN is estimated at 10-15,000 tons annually with a border value of 8.6 million US\$. (from summary)

(1383) Olsen, C.S. (1999): CITES Appendix II revisited. Is the listing of *Nardostachys grandiflora* and *Picrorhiza kurrooa* appropriate? - Medicinal Plant Conservation 5: 8-10. [5737!!] <resource management> <NP> <*Nardostachys grandiflora*/*Picrorhiza kurrooa*>

(1384) Oran, S.A. & D.M. Ali-Eisawi (1998): Checklist of medicinal plants of Jordan. - Dirasat. Medical and Biological Sciences 25: 84-112. [5840] <JO> <fide RAMP 5(3)>

(1385) Ouattara, S. (1996): Conservation in situ et ex situ de quelques plantes médicinales au Mali. In: Rejdali, M. & A. Birouk (Eds.): Diversité biologique et valorisation des plantes médicinales - pp. 61-80, Actes Editions, Rabat. [4973!!] <legislation/ cultivation> <ML> <*Combretum microthrum*/*Crossopteryx febrifuga*/*Sclerocarya birrea*/*Vepris heterophylla*>

(1386) Özgüven, M. & S. Kirici (1998): In-situ conservation of aromatic plants in southeastern Turkey. A. Wild *Mentha* species. In: Zencirci, N., Z. Kaya, Y. Anister & W.T. Adams (Eds.): Proceedings of International Symposium on In-situ Conservation of Plant Genetic Diversity, Antalya, Turkey, 4.-8.11.1996 - pp. 171-176, Central Research Institute for Field Crops, Ankara. [5649] <ex-situ> <TR> <fide RAMP 5(1)>

(1387) Özgüven, M. & S. Tansi (1998): In-situ conservation of aromatic plants in southeastern Turkey. B. Wild *Origanum* species. In: Zercirci, N., Z. Kaya, Y. Anister & W.T. Adams (Eds.): Proceedings of International Symposium on In-situ Conservation of Plant Genetic Diversity, Antalya, Turkey, 4.-8.11.1996 - pp. 177-183, Central Research Institute for Field Crops, Ankara. [5650] <ex-situ> <TR> <fide RAMP 5(1)>

(1388) Özhata, N., M. Koyuncu, S. Atay & A. Byfield (1999): The trade in wild medicinal plants in Turkey. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 5-18[+2], TRAFFIC Europe, s.loc. [5666!!] <trade volumes/ legislation/ market analysis/ export volumes> <TR> <*Lycopodium clavatum*/*Lycopodium selago*/*Ophrys*/*Orchis*/*Sideritis*/*Thymus*/*Acorus calamus*/*Ballota saxatilis*/*Barlia robertiana*/*Gentiana lutea*/*Gypsophila arrostii*/*Lycopodium annotinum*/*Origanum minutiflorum*/*Paeonia mascula*/*Ruscus aculeatus*>

(1389) Özhata, N., M. Koyuncu, S. Atay & A.J. Byfield (1997): The wild medicinal plant trade in Turkey. - 111 pp., Dogal Hayati Koruma Derneği, İstanbul. [5253!!] <trade/ export/ collection volumes/ legislation/ threat> <TR> <*Acorus calamus*/*Ballota*/*Gentiana lutea*/*Ankyropetalum*/*Gypsophila*/*Lycopodium*/*Origanum minutiflorum*/*Paeonia*/*Ruscus aculeatus*>

(1390) Padua, L.S. de, N. Bunyapraphatsara & R.H.M.J. Lemmens, Eds. (1999): Medicinal and poisonous plants 1. - 711 pp., Backhuys, Leiden (Plants Resources of South-East Asia 12(1)). [5838!!] <medicinal properties/ cultivation/ illustration/ distribution/ common names/ uses> <*Catharanthus roseus*/*Centella asiatica*/*Gloriosa superba*/*Rauvolfia*/*Rauvolfia serpentina*>

This wonderful and hefty volume of the PROSEA series relies on contributions of more than 100 authors. The introduction gives a comprehensive 8-page summary of the role of medicinal plants in ID, Peninsular MY, Borneo, New Guinea, PH, TH, and VN and brief info on conservation and trade issues. The main section has alphabetically arranged descriptions on 102 genera and species covering a.o.: original taxonomic publication, family, chromosome numbers, list of species, vernacular names, distribution, uses, production, international trade, properties, adulterations, substitutes, description, ecology, propagation, diseases, harvesting, yield, and literature. Conservation information, if any, is summarised under 'genetic resources and breeding'. (schp)

(1391) Palit, M.K. (1996): *Aquilaria agallocha* Roxb. A commercial Agar-oil yielding tree of the North East India. - Arunachal Forest News 14(4): 30-33. [5321!!] <exploitation/ uses/ price> <IN> <*Aquilaria agallocha*/*Aquilaria malaccensis*/*Aquilaria cumingiana*/*Aquilaria filaria*/*Aquilaria microcarpa*/*Aquilaria hirta*/*Aquilaria beccariana*>

(1392) Pandey, A.K. & A.K. Bisaria (1998): Rational utilization of important medicinal plants. A tool for conservation. - Indian Forester 124: 197-

206. [5624!!] <ethnobotany/ plant parts/ medicinal properties> <IN>
- (1393) Pandit, M.K. & C.R. Babu (1998): Biology and conservation of *Coptis teeta* Wall., an endemic and endangered medicinal herb of the eastern Himalaya. - Environmental Conservation 25: 262-272. [5512!!] <distribution/ map/ reproduction/ threat/ habitat/ uses> <IN> <*Coptis teeta*>
- Extensive deforestation and over-exploitation in E Himalaya have brought *Coptis teeta* to the brink of extinction. Investigations on the distribution range, demography, ecology, cytology, reproductive biology and population genetic structure were carried out. It was found to be endemic to a small area, to occupy a very narrow habitat and to be highly dispersed with very small population sizes. It is recommended that its habitat be declared a protected area with the active cooperation of the local inhabitants. (from summary)
- (1394) Pang, Z., F. Pan & S. He (1996): *Ginkgo biloba* L. History, current status, and future prospects. - The Journal of Alternative and Complimentary Medicine 2: 359-363. [6319!!] <CN> <*Ginkgo biloba*>
- The authors emphasize the need to study the intra-specific genetic diversity of pharmaceutical properties of *G. biloba*. The species is cultivated world-wide as an ornamental tree but China has 70% of the world's stock. The main medicinal resource is the leaves. The Chinese red data book lists the species as rare. There is, however, no evidence to verify the existence of any wild population. There are <100 trees of>1000 years of age, 180 trees are older than 500 years, and about 200,000 trees are older than 100 years. The authors regard these old trees as particularly important for the maintenance of the genetic diversity. They call for effective measures to protect all old trees so that useful genetic factors will not be lost. (schp)
- (1395) Pank, F. (1998): Der Arznei- und Gewürzpflanzenmarkt in der EU. - Zeitschrift für Arznei- und Gewürzpflanzen 3: 77-81. [5623!!] <market analysis/ cultivation>
- (1396) Parry-Jones, R. & A. Vincent (1998): Can we tame wild medicine? - New Scientist 3.1.1998: 26-29. [5260!!] <tcm/ policy> <CN>
- (1397) Patnaik, S. (1998): Conservation assessment and management planning workshop for non-timber forest products in Madhya Pradesh. Report. - 39 pp., Indian Institute of Forest Management, Bhopal. [5701!!] <nwfp/ distribution/ habitat/ altitude/ threat categories/ population status/ legislation/ cultivation> <IN> <*Curcuma caesia*/ *Rauvolfia serpentina*/ *Withania somnifera*>
- (1398) Pei Shengji, Li Yanhui & Yin Shuze (1996): Ethnobotanical investigations of plant drugs at local markets in north-west Yunnan of China. In: Pei Shengji, Su Yong-ge, Lon Chunin, K. Marr & D. Posey (Eds.): Proceedings of the 2nd International Congress of Ethnobiology. Challenges of ethnobiology in the 21st century - pp. 150-168, Yunnan Science and Technology Press [5261!!] <market analysis/ tcm/ plant parts/ common names> <CN> <*Nardostachys grandiflora*/ *Saussurea costus*/ *Bletilla striata*/ *Dendrobium nobile*/ *Epipactis yunnanensis*/ *Gastrodia elata*/ *Goodyera procera*/ *Gymnadenia conopsea*/ *Pleione bulbocodioides*/ *Pleione yunnanensis*/ *Spiranthes sinensis*/ *Cibotium barometz*>
- (1399) Peng Hua & Xu Zaifu (1997): The threatened wild plants used for medicines as Chinese medicinal herbs. In: Xie Yan (Ed.): Conserving China's biodiversity. Reports of the Biodiversity Working Group & China Council for International Cooperation on Environment and Development (1992-1996) - BWG & CCICED, Beijing. [6034!!] <threat/ price> <CN> <*Dendrobium candidum*/ *Magnolia officinalis*/ *Glycyrrhiza*/ *Cephalotaxus*/ *Taxus*>
- (1400) Pengelly, A. (2000): National Herbalists Association establishes committee for medicinal plant sustainability and ethical issues. - Medicinal Plant Conservation 6: 12-13. [6044!!] <policy> <AU>
- (1401) Pengelly, A. & A. Cowper, Eds. (2000): Medicinal plants for the future. Sustainability and ethical issues. Conference Proceedings. Byron Bay, NSW Australia, 13-14.8.1999. - 116 pp., National Herbalists Association of Australia, Annandale. [6088!!] <legislation/traditional medicine> <AU>
- (1402) Penso, G. & G. Proserpio (1997): Index plantarum medicinalium totius mundi eorumque synonymorum. 2nd edition. - 1062 pp., OEMF, Milano. [5525!!] <reference/ encyclopedia/ checklist>
- This book goes back to a WHO decision of 1978 which requested "to compile an inventory of medicinal plants used in different countries". The checklist is presented here in its 2nd edition but not much information is given what the second author has changed. He has screened 14 new references and added them to the many national official publications which have been used for the 1st edition of 1980, many of which are now outdated and should have been replaced. The 1st edition had some 21,000 names in it, no total figure is given for the new edition. Arranged alphabetically, each genus account lists the accepted species names, synonyms with reference to their accepted names, few common names, the relevant literature references and a 6-code use category. (schp)
- (1403) Peteru, C. (1998): Kava case study. Traditional innovations and practices. Presented at

the First South Pacific Workshop on the Implementation of the Convention on Biological Diversity in the Pacific Island Region, 30.3.-3.4. 1998. - 6 pp., Unpublished paper, s.loc. [5410!!] <ipr/ benefit sharing> <*Piper methysticum*>

(1404) Petrovick, P.R. & L.C. Marques & I.C. De Paula (1999): New rules for phytopharmaceutical drug registration in Brazil. - *Journal of Ethnopharmacology* 66: 51-55. [5961!!] <legislation>

In their introduction the authors report that the Brazilian pharmaceutical industry has a US\$ 9 billion market, and is among the 10 largest in the world. Around 30% of the marketed drugs registered by the Federal Health Office are classified as phytopharmaceutical, representing 20-25% of the local pharmaceutical market. In addition, Brazil exports medicinal plants, extracts and isolated substances at an annual value of US\$ 22 million. (schp)

(1405) Pfänder, H.J. (1991): Farbatlas der Drogenanalyse. - 180 pp., Gustav Fischer, Stuttgart. [5588!!] <identification/ illustration/ plant parts>

(1406) Pharmacopoeia Commission of the Ministry of Public Health, Ed. (1996): A coloured atlas of the Chinese *materia medica* specified in pharmacopoeia of the People's Republic of China (1995 edition). - 519 pp., Joint Publishing, Hong Kong. [5174!] <illustration> <CN> <*Gastrodia elata*/ *Dendrobium*/ *Cibotium barometz*>

(1407) Phartyal, S.S., Thapliyal, R.C. Nayal, J.S. (1997): Vulnerable and threatened plants of economic value. *Ulmus wallichiana* (Elm), an endangered tree of economic value. - *MFP News* 7(4): 18-19. [5178!!] <uses/ distribution/ population status/ cultivation> <*Ulmus wallichiana*>

(1408) Phillips, L.D. & D.B. Dwyer (1999): Sustainable harvesting of Himalayan yews. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 147-154, TRAFFIC Europe, s.loc. [5681!!] <cultivation/ illustration/ export volumes/ population status> <NP> <*Taxus*>

(1409) Phillips, O.L. & B.A. Meilleur (1998): Usefulness and economic potential of the rare plants of the United States. A statistical survey. - *Economic Botany* 52: 57-67. [5426!!] <market analysis> <US>

The paper cross-referenced a database on threatened plants of the United States with a database on world-

wide plant uses and US crop values. The latter had been compiled from 12 different data sources like Mabberley's "Plant book" or Kunkel's "Plants for human consumption". The comparison was done only on the generic level, thus avoiding problems of synonym. Therefore only conclusions for economically significant congeners could be drawn. It was found that nearly 80% of the US plant genera with rare taxa contain at least one useful species. 2/3 of the 2949 US rare and endangered taxa are congeneric with cultivated species. The authors calculated that the annual US wholesale farm value of food crop congeners of rare plants is US\$ 9 billion. (schp)

(1410) Pinco, R.G. (1998): The evolving status of herbals and phytomedicines in the United States. In: Tomlinson, T.R. & O. Akerele (Eds.): *Medicinal plants. Their role in health and biodiversity* - pp. 198-204, University of Pennsylvania Press, Philadelphia. [6294!!] <market analysis> <US>

(1411) Pinheiro, C.U.B. (1997): *Jaborandi* (*Pilocarpus* sp., Rutaceae). A wild species and its rapid transformation into a crop. - *Economic Botany* 51: 49-58. [5143!!] <resource management/ cultivation>
 <*Pilocarpus*>

The paper provides data on wild harvest and plantation development of *Jaborandi* leaves by the company Merck and on prices and trade volumes. Between the late 1970s and early 1980s production of leaves was >2000 tons per year. In the past 10 yrs it dropped to around 1000 tons per year. Extractive use by local communities in the state of Maranhao, Brazil has damaged many of the wild populations. The paper gives an interesting perspective on the "conservation through cultivation" debate. One conclusion is that in this case, cultivation does not necessarily lead to conservation because there are advantages to maintaining wild harvest and cultivation in parallel, maintaining wild harvesting as alternative source when periodic declines in cultivation yields occur. (abc)

(1412) Pizov, V.Y. & L.F. Bartkov (1973): [Rare medicinal plants of the sub-alpine and alpine zones of the Ukrainian Carpathian mountains and their protection; in Ukrainian]. - *Farmacevticnj Zurnal* 28(2): 92-94. [4966!!] <threat> <UA> <*Arnica montana*>

(1413) Popow, A.I. & I.N. Egorowa (1992): Sapasi sirja nekotorich widow lekarstwennich rastenij w sapadnich rayonach Kemerowskoj oblasti [Reserves of raw material of some species of medicinal plants in the western regions of the Kemerovskaya district; in Russian]. - *Rastitel'nye Resursy* 28(1): 50-55. [5087!!] <collection volumes> <RU>

(1414) Pordie, L. (1999): Use of medicinal plants amongst the ethnic minorities of North-east Cambodia. - *Medicinal Plant Conservation* 5: 11-12. [5739!!] <traditional medicine> <KH>

- (1415) Pordie, L. (2000): Tibetan medicine and the environment in modern Ladakh. A threat to medicinal plants. - *Medicinal Plant Conservation* 6: 14-17. [6046!!] <traditional medicine/ threat> <IN>
- (1416) Poschkurlat, A.P. (2000): Genus Adonis L. Systematics, distribution, biology. - 199 pp. [6334] <taxonomy> <Adonis> <fide Koeltz 079073>
- (1417) Poussset, J.L. (1989): Plantes médicinales africaines. 1. Utilisation pratique. - 156 pp., Agence de Coopération Culturelle et Technique, Paris. [6233!] <use/ illustration>
- (1418) Poussset, J.L. (1992): Plantes médicinales africaines. 2. Possibilités de développement. - 159 pp., Agence de Coopération Culturelle et Technique, Paris. [4825!] <use/ illustration>
- (1419) Prakash, V. (1999): Indian Valerianaceae. A monograph on [a] medicinally important family. - *Journal of Economic and Taxonomic Botany, Additional Series* 17: 1-73. [5928!!] <taxonomy/ distribution/ illustration/ uses/ common names/ threat> <*Nardostachys grandiflora*/ *Nardostachys jatamansi*/ *Valeriana jatamansi*/ *Valeriana hardwickii*>
- (1420) Prakash, V. & B.N. Mehrotra (1996): Attributes on utility and scarcity of Valerianaceae in India. In: Jain, S.K. (Ed.): Ethnobiology and human welfare. Proceedings of the IV. International Congress of Ethnobiology held at Lucknow, India, 17-21 November 1994 - pp. 318-322, Deep Publications, New Delhi. [5269!!] <taxonomy/ threat> <IN> <*Nardostachys grandiflora*/ *Nardostachys jatamansi*/ *Valeriana*>
- (1421) Prasad, S.N. & Balasubramanian (1996): Strategies for sustainable exploitation of ethnobotanical resources of the Nilgiri Biosphere Reserve, S. India. In: Jain, S.K. (Ed.): Ethnobiology and human welfare. Proceedings of the IV. International Congress of Ethnobiology held at Lucknow, India, 17-21 November 1994 - pp. 331-333, Deep Publications, New Delhi. [5270!!] <plant parts/ habitat/ exploitation/ threat> <IN> <*Rauvolfia serpentina*/ *Hemidesmus indicus*>
- (1422) Prendergast, H.D.V., N.L. Etkin, D.R. Harris & P.J. Houghton, Eds. (1998): Plants for food and medicine. Proceedings of the joint conference of the Society for Economic Botany and the International society for Ethnopharmacology, London, 1.-6.6.1996. - 438 pp., Royal Botanic Gardens, Kew. [5727!!] <health care/ traditional medicine>
- (1423) Principe, P.P. (1996): Monetizing the pharmacological benefits of plants. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): Medicinal resources of the tropical forest. Biodiversity and its importance to human health. pp. 191-218, Columbia University Press, New York (Biology and Resource Management). [5266!!] <economics>
- (1424) Principe, P.P. (1998): Economics and medicinal plants. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 42-54, University of Pennsylvania Press, Philadelphia. [6284!!] <economics>
- (1425) Puri, S. & A.J. Williams, Eds. (1999): Health care and development of medicinal plants. - 472 pp. [5929] <health care/ traditional medicine/ cultivation> <fide Vedams Homepage, 27.1.2000>
- (1426) Pushpangadan, P., K. Ravi & V. Santhosh, Eds. (1997): Conservation and economic evaluation of biodiversity. 2 volumes. - 650 pp., Science Publishers, Enfield. [5422!!] <policy>
- (1427) Putterman, D.M. (1994): Trade and the Biodiversity Convention. - *Nature* 371: 553-554. [5631!!] <trade/ ipr/ bioprospecting/ policy>
- (1428) Quansah, N. (1996): Problèmes de gestion des plantes médicinales à Madagascar. - *Les Cahiers du CITE, Nouvelle Série* 4: 37-38. [5200!!] <traditional medicine> <MG>
- (1429) Quansah, N. (1999): *Prunus africana*. Harvest and resource management in Madagascar. - *Medicinal Plant Conservation* 5: 18. [5723!!] <resource management/ threat> <MG> <*Prunus africana*>
- (1430) Quansah, P. (1996): Rationalisation de l'utilisation traditionnelle des plantes médicinales. - *Les Cahiers du CITE, Nouvelle Série* 4: 33-35. [5199!!] <traditional medicine> <MG>
- (1431) Radhakrishnan, K., A.G. Pandurangan, P. Pushpangadan & A. Sasidharan (1996): Less known ethnomedicinal plants of Kerala state and their conservation. - *Ethnobotany* 8: 82-84. [5475!!] <threat/ ethnobotany/ uses> <IN>
- The brief paper gives some concise information on local names and therapeutic details of 17 lesser known medicinal plant species of Kerala. The study follows the aim to preserve the knowledge that tribal communities in this region have on the medicinal uses of wild plant species. (roh)
- (1432) Radusiene, J. (1995): Biological peculiarities and possibilities of introduction of

