

BOOK REVIEWS

The New Honest Herbal. VARRO E. TYLER. George F. Stickley Co., 210 West Washington Square, Philadelphia, PA 19106, 1987, xi+254 pp., 15×22.5 cm, \$18.95 (paper).

The appearance of *The New Honest Herbal* is a welcome event. The book is a revision and slight expansion (ca. 7%) of the author's *The Honest Herbal*. The original edition, for those not familiar with it, is a factual summary and a useful perspective on a selection of slightly more than 100 herbs and related products; both scientists and lay persons have found it to be a valuable source of reliable information.

New monographs were added for butcher's broom, capsicum, evening primrose, feverfew, ginger, pau d'arco, and schisandra, all currently popular among devotees of herbal remedies. The author thoroughly reviewed new data relevant to the monographs in the previous edition; the result was a significant updating of approximately 20% of these monographs. Popularity and commercial availability appear to be the primary criteria for selecting natural products for inclusion in the book. The economic validity of such criteria must be conceded, but somewhat grudgingly by this reviewer.

No index is included in the new edition. This deletion is not judged to be a deficiency, given the alphabetic arrangement of the monographic presentations and the Summarized Evaluation Table at the end of the book.

The book is eminently readable, but two lamentable decisions were made in the course of publishing the new edition. The small graphic illustrations that added aesthetic appeal to the first edition were dropped, and the fragile paperback binding likely will prove too evanescent for the repeated reference use the book should receive.

LYNN R. BRADY, *University of Washington*

Medicinal Plants of India, Vol. 2. G.V. SATYAVATI, A.K. GUPTA, and S.N. TANDON. Indian Council of Medical Research, P.O. Box 4508, New Delhi 110029, India, 1987, xii+600 pp., 19×25 cm, \$33.

With good information, much of it post-*Wealth of India* (*WOI*), this valuable account, *Medicinal Plants of India* (*MPOI*), treats more than 550 species in 126 genera. The editors seem to have succeeded in satisfying one main criticism of the first volume, i.e., volume 2 has good color photographs rather than the poor black-and-whites in the first volume. The editors claim to have scanned the literature through March 1985 for species accounts in this second volume.

Leading us alphabetically from *Hedychium* to *Punica*, this volume then should add more than 16 years of new information to that included in Volume 8 (1969) of the *WOI*, which is still my most valuable encyclopedia of economic botany. For *Punica*, it gives a few more common names than does *WOI*. Unlike *WOI*, the present book contains details for the pharmacognostic recognition of the prepared drug derived from the pomegranate. There are fewer notes on the chemistry of *Punica* in *MPOI* than in *WOI*. Regrettably it is not clear whether the mineral-vitamin analysis is for the fruits or the flowers, nor can one tell whether the analysis is based on fresh or dry material. There is less pharmacological data in *MPOI*, but at times more toxicological data is presented. For *Punica*, then, I prefer the *WOI* to the *MPOI* account.

I am better pleased with the new account of *Psoralea corylifolia*, which gets 2½ pages in *WOI*, but 12½ pages in *MPOI*. Because of modern use of psoralen in psoriasis, vitiligo, leukemia, and perhaps even AIDS, there is much interest in *Psoralea*. Neither book gives the English name, "black dot." There are many new pharmacognostic, chemical, pharmacological, clinical, and toxicological data in *MPOI* which scores better than *WOI* on these accounts of *Psoralea*. While it is best to consult both books, the *MPOI* account of *Psoralea* is better from a pharmacological point of view. Many of the "new" data were published before Volume 8 of *WOI*.

At \$33.00 for the volume, this represents almost as good a buy as the 11-volume *WOI* at around \$300.00. However, you need *WOI* if you want to know how to grow the plants. Pharmacists and students of Ayurvedic medicine really need both.

JAMES A. DUKE, *United States Department of Agriculture*

Isthmian Ethnobotanical Dictionary, 3rd Edition. JAMES A. DUKE. Scientific Publishers, P.O. Box 91, Jodhpur 342001, India, 1986, xvi+205 pp., 22×28 cm, \$60.

Readers already familiar with one or both of the first two editions of this book and/or with the author and his fondness for Panama will immediately recognize that this book is concerned with the ethnobotany of Isthmian America, and not with that of any of several other isthmuses located elsewhere throughout the world. Listed alphabetically in the book are almost 6000 common plant names (Spanish, English, and Indian) followed by Latin equivalents; usually, however, only genera are indicated, species only occasionally. Interspersed alphabetically among the common names are listed over 700 Latin binomials, together with their author citations and common names; in the majority of cases, their ethnomedical and/or other economic usages are indicated as well, and line drawings are included for over 300 of these plants. Also interspersed alphabetically among the above items are listed about 150 disease states, therapeutic uses, and economic uses, together with brief definitions and listings, again, only of genera (not species) used in those conditions or for those purposes. At the beginning of the book is the 14-page preface (entitled "Polyherbal Prophylaxis") to the second edition; eight pages of this preface consist of an alphabetical list of over 200 ailments, together with the common English names of plants reputedly used in treating them.