- Centaurium erythraea Rafn. - Biologija 3/4: 55-58. [5064!!] <habitat/ reproduction/ cultivation> <LT> <Centaurium erythraea>
- (1433) Raeymaekers, G. (1999): The EU Habitats Directive and wildlife trade regulations. Their importance for the conservation of medicinal plants. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 117-120[+1], TRAFFIC Europe, s.loc. [5677!!] <legislation>
- (1434) Ragusa, S., C. Circosta, E.M. Galati & G. Tumino (1984): A drug used in traditional medicine. *Harpagophytum procumbens* DC. 1. Scanning electron microscope observations. - Journal of Ethnopharmacology 11(3): 245-257. [5803!] <identification> <*Harpagophytum procumbens*>
- Histological characteristics, as observed by scanning electron microscopy, of the secondary roots of *Harpagophytum procumbens* are described in detail. This drug is widely used in southern African traditional medicine. It has been possible to reveal some morphological elements that, together with superficial granular material containing harpagoside and harpagide, allow drug identification. (from summary)
- (1435) Rai, L. & E. Sharma (1994): Medicinal plants of the Sikkim Himalaya. Status, usage and potential. - 152 pp., Bisken Singh Mahendra Pal Singh, Dehra Dun (Himavikas Occasional Publication 5). [4987!] <ethnobotany> <IN>
- (1436) Rai, L.K., P. Prasad & E. Sharma (2000): Conservation threats to some important medicinal plants of the Sikkim Himalaya. - Biological Conservation 93: 27-33. [5987!!] <threat/ collection volumes> <IN> <*Aconitum heterophyllum*/ *Podophyllum hexandrum*/ *Nardostachys jatamansi*/ *Swertia chirata*/ *Bergenia ciliata*/ *Picro-rhiza kurrooa*>
- The paper compiles information on the distribution, altitudinal range and the medicinal usage in Sikkim of six threatened medicinal plants which are harvested commercially. The legislation in Sikkim regarding the collection is outlined, e.g. the requirement of permits which are only issued to local inhabitants, and the rotational collection cycle over the years. Harvesting quantities are given and are compared to adjacent Nepal. One table shows the monthly harvesting intensity for four species over a year. In another table the number of plants which have to be collected for a kg of dried shoot and root material are presented for the six species. (schp)
- (1437) Raina, A.K. (1997): *Bunium persicum* (Boiss.) Fedtsch. Botany, conservation strategies and cultivation. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of aromatic plants - pp. 331-346, Regional Research Laboratory, Jammu-Tawi. [5276!!] <distribution/ threat/ cultivation> <IN> <*Bunium persicum*>
- (1438) Raison, J. von (1999): Neues zur Systematik der Gattung *Arnica*. - Zeitschrift für Arznei- und Gewürzpflanzen 4: 203-204. [5943!!] <taxonomy> <*Arnica*>
- (1439) Raison, J. von (2000): Neues zur Taxonomie und Systematik der Gattung *Arnica*. - Zeitschrift für Phytotherapie 21(1): 40-41. [5956!!] <taxonomy> <*Arnica*>
- (1440) Rana, T.S., B. Datt & R.R. Rao (1996): Strategies for sustainable utilization of plant resources by the tribals of the Tons valley, western Himalaya. - Ethnobotany 8: 96-104. [5476!!] <threat/ ethnobotany/ common name/ plant parts> <IN> <*Acorus calamus*/ *Asparagus racemosus*/ *Berberis*/ *Bergenia ciliata*/ *Centella asiatica*/ *Cinnamomum tamala*/ *Swertia chirayita*/ *Taxus baccata*>
- The paper presents the results of an ethnobotanical survey conducted in Tons Valley. Of the valley's 800 species of flowering plants, 320 were found to be of ethnobotanical significance, with 115 of being used for medicinal purposes. About 20 medicinally used plant species (e.g. *Acorus calamus*, *Asparagus racemosus*, *Berberis* spp., *Bergenia ciliata*, *Centella asiatica*, *Cinnamomum tamala*, *Swertia chirayita*, *Taxus baccata*) are extensively exploited. Conservation strategies applied by the tribals comprise seasonal grazing of alpine meadows, collecting limited quantities and growing of multipurpose trees (e.g. *Grewia optiva*, *Celtis eriocarpa*, *Morus serrata*) to reduce pressure on the wild resources. A detailed table gives information on the local names. (roh)
- (1441) Randimbivololona, F. (1996): Research, valorization and exploitation of biological resources for medicinal purposes in the Malagasy Republic (Madagascar). In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 195-200, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5304!] <ipr/ legislation/ policy/ bio-prospecting/ benefit sharing> <MG>
- (1442) Rao, K.S. & K.G. Saxena (1996): Minor forest products' management. Problems and prospects in remote high altitude villages of Central Himalaya. - International Journal of Sustainable Development and World Ecology 3: 60-70. [5284!] <ethnobotany/ local market> <IN>

- (1443) Rasoanaivo, P. (1996): Resources phytogénétiques à Madagascar. Problèmes relatifs à leur conservation et valorisation. In: Rejdali, M. & A. Birouk (Eds.): Diversité biologique et valorisation des plantes médicinales - pp. 23-34, Actes Editions, Rabat. [4971!!] <policy/ export> <MG> <*Catharanthus roseus*/ *Centella asiatica*/ *Hydrocotyle filicaulis*/ *Drosera madagascariensis*/ *Drosera ramentacea*/ *Prunus africana*/ *Rauvolfia confertiflora*/ *Voacanga thouarsii*>
- (1444) Rasoanaivo, P. (1996): Plantes médicinales et aromatiques à valeur économique à Madagascar. - Les Cahiers du CITE, Nouvelle Série 4: 5-19. [4770!!] <trade volumes> <MG> <*Catharanthus roseus*/ *Centella asiatica*/ *Drosera madagascariensis*/ *Prunus africana*/ *Rauvolfia confertiflora*/ *Voacanga thouarsii*>
- (1445) Rasoanaivo, P. (1997): *Ravensara aromatica*. A threatened, aromatic species in Madagascar. - Medicinal Plant Conservation 4: 9. [5400!!] <collection> <MG> <*Ravensara aromatica*>
- (1446) Rasoanaivo, P. & Ratsimamanga-Urvér ([s.dat.] 1993): Biological evaluation of plants with reference to the Malagasy flora. - 105 [101] pp., [s.loc.] Antananarivo. [5023!!] <bioprospecting/ threat> <MG>
- The monograph was prepared for the IFS-NAPRECA workshop on bioassays held in Antananarivo September 13-18, 1993. While dealing mostly with screening methods, it also contains a table of threatened Malagasy taxa and several appendices including a "Code of ethics for foreign collectors of biological samples", a list of "Patents on drugs isolated from Malagasy plants" and a list of current (1993) "Biodiversity prospecting projects" which names 21 companies active in Madagascar. (schp)
- (1447) Rasool, G. (1998): Saving the plants that save us. Medicinal plants of the northern areas of Pakistan. - 92 pp., BASDO, Gilgit. [5804!!] <distribution/ uses/ common name/ plant parts/ altitude> <PK> <*Picrorhiza kurrooa*/ *Podophyllum emodi*/ *Saussurea costus*>
- (1448) Ravelomanatsoa, P. (1996): L'exploitation économo-industrielle du *Pygeum africanum* (Kotofihy). - Les Cahiers du CITE, Nouvelle Série 4: 63-64. [5202!!] <exploitation> <MG> <*Prunus africana*>
- (1449) Rawal, R.B. (1997): Status of commercialization of medicinal and aromatic plants in Nepal. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 174-188, IDRC, New Delhi (INBAR Technical Report 15). [5233!!] <market analysis/ threat/ collection volumes/ cultivation/ plant parts/ resource management> <NP> <*Nardostachys grandiflora*/ *Dactylorhiza hatagirea*/ *Cordyceps sinensis*/ *Valeriana jatamansi*/ *Cinnamomum glaucescens*/ *Rauvolfia serpentina*/ *Taxus wallichiana*/ *Abies spectabilis*/ *Dioscorea deltoidea*/ *Lycopodium clavatum*/ *Picrorhiza scrophulariiflora*>
- (1450) Rawat, M.S. & D.P. Uniyal (1996): Identification of wavy grained red sanders (*Pterocarpus santalinus*) at nursery stage. - Indian Forester 122(9): 831-833. [5075!!] <identification> <IN> <*Pterocarpus santalinus*>
- (1451) Razafindrantsimba, V. (1996): La pervenche de Madagascar. - Les Cahiers du CITE, Nouvelle Série 4: 59-60. [5201!!] <distribution/ uses/ export/ trade volumes> <MG> <*Catharanthus roseus*>
- (1452) Realpozo, R., A. Juarez Miranda & I. Mamani (1991): Commercialization of wild medicinal plants in Mexico. - Newsletter of Medicinal and Aromatic Plants 1991/ 2: 40-50. [6306!!] <collection/ trade/ price> <MX>
- (1453) Reid, W.V., S.A. Laird, C.A. Meyer, R. Gámez, A. Sittenfeld, D. Janzen, M.A. Gollin & C. Juma (1996): Biodiversity prospecting. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): Medicinal resources of the tropical forest. Biodiversity and its importance to human health. pp. 142-173, Columbia University Press, New York (Biology and Resource Management). [5264!!] <bioprospecting/ ipr/ policy/ benefit sharing>
- (1454) Reinhard, K.H. (1997): *Uncaria tomentosa* (Willd.) DC. Cat's claw, Uña de gato oder Katzenkralle. - Zeitschrift für Phytotherapie 18: 112-121. [5031!!] <medicinal properties/ illustration> <*Uncaria tomentosa*/ *Uncaria*>
- It was found that two chemical types of the species occur in nature which differ in their alcaloid pattern, only one being of therapeutic value. The paper contains a number of good colour illustrations. The author also describes the use of seven other *Uncaria* species. (schp)
- (1455) Reinhard, K.H. (1997): *Uncaria tomentosa* (Willd.) DC. Cat's Claw, Una de Gato, or Savéntaro. - Journal of Alternative and Complementary Medicine 5(2): 143-151. [5939!!] <illustration/ medicinal properties> <*Uncaria tomentosa*>
- English version of Reinhard (1997) in *Zeitschrift für Phytotherapie* 18. (schp)

- (1456) Rejdali, M. & A. Birouk (1996): Diversité biologique et valorisation des plantes medicinales. - 256 pp., Actes Editions, Rabat. [4955!!] <legislation/ policy/ traditional use/ traditional medicine>
- (1457) Ribbeck, U. von (1997): Chancen des deutschen Anbaues von Heil- und Gewürzpflanzen im Rahmen des europäischen Marktes. - Drogen-report 10 (17): 8-13. [5343!!] <cultivation> <DE>
- (1458) Rikhari, H.C., L.M.S. Palni, S. Sharma & S.K. Nandi (1998): Himalayan yew. Stand structure, canopy damage, regeneration and conservation strategy. - Environmental Conservation 25: 334-341. [5560!!] <population status/ threat/ reproduction/ habitat> <IN> <*Taxus baccata* subsp. *wallichiana*>
- At a study site in Uttar Pradesh the authors have compared disturbed (=harvested) sites of *Taxus baccata* subsp. *wallichiana* with relatively undisturbed sites regarding the demographic structure of the populations and the extent of canopy damage and regeneration. The study plots represented 8% of the total yew habitat in the region. This undercanopy species never forms extensive cover and needs deeply-shaded, moist and sheltered sites for seedling regeneration. This and the slow growth rate make it susceptible to over-utilization. The authors found 57.4% of the total canopy volume had been removed in the harvested plots. The unclear taxonomic status of *T. wallichiana* in relation to *T. baccata* is not discussed in the paper. (schp)
- (1459) Riley, M. (1994): Maori healing and herbal. New Zealand ethnobotany sourcebook. - 528 pp., Viking Seavenseas, Paraparaumu. [5206!] <monograph/ ethnobotany> <NZ>
- (1460) Rishi, A.K., M.K. Bhan & P.L. Dhar (1996): *Dioscorea deltoidea* Hook. Distribution and agrotechnology. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 97-117, Regional Research Laboratory, Jammu-Tawi. [5126!!] <distribution/ cultivation> <*Dioscorea deltoidea*>
- (1461) Rivera Nuñez, D. & C. Obón de Castro (1997): Phytotherapie in Spanien. - Zeitschrift für Phytotherapie 17: 284-299. [5034!!] <traditional medicine/ legislation/ threat/ illustration> <ES> <*Artemisia granatensis*/ *Sideritis tragoriganum*/ *Sideritis murgetana*/ *Sideritis hyssopifolia*/ *Gentiana lutea*>
- Herbal medicines are still widely used by Spanish people. During the last 40 years modern medicines became available at a rather low price and the Spanish health system changed considerably. The report also refers to the endemics which are used medicinally. The authors see conservation risks for local endemics like *Artemisia granatensis*, *Sideritis tragoriganum*, and *S. murgetana*. (from summary)
- (1462) Rivera, A., X. Buitron & P. Rodriguez, Eds. (2000): Uso y comercio sostenible de plantas medicinales en Colombia. Memorias del seminario-taller, 18-19.9.2000, Villa de Leyva, Colombia. - 73 pp., TRAFFIC America del Sur, Quito. [6297!!] <policy/ ethnobotany> <CO>
- (1463) Rizk, A. & G. El-Ghazaly (1995): Medicinal and poisonous plants of Qatar. - 306 pp. [5210] <uses/ medicinal properties/ illustration> <QA> <fide ABC Catalogue>
- (1464) Rizvi, M.A., A. Laiq & G.R. Sarwar (1996): Wild medicinal plants of Madinat al-Hikmah and its adjacent areas 2. - Hamdard Medicus 39(4): 8-10. [5576!] <uses/ distribution/ common names/ illustration> <PK> <*Fagonia indica*/ *Trichodesma indicum*>
- (1465) Robbins, C.S. (1997): US medicinal plant trade studies. - TRAFFIC Bulletin 16(3): 121-125. [4958!!] <trade volumes> <US> <*Panax quinquefolius*>
- (1466) Robbins, C.S. (1997): *Hydrastis canadensis*. A candidate for CITES Appendix II. - Medicinal Plant Conservation 3: 20-21. [4999!!] <trade volumes/ collection/ threat/ cultivation/ distribution> <*Hydrastis canadensis*>
- The paper describes the threats and trade situation of Goldenseal in Canada and the US. Trade has increased by 600% over the last five years. The bulk is used internally however, only 10% are exported. 8 literature references on the taxon are given. (schp)
- (1467) Robbins, C.S. (1997): *Panax quinquefolius* popularity prompts probe. - Medicinal Plant Conservation 4: 13-15. [5403!!] <collection/ trade volumes/ policy> <US> <*Panax quinquefolius*>
- The author describes the trade routes for this taxon which include exports of raw material to Asia and re-imports of finished products. The volumes of wild-collection in the US are given and the legal framework of monitoring and licensing in various US states is outlined. (schp)
- (1468) Robbins, C.S. (1997): Wildlife and plant trade and the role of CITES. Challenges for the 21st century. In: Vance, N.C. & J. Thomas (Eds.): Special forest products. Biodiversity meets the marketplace - pp. 146-156, US Dep. of Agriculture, Washington. [5412!!] <legislation> <US> <*Hydrastis canadensis*/ *Panax quinquefolius*>
- (1469) Robbins, C.S. (1998): American ginseng. The root of North America's medicinal herb trade. - 94 pp., TRAFFIC USA, Washington. [5427!!] <market analysis/ trade volumes/ resource manage-

- ment/ collection/ price/ cultivation> <US> <*Panax quinquefolius*/ *Panax ginseng*/ *Eleutherococcus senticosus*>
- (1470) Robbins, C.S. (1998): Examination of the US pitcher-plant trade. - TRAFFIC Bulletin 17(2): 79-86. [5457!!] <trade volumes/ export> <US> <*Sarracenia*>
- (1471) Robbins, C.S. (1998): Medicinal plant conservation. A priority at TRAFFIC. - Herbalgram 44: 52-54. [5887!!] <policy>
- (1472) Robbins, C.S. (1999): A comparative analysis of management regimes and trade monitoring mechanisms for two native North American medicinal plants. American ginseng (*Panax quinquefolius*) and goldenseal (*Hydrastis canadensis*). In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 99-110, TRAFFIC Europe, s.loc. [5675!!] <legislation/ resource management> <US> <*Hydrastis canadensis*/ *Panax quinquefolius*>
- (1473) Robbins, C.S. (2000): CITES approves trade controls for three medicinal plants. - Herbalgram 49: 22-23. [6122!!] <legislation> <*Adonis vernalis*/ *Harpagophytum procumbens*/ *Panax ginseng*>
- (1474) Robbins, C.S. (2000): Comparative analysis of management regimes and medicinal plant trade monitoring mechanisms for American ginseng and goldenseal. - Conservation Biology 14: 1422-1434. [6312!!] <legislation/ resource management/ collection volumes> <US> <*Hydrastis canadensis*/ *Panax quinquefolius*>
- The paper analyses strengths and shortcomings of the resource management programs for *Panax quinquefolius* and *Hydrastis canadensis* in the US. Both species are subject to Appendix II of CITES. Overall, both regimes which differ in various aspects are considered by the author to be successful. For ginseng the paper holds a number of interesting tables on harvesting volumes on state level over the years. (schp)
- (1475) Robineau, L. & D.D. Soejarto (1996): TRAMIL. A research project on the medicinal plant resources of the Caribbean. In: Balick, M.J., E. Elisabetsky & S.A. Laird (Eds.): Medicinal resources of the tropical forest. Biodiversity and its importance to human health. pp. 317-325, Columbia University Press, New York (Biology and Resource Management). [6164!!] <health care/ traditional medicine>
- (1476) Roff, J. & S. Nonjinge (1997): Conjuring up a Zulu muthi garden. - Veld and Flora September: 72-73. [5376!!] <cultivation/ botanic garden> <ZA>
- (1477) Roguet, D. & R. Spichiger (1994): Plantes compagnes de notre société dans l'arc alpin. L'exemple valaisan. - Rev. Valdotaine Hist. Nat. 48, Supplement: 429-436. [5250!!] <ethnobotany> <CH>
- (1478) Ross, I.A. (1999): Medicinal plants of the world. 1. Chemical constituents, traditional and modern medicinal uses. - 415 pp., Totowa, Humana. [5521!!] <pharmacology/ medicinal properties/ common name>
- The author, a research scientist with the US Food and Drug Administration, has selected 26 plant species widely used as foods or in food supplements and traditional remedies. The focus of this volume is to digest the known chemical constituents, pharmacological activities, and the results of clinical trials. Also included is information concerning origin, distribution, and in relevant cases a hint to conservation concerns. (djl)
- (1479) Rosser, A., N. Ash & M. Sirola (2000): Approaches to the conservation of species used in traditional medicine. - Species 33: 36-38. [6007!!]
- (1480) Roy, S. & Z. Hossain (10.2.1999): Artificial propagation of *Rauvolfia serpentina* for large scale plantation in the forests. In: METLA, Finnish Forest Research Institute (Eds.): Post-Congress Information Service. IFRU XX World Congress, 6-12.8.1995. - <www.metla.fi/conf/iufro95abs/dpap128.htm> (viewed 6.4.1999) [5703!!] <cultivation> <BD> <*Rauvolfia serpentina*>
- (1481) Roy, S.K., P.K. Roy, M. Rahman & T. Hossain (1995): Clonal propagation of *Rauvolfia serpentina* through in vitro culture. In: Svoboda, K.P., J.C. Laughlin & V.E. Brown (Eds.): International symposium on medicinal and aromatic plants, Kyoto, 21-27 August 1994. pp. 141-146, ISHS, Leuven (Acta Horticulturae 390). [6341!!] <cultivation> <*Rauvolfia serpentina*>
- (1482) Rukangira, E. (1999): Regional workshops on medicinal plants and traditional medicine in Africa. - Medicinal Plant Conservation 5: 22-23. [5747!!] <traditional medicine>
- (1483) Russo, D., Ed. (1998): Directory of information resources for non-timber forest products. - 40 pp., Conservation International, s.loc. [6024!!] <nwfp/ bibliography>
- (1484) Sadaqat Hamid, A.W. Sabir & T.A. Chaudhri (1995): Medicinal plants of family Cucurbitaceae of Pakistan 2. - Hamdard Medicus 38(3): 91-101. [5062!] <distribution/ biology/ uses/ illustration> <PK>

- (1485) Sadruddin (1996): Medicinal plants of Bhutan. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 713-725, Regional Research Laboratory, Jammu-Tawi. [5132!!] <altitude/ distribution/ uses> <BT> <*Valeriana jatamansi*>
- (1486) Salazar, R. & J.A. Cabrera (1996): Derechos de propiedad intelectual en Costa Rica a la luz del Convenio sobre Biodiversidad Biologica. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 177-193, Elsevier, Limerick (Journal of Ethnopharmacology 51). [5297!] <ipr/ legislation/ policy/ bioprospecting> <CR>
- (1487) Saller, R., O. Kristof & J. Reichling (1997): Padma 28. Ein traditionelles und modernes Phytotherapeutikum. - Zeitschrift für Phytotherapie 18: 323-331. [5194!!] <traditional medicine/ pharmacology> <CN> <*Saussurea costus*/ *Pterocarpus santalinus*>
- (1488) Samant, S.S. (1994): An assessment on the diversity and status of the alpine plants of Indian Himalaya. In: Pangtey, Y.P.S. & R.S. Rawat (Eds.): High altitudes of the Himalaya. Biogeography, ecology and conservation - pp. 115-127, Gyanodaya Prakashan, Nainital. [4723] <fide Gruisen, J.v., 22.11.96>
- (1489) Samant, S.S., U. Dhar & L.M.S. Palni (1998): Medicinal plants of Indian Himalaya. - 163 pp., G.B.Pant Institute, Almora (Himavikas Publication 13). [5581!!] <trade/ endemism/ threat categories/ uses/ altitude/ life history/ plant parts> <IN> <*Aconitum*/ *Coptis teeta*/ *Dioscorea deltoidea*/ *Nardostachys grandiflora*/ *Panax pseudoginseng*/ *Picrorhiza kurrooa*/ *Saussurea costus*>
- The authors state that a total of 2500 species with ethnobotanical uses are known in India. They record 1748 medicinal plant species (out of 8644 higher plant taxa) from the Indian Himalayas. These have been analysed according their taxonomic diversity, altitudinal range, provenance, endemism and uses. A list of threatened taxa is provided. The main part of the book consists of a table in which the following is provided for all taxa: scientific name, altitudinal range, plant parts used, use in Indian Himalayan regions, life form and provenance. Owing to its broad taxonomic range this is a very useful data source although the editing could have been done more carefully, e.g. to make references more consistent with the bibliography. (schp)
- (1490) San Martin, R. & R. Briones (1999): Industrial uses and sustainable supply of Quillaja saponaria (Rosaceae) saponins. - Economic Botany 53: 302-311. [5950!!] <uses/ trade>
- The bark of this Chilean endemic tree species is one of the major sources of industrially used triterpenoid saponins. For decades Quillaja extracts have been used as foaming agents in beverages, emulsifiers in foods, etc. Overexploitation of the bark has caused a dramatic decrease of old Quillaja trees. Further damage could be prevented by using not just the bark but also the wood for the production of saponins. This raw material can be obtained in large quantities from pruning operations, reducing the need to fell trees. (from summary)
- (1491) Santhosh, V. & V.P. Bharadwaj (1997): Need for economic evaluation of tropical medicinal and aromatic plant genetic resources. In: Pushpangadan, P., K. Ravi & V. Santhosh (Eds.): Conservation and economic evaluation of biodiversity - pp. 383-392, Science Publishers, Enfield. [6127!!] <economics>
- (1492) Sapiro, O.A. di, S.J. Gattuso & M.A. Gattuso (1997): Morphoanatomical characters of *Taxus baccata* bark and leaves. - Fitoterapia 68: 252-260. [5617!!] <identification/ pharmacognosy> <*Taxus baccata*>
- (1493) Sarin, Y.K. (1996): Illustrated manual of herbal drugs used in Ayurveda. - 422 pp., Council of Scientific & Industrial Research, New Delhi. [5527!!] <identification/ use/ common name/ illustration> <IN>
- The book contains information on 180 crude botanical drugs finding regular use in Ayurvedic preparations. They are arranged by the plant part used (root; stem; leaf; flower; seed; whole herb) and within these chapters by their Ayurvedic name. Each entry consists of a 1-page description with scientific name, common names, morphological description, substitutes and adulterants, and uses. On the opposite page one finds a colour photograph of the crude drug. With this information the book follows the format of a pharmacopoeia. Given the fact that many Indian medicinal plants resources are heavily over-utilized, the readers would have much benefitted from information on distribution, conservation and legal status which is regrettably lacking. (schp)
- (1494) Sarkar, N. & S.K. Basu (1997): Some cancer chemotherapeutic drug yielding plants of India. Need for conservation. - Journal of Interacademia 1(2): 154-156. [5604] <distribution/ plant parts/ medicinal properties/ threat> <IN> <*Catharanthus roseus*/ *Podophyllum hexandrum*/ *Stephania japonica*/ *Taxus wallichiana*> <fide RAMP 4(2)>
- (1495) Sas Biswas, S. Chandra & S.S. Jain (1997): Endangered biodiversity of bamboo, rattan and medicinal plants of Indian Himalaya. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams

- (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 113-121, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5230!!] <threat> <IN>
- (1496) Sawadogo, M. & I.P. Guissou (1996): Orientation stratégique et législation de la médecine traditionnelle au Burkina Faso. In: Rejdali, M. & A. Birouk (Eds.): Diversité biologique et valorisation des plantes médicinales - pp. 207-214, Actes Editions, Rabat. [4975!!] <legislation> <BF>
- (1497) Schäfer, C. & R.K. Lojenga (2000): Workshop on medicinal plants and local communities, Mamou, Guinea, 30.3.-2.4.1999. - Medicinal Plant Conservation 6: 29-30. [6053!!] <GN>
- (1498) Scheerer, J. (2000): Jaborandi. *Pilocarpous microphyllus* Stapf ex Wardleworth. - Zeitschrift für Phytotherapie 21(4): 220-230. [6095!!] <use/ history/ common name/ illustration/ distribution> <*Pilocarpus microphyllus*>
- (1499) Schippmann, U. (1995): The Silphion story. - Medicinal Plant Conservation 1: 2-4. [4982!!] <history/ ethnobotany> <*Thapsia silphium*/ *Thapsia gorganica*/ *Ferula tingitana*/ *Ferula marmarica*/ *Prangos ferulacea*>
- (1500) Schippmann, U. (1997): Plant uses and species risk. From horticultural to medicinal plant trade. In: Newton, J. (Ed.): *Planta Europaea*. Proceedings of the first European Conference on the conservation of wild plants, Hyères, France, 2-8 September 1995 - pp. 161-165, Plantlife, London. [4915!!] <legislation>
- (1501) Schippmann, U. (1997): Directory for Medicinal Plant Conservation now on Internet. - Medicinal Plant Conservation 4: 3. [5395!!] <database/ network>
- The short paper announces a searchable database which contains standardized information on 139 medicinal plant projects and institutions. Address: www.dainet.de/genres/mpc-dir/ (schp)
- (1502) Schippmann, U. (1997): After COP 10. - Medicinal Plant Conservation 4: 16. [5404!!] <policy>
- The short paper summarizes decisions on medicinal plants at the 10th Conference of Parties to CITES held in Harare in June 1997. (schp)
- (1503) Schippmann, U. (1999): Summarizing remarks and conclusions. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 140-146[+2], (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 173-178, TRAFFIC Europe, s.loc. [5684!!] <policy>
- (1504) Schippmann, U. (1999): Selected newsletters and journals. - Medicinal Plant Conservation 5: 27-30. [5751!!] <bibliography>
- (1505) Schippmann, U. (2000): CITES News. - Medicinal Plant Conservation 6: 17-18. [6047!!] <legislation>
- (1506) Schippmann, U. (2000): Green Card für Ginkgo & Co. - WWF-Journal 4/ 2000: 25-28. [6211!!] <policy>
- (1507) Schippmann, U. (2001): Medicinal plants significant trade study. CITES project S-109. Plants Committee Document PC9 9.1.3 (rev.). - 97 pp., Bundesamt für Naturschutz, Bonn (BfN-Schriften 39). [6354!!] <trade volumes/ threat categories/ distribution/ legislation/ common name> <*Aloe ferox*/ *Aquilaria malaccensis*/ *Bletilla striata*/ *Cibotium barometz*/ *Dendrobium nobile*/ *Dioscorea deltoidea*/ *Gastrodia elata*/ *Guaiacum*/ *Panax quinquefolius*/ *Podophyllum hexandrum*/ *Prunus africana*/ *Pterocarpus santalinus*/ *Rauvolfia serpentina*/ *Saussurea costus*>
- (1508) Schmidt, D. (1997): Untersuchungen zum Wuchsverhalten der Arnika (*Arnica montana*) sowie zum Einfluß von Standort und Bewirtschaftung im Thüringer Gebirge. - Artenschutzreport 7: 25-28. [5539!!] <DE> <*Arnica montana*>
- (1509) Schmidt, M., J. Eich, J. Kreimeyer & G. Betti (1998): Improvement of pharmaceutical drug quality. A cultivation project for *Harpagophytum procumbens* in Namibia. - Drogenreport 11 (19): 3-9. [5578!!] <medicinal properties/ cultivation/ export/ trade volumes/ illustration> <NA> <*Harpagophytum procumbens*>
- (1510) Schmidt, M., J. Eich, J. Kreimeyer & G. Betti (1998): Anbau der Teufelskralle. - Deutsche Apotheker Zeitung 138 (47): 4540-4549. [6355!!] <cultivation> <NA> <*Harpagophytum procumbens*>
- (1511) Schmidt, M., J. Eich, J. Kreimeyer & G. Betti (1999): Improvement of pharmaceutical drug quality. A cultivation project for *Harpagophytum procumbens* in Namibia. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 140-146[+2],

- TRAFFIC Europe, s.loc. [5680!!] <cultivation/ illustration/ export volumes/ population status> <NA> <*Harpagophytum procumbens*>
- (1512) Schmitz-Kretschmer, H.J. & U. Schippmann (1997): Artenschutz von Heilpflanzen. Aktivitäten des Bundesamts für Naturschutz. - ATSAF-Circular 51: 43-45. [5164!!] <project>
- (1513) Schmitz-Kretschmer, H.J. & U. Schippmann (1998): Artenschutz bei Heilpflanzen. Aktivitäten des Bundesamts für Naturschutz. - Zeitschrift für Arznei- und Gewürzpflanzen 3: 49-50. [5621!!] <project>
- (1514) Schneider, E. (1997): Sustainable use in semi-wild populations of *Harpagophytum procumbens* in Namibia. - Medicinal Plant Conservation 4: 7-9. [5399!!] <cultivation> <NA> <*Harpagophytum procumbens*>
- The author describes harvesting techniques in natural populations of *Harpagophytum* on a farm project in Namibia. Shifting harvesting and supporting restoring methods obviously increase the density of plants in the harvested area. (schp)
- (1515) Schneider, E. (1998): Kultur am Wildstandort. Eine Möglichkeit zum Schutz wildwachsender Arzneipflanzen. - Drogenreport 11 (20): 20-22. [5817!!] <cultivation> <*Harpagophytum procumbens*>
- (1516) Schneider, M. & B. Bueter (1999): Domestication projects for various endangered medicinal plant species by VitaPlant Ltd. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 200-201, TRAFFIC Europe, s.loc. [5689!!] <cultivation> <*Centaurium erythraea*>
- (1517) Schröder, J.M. (2000): The case of *Prunus africana* (J.H.Hook.) Kalkman. Lessons from a non-timber forest product from Cameroon. - International Tree Crops Journal 10: 337-346. [6335!!] <ntfp/ resource management/ collection> <CM> <*Prunus africana*>
- (1518) Schutow, W.W., K.A. Mironow, A.W. Pismorow, A.M. Sadoroschnij, W.P. Lebedew & A.N. Smirnow (1992): Sapasi sirja nekotorich dikorastuschich lekarstwennich rastenij w zentralnich rayonach Kostromskoj oblasti [Reserves of raw material of some wild medicinal plants in the central regions of the Kostroma district; in Russian]. - Rastitel'nye Resursy 28(1): 41-50. [5086!!] <collection volumes>
- (1519) Schutte-Vlok, A.L. (1998): Not all milk and honeybush tea. - Veld and Flora September: 90-91. [5538!!] <collection/ threat/ uses> <ZA> <*Cyclopia*>
- (1520) Scott-Shaw, R., C. Hilton-Taylor, B. Kasseeppurasad & B. Church (1998): The conservation status of Pepper Bark Tree. - Sabonet News 3(2): 73-75. [5895!!] <population status/ map/ distribution/ habitat/ ecology/ uses/ threat> <ZA> <*Warburgia salutaris*>
- The paper assesses the population and threat status of *Warburgia salutaris* in KwaZulu-Natal (South Africa) as a case study for applying the IUCN threat categories of 1994. By evaluating distribution, habitat, ecology and population biology data the species is assessed as Endangered (EN A1acd) in this region. Exploitation for traditional medicine is regarded as one of the threat causes since the species is highly sought after for a range of ailments. (schp)
- (1521) Seeber, H., H. Abraham, H. Santer & H. Stuppner (1997): Kulturversuche in Südtirol mit *Arnica montana*. - Drogenreport 10 (16): 10-16. [5052!!] <cultivation/ illustration> <IT> <*Arnica montana*>
- (1522) Seidemann, J. (1992): Durch Raubbau ausgerottete Pflanzen. Erst heute? - Naturwissenschaftliche Rundschau 45(11): 429-431. [5374!!] <history> <"*Silphion*">
- (1523) Seidemann, J. (1997): Anguraté, ein Magenmittel aus dem Reich der Inkas. - Pharmazeutische Zeitung 142(41): 3534-3541. [5384!!] <history/ illustration/ medicinal properties/ distribution> <PE> <*Mentzelia cordifolia*>
- The history of Anguraté tea utilization and the taxonomy and distribution of *Mentzelia cordifolia* is described. This Peruvian drug is collected from the wild and is used as a phytomedicine with anti-inflammatory activity in stomach ulcers since the fifties. Stems and roots are used and plants are frequently uprooted which causes concern for the survival of the species if demand increases. (schp)
- (1524) Seidemann, J. (1997): Lapacho, eine wiederentdeckte Heilpflanze der Inkas. - Pharmazeutische Zeitung 142(37): 3116-3120. [5385!!] <illustration/ medicinal properties/ distribution> <*Tabebuia avellaneda*>
- The bark of the Lapacho tree (*Tabebuia avellaneda*) is a traditional Incan remedy which has been "discovered" by Brazilian scientists 40 years ago. The paper summarizes medicinal properties and gives limited information on distribution and taxonomy. (schp)
- (1525) Seidemann, J. (1998): Argan. - Naturwissenschaftliche Rundschau 51(2): 57-60. [5249!!] <distribution/ illustration/ uses> <MA> <*Argania spinosa*>

(1526) Seif el Din, A.K. & M. Zarroug (1997): Production and commercialization of gum arabic in Sudan. In: FAO (Ed.): Domestication and commercialization of non-timber forest products in agroforestry systems. pp. 176-182, FAO, Rome (Non-wood forest products 9). [5002!!] <trade/trade volumes/ cultivation> <SD> <*Acacia senegal/ Acacia seyal*>

The paper presents details of the methods used over the years that enabled the Sudan to supply 85% of the world's demand for gum arabic from *Acacia senegal*. Maintaining the gum gardens, tree tapping and gum collection are described. Export volumes from SD are given. *Acacia senegal* is used in the "bush-fallow" system, where trees are planted and tapped in the fallow period and subsequently felled when crop production is resumed. (from summary)

(1527) Seitz, R. (1999): Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik. Nachhaltige Nutzung pflanzlicher Rohstoffe. - Deutsche Apotheker Zeitung 139: 4271-4273. [5893!!]