From the point of view of the numbers of items listed in it, this dictionary appears to contain a large amount of information. It is unfortunate, however, that the reader is usually led only to a genus, or genera, associated with a certain common name or usage, rather than to one or more particular species. This book has other drawbacks, as well. There is no bibliography, for example, although on the inside jacket cover, it is stated that "The bibliographically derived information . . . can be traced in a computer system the author maintains at the USDA." Secondly, the reader should note that the author has indicated in his preface to this edition that he has not scientifically updated the nomenclature used. Thirdly, there is incomplete cross-referencing, i.e., a common name may be given for a particular plant species listed but occasionally that same common name may not be listed itself elsewhere in the *Dictionary*, or it may be listed, but with only other Latin generic equivalents' being indicated for that particular common name. Finally, it does appear that the book could have been proofread more carefully. Occasionally items are out of order and/or duplicated, letters occasionally are missing, and, while spelling variations of the common names may often be due to differences among dialects, typographical errors are indeed present in this book, as well.

Because of the information that this book does contain, it should prove to be a useful addition to university libraries and to libraries or departments involved either directly or indirectly with economic botany and/or traditional medicine. Because of its drawbacks, however, readers should consider it to be a starter source of information and not an ultimate source. Thus, it cannot be recommended for one's personal library, except, perhaps, for the individual whose life's work is concerned specifically with the ethnobotany of Isthmian America.

AUDREY S. BINGEL, *University of Illinois*

Preparative Chromatography Techniques. K. HOSTETTMAN, M. HOSTETTMAN and A. MARSTON. Springer-Verlag, 175 Fifth Avenue, New York, NY 10010, 1987, 139 pp., 17×24.5 cm, \$55.

This book, a handbook of the various preparative separation techniques available to chemists today, provides general descriptions and numerous examples of chromatographic methods suitable for preparative separations. Some references are given, but the authors do not profess to have provided exhaustive bibliographies. Instead, their effort seems intended to serve as an introduction and guide to preparative scale isolations.

The book covers thin layer, dry column, vacuum, low and medium pressure, high performance, and countercurrent chromatographic methods. It is unfortunate that the authors did not dedicate reasonable space to gel permeation chromatography. The separation of very polar, water-soluble compounds is not treated either.

The level of treatment, in terms of background, equipment, technique, and appropriate classes of compounds, is excellent in that scientists new to separation chemistry, whether undergraduate researchers, graduate students, or practicing chemists switching to this type of work, can find the fundamental information and applications references they need to get "up to speed" quickly in this challenging subdiscipline. The book is well written, has few errors, and has high quality illustrations.

It is regrettably too expensive for most students' budgets, but it clearly has a place in any library. Every natural product group should have a copy; synthetic groups would benefit as well by ready access to this handbook.

JOHN H. CARDELLINA, *Montana State University*

Pharmacopées Traditionnelles en Guyane. P. GRENAND, C. MORETTI, and H. JACQUEMIN. Editions de l'ORSTOM, 70-74 Route D'Aulnay, 93140 Bondy, France. 1987. 570 pp. 15.5 × 24 cm. 280 FF (paper).

This book deals with the medicinal plants of three ethnic groups of French Guiana, namely, the Creoles (which comprise 48% of the 73,026 population), the Palikur (less than 1%), and the Wayapi (about 1.5%). It is the fruit of nine years (1974-1983) of multidisciplinary research efforts not only by the three authors, but also by a large number of individuals from the research center l'ORSTOM in Cayenne, the capital city of French Guiana, as well as from other foreign institutions. At least 50 botanists, all specialists in certain plant families, from the world's leading botanical institutions collaborated in the taxonomic determination of the voucher herbarium specimens for this study.