(1528) Sekhwela, M.B.M. & P.G. Ntseane (1994): Developing grapple plant (*Harpagophytum procumbens* DC) management strategies in Botswana. - 25 pp., University of Botswana. Unpublished report, Gaborone. [5584!!] <resource management/ policy> <BW> <*Harpagophytum procumbens*>

(1529) Seters, A. van (1999): Rainforests for health. A travelling exhibition. - Medicinal Plant Conservation 5: 24-25. [5749!!]

(1530) Seters, A.P. van (1995): A remedial treasure in our tropical timberyard? - Medicine and Global Survival 2: 248-251. [5051!!] <traditional medicine/ health care>

(1531) Shah, N.C. (1997): Conservation of wild medicinal plants. Need for a comprehensive strategy. - Kurukshetra 46(3): 15-18, 33. [5258!!] <threat/ policy/ exploitation> <IN> <*Aconitum heterophyllum/ Atropa acuminata/ Bunium persicum/ Dactylorhiza hatagirea/ Orchis habernarioides/ Gentiana kurroo/ Hedychium spicatum/ Juriaea/ Nardostachys grandiflora/ Podophyllum hexandrum/ Picrorhiza kurrooa/ Saussurea costus/ Coptis teeta*>

(1532) Shah, N.C. (1997): The status of essential oil bearing plants in Uttarakhand (U.P.) India. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of aromatic plants - pp. 485-503, Regional Research Laboratory, Jammu-Tawi. [5277!!] <collection/ common names/ exploitation> <IN> <*Valeriana jatamansi/ Saussurea costus*>

(1533) Shah, N.C. (1997): Faulty export policy of herbs and crude drugs in India. - Medicinal Plant Conservation 4: 4-5. [5397!!] <policy/ export> <IN>

The paper claims that many herbs and extracts of banned species are currently being exported illegally from India by hiding them under false names in the "Non Essentially Specified" category. The author calls for making it compulsory that all drugs exported have to be accompanied by a botanical name. (schp)

(1534) Shah, N.C. (1997): Lichens of economic importance from the hills of Uttar Pradesh, India. - Journal of Herbs, Spices and Medicinal Plants 5: 69-76. [5519!!] <collection/ trade/ price> <IN>

(1535) Shah, V. & B.S. Kalakoti (1997): Development of *Coleus forskohlii* as a medicinal crop. In: Leakey, R.R.B., A.B. Temu, M. Melnyk & P. Vantomme (Eds.): Domestication and commercialization of non-timber forest products in agroforestry systems. pp. 212-217, FAO, Rome (Non-wood forest products 9). [5003!!] <cultivation/ drug plants/ breeding> <IN> <*Coleus forskholii*>

Tubers of this species contain forskolin, a labdane diterpene which lowers blood pressure. The pharmaceutical company Hoechst has been involved in developing this species as a crop, following heavy exploitation of wild populations in arid and semi-arid areas of India. One objective has been to select varieties that have high tuber yields and higher yields of the active ingredient. This process is described in the paper. (abc)

(1536) Shankar, D. (1996): Conserving the medicinal plants of India. The need for a biocultural perspective. - Journal of Alternative and Complementary Medicine 2: 349-358. [5283!!] <policy/ traditional medicine> <IN>

(1537) Shankar, D. & B. Majumdar (1997): Beyond the Biodiversity Convention. The challenges facing biocultural heritage of India's medicinal plants. In: Bodeker, G., K.K.S. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 87-99, FAO, Rome (Non-wood Forest Products 11). [5569!!] <policy/ health care/ traditional medicine/ legislation/ threat categories> <IN> <*Paphiopedilum druryi/ Pterocarpus santalinus/ Rauvolfia serpentina*>

(1538) Sharma, M.P. (1996): Nomenclatural ambiguity of medicinal plants used in indigenous systems of medicine. In: Handa, S.S. & M.K. Kaul (Eds.): Supplement to cultivation and utilization of medicinal plants - pp. 703-711, Regional Research Laboratory, Jammu-Tawi. [5534!!] <common

names> <*Aconitum heterophyllum/ Gentiana kurroo/ Nardostachys grandiflora/ Picrorhiza kurrooa/ Rheum emodi/ Saussurea lappa*>

(1539) Sharma, R. (1999): Vulnerable and threatened plants of economic value. *Colchicum luteum*. - MFP News 9(2): 13. [5867!!] <threat category/ common name/ distribution/ cultivation> <IN> <*Colchicum luteum*>

(1540) Sharma, R. (1999): Vulnerable and threatened plants of economic value. *Taxus baccata*. - MFP News 9(1): 17-18. [5873!!] <distribution/ threat category/ cultivation/ uses/ collection> <*Taxus baccata*>

(1541) Sharma, R. (1999): Vulnerable and threatened plants of economic value. *Gentiana kurroo*. - MFP News 9(4): 14. [5889!!] <common name/ distribution/ threat category> <*Gentiana kurroo*>

(1542) Sharma, R. (2000): Vulnerable and threatened plants of economic value. *Curcuma caesia*. - MFP-News 10(4): 14. [6311!!] <threat/ common name/ use/ distribution> <IN> <*Curcuma caesia*>

(1543) Shashi Kant, B.K. Kapahi & Y.K. Sarin (1998): *Dioscorea deltoidea*. - 141 pp. [5927] <distribution/ habitat/ medicinal properties> <*Dioscorea deltoidea*> <fide Vedams Homepage, 27.1.00>

(1544) Sheldon, J.W., M. Balick & S. Laird (1998): Is using medicinal plants compatible with conservation? - Plant Talk 13: 29-31. [5382!!] <policy/ cultivation/ sustainability> <*Prunus africana/ Catharanthus roseus/Rhamnus purshiana/ Panax quinquefolius*>

The paper summarizes the results of the book "Medicinal plants. Can utilization and conservation coexist?" by the same authors. (schp)

(1545) Sheldon, J.W., M.J. Balick & S. Laird (1996): Medicinal plants. Can utilization and conservation coexist? - 104 pp., New York Botanical Garden, New York (Advances in Economic Botany 12). [4842!!] <threat/ traditional medicine/ collection/ drug development> <*Sanguinaria canadensis/ Catharanthus roseus/ Pilocarpus/ Prunus africana/ Panax quinquefolius/ Tabebuia/ Rhamnus purshiana/ Hydrastis canadensis/ Echinacea/ Cinchona/ Taxus brevifolia/ Cephaelis ipecacuanha/ Podophyllum/ Rauvolfia serpentina/ Chondodendron*>

The study examines the cases of several plant species (many of them CITES listed) valued in traditional medicine, herbal and pharmaceutical industry, and the

ramifications of their overharvesting. The authors make recommendations for using these resources wisely, ranging from sustainable harvesting from the wild, cultivation to the search for alternative sources. The authors find that "at most levels of interaction, current market systems have not proven capable of balancing wild supplies with unchecked market demands." Reasons for this are mainly the continuing competition over market control and the fact that medicinal plants as a shared resource suffer from the "tragedy of the commons" and may eventually be overharvested to functional extinction. (schp)

(1546) Sherif Eltohami, M. (1995): Case studies on medicinal and aromatic plants in Sudan. - 83 pp., FAO. Unpublished report, Khartoum. [5340!!] <distribution/ cultivation/ habitat/ uses> <SD> <*Rauvolfia vomitoria*>

(1547) Sheriff, P.A. (1997): Spices bibliography 1996, Part 1. - Journal of Spices and Aromatic Crops 6: 59-81. [5601!] <bibliography>

(1548) Shiva, A. (1999): Medicinal plants. First-aid remedies. Their sources and methods of use. - 58 pp., Surya International Publications, Dehra Dun. [5778!!] <medicinal properties> <IN>

(1549) Shiva, M.P. (1996): The MFP database. A stride towards catering to the information needs of NTFP users. In: Lay Cheng Tan, M. Ruiz Perez & M. Ibach (Eds.): Non-timber forest product databases. pp. 45-51, CIFOR, Jakarta (CIFOR Special Publication). [5596!!] <database>

(1550) Shiva, M.P. (1998): MFP database. A basic tool for rich biodiversity and healthy environment for socio-economy. - MFP News 8(2): 8-13. [5510!!] <database>

(1551) Shukla, G.P., K. Rao & K. Haridasan (1994): *Taxus baccata* in Arunachal Pradesh. - Arunachal Forest News 12(1): 1-7. [5324!!] <distribution/ habitat/ exploitation/ cultivation> <IN> <*Taxus baccata*>

(1552) Silva, T. de (1997): Industrial utilization of medicinal plants in developing countries. In: Bodeker, G., K. Bhat, J. Burley & P. Vantomme (Eds.): Medicinal plants for forest conservation and health care. pp. 34-44, FAO, Rome (Non-wood Forest Products 11). [5614!!] <market>

(1553) Simons, A.J., I.K. Dawson, B. Duguma & Z. Tchoundjeu (1998): Passing problems. Prostrate and *Prunus*. - Herbalgram 43: 49-53. [5463!!] <market analysis/ collection/ cultivation> <CM/ KE> <*Prunus africana*>

(1554) Simpoha, J.M. (1996): *Pygeum parviflorum* T&B. Jenis pohon penghasil bahan obat [*Pygeum parviflorum* T & B. A medicinal tree

- species. In Indonesian with English summary]. - Duta Rimba 20: 189-190, 5-8. [5326] <exploitation/ trade> <ID> <Pygeum parviflorum> <fide tree.cabweb Homepage>
- (1555) Sinclair, A. & P.M. Catling (2000): Status of goldenseal, *Hydrastis canadensis* (Ranunculaceae), in Canada. - Canadian Field-Naturalist 114(1): 111-120. [6010!!] <population status> <CA> <*Hydrastis canadensis*>
- While being more abundant in the northern US, *Hydrastis canadensis* is restricted in CA to southwestern Ontario where 26 populations have been reported, 21 of which have been located and visited during this field survey. Attempts to discover additional populations with newly acquired ecological data have failed suggesting that there are few overlooked populations. The authors state that despite recent increase in the popularity in goldenseal as a herbal remedy, there appears to have been little if any decline in Ontario populations since the species was officially listed as threatened in 1991. (schp)
- (1556) Singh, H.B. (1999): Alternate sources for some conventional drug plants of India. - Journal of Economic and Taxonomic Botany 23(1): 109-114. [6332!!] <threat> <IN> <*Gloriosa superba*/ *Dioscorea deltoidea*/ *Withania somnifera*>
- (1557) Singh, J., A. Sharma, S. Chandra Singh & S. Kumar (1999): Medicinal plants for bioprospection 1. - 170 pp., Vedams, Lucknow. [5902] <common names/ distribution/ identification/ medicinal properties> <IN> <*Aconitum*/ *Aquilaria malaccensis*/ *Arnica montana*> <fide Vedams Homepage, 14.1.00>
- (1558) Singh, P.M. (1997): Propagation methods for Indian medicinal plants of conservation concern. - Amruth 1(11): 1-30. [5190!!] <cultivation> <IN> <*Pterocarpus santalinus*/ *Rauvolfia serpentina*>
- (1559) Singh, R.K. & R. Tangri (1997): Vulnerable and threatened plants of economic value. *Atropa acuminata* Royle ex Lindl. - MFP News 7(3): 13. [5179!!] <uses/ distribution/ population status/ cultivation/ common name> <IN> <*Atropa acuminata*>
- (1560) Singh, S. & S. Kumar (1998): *Withania somnifera*. The Indian Ginseng Ashwagandha. - 293 pp. [5590] <distribution/ biology/ medicinal properties> <IN> <*Withania somnifera*> <fide Koeltz 074346; Vedams Homepage>
- (1561) Singh, Y.N. & M. Blumenthal (1997): Kava. An overview. Distribution, mythology, botany, culture, chemistry and pharmacology of the South Pacific's most revered herb. - Herbalgram 39: 33-55. [5020!!] <ethnobotany/ uses/ distribution/ history/ illustration> <*Piper methysticum*>
- (1562) Sirola, M. (1999): Studies offer insight into illegal medicine trade. - TRAFFIC Dispatches January 1999: 3-4. [5781!!] <trade/ traditional medicine> <CN/ HK>
- (1563) Sizer, N. (1996): Profit without plunder. Reaping revenue from Guyana's tropical forests without destroying them. - 68 pp., World Resources Institute, Washington. [4932] <GY> <fide BCN 162>
- (1564) Skorupa, L.A. & M. Assis (1998): Collecting and conserving ipecac (*Psychotria ipecacuanha*, Rubiaceae) germplasm in Brazil. - Economic Botany 52: 209-210. [5914!!] <ex-situ/ distribution/ map/ common name>
 <*Psychotria ipecacuanha*>
- (1565) Skottke, M. (1998): Erfahrungen mit FNHP im Vorhaben "Kommunale Trockenwaldbewirtschaftung". - Wald-Info 23: 16-19. [5438!!] <resource management> <BW> <*Harpagophytum procumbens*>
- (1566) Small, E. & P.M. Catling (1999): Canadian medicinal crops. - 240 pp., NRC Research Press, Ottawa. [5859!!] <cultivation> <CA>
- Canada has approx. 3200 native plant species, of which nearly 1000 have medicinal uses. This volume provides excellent and detailed summaries of ecological, ethnobotanical, and pharmacological information for 25 species with current or potential commercial value as crops, including CITES Appendix II *Hydrastis canadensis* and *Panax quinquefolius*. For each of the species, conservation considerations are included within a discussion of the agricultural and commercial aspects of their development as crops. The volume also includes extensive reference lists, including relevant web sites, as well as a thorough treatment of the regulatory and commercial environment for medicinal plant production in Canada. (djl)
- (1567) Smallfield, B.M., J.M. Follett, M.H. Douglas, J.A. Douglas & G.A. Parmenter (1995): Production of *Panax* spp. in New Zealand. In: Svoboda, K.P., J.C. Laughlin & V.E. Brown (Eds.): International symposium on medicinal and aromatic plants, Kyoto, 21-27 August 1994. pp. 83-91, ISHS, Leuven (Acta Horticulturae 390). [6343!!] <cultivation> <NZ> <*Panax ginseng*/ *Panax quinquefolius*>
- (1568) Smith, G.F. & Crouch, N.R. (1999): Mesembs in the muthi-market. *Lithops lesliei* as an ethnomedicinal plant. - British Cacti and Succulent Journal 17(3): 133-137. [5959!!] <trade/ ethnobotany> <ZA> <*Lithops lesliei*>

- (1569) Smith, P.M. (1999): A review of studies on consumer attitudes towards forest products marketed with environmental, social and/or sustainability attributes. - 91 pp., FAO, Rome. [6021!!] <nwfp/ certification>
- (1570) Soehartono, T. & A.C. Newton (2000): Conservation and sustainable use of tropical trees in the genus Aquilaria. 1. Status and distribution in Indonesia. - Biological Conservation 96: 83-94. [6089!!] <distribution/ map/ population status> <ID> <Aquilaria malaccensis/ Aquilaria beccariana/ Aquilaria microcarpa/ Aquilaria hirta/ Aquilaria cumingiana/ Aquilaria filaria>
- One rarely finds papers which primarily focus on research of the conservation status of species threatened by over-utilization. Therefore this study is most welcome, especially in the context of additional CITES listings. Presently only *A. malaccensis* is on Appendix II. 6 Aquilaria species occur in ID. The annual export trade value from ID is estimated at US\$ 6 million. The authors found population concentrations in Sumatra and eastern Kalimantan. Analysis of national forest inventory data indicated that population densities are low (<1.2 individuals/ ha). Continuous recruitment was found in some areas but also a general absence of larger trees. All Aquilaria species in Indonesia are assessed as Vulnerable according to the IUCN threat categories. (schp)
- (1571) Soehartono, T. & A.C. Newton (2000): Conservation and sustainable use of tropical trees in the genus Aquilaria. 2. The impact of gaharu harvesting in Indonesia. - Biological Conservation 97: 29-41. [6231!!] <collection> <ID> <Aquilaria malaccensis/ Aquilaria microcarpa>
- In the second part of their study the authors assess the impact of agarwood or gaharu harvesting on populations of *A. malaccensis* and *A. microcarpa* in ID and the sustainability of the current harvesting levels. This was achieved by observing and measuring the harvesting activities of gaharu collectors by accompanying them on collecting trips. The quantity of gaharu obtained from felling was very low, 100-180 g per tree for the high grade gaharu. Combining these yield and overall trade figures the authors estimate that 30-100,000 trees per year are felled. The matrix model approaches used showed that *A. malaccensis* populations will decline if trees with a dbh of <10cm are harvested. *A. microcarpa* populations are only safe if trees >30cm dbh are used. (schp)
- (1572) Soejarto, D.D. (1996): Biodiversity prospecting and benefit-sharing. Perspectives from the field. In: Soejarto, D.D., L. Rivier, C. Gyllenhaal & N.R. Farnsworth (Eds.): Intellectual property rights, naturally derived bioactive compounds and resource conservation. Proceedings of an international symposium, San José, Costa Rica, October 20-22, 1994. pp. 1-15, Elsevier, Limerick (Journal of Ethnopharmacology 51).
- [5300!] <ipr/ legislation/ policy/ bioprospecting/ benefit sharing>
- (1573) Sonkram Thammincha, Bunvong Thaiutsa & Wanida Subansenee (1997): Medicinal plants, bamboo and rattan in mountain development in Thailand. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5. 1996. pp. 216-218, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5234!!] <TH>
- (1574) Sporer, F. & S. Chribasik (1999): Präparate aus der Teufelskralle (*Harpagophytum procumbens*). - Zeitschrift für Phytotherapie 20: 335-336. [5882!!] <medicinal properties> <*Harpagophytum procumbens*>
- (1575) Steinhoff, B. (1998): The legal situation of phytomedicines in Germany. In: Tomlinson, T.R. & O. Akerele (Eds.): Medicinal plants. Their role in health and biodiversity - pp. 137-143, University of Pennsylvania Press, Philadelphia. [6289!!] <legislation> <DE>
- (1576) Steinhoff, B. (1999): ESCOP and WHO monographs. A potential scientific basis for a rational assessment of herbal medicinal products in Europe under specific aspects of the regulatory situation. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 67-73, TRAFFIC Europe, s.loc. [5671!!] <legislation/ monograph>
- (1577) Stockinger, G. (2000): Nierenkiller aus Fernost. - Der Spiegel 6/ 2000: 182-186. [6330!!] <adverse effects/ tcm> <CN> <*Aristolochia manshuriensis/ Aconitum*>
- The report in the weekly newspaper describes serious cases of kidney and liver failure of patients in Germany, Belgium and Britain after the long-term use of traditional Chinese herbal teas and patent medicine. A reason for this is seen in the lack of regular testing of imported raw drugs regarding identity, safety and efficacy. (schp)
- (1578) Subedi, B. (2000): Plant profile. Kutki. *Picrorhiza scrophulariiflora*. - Himalayan Bioresources 4: 14-152. [6037!!] <distribution/ use/ resource management/ collection> <NP> <*Picrorhiza scrophulariiflora*>
- (1579) Subedi, B. & A. Koontz (1999): Sustainable harvesting means more than amount

- harvested. - Himalayan Bioresources 3: 2. [6035!!] <resource management/ collection> <NP> <Nardostachys grandiflora/Picrorhiza scrophulariiflora>
- (1580) Subedi, B. & R. Shrestha (1999): Plant profile. Jatamansi (Nardostachys grandiflora). - Himalayan Bioresources 3: 14-152. [6036!!] <distribution/ use/ resource management/ collection> <NP> <Nardostachys grandiflora>
- (1581) Subramanian, K.N. & K.R. Sasidharan (1997): Conservation and management of wild germplasm of medicinal plants. In: Pushpangadan, P., K. Ravi & V. Santhosh (Eds.): Conservation and economic evaluation of biodiversity - pp. 146-157, Science Publishers, Enfield. [6125!!] <policy/ threat> <IN>
- (1582) Subramanian, K.N. & K.R. Sasidharan (1997): Biodiversity of medicinal trees in the Western Ghats. In: Pushpangadan, P., K. Ravi & V. Santhosh (Eds.): Conservation and economic evaluation of biodiversity - pp. 159-177, Science Publishers, Enfield. [6126!!] <threat/ plant parts/ use> <IN>
- (1583) Sumner, J. (2000): The natural history of medicinal plants. - 235 pp., Timber Press, Portland. [6274!!] <history>
- The author teaches botany, medicinal botany and ethnobotany at the Arnold Arboretum of Harvard University. She gives a comprehensive summary of the many aspects of medicinal plants directed to the lay reader. Students will appreciate this excellent introduction in a fascinating research field. In 10 chapters Sumner covers: history of medicinal botany, ethnobotany, habitats, plant chemicals, plant physiology, a number of case studies (the usual ones), prospecting for new medicines, and conservation. Maybe the most unusual in this collection of standard issues is the one on "zoopharmacognosy and botanical toxins". It refers to some interesting examples of self-medication of animals, mainly primates, birds and elephants. (schp)
- (1584) Sunderland, C.H., L.E. Clark & P. Vantomme, Eds. (1999): Non-wood forest products in central Africa. Current research issues and prospects for conservation and development. - 288 pp., FAO, Rome. [5936!!] <nwfp/ uses>
- This book published by FAO contains 29 papers in four sections: Introduction (1 paper), Ecological Issues (8), Socio-political Issues (8), Market-economic Issues (10), and Networks and Information Exchange (2). (schp)
- (1585) Sunderland, T. & C. Obama (1999): A preliminary market survey of the non-wood forest products of Equatorial-Guinea. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 211-220, FAO, Rome. [5972!!] <nwfp/ uses/ common names> <GQ> <Prunus africana>
- (1586) Sunderland, T. & C.T. Tako (1999): The exploitation of Prunus africana on the island of Bioko, Equatorial Guinea. - <www.ggcg.st/bioko/bioko_prunus.htm> (viewed 21.3.2000) [5986!!] <use/ legislation/ export volumes/ cultivation> <GQ> <Prunus africana>
- (1587) Sunderland, T. & Nkefor, J. (1997): Conservation through cultivation. A case study. The propagation of Pygeum, Prunus africana. - Tropical Agriculture Association Newsletter December: 5-13. [5800!!] <cultivation> <CM> <Prunus africana>
- (1588) Sunderland, T. & P. Tchouto (1999): A participatory survey and inventory of timber and non-timber forest products of the Mokoko River Forest Reserve, SW Province, Cameroon. - 44 pp., Unpublished report, s.loc. [5823!!] <cultivation/ exploitation/ uses> <CM> <Enantia chlorantha/ Garcinia mannii/ Tetrapleura tetraptera>
- (1589) Sunderland, T. & T.C. Tanyi (2000): The exploitation of Prunus africana on the island of Bioko, Equatorial guinea. - Medicinal Plant Conservation 6: 18-20. [6048!!] <exploitation/ trade volumes> <GQ> <Prunus africana>
- (1590) Sunderland, T., M.L. Ngo-Mpeck, Z. Tchoundjeu & A. Akoa (1999): The ecology and sustainability of Pausinystalia johimbe. An over-exploited medicinal plant of the forests of central Africa. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 67-77, FAO, Rome. [5968!!] <nwfp/ uses/ exploitation/ identification/ cultivation> <CM/ GQ> <Pausinystalia johimbe/ Pausinystalia macroceras>
- The bark of yohimbe is used to treat male organic impotence and is exploited in large quantities for local and export markets. The demand is generating considerable over-exploitation and local scarcity. Concerned over future supplies, Boehringer Ingelheim, a German pharmaceutical company, commissioned ICRAF to undertake a pilot study. The report covers the following fields: natural distribution, population structure, reproduction biology, current commercial bark exploitation practices in Cameroon, impacts of exploitation, confusion between P. johimbe and P. macroceras, and potential for domestication. It remains to be seen which effect the marketing of Viagra has on the future demand for yohimbe. (schp)

- (1591) Sunderland, T., Z. Tchoundjeu & M.L. Ngo-Mpeck (2000): The exploitation of *Pausinystalia johimbe*. - Medicinal Plant Conservation 6: 21-23. [6049!!] <exploitation> <CM/ GQ/ NG> <*Pausinystalia johimbe*>
- (1592) Sung Nak-sool (1999): Prospect and agricultural background of medicinal plants. In: TRAFFIC East Asia (Ed.): Proceedings of the workshop on the conservation of medicinal plants, Seoul, 25.11.1998 - pp. 35-46, TRAFFIC East Asia. Unpublished report, Hong Kong. [6116!!] <cultivation> <KR> <*Gastrodia elata*>
- (1593) Svarstad, H., H.C. Bugge & S.S. Dhillion (2000): From Norway to Novartis. Cyclosporin from *Tolypocladium inflatum* in an open access regime. - Biodiversity and Conservation 9: 1521-1541. [6227!!] <bioprospecting/ ipr> <NO>
- (1594) Swanson, T.M., Ed. (1998): Intellectual property rights and biodiversity conservation. An interdisciplinary analysis of the values of medicinal plants. - 271 pp., Cambridge University Press, Cambridge. [5643!!] <ipr>
- (1595) Tandon, V. (1996): Medicinal plants conservation provides communities with health and wealth. - Diversity 12(3): 36-37. [4931!!] <IN>
- (1596) Tandon, V. (1997): Second CAMP workshop in southern India. - Medicinal Plant Conservation 3: 10-12. [4993!!] <methods> <IN>
- The southern Indian Foundation for the Revitalisation of Local Health Traditions (FRLHT) has organized a second Conservation Assessment and Management Plan (CAMP) workshop in Bangalore in February 1996. 44 medicinal plants were assessed by experts. Of the 14 endemics, 4 were categorized as Critically Endangered, 3 as Endangered, using the new IUCN categories of threat. (schp)
- (1597) Taylor, F. (s.dat.): Sustainable management of indigenous resources. The potential of non-timber forest products from the Mwanza district, Malawi. - 24 pp., SADC-FSTCU & GTZ, Lilongwe. [5579!!] <nwfp> <MW>
- (1598) Taylor, F.W. & H. Moss (1982): Final report on the potential for commercial utilization of veld products. 1. Appendix I. Maps. Densities and distribution of 111 plants investigated during survey of 83 villages around Botswana. - 234 pp., Government Printer. Unpublished report, Gaborone. [5976!!] <distribution/ map/ population status> <BW> <*Harpagophytum procumbens*>
- (1599) Tchoundjeu, Z., B. Duguma, M.L. Tiencheu & M.L. Ngo-Mpeck (1999): The domestication of indigenous agroforestry trees. ICRAF's strategy in the humid tropics of west and central Africa. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 161-169, FAO, Rome. [5971!!] <nwfp/ cultivation> <*Prunus africana/ Pausinystalia johimbe*>
- (1600) Teik, N.L. & M.A.M. Idris (1997): Trade in medicinal and aromatic plants in Malaysia. - (FRIM Reports 71). [5915] <trade> <MY> <fide Non-Wood News 6:82>
- (1601) Ten Kate, K. (1995): Biopiracy of green petroleum? Expectations and best practice in bioprospecting. - 61 pp., Overseas Development Administration, s.loc. [5273!!] <bioprospecting/ policy/ legislation>
- (1602) Ten Kate, K. (1999): The Convention on Biological Diversity and its medicinal plant implications. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 111-113, TRAFFIC Europe, s.loc. [5676!!] <legislation>
- (1603) Ten Kate, K. & S.A. Laird (1999): The commercial use of biodiversity. Access to genetic resources and benefit-sharing. - 398 pp., Earthscan, London. [5790!!] <sustainability/ biodiversity> <*Piper methysticum/ Panax vietnamensis/ Bixa orellana*>
- This book provides a comprehensive explanation of access and benefit sharing in relation to the Convention of Biodiversity and the national legislation and contracts related to this. It also analyses the ethical and legal issues related to crop development, crop protection, horticulture, biotechnology, and personal care and cosmetic products. Clearly written, skillfully combining case studies and 'boxed' examples with a good glossary, comprehensive bibliography, index and list of useful contacts and sources of information, this book provides an essential reference for policymakers, entrepreneurs and professionals working in conservation and rural development. (abc)
- (1604) Tetenyi, P. (1991): Development of collection, introduction and cultivation of medicinal and aromatic plants in Nepal. - Newsletter of Medicinal and Aromatic Plants 1991/ 1: 43-45. [6305!!] <threat/ cultivation> <NP>
- (1605) Tewari, D.N. (1997): Economic and ecological rehabilitation through sustainable commercialization of medicinal plants in the Indian Himalaya. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo,

- rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 122-130, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5231!!] <resource management/policy> <IN>
- (1606) Thomas, D.W. & M.R. James (1999): Global medicinal plant trade and its impact on local traders and gatherers. A case study from Tamil Nadu. - Medicinal Plant Conservation 5: 4-6. [5733!!] <market analysis/ plant parts> <IN>
- (1607) Thomson-Delaney, J. (1999): Wild ginseng. A Canadian perspective. - TRAFFIC North America 2: 4-6. [5630!!] <distribution/price> <CA> <*Panax quinquefolius*>
- (1608) Thormann, I., D.I. Jarvis, J.A. Dearing & T. Hodgkin (1999): Internationally available information sources for the development of in situ conservation strategies for wild species useful for food and agriculture. - Plant Genetic Resources Newsletter 118: 38-50. [5877!!] <database>
- The paper covers information sources on plant genetic resources many of which are important sources for medicinal plant conservation work, too. The Internet is used as the major tool. The main table describes 33 websites covering information mainly on species, but also on protected areas, the physical environment, organisations and people. A second important table summarizes 19 meta-databases which provide links to databases covering similar topics. All URLs cited in the paper were correct on 15.9.1998. (schp)
- (1609) Toit, J. du, E. Joubert & T.J. Britz (1998): Honeybush tea. A rediscovered indigenous South African herbal tea. - Journal of Sustainable Agriculture 12(2/3): 67-84. [5615!!] <cultivation/ market/ distribution/ map> <ZA> <*Cyclopia*>
- (1610) Toledo, V.M., A.I. Batis, R. Becerra, E. Martinez & C.H. Ramos (1995): La selva útil. Etnobotánica quantitativa de los grupos indígenas del trópico húmedo de México. - Interciencia 20(4): 177-187. [5057!!] <database/ ethnobotany> <MX>
- (1611) Tomlinson, T.R. & O. Akerele, Eds. (1998): Medicinal plants. Their role in health and biodiversity. - 221 pp., University of Pennsylvania Press, Philadelphia. [5805!!] <legislation/ economics/ exploitation>
- (1612) Torkelson, A.R. (1999): Cross name index to medicinal plants. 4. Plants in Indian medicine. - 1329-1870 pp., CRC Press, Boca Raton. [5754!] <common name/ encyclopedia/ standard>
- (1613) TRAFFIC Europe, Ed. (1999): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew. - 214 pp., TRAFFIC Europe, s.loc. [5663!!] <trade/ legislation/ resource management/ cultivation> <AL/ GB/ ES/ TR>
- (1614) TRAFFIC International (21.12.1999): Time to act on traditional medicine and wild resources. A challenge to the health and wildlife heritage of Africans. - <www.TRAFFIC.org/news/africa2000.html> (viewed 3.1.2000) [5890!!] <policy/ health care>
- (1615) TRAFFIC International (21.12.1999): Workshop on Ecuador. Use and trade of medicinal plants, current status and important aspects for their conservation'. - <www.TRAFFIC.org/news/ecuadorworkshop.html> (viewed 3.1.2000) [5891!!] <policy/ trade> <EC> <*Brosimum utile*/ *Brugmansia aurea*/ *Bursera graveolens*/ *Cinchona pubescens*/ *Croton*/ *Dacryodes*/ *Maytenus laevis*/ *Maytenus krukovi*/ *Uncaria tomentosa*>
- (1616) Tran Khac Bao (1996): Utilization and conservation of medicinal plant genetic resources in Vietnam. In: Plant genetic resources in Vietnam. Proceedings of the national workshop on strengthening of the plant genetic resources programme, Hanoi, Vietnam, 28-30 March 1995 - pp. 99-102, Agriculture Publishing, Hanoi. [5291] <threat/ policy> <VN> <fide RAMP 3:6>
- (1617) Tran Van On, Do Quyen, Le Dinh Bich, B. Jones, J. Wunder & J.Russell-Smith (2001): A survey of medicinal plants in Ba Vi National park, Vietnam. Methodology and implications for conservation and sustainable use. - Biological Conservation 97: 295-304. [6350!!] <VN>
- (1618) Trivedi Babu, N.V. (1992): Introduction of Red Sanders in Kerala. - Indian Forester 118: 109-111. [6137!!] <cultivation> <IN> <*Pterocarpus santalinus*>
- (1619) Uniyal, R.C., M.R. Uniyal & P. Jain (2000): Cultivation of medicinal plants in India. A reference book. - 161 pp., TRAFFIC India & WWF India, New Delhi. [6224!!] <cultivation/ encyclopedia> <IN>
- (1620) Valkenburg, J.L.C.H. van (1997): Non-timber forest products of East Kalimantan. Potentials for sustainable forest use. - 202 pp., The Tropenbos Foundation, Wageningen (Tropenbos Series 16). [5138!!] <nwfp> <ID> <*Aquilaria*>