The book is divided into three major parts: (1) Principles and Methods (pp. 19-35), which includes discussions on botanical and ethnopharmacological data and phytochemical tests for alkaloids, quinones, saponins, sterols/triterpenes, tannins, and flavonoids; (2) Medical Theories and Practices of the Creoles, the Palikur, and the Wayapi (pp. 39-85); and (3) The Pharmacopoeia itself (pp. 88-517), covering at least 526 plant species (518 phanerogams, 6 ferns, 2 fungi), which represents the bulk of the book and includes the results of chemical tests of 323 species. Entries in the pharmacopoeial section are by species, which are grouped and presented alphabetically by family. Each entry provides the following data: scientific name of the plant (this is the indexed entry), selected scientific synonyms, vernacular names in the three ethnic groups, habitat and field characters, a list of voucher herbarium specimens studied, description of therapeutic uses in the three ethnic groups, etymological origins of the vernacular names, description of the known chemical and pharmacological properties, and notes about the plant (botanical, chemical and/or medicinal) set in a smaller but still easily legible type. A bibliography (364 references), an index to scientific names, an index to vernacular names, and an index to therapeutic uses (85 categories of pathological conditions) are provided at the end of the book. The book is profusely illustrated by both color photographs (155) of the plants and line drawings (49). These statistics provide a measure of the scope and magnitude of the book.

Although the greater portion of the plants treated are of tropical American origin, many are widespread, cultivated tropical species. This fact increases the appeal of the book as an up-to-date reference for botanists, phytochemists, and pharmacologists alike. By virtue of the crisp, sharply focused, and beautifully reproduced color photographs on a matte-black overlay, one cannot help feeling that the book was written with botanically oriented users in mind. This is one of those non-taxonomic treatises in which the botanical information (the Latin binomial including authority citation, voucher specimen documentation, synonymy and illustrations) has been prepared most meticulously and is highly accurate. Indeed, here lies the major strength of the book. Unfortunately, there is no consistent mention of the geographic origin of the species treated or of their ranges of geographic distribution, which would enhance the usefulness of the book. Other omissions are the lack of means of distinguishing Dicot from Monocot families and the lack of reference(s) used as basis for the choice of synonyms. As in other books of this scope and magnitude, errors did creep in here and there (among others, family misassignment on p. 245, misspellings of names, e.g. on p. 437, mispositioned photograph of *Peperomia macrostachya* on p. 363, incorrect choice of name on p. 262, and use of name with designation of sp. nov. but without description, thus implying a *nomen nudum* status), but these should not detract from the appeal and real value of the book.

Apart from the botanical portion, most of the species entries are replete with data on ethnopharmacology, phytochemistry, and biological activities, both of primary and of secondary natures. Literature coverage of phytochemical and biological activities data include those published up to 1985. For certain families (e.g., Annonaceae, Apocynaceae, Aristolochiaceae, Simaroubaceae) an ample overview on the known chemical and biological activities is provided; however, for most others, including some biodynamically important ones such as Euphorbiaceae, Leguminosae, Loganiaceae, Solanaceae, and Umbelliferae, none is given.

The book represents a major contribution to our knowledge on the medicinal value of tropical plants, not only of French Guiana, but also of tropical America and of the tropics as a whole. It is an exemplary product of the multidisciplinary research efforts of scientists from different fields, working together on a complex subject matter. The book is definitely recommended for botanists and researchers in natural products and should be acquired by botanical and health sciences libraries. Its appeal, however, may be somewhat limited because the text is in French.

Mycotoxicology. W.F.O. MARASAS and P.E. NELSON. The Pennsylvania State University Press, 215 Wagner Building, University Park, PA 16802. 1987. 102 pp. 18.5 × 26 cm. \$34.50. ISBN 0-271-00442-8.

This slim volume is subtitled "Introduction to the Mycology, Plant Pathology, Chemistry, Toxicology, and Pathology of Naturally Occurring Mycotoxins in Animals and Man," and this accurately describes the contents. It is designed as a teaching aid for students in plant pathology, mycology, medical science, veterinary science, and related fields.

Presentation of the material is on the basis of 11 selected mycotoxins. Each disease is described in terms of the mycology of the causative fungus, the mycotoxicosis itself (geographical occurrence, factors favoring outbreaks, clinical signs, pathology, etc.), the mycotoxins responsible, including clear structural diagrams, and final sections on control of the mycotoxicosis and similar syndromes. The mycotoxins covered are ergotism, aflatoxicosis, ochratoxicosis, stachybotryotoxicosis, hemorrhagic syndrome, estrogenic syndrome, feed refusal and emetic syndromes, equine leukoencephalomalacia, moldy sweet-potato toxicosis, facial eczema, and lupinosis.

Although the information is presented in compact form (each mycotoxicosis is discussed in about four pages of text), it is well referenced; the interested student can follow up on individual points. An attractive feature of the book is the inclusion of more than 50 plates, most of them in color, showing infected plants and clinical and pathological examples. Some of the clinical examples are striking, including a sad picture from Mozambique of a boy suffering from advanced hepatocellular carcinoma.

Overall this book is an excellent summary of information on the selected mycotoxins and would be a valuable reference for anyone teaching a course on natural products or doing research on mycotoxins.

DAVID G.I. KINGSTON, *Virginia Polytechnic Institute and State University*

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