- (1621) Vanden Bloock, A. (1999): Medicinal Plant Symposium, 22-23.6.1998, Kew. -Medicinal Plant Conservation 5: 23-24. [5748!!]
- (1622) Vaso, A. (1999): Organisation of harvesting in Albania. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 33-49, TRAFFIC Europe, s.loc. [5668!!] <trade/ legislation/ market analysis/ export volumes> <AL>
- (1623) Ved, D.K. & D. Shankar (1997): Banning export of endangered medicinal plants. How scientific is the decision? - Amruth 1(11): 16-18. [5191!!] <legislation/ threat> <IN> <*Disoxylum malabaricum*/ *Decalepis hamiltonii*/ *Myristica malabarica*/ *Garcinia indica*>
- (1624) Ved, D.K. & V. Tandon, Eds. (1998): Conservation assessment and management plan workshop for high altitude medicinal plants of Jammu-Kashmir and Himachal Pradesh, Kullu, Himachal Pradesh, 16-18 April 1998. - 75 pp., FRLHT, Bangalore. [5474!!] <threat/ habitat/ threat categories/ decline/ population status/ distribution/ common names/ cultivation> <IN> <*Gentiana kurroo*/ *Dactylorhiza hatagirea*/ *Saussurea costus*/ *Aconitum*/ *Picrorhiza kurrooa*/ *Podophyllum hexandrum*/ *Rheum*/ *Nardostachys grandiflora*>
- The report of the Kullu CAMP workshop presents a detailed assessment study of 42 high altitude medicinal plants of two states in the NW Himalayas of India. The species are assigned to a IUCN threat category and detailed species data sheets are provided. Among the investigated species, only *Saussurea costus* is listed in CITES App. I, while *Dactylorhiza hatagirea*, *Nardostachys grandiflora*, *Picrorhiza kurrooa*, and *Podophyllum hexandrum* are in App. II. A trade survey revealed that all 42 species are in trade with more than 2/3 of the species being traded for their roots, rhizomes or bulbs. Management recommendations for selected species as well as a bibliography are given. General information on CAMP workshops and the IUCN threat categories are provided. (roh)
- (1625) Ved, D.K. & V. Tandon (1999): CAMP workshop in Kullu. - Medicinal Plant Conservation 5: 10-11. [5738!!] <threat categories> <IN>
- (1626) Vedavathy, S. (1998): Medicinal plants and primary health care. A plan of action. - MFP News 8(4): 9-11. [5592!!] <health care/ policy>
- (1627) Verlet, N. (1996): An overview of the medicinal and aromatic plant industry. In: Atti convegno internazionale. Coltivazione e miglioramento di piante officinali, Trento, Italy, 2-3 giugno 1994 - pp. 251-264, Ist. Sperimentale per l'Assessment Forestale, Trento. [5278] <market analysis> <fide RAMP 3:260>
- (1628) Verlet, N. & G. Leclercq (1999): The production of aromatic and medicinal plants in the European Union. An economic database for a development strategy. In: TRAFFIC Europe (Ed.): Medicinal plant trade in Europe. Proceedings of the first symposium on the conservation of medicinal plants in trade in Europe, 22-23.6.1998, Kew - pp. 121-126, TRAFFIC Europe, s.loc. [5678!!] <cultivation/ database>
- (1629) Verotta, L., Ed. (1997): Virtual activity, real pharmacology. Different approaches to the search for bioactive natural compounds. - 237 pp., Research Signpost, Trivandrum. [5312!!] <drug development/ medicinal properties>
- (1630) Villamar, A.A., L.M.C. Asseleih & M.E. Rodarte (1994): Atlas de las plantas de la medicina tradicional de Mexico 1-3. - 1786 pp. [4832] <MX> <fide NHBS Catalogue>
- (1631) Vo, Van Chi (1997): Tu dien cay thuoc Viet Nam [Encyclopedia of medicinal plants in Viet Nam; in Vietnamese]. - 1468 pp., Y Hoc, s.loc. [5516!!] <illustration> <VN>
- The book presents data on some 3200 medicinally used taxa in Viet Nam. They are illustrated by 2911 drawings and 768 photographs. The accompanying text is in Vietnamese, one index is on scientific names. (from summary)
- (1632) Voeks, R.A. (1996): Tropical forest healers and habitat preference. - Economic Botany 50: 381-400. [5280!!] <habitat/ methods/ exploitation/ common name/ plant part>

- The author addresses the question whether tropical pharmacopoeias are concentrated in primary as opposed to disturbed forests. The results of a study carried out in Bahia, BR, show that healers have a strong preference for disturbed forest over primary forests. Second growth forest plots yielded 2.7 times the number of medicinal species identified in primary forest plots. The survey likewise elicited an ethnobotany characterized by herbaceous, weedy, cultivated, and exotic taxa. These results may reflect the availability and intrinsic medicinal value of disturbance species, as well as the increasing rarity of the region's primary forests. (from summary)
- (1633) Vogel, H., U. Doll, M. Munoz, I. Razmilic, J. San Martin & G. Vizcarra (1998): Boldo (*Peumus boldus* Mol.). Vermehrungsversuche und ökophysiological Untersuchungen am natürlichen Standort in Chile. - Drogenreport 11 (19): 14-17. [5814!!] <cultivation/ distribution/ trade> <CL> <*Peumus boldus*>

- (1634) Wagner, H. & R. Seitz (1998): Lapacho (*Tabebuia impetiginosa*). Porträt einer südamerikanischen Urwalddroge. - Zeitschrift für Phytotherapie 19: 226-238. [5472!!] <nomenclature/ distribution/ habitat/ common names/ plant parts/ traditional medicine/ medicinal properties> <*Tabebuia impetiginosa*/ *Tabebuia avellaneda*>
- (1635) Waller, F. (1998): Phytotherapie der traditionellen chinesischen Medizin. - Zeitschrift für Phytotherapie 19: 77-89. [5423!!] <tcm/ traditional medicine>
- (1636) Walter, S. (1997): The situation of *Prunus africana* in Madagascar. - Medicinal Plant Conservation 3: 14-15. [4995!!] <trade/ collection/ resource management> <MG> <*Prunus africana*>
- The author describes the uncontrolled harvesting and the trade structure of *Prunus africana* utilization in MG. Instead of using debarking methods (like in CM), the trees are felled. Trade is controlled by one exporter and one Italian importer. Radical changes in resource management are urgently needed. (schp)
- (1637) Walter, S. (1998): The utilization of non-timber forest products in the rainforests of Madagascar. A case study. - Plant Research and Development 47/ 48: 121-144,247-257. [5916!!] <nwfp> <MG> <*Prunus africana*>
- (1638) Warrier, P.K., V.P.K. Nambiar & C. Ramankutty, Eds. (1994): Indian medicinal plants. A compendium of 500 species 2. - 416 pp., Orient Longman, Madras. [5585!!] <illustration/ plant parts/ common names/ distribution/ habitat> <IN>
- (1639) Warrier, P.K., V.P.K. Nambiar & C. Ramankutty, Eds. (1994): Indian medicinal plants. A compendium of 500 species 3. - 423 pp., Orient Longman, Madras. [5920!!] <illustration/ plant parts/ common names/ distribution/ habitat> <IN>
- (1640) Warrier, P.K., V.P.K. Nambiar & C. Ramankutty, Eds. (1995): Indian medicinal plants. A compendium of 500 species 4. - 444 pp., Orient Longman, Madras. [5586!!] <illustration/ plant parts/ common names/ distribution/ habitat> <IN>
- (1641) Warrier, P.K., V.P.K. Nambiar & C. Ramankutty, Eds. (1996): Indian medicinal plants. A compendium of 500 species 5. - 592 pp., Orient Longman, Madras. [5587!!] <illustration/ plant parts/ common names/ distribution/ habitat> <IN>
- (1642) Wegener, T. (1998): Die Teufelskralle (*Harpagophytum procumbens* DC.) in der Therapie rheumatischer Erkrankungen. - Zeitschrift für Phytotherapie 19: 284-294. [5509!!] <medicinal properties/ illustration> <*Harpagophytum procumbens*>
- (1643) Wegener, T. (2000): Devil's claw. From African traditional remedy to modern analgesic and antiinflammatory. - Herbalgram 50: 47-54. [6351!!] <medicinal property> <*Harpagophytum procumbens*>
- (1644) Wenzel, P. & T. Wegener (1995): Teufelskralle. Ein pflanzliches Antirheumatikum. - Deutsche Apotheker Zeitung 135: 1131-1144. [5434!!] <illustration/ medicinal properties> <*Harpagophytum procumbens*>
- (1645) Wichtl, M., Ed. (1997): Teedrogen, 3rd edition. - 668 pp., Wissenschaftliche Verlagsgesellschaft, Stuttgart. [5170!]
- (1646) Wichtl, M. (1999): Porträt einer Arzneipflanze. Eisenkraut. *Verbena officinalis* L. - Zeitschrift für Phytotherapie 20: 353-358. [5994!!] <medicinal properties> <*Verbena officinalis*>
- (1647) Wiersema, J.H. & B. Leon (1999): World economic plants. A standard reference. - 749 pp., CRC Press, Boca Raton. [5797!!] <common name/ use/ reference>
- This checklist of economic plants of the world is arranged alphabetically by scientific names. Each entry contains the following elements: plant name author, common names, use category and distribution. For each of these elements, the comprehensive introduction tables the underlying classification systems. An index of common names in the back covers 213 pages. Almost 150 reviewers have been involved in the making of the catalog which holds data on over 9500 vascular plants that are traded, regulated, or otherwise important to international commerce. It is based on 71,700 taxon-literature records held in the GRIN database of the Agricultural Research Service of the US Department of Agriculture. See also their website at: www.ars-grin.gov/npgs.tax. (schp)
- (1648) Wild, R.G. & J. Mutebi (1996): Conservation through community use of plant resources. Establishing collaborative management at Bwindi impenetrable and Mgahinga Gorilla National Parks, Uganda. - 45 pp., UNESCO, Paris (People and Plants Working Paper 5). [5159!!] <resource management/ nwfp/ plant parts/ collection volumes> <UG>
- (1649) Wilgenburg, H. van (1997): Global research on MAP. - ICMAP Newsletter 4: 9-10. [5115!!] <database>
- The author describes the need for a global electronic network using the Internet. Starting in 1997, the project PhytoPharNet is launched by the University of Amsterdam. The tool is planned to cover pharmacology, pharmacognosy, drug development and toxicology. Conservation related information or research are not mentioned. (schp)

- (1650) Wilkie, D. (1999): CARPE and non-wood forest products. In: Sunderland, T., L.E. Clark & P. Vantomme (Eds.): Non-wood forest products of central Africa. Current research issues and prospects for conservation and development - pp. 3-16, FAO, Rome. [5966!!] <nwfp/ distribution/ plant parts/ uses> <Pausinystalia johimbe/ Prunus africana/ Voacanga africana/ Baillonella toxisperma>
- (1651) Williams, J.S. (1998): GEF in Sri Lanka. Rescuing tradition. - World Conservation 2/ 1998: 17. [5456!!] <traditional medicine> <LK>
- (1652) Williams, J.T. (1997): Research and development opportunities on bamboo, rattan and medicinal plants in the Himalayas. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5.1996. pp. 34-44, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5227!!] <resource management/ policy>
- (1653) Williams, V., K. Balkwill & E.T.F. Witkowski (2000): Unraveling the commercial market for medicinal plants and plant parts on the Witwatersrand, South Africa. - Economic Botany 54: 310-327. [6228!!] <ethnobotany/ market analysis> <ZA>
- "Knowing what species are traded commercially is the foundation for identifying threatened taxa" (p.324). A sample of 50 herb-traders of the formal sector in the Witwatersrand area around Johannesburg was surveyed. An inventory of all plants and parts sold was compiled. Shop-keepers were questioned on the scarcity and popularity of the plants traded, as well as their suppliers and origins. About 511 plants are traded in the region. The authors found that a number of plant families have a higher probability of entering utilization than would be expected from their percentage representation in the South African flora. In table 3 the 14 taxa are listed that have been nominated as "scarce" by 10% or more of the interview partners. (schp)
- (1654) Williams, V.L., K. Blakwil & E.T.F. Witkowski (1997): Muthi traders on the Witwatersrand, South Africa. An urban mosaic. - South African Journal of Botany 63(6): 378-381. [5248!!] <market analysis/ ethnobotany> <ZA>
- This paper describes the spatial distribution and ethnic background among herb-traders on the Witwatersrand, an urbanised region in the Gauteng Province in South Africa. The data are derived from a study undertaken in 1994 and are compared with data from the 1960's. In 1994, an estimated number of 244 herb-traders were expected to be in practice in the study area, with 70% of these being located in Johannesburg. The majority of the herb-traders on the Witwatersrand were found to be black (52.4%) and male (62.7%). (roh)
- (1655) Wood Sheldon, J. & M.J. Balick (1998): Ethnobotany and the search for balance between use and conservation. In: Swanson, T.M. (Ed.): Intellectual property rights and biodiversity conservation. An interdisciplinary analysis of the values of medicinal plants - pp. 45-64, Cambridge University Press, Cambridge. [6129!!] <ethnobotany>
- (1656) Wootton, J.C. (2000): Directory of databases for research into alternative and complimentary medicine. - The Journal of Alternative and Complimentary Medicine 3: 179-190. [6325!!] <database>
- The paper briefly describes the content, access and contact details for 56 databases. 35 of them are available online over the Internet and of these, 17 are freely, publicly available. The directory itself is directly accessible under <http://cpmcnet.columbia.edu/dept/rosenthal/databases.htm> (viewed 16.3.2001). (schp)
- (1657) Wootton, J.C. (2000): Directory of databases for research into alternative and complimentary medicine. - The Journal of Alternative and Complimentary Medicine 4: 401-403. [6326!!] <database>
- The papers contains updates on 10 entries to supplement the earlier paper of the author. (schp)
- (1658) World Resources Institute (1993): A short list of plant-based medicinal drugs. - <www.econet.apc.org/wri/biodiv/pharmacy.htm> (viewed 8.6.2000) [6025!!] <drug development>
- (1659) Wu, J. & R. Chang (1999): TRAFFIC creates more links with TCM community. - TRAFFIC Dispatches January: 9. [5639!!] <tcn/ policy>
- (1660) Wyk, B.E. van, B. van Oudtshoorn & N. Gericke (1997): Medicinal plants of South Africa. - 304 pp., Briza Publications, Pretoria. [5365!!] <plant parts/ distribution/ illustration/ uses/ common names/ map> <ZA> <Aloe ferox/ Bowiea volubilis/ Catha edulis/ Catharanthus roseus/ Cyclopia intermedia/ Glycyrrhiza glabra/ Harpagophytum procumbens/ Prunus africana/ Warburgia salutaris/ Withania somnifera>
- The book reviews the 132 best known of South Africas over 3000 medicinal plants. Each taxon entry consists of one page of photographic illustrations, some of the plant's habit and often also of the plant part found in the market. A second page gives a botanical description, common names, plant parts used, uses and data on pharmacology, active ingredients, preparation and dosage. The distribution in South Africa is illustrated by a map. Only little information on the wider distribution

- is given and nothing at all about over-harvest and possible threats. (schp)
- (1661) Wynberg, R. & S. Laird (1997): The scramble for genes. Biodiversity prospecting in South Africa. - Africa Environment and Wildlife 5(3): 53-59. [5180!!] <bioprospecting/ traditional medicine> <ZA>
- (1662) Xiao Pei-Gen & Peng Yong (1998): Ethnopharmacology and research on medicinal plants in China. In: Prendergast, H.D.V., N.L. Etkin, D.R. Harris & P.J. Houghton (Eds.): Plants for food and medicine. Proceedings of the joint conference of the Society for Economic Botany and the International Society for Ethnopharmacology, London, 1.-6.6.1996 - pp. 31-39. [6336!!] <pharmacology> <CN>
- In their introductory paragraphs the authors present a calculation of the proportion of medicinally used species in the Chinese flora. They report that 11,118 taxa are used for medicinal purposes: 467 thalophytes, 43 bryophytes, 455 pteridophytes, 126 gymnosperms, 8598 dicotyledons, and 1429 monocotyledons. Two tables list the plant families with more than 100 medicinal plant species and the genera with more than 30 medicinal plant species. 10 families have more than 75% species in medicinal use. (schp)
- (1663) Xin, J. (1995): The present situation and future prospects for American ginseng in China. In: Bailey, W.G., C. Whitehead, J.T.A. Proctor & J.T. Kyle (Eds.): The challenges of the 21st century. Proceedings of the International Ginseng Conference, Vancouver, 1994 - pp. 467-470, Simon Fraser University, Burnaby. [5764!!] <cultivation> <CN> <*Panax quinquefolius*>
- (1664) Xin, J., D. Wang & B. Xin (1995): Results of the experimental introduction and cultivation of American Ginseng (*Panax quinquefolium* L.). In: Bailey, W.G., C. Whitehead, J.T.A. Proctor & J.T. Kyle (Eds.): The challenges of the 21st century. Proceedings of the International Ginseng Conference, Vancouver, 1994 - pp. 471-480, Simon Fraser University, Burnaby. [5998!!] <cultivation> <CN> <*Panax quinquefolius*>
- (1665) Xu Jianchu (1997): Taxus at risk in Yunnan, southwest China. - Medicinal Plant Conservation 4: 10. [5401!!] <collection/ trade> <CN> <*Taxus chinensis*/ *Taxus yunnanensis*/ *Taxus cuspidata*>
- The short paper summarizes information on distribution, exploitation, trade and conservation measures of the three *Taxus* species in China. Extraction volumes are given. (schp)
- (1666) Yang, Li-Xin, Xu Jian-Chu & Li Lian-Fang (1999): [The distribution and the present situation of utilization of *Taxus* L. resources in Yunnan province and its protection and sustainable utilization, in Chinese with English summary]. - Journal of Plant Resources and Environment 8: 39-43. [5963] <exploitation/ threat> <CN> <*Taxus*> <fide RAMP 5(6):318>
- (1667) Zahoor Ahmad (1997): Medicinal plants of Pakistan. In: Karki, M., A.N. Rao, V. Ramanatha Rao & J.T. Williams (Eds.): The role of bamboo, rattan and medicinal plants in mountain development. Proceedings of a workshop held at the Institute of Forestry, Pokhara, Nepal, 15.-17.5. 1996. pp. 207-214, International Development Research Centre, New Delhi (INBAR Technical Report 15). [5236!!] <distribution> <PK>
- (1668) Zaitseva, N. (1993): Medicinal raw material resources of the Karelian forests and problems concerning their protection. - Aquilo Seria Botanica 31: 147-151. [5084!!] <population status/ threat/ resource management> <RU> <*Arctostaphylos uva-ursi*>
- The author presents the results of 20 years of scientific monitoring of the resource potential of wild populations of some 30 medicinal plant species in Karelia. Constant growth in harvesting volumes and expansion of the range of raw materials is taking place. 10 t of medicinal plant raw materials were collected annually 1971-1975, in 1986-1990 these annual volumes reached 80 t. In this period the range increased from 10 to 35 species. *Ledum palustre* ranks first with 27.5 t per year, *Arctostaphylos uva-ursi* has annual collection volumes of 1.6 t. Volumes of raw material resources for 7 species are tabulated for 9 Karelian regions. The populations of *A. uva-ursi* have been intensively exploited and stocks are widely exhausted. (schp)
- (1669) Zargari, A. (1995-1997): Medicinal plants. 5 volumes. [In Farsi with Latin nomenclature]. - 3400 pp. [5756] <IR> <fide Koeltz 074867>
- (1670) Zenker, J.M. (1997): Arznei-, Gewürz-, Aroma- und Farbstoffpflanzen im Internet. - Drogenreport 10 (16): 54-56. [5053!!] <database/ methods>
- (1671) Zepernick, B. (1975): Die Arzneipflanzen in den deutschsprachigen Pharmakopöen der Gegenwart. - Willdenowia 7: 591-653. [6076!!] <pharmacopoeia>
- (1672) Zhang Weiping, Ed. (1998): China's biodiversity. A country study. - 476 pp., China Environmental Science Press, Beijing. [6134!!] <threat> <CN> <*Ephedra*/ *Stephania*/ *Panax ginseng*/ *Oplopanax elatus*/ *Gastrodia elata*/ *Acanthopanax senticosus*/ *Panax pseudoginseng*/ *Dimocarpus longan*/ *Changium smyrnioides*/ *Cephaelotaxus hainanensis*>

- (1673) Zobel, A.M., M. Furmanova, K. Glowniak & C. Cragg (1996): Taxol on the surface of leaves and inside the needles of three species and two varieties of *Taxus*. - *Phytomedicine* 3: 287-291. [6327!!] <database> <*Taxus baccata/ Taxus cuspidata/ Taxus media*>

Significant quantities of taxol were found in the needles of three *Taxus* species thus being a potential renewable resource for this expensive drug. Taxol was not only located inside the needles but also on their surface. (schp)

- (1674) Zschocke, S., T. Rabe, J.L.S. Taylor, A.K. Jäger & J. van Staden (2000): Plant part substitution. A way to conserve endangered medicinal plants? - *Journal of Ethnopharmacology* 71: 281-292. [6142!!] <plant part/ medicinal property> <ZA> <*Eucomis autumnalis/ Siphonochilus aethiopicus/ Ocotea bullata/ Warburgia salutaris*>

In southern Africa many medicinal plants are slow-growing forest trees, bulbous and tuberous plants. The fact that mainly bark and underground parts are utilized makes them especially sensitive to over-exploitation. This paper outlines a concept to substitute the use of these critical plant parts with other plant organs of the same species. Four of the most important and most threatened South African medicinal plants were used as case studies and extracts of various plant parts were compared chemically. The results presented show that the potential for plant part substitution is highly species specific. In principle, this seems to be a promising conservation strategy and more investigations need to follow. (schp)

Index on Keywords

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AL Albania (1121) (1264) (1613) (1622)	CH Switzerland (1095) (1477)
AR Argentina (1147) (1221) (1248)	CI Cote d'Ivoire (881) (1054) (1178)
AU Australia (892) (913) (935) (1232) (1376) (1400) (1401)	CL Chile (1633)
BD Bangladesh (1480)	CM Cameroon (878) (879) (914) (994) (1019) (1051) (1091) (1115) (1213) (1365) (1517) (1553) (1587) (1588) (1590) (1591)
BF Burkina Faso (1496)	CN China (890) (1161) (1162) (1163) (1188) (1189) (1257) (1258) (1299) (1301) (1357) (1394) (1396) (1398) (1399) (1406) (1487) (1562) (1577) (1662) (1663) (1664) (1665) (1666) (1672)
BO Bolivia (1146) (1168)	CO Colombia (1129) (1462)
BR Brazil (907) (1028) (1094) (1108) (1353) (1404) (1411) (1564) (1632)	CR Costa Rica (1018) (1354) (1371) (1486)
BT Bhutan (899) (931) (1357) (1485)	DE Germany (969) (979) (998) (1148) (1179) (1183) (1184) (1187) (1234) (1262) (1264) (1268) (1270) (1273) (1457) (1508) (1575)
BW Botswana (900) (1144) (1238) (1320) (1377) (1528) (1565) (1598)	DK Denmark (1342)
BZ Belize (925) (927)	DO Dominican Republic (1125)
CA Canada (1013) (1112) (1348) (1555) (1566) (1607)	DZ Algeria (898)

EC Ecuador (995) (1350) (1615)	GY Guyana (1563)
EG Egypt (898) (941) (1145)	HK Hong Kong (1290) (1562)
ER Eritrea (1320)	HN Honduras (1293)
ES Spain (963) (964) (965) (1105) (1106) (1264) (1461) (1613)	HU Hungary (921) (949) (950) (1264) (1268)
ET Ethiopia (1055) (1320)	ID Indonesia (931) (1000) (1025) (1096) (1155) (1167) (1281) (1286) (1554) (1570) (1571) (1620)
FI Finland (1123) (1124)	IL Israel (1295)
FR France (1110) (1264)	IN India (876) (877) (899) (901) (902) (903) (905) (918) (922) (923) (924) (931) (943) (952) (953) (962) (1007) (1008) (1010) (1012) (1014) (1015) (1016) (1017) (1023) (1071) (1072) (1074) (1075) (1079) (1089) (1093) (1127) (1142) (1156) (1182) (1202) (1203) (1204) (1205) (1206) (1207) (1208) (1209) (1210) (1211) (1214) (1219) (1220) (1224) (1225) (1230) (1231) (1247) (1251) (1254) (1257) (1258) (1284) (1311) (1312) (1334) (1349) (1357) (1362) (1363) (1391) (1392) (1393) (1397) (1415) (1420) (1421) (1431) (1435) (1436) (1437) (1440) (1442) (1450) (1458) (1489) (1493) (1494) (1495) (1531) (1532) (1533) (1534) (1535) (1536) (1537) (1539) (1542) (1548) (1551) (1556) (1557) (1558) (1559) (1560) (1581) (1582) (1595) (1596) (1605) (1606) (1618) (1619) (1623) (1624) (1625) (1638) (1639) (1640) (1641)
GN Guinea (1497)	IQ Iraq (883)
GQ Equatorial Guinea (1585) (1586) (1589) (1590) (1591)	IR Iran, Islamic Republic of (1669)
GT Guatemala (1130) (1131)	
GW Guinea-Bissau (1073)	

IT Italy (1340) (1370) (1521)	ML Mali (1233) (1385)
JO Jordan (1384)	MM Myanmar (931)
KE Kenya (934) (1048) (1055) (1122) (1126) (1320) (1377) (1553)	MU Mauritius (1143)
KH Cambodia (1414)	MW Malawi (1320) (1597)
KP Korea, Democratic People's Republic of (1149)	MX Mexico (936) (966) (987) (996) (1001) (1165) (1169) (1339) (1377) (1452) (1610) (1630)
KR Korea, Republic of (1222) (1287) (1289) (1592)	MY Malaysia (931) (1361) (1600)
LA Lao People's Democratic Republic (931)	MZ Mozambique (928) (1320)
LK Sri Lanka (886) (1651)	NA Namibia (900) (933) (1044) (1109) (1144) (1244) (1291) (1300) (1307) (1320) (1358) (1509) (1510) (1511) (1514)
LS Lesotho (1320)	NG Nigeria (1003) (1099) (1201) (1227) (1352) (1591)
LT Lithuania (1432)	NI Nicaragua (937)
LY Libyan Arab Jamahiriya (898)	NO Norway (1342) (1593)
MA Morocco (898) (945) (1176) (1525)	NP Nepal (909) (955) (956) (957) (958) (999) (1085) (1093) (1185) (1215) (1231) (1313) (1357) (1379) (1380) (1381) (1382) (1383) (1408) (1449) (1578) (1579) (1580) (1604)
MG Madagascar (889) (914) (977) (1051) (1062) (1063) (1150) (1320) (1428) (1429) (1430) (1441) (1443) (1444) (1445) (1446) (1448) (1451) (1636) (1637)	

NZ New Zealand (1147) (1459) (1567)	SV El Salvador (1086)
OM Oman (885)	SZ Swaziland (1320)
PE Peru (896) (959) (960) (1194) (1218) (1341) (1359) (1523)	TH Thailand (931) (1573)
PH Philippines (931) (1032) (1306)	TN Tunisia (898) (1020) (1021)
PK Pakistan (1240) (1357) (1447) (1464) (1484) (1667)	TR Turkey (906) (997) (1097) (1229) (1249) (1264) (1316) (1386) (1387) (1388) (1389) (1613)
PL Poland (1302)	TZ Tanzania, United Republic of (1070) (1309) (1320)
QA Qatar (1463)	UA Ukraine (1268) (1412)
RO Romania (1268)	UG Uganda (1045) (1052) (1320) (1648)
RU Russian Federation (1102) (1107) (1268) (1336) (1413) (1668)	US United States (887) (911) (912) (926) (929) (946) (947) (966) (973) (983) (988) (989) (990) (991) (1002) (1005) (1006) (1030) (1060) (1081) (1112) (1116) (1139) (1190) (1217) (1252) (1297) (1298) (1303) (1304) (1328) (1329) (1330) (1331) (1346) (1347) (1348) (1409) (1410) (1465) (1467) (1468) (1469) (1470) (1472) (1474)
SA Saudi Arabia (885) (1377)	VE Venezuela (1134)
SD Sudan (1526) (1546)	VN Viet Nam (891) (931) (1083) (1278) (1279) (1368) (1616) (1617) (1631)
SG Singapore (931)	YE Yemen (1055)
SI Slovenia (932)	
SO Somalia (1055) (1320)	

YU Yugoslavia
(1242)

ZA South Africa
(900) (904) (982) (1036) (1038) (1039)
(1040) (1041) (1042) (1066) (1144) (1314)
(1320) (1333) (1369) (1476) (1519) (1520)
(1568) (1609) (1653) (1654) (1660) (1661)
(1674)

ZM Zambia
(1320)

ZW Zimbabwe
(1077) (1320) (1322) (1377)

Index on Taxa

Taxa names are documented as originally cited in the reference. Therefore synonyms and accepted names may both appear in this index (e.g.: *Nardostachys grandifolia* is a synonym of *N. jatamansi*. Both names can be found in the index linked to different references)

Abies spectabilis (1449)	Aconitum spicatum (957)	Aniba duckei (907)
Acacia (1135)	Acorus calamus (1388) (1389) (1440)	Aniba rosaeodora (907)
Acacia senegal (1526)	Actaea racemosa (887)	Ankyropetalum (1389)
Acacia seyal (1526)	Adonis (1416)	Ansellia gigantea (928)
Acanthopanax senticosus (1672)	Adonis vernalis (1195) (1264) (1266) (1268) (1269) (1345) (1473)	Aquilaria (931) (1620)
Aconitum (956) (1017) (1254) (1489) (1557) (1577) (1624)	Aloe (910)	Aquilaria agallocha (1156) (1391)
Aconitum deinorrhizum (1209)	Aloe ferox (904) (982) (1267) (1377) (1507) (1660)	Aquilaria beccariana (1286) (1391) (1570)
Aconitum heterophyllum (957) (1011) (1156) (1225) (1257) (1380) (1382) (1436) (1531) (1538)	Aloe secundiflora (1366)	Aquilaria cumingiana (1391) (1570)
Aconitum kashmericum (1225)	Amomum villosum (1189)	Aquilaria filaria (1391) (1570)
Aconitum orochryseum (1379) (1380) (1381) (1382)	Amomum xanthioides (1189)	Aquilaria hirta (1391) (1570)
	Anacyclis pyrethrum (1270)	Aquilaria malaccensis (908) (930) (931) (1016) (1026) (1254) (1267) (1349) (1391) (1507) (1557) (1570) (1571)
	Ancistrocladus korupensis (1115) (1212)	Aquilaria microcarpa (1391) (1570) (1571)
	Andrographis paniculata (1142)	Arctostaphylos uva-ursi (1102) (1264) (1269) (1342) (1668)
	Anemopsis californica (1005)	Areca catechu (1059)
	Angelica glauca (1008)	Argania spinosa (1525)

Aristolochia manshuriensis (1577)	Bergenia crassifolia (1102)	(1494) (1544) (1545) (1660)
Arnica (1438) (1439)	Bixa (1135)	Centaurea cyanus (1121)
Arnica montana (980) (981) (998) (1095) (1264) (1324) (1412) (1508) (1521) (1557)	Bixa orellana (1603)	Centaurium (941)
Artemisia granatensis (1461)	Bletilla striata (1267) (1398) (1507)	Centaurium erythraea (1432) (1516)
Asarum europaeum (1269)	Boswellia serrata (903)	Centella asiatica (910) (1390) (1440) (1443) (1444)
Asparagus racemosus (955) (1440)	Bowiea volubilis (1660)	Cephaelis acuminata (1198)
Atractylodes lancea (1161) (1162)	Brosimum utile (1615)	Cephaelis ipecacuanha (1198) (1545)
Atropa acuminata (1531) (1559)	Brugmansia aurea (1615)	Cephalotaxus (1399)
Atropa belladonna (1198)	Bunium persicum (1437) (1531)	Cephalotaxus hainanensis (1672)
Azadirachta indica (1257)	Bursera graveolens (1615)	Cetraria islandica (1264)
Baillonella toxisperma (1650)	Calendula officinalis (1325)	Changium smyrnioides (1672)
Ballota (1389)	Camellia chrysanthia (1196)	Chirantodendron pentadactylon
Ballota saxatilis (1388)	Camptotheca acuminata (1195)	(1169)
Banisteriopsis caapi (995)	Carapa guianensis (1028)	Chondodendron Chrysanthemum cinerarifolium
Barlia robertiana (1388)	Cassia (1198)	(1270)
Berberis (1198) (1440)	Catha edulis (1055) (1660)	Cibotium barometz (1267) (1398) (1406) (1507)
Bergenia ciliata (1436) (1440)	Catharanthus coriaceus (1150)	Cimicifuga (1118)
	Catharanthus roseus (932) (1198) (1390) (1443) (1444) (1451)	Cimicifuga racemosa (1006) (1117) (1118)

Cinchona	Crocus sativus	Dendrobium
(915) (1198) (1270)	(1120)	(957) (1406)
(1545)	Crossopteryx febrifuga	Dendrobium candidum
Cinchona pubescens	(1385)	(1399)
(995) (1615)		Dendrobium nobile
Cinnamomum glaucescens	Croton	(1267) (1398) (1507)
(1449)	(995) (1341) (1615)	Dictamnus albus
Cinnamomum tamala	Croton cajucara	(1121)
(956) (1440)	(1028)	Digitalis
Cistanche deserticola	Croton lechleri	(1198)
(1162) (1195)	(984) (1113) (1341)	Dimocarpus longan
Colchicum luteum	(1359)	(1672)
(1539)	Cryptolepis sanguinolenta	Dioscorea deltoidea
Coleus forskholii	(1073)	(956) (957) (1074) (1192)
(1535)	Curcuma caesia	(1208) (1223) (1254)
Combretum microthrum	(1397) (1542)	(1257) (1267) (1349)
(1385)	Curcuma xanthorrhiza	(1380) (1382) (1449)
Commiphora wightii	(1152)	(1460) (1489) (1507)
(903)	Cyclamen	(1543) (1556)
Conospermum	(1249)	Dioscorea villosa
(892)	Cyclopia	(1081)
Copaifera multijuga	(1519) (1609)	Diospyros
(1028)	Cyclopia intermedia	(1214)
Coptis	(1660)	Diphylenia
(910)	Cypripedium acaule	(1189)
Coptis chinensis	(1116)	Disoxylum malabaricum
(1005)	Dacryodes	(1623)
Coptis omeiensis	(1615)	Drosera madagascariensis
(1189)	Dactylorhiza hatagirea	(1443) (1444)
Coptis teeloides	(955) (956) (957) (1009)	Drosera ramentacea
(1189)	(1072) (1220) (1254)	(951) (1443)
Coptis teeta	(1311) (1349) (1379)	Drosera rotundifolia
(962) (1156) (1254)	(1380) (1381) (1382)	(1124) (1264)
(1393) (1489) (1531)	(1449) (1531) (1624)	Duboisia
Cordyceps sinensis	Daiswa polyphylla	(1192) (1198)
(1449)	(955)	Duboisia leichhardtii
	Decalepis hamiltonii	(1376)
	(1623)	

Duboisia myoporoides	Fritillaria	Glycyrrhiza glabra
(1376)	(1249)	(885) (941) (1110) (1192)
Echinacea	Fritillaria cirrhosa	(1198) (1264) (1269)
(990) (1190) (1331)	(955) (956) (957) (1189)	(1660)
(1545)	Fritillaria delavayi	Glycyrrhiza uralensis
Echinacea angustifolia	(1189)	(1161) (1162)
(910) (912) (1217)	Fritillaria pallidiflora	Gnetum africanum
Echinacea pallida	(1189)	(1364)
(910) (1116)	Galanthus	Gnetum buchholzianum
Echinacea purpurea	(1249)	(1364)
(910) (1116) (1217)	Garcinia affzellii	Goodyera procera
Eleutherococcus senticosus	(1178)	(1398)
(988) (1061) (1116)	Garcinia indica	Griffonia simplicifolia
(1469)	(1623)	(1049) (1054)
Enantia chlorantha	Garcinia mannii	Guaiacum
(1588)	(1588)	(1267) (1507)
Ephedra	Gasteria croucheri	Guaiacum coulteri
(1347) (1672)	(1039) (1377)	(966) (1169)
Epipactis yunnanensis	Gastrodia elata	Guaiacum officinale
(1398)	(1162) (1267) (1398)	(897) (908) (966)
Erythroxylum coca	(1406) (1507) (1592)	Guaiacum sanctum
(1168)	(1672)	(908) (966) (1195)
Eucomis autumnalis	Gentiana kurroo	Guaiacum unijugum
(1066) (1674)	(1011) (1220) (1254)	(966)
Eucomis bicolor	(1257) (1531) (1538)	Gymnadenia conopsea
(1066)	(1541) (1624)	(1398)
Euphorbia duseimata	Gentiana lutea	Gypsophila
(1377)	(1123) (1249) (1264)	(1264) (1389)
Euphorbia tirucalli	(1340) (1388) (1389)	Gypsophila arrostii
(1164)	(1461)	(906) (1388)
Fagonia indica	Ginkgo biloba	Hamamelis virginiana
(1464)	(942) (1299) (1394)	(1116)
Ferula marmarica	Gloriosa superba	Harpagophytum procumbens
(1499)	(1049) (1349) (1366)	(900) (933) (951) (1034)
Ferula tingitana	(1390) (1556)	(1036) (1044) (1049)
(1499)	Gloriosa virescens	(1104) (1109) (1144)
	(1066)	(1195) (1238) (1291)
	Glycyrrhiza	(1296) (1300) (1307)
	(1270) (1399)	(1333) (1358) (1434)

(1473) (1509) (1510)	<i>Littonia modesta</i>	<i>Moringa stenopetala</i>
(1511) (1514) (1515)	(1066)	(893)
(1528) (1565) (1574)	<i>Lophophora williamsii</i>	<i>Myrciaria dubia</i>
(1598) (1642) (1643)	(888) (1377)	(1359)
(1644) (1660)	<i>Lycopodium</i>	<i>Myristica malabarica</i>
<i>Harpagophytum zeyheri</i>	(902) (1085) (1389)	(1623)
(1049) (1104) (1296)	<i>Lycopodium annotinum</i>	<i>Nardostachys</i>
<i>Haworthia limifolia</i>	(1388)	(1085)
(1041) (1377)	<i>Lycopodium clavatum</i>	<i>Nardostachys grandiflora</i>
<i>Hedychium spicatum</i>	(1249) (1379) (1380)	(909) (955) (956) (957)
(1531)	(1382) (1388) (1449)	(1072) (1196) (1254)
<i>Hemidesmus indicus</i>	<i>Lycopodium lucidulum</i>	(1267) (1357) (1379)
(1421)	(1081)	(1380) (1381) (1382)
<i>Hintonia latiflora</i>	<i>Lycopodium selago</i>	(1383) (1398) (1419)
(1169)	(1388)	(1420) (1449) (1489)
<i>Hydrastis canadensis</i>	<i>Magnolia officinalis</i>	(1531) (1538) (1579)
(887) (929) (988) (1005)	(1399)	(1580) (1624)
(1006) (1030) (1081)	<i>Mahonia aquifolium</i>	<i>Nardostachys jatamansi</i>
(1116) (1196) (1267)	(1005)	(1011) (1185) (1349)
(1298) (1328) (1329)	<i>Mahonia nervosa</i>	(1419) (1420) (1436)
(1330) (1466) (1468)	(1005)	<i>Nepenthes khasiana</i>
(1472) (1474) (1545) (1555)	<i>Mallotus</i>	(1349)
<i>Hydrocotyle filicaulis</i>	(1135)	<i>Ocotea bullata</i>
(1443)	<i>Maytenus</i>	(1042) (1369) (1674)
<i>Hyoscyamus muticus</i>	(995)	<i>Ophrys</i>
(1198)	<i>Maytenus krukovi</i>	(1249) (1388)
<i>Hypericum perforatum</i>	(1615)	<i>Oplopanax elatus</i>
(971) (1121)	<i>Maytenus laevis</i>	(1672)
<i>Jurinea</i>	(1615)	<i>Orchis</i>
(1531)	<i>Menzelia cordifolia</i>	(1249) (1388)
<i>Jurinea macrocephala</i>	(1523)	<i>Orchis habenarioides</i>
(1074)	<i>Menyanthes trifoliata</i>	(1531)
<i>Khaya senegalensis</i>	(1264)	<i>Origanum</i>
(1366)	<i>Mondia whitei</i>	(1121)
<i>Ledum palustre</i>	(1040)	<i>Origanum majorana</i>
(1102)	<i>Moringa oleifera</i>	(1316)
<i>Leucojum</i>	(893)	<i>Origanum minutiflorum</i>
(1249)		(906) (1388) (1389)
<i>Lithops lesliei</i>		
(1568)		

Origanum onites	Peumus boldus	Podophyllum peltatum
(1316)	(1633)	(1081)
Origanum syriacum	Picrorhiza kurrooa	Podophyllum sikkimensis
(1316)	(1011) (1072) (1074) (1196) (1206) (1220)	(1014)
Origanum vulgare	(1231) (1254) (1257)	Prangos ferulacea
(1270)	(1267) (1349) (1357)	(1499)
Paeonia	(1383) (1436) (1447)	Primula
(1264) (1389)	(1489) (1531) (1538) (1624)	(1264)
Paeonia mascula	Picrorhiza scrophulariiflora	Primula veris
(906) (1388)	(955) (956) (957) (1379) (1380) (1381) (1382)	(1269)
Panax	(1449) (1578) (1579)	Protea gauguedi
(1156) (1198) (1224)	Pilocarpus	(1044)
(1270)	(1411) (1545)	Prunus africana
Panax ginseng	Pilocarpus microphyllus	(878) (879) (908) (914)
(910) (988) (990) (1189)	(1498)	(978) (994) (1047) (1048)
(1192) (1195) (1336)	Piper methysticum	(1049) (1051) (1056)
(1343) (1469) (1473)	(874) (990) (1403) (1561)	(1062) (1063) (1064)
(1567) (1672)	(1603)	(1091) (1111) (1280)
Panax pseudoginseng	Plantago ovata	(1365) (1429) (1443)
(957) (1189) (1202) (1224)	(1198)	(1444) (1448) (1507)
(1349) (1489) (1672)	Plantago psyllium	(1517) (1544) (1545)
Panax quinquefolius	(1198)	(1553) (1585) (1586)
(887) (911) (983) (1002)	Pleione bulbocodioides	(1587) (1589) (1599)
(1006) (1013) (1081)	(1398)	(1636) (1637) (1650)
(1116) (1192) (1267)	Pleione yunnanensis	(1660)
(1343) (1465) (1467)	(1398)	Psychotria ipecacuanha
(1468) (1469) (1472)	Podophyllum	(1354) (1564)
(1474) (1507) (1544)	(1192) (1545)	Pterocarpus angolensis
(1545) (1567) (1607)	Podophyllum emodi	(1044)
(1663) (1664)	(1207) (1447)	Pterocarpus santalinus
Panax vietnamensis	Podophyllum hexandrum	(908) (1127) (1135)
(1603)	(880) (899) (932) (952)	(1205) (1247) (1254)
Panax zingiberensis	(955) (956) (957) (1011)	(1450) (1487) (1507)
(1189)	(1014) (1024) (1072)	(1537) (1558) (1618)
Paphiopedilum druryi	(1074) (1081) (1156)	Pygeum parviflorum
(1537)	(1207) (1220) (1254)	(1554)
Pausinystalia johimbe	(1267) (1349) (1360)	Quassia amara
(894) (1049) (1256) (1590)	(1436) (1494) (1507)	(1270)
(1591) (1599) (1650)	(1531) (1624)	Rauvolfia
Pausinystalia macroceras		(1390)
(1590)		

Rauvolfia confertiflora (1443) (1444)	Sanguinaria canadensis (1545)	Siphonochilus natalensis (1369)
Rauvolfia serpentina (882) (910) (955) (956) (957) (1011) (1081) (1156) (1167) (1192) (1198) (1254) (1257) (1349) (1390) (1397) (1421) (1449) (1480) (1481) (1507) (1537) (1545) (1558)	Sarracenia (1470)	Smilax aristolochiaefolia (1169)
Rauvolfia vomitoria (1049) (1366) (1546)	Satureja parvifolia (1146)	Spiranthes sinensis (1398)
Ravensara aromatica (1445)	Saussurea costus (1072) (1204) (1311) (1349) (1398) (1447) (1487) (1489) (1507) (1531) (1532) (1624)	Stephania (1672)
Rhamnus purshiana (1544) (1545)	Saussurea lappa (899) (1011) (1220) (1538)	Stephania japonica (932) (1494)
Rheum (1624)	Schisandra chinensis (1086)	Sternbergia (1249)
Rheum australe (955) (956) (957) (1379) (1380) (1381) (1382)	Scilla (1369)	Swertia chirata (956) (1203) (1381) (1436)
Rheum emodi (1011) (1538)	Sclerocarya birrea (1385)	Swertia chirayita (955) (1380) (1382) (1440)
Rubia manjith (955)	Senecio graveolens (1146)	Syzygium travancoricum (905)
Ruscus aculeatus (1264) (1388) (1389)	Serenoa repens (947) (990)	Tabebuia (1545)
Salvadora oleoides (1240)	Sideritis (1461)	Tabebuia avellaneda (1164) (1524) (1634)
Salvadora persica (885)	Sideritis hyssopifolia (1461)	Tabebuia impetiginosa (1164) (1634)
Salvia (1121)	Sideritis murgetana (1461)	Talauma mexicana (1169)
Salvia officinalis (1270)	Sideritis raeseri (1121)	Taxus (1189) (1399) (1408) (1666)
Sandersonia aurantiaca (1066)	Sideritis tragoriganum (1461)	Taxus baccata (940) (1015) (1067) (1079) (1440) (1492) (1540) (1551) (1673)
	Sinopodophyllum (1189)	Taxus baccata subsp. wallichiana (1458)
	Siphonochilus aethiopicus (1066) (1674)	

Taxus brevifolia	Vaccinium stamineum
(1027) (1081) (1116)	(1112)
(1192) (1545)	Vaccinium vitis-idaea
Taxus chinensis	(1102)
(1665)	Valeriana
Taxus cuspidata	(1420)
(1665) (1673)	Valeriana edulis
Taxus media	(1169)
(1673)	Valeriana hardwickii
Taxus wallichiana	(1419)
(908) (932) (943) (1254)	Valeriana jatamansi
(1349) (1449) (1494)	(955) (956) (1074) (1380)
Taxus yunnanensis	(1382) (1419) (1449)
(1665)	(1485) (1532)
Terminalia macroptera	Vanda
(1073)	(1308)
Tetrapleura tetrapтера	Vepris heterophylla
(1588)	(1385)
Thapsia garganica	Verbena officinalis
(1499)	(1646)
Thapsia silphium	Vitex agnus-castus
(1499)	(1323) (1374)
Thymus	Voacanga africana
(964) (965) (1121) (1264)	(1049) (1650)
(1388)	Voacanga thouarsii
Trichodesma indicum	(1443) (1444)
(1464)	Warburgia salutaris
Ulmus wallichiana	(928) (1520) (1660)
(1407)	(1674)
Uncaria	Werneria poposa
(1454)	(1146)
Uncaria guianensis	Withania somnifera
(1194) (1218)	(1397) (1556) (1560)
Uncaria tomentosa	(1660)
(896) (959) (960) (995)	
(1194) (1218) (1237)	
(1275) (1359) (1454)	
(1455) (1615)	

Appendix

Country Codes

Country references in the *Medicinal Plant Conservation Bibliography* are based on ISO Standard 3166.

AD	Andorra	DK	Denmark	KH	Cambodia
AE	United Arab Emirates	DM	Dominica	KI	Kiribati
AF	Afghanistan	DO	Dominican Republic	KM	Comoros
AG	Antigua and Barbuda	DZ	Algeria	KN	Saint Kitts and Nevis
AI	Anguilla	EC	Ecuador	KP	Korea, Democratic People's Republic
AL	Albania	EE	Estonia	KR	Korea, Republic
AM	Armenia	EG	Egypt	KW	Kuwait
AN	Netherlands Antilles	EH	Western Sahara	KY	Cayman Islands
AO	Angola	ER	Eritrea	KZ	Kazakhstan
AQ	Antarctica	ES	Spain	LA	Lao People's Democratic Republic
AR	Argentina	ET	Ethiopia	LB	Lebanon
AS	American Samoa	FI	Finland	LC	Saint Lucia
AT	Austria	FJ	Fiji	LI	Liechtenstein
AU	Australia	FK	Falkland Islands (Malvinas)	LK	Sri Lanka
AW	Aruba	FM	Micronesia Federated Islands	LR	Liberia
AZ	Azerbaijan	FO	Faeroe Islands	LS	Lesotho
BA	Bosnia and Herzegovina	FR	France	LT	Lithuania
BB	Barbados	GA	Gabon	LU	Luxembourg
BD	Bangladesh	GB	United Kingdom of Great Britain and Northern Ireland	LV	Latvia
BE	Belgium	GD	Grenada	LY	Libyan Arab Jamahiriya
BF	Burkina Faso	GE	Georgia	MA	Morocco
BG	Bulgaria	GF	French Guiana	MC	Monaco
BH	Bahrain	GH	Ghana	MD	Moldova
BI	Burundi	GI	Gibraltar	MG	Madagascar
BJ	Benin	GL	Greenland	MH	Marshall Islands
BM	Bermuda	GM	Gambia	ML	Mali
BN	Brunei Darussalam	GN	Guinea	MM	Myanmar (Burma)
BO	Bolivia	GP	Guadeloupe	MN	Mongolia
BR	Brazil	GQ	Equatorial Guinea	MO	Macau
BS	Bahamas	GR	Greece	MP	Northern Mariana Islands
BT	Bhutan	GS	South Georgia	MQ	Martinique
BV	Bouvet Island	GT	Guatemala	MR	Mauritania
BW	Botswana	GU	Guam	MS	Montserrat
BY	Belarus	GW	Guinea-Bissau	MT	Malta
BZ	Belize	GY	Guyana	MU	Mauritius
CA	Canada	HK	Hong Kong	MV	Maldives
CC	Cocos (Keeling) Islands	HM	Heard and Mc Donald Islands	MW	Malawi
CF	Central African Republic	HN	Honduras	MX	Mexico
CG	Congo	HR	Croatia	MY	Malaysia
CH	Switzerland	HT	Haiti	MZ	Mozambique
CI	Cote d'Ivoire	HU	Hungary	NA	Namibia
CK	Cook Islands	ID	Indonesia	NC	New Caledonia
CL	Chile	IE	Ireland	NE	Niger
CM	Cameroon	IL	Israel	NF	Norfolk Island
CN	China	IN	India	NG	Nigeria
CO	Colombia	IO	British Indian Ocean Territory	NI	Nicaragua
CR	Costa Rica	IQ	Iraq	NL	Netherlands
CS	(Czech and Slovak Federal Republic)	IR	Iran	NO	Norway
CU	Cuba	IS	Iceland	NP	Nepal
CV	Cape Verde	IT	Italy	NR	Nauru
CX	Christmas Island	JM	Jamaica	NU	Niue
CY	Cyprus	JO	Jordan	NZ	New Zealand
CZ	Czech Republic	JP	Japan	OM	Oman
DE	Germany	KE	Kenya	PA	Panama
DJ	Djibouti	KG	Kyrgyzstan		

PE	Peru	SK	Slovakia	TW	Taiwan
PF	French Polynesia	SL	Sierra Leone	TZ	Tanzania
PG	Papua New Guinea	SM	San Marino	UA	Ukraine
PH	Philippines	SN	Senegal	UG	Uganda
PK	Pakistan	SO	Somalia	UM	United States Minor Outlying Islands
PL	Poland	SR	Suriname	US	United States of America
PM	St Pierre and Miquelon	ST	Sao Tome and Principe	UY	Uruguay
PN	Pitcairn	SU	(Union of Socialist Sovjet Republics)	UZ	Uzbekistan
PR	Puerto Rico	SV	El Salvador	VA	Vatican City State
PT	Portugal	SY	Syria	VC	Saint Vincent and the Grenadines
PW	Palau	SZ	Swaziland	VE	Venezuela
PY	Paraguay	TC	Turks and Caicos Islands	VG	British Virgin Islands
QA	Qatar	TD	Chad	VI	Virgin Islands (US)
RE	Reunion	TF	French Southern Territories	VN	Viet Nam
RO	Romania	TG	Togo	VU	Vanuatu
RU	Russian Federation	TH	Thailand	WF	Wallis and Futuna Islands
RW	Rwanda	TJ	Tajikistan	WS	Samoa
SA	Saudi Arabia	TK	Tokelau Islands	YE	Yemen Republic
SB	Solomon Islands	TM	Turkmenistan	YT	Mayotte
SC	Seychelles	TN	Tunisia	YU	Yugoslavia
SD	Sudan	TO	Tonga	ZA	South Africa
SE	Sweden	TP	East Timor	ZM	Zambia
SG	Singapore	TR	Turkey	ZR	Zaire
SH	Saint Helena	TT	Trinidad and Tobago	ZW	Zimbabwe
SI	Slovenia	TV	Tuvalu		
SJ	Svalbard and Jan Mayen Islands				

