

Rolland Keller, Identification of Tropical Woody Plants in the Absence of Flowers. A Field Guide, second ed., Birkhaeuser Verl., Basel, 2004, 340 pp., numerous colour photos and (botanical) line drawings, bibliography, index to genera and families, CH F 88.–/€58.– [+VAT] (pb), ISBN 3-7643-6453-X .

Identifying plants has been one of the eternal headaches for everyone involved in field based research especially in regions for which no general floras exist (as is the case in most regions where ethnobiologists work). This has been highlighted by many scholars including more than 200 years ago by von Humboldt (1997), when he investigated the process used to prepare poisoned arrows in Esmeralda on the Orinoco River. The core problem was to identify the botanical source of curare.

“We are unable to make a botanical identification because this tree [which produces the raw material for the production of curare] only grows at quite some distance from Esmeralda and because [it] did not have flowers and fruit. I had mentioned this type of misfortune previously, that the most noteworthy plants cannot be examined by the traveller, while others whose chemical activities are not known [i.e. which are not used ethnobotanically] are found covered with thousands of flowers and fruit.”

Roland Keller's handbook is intended as a tool to help field botanists to overcome such problems. The book is split into two main parts—one with a botanical key and associated glossary and a second one with illustrations of the principal woody Dicotyledons in their vegetative state subdivided into 32 (groups of) families. The general key splits the Dicotyledons into 25 main groups using morphological characteristics of the leaves, the overall architecture of a plant, and characteristics of the stems. Not being in the field it is impossible to assess the value of the keys provided. However, the characters used are very appropriate and in general, the key seems to be straightforward and reasonably easy to use. Technical terms are used extensively.

Representative examples of many families are shown in colour plates and additional families are exclusively illustrated in line drawings. The line drawings are generally excellent and sufficiently detailed. The colour photographs differ somewhat in quality and in general branches are shown. Normally they are taken with a flash leaving the background black. Unfortunately, often parts of the photograph are obscure or details are lost because of uneven illumination of the picture (e.g. plates 6.2 and 6.4). The nomenclature is explained in a glossary, but the extensive use of technical botanical terms may well present a problem to non-botanists.

This revised and extended second edition is not only a useful field guide, but also an excellent handbook with a wealth of botanical information. The botanical detail is impressive and the book will certainly find a large number of

potential users most notably for anyone working in the field, but it will also be of value to researchers in herbaria. It is a tool which can be recommended highly to anyone relying on the proper identification of botanical samples in the tropics.

Reference

von Humboldt, A. (Hrsg. H. Beck), 1997. Die Forschungsreise in den Tropen Amerikas. Darmstadt. Wissenschaftliche Buchgesellschaft. Studienausgabe Bd. 2, Teilband 3.

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Merlin Willcox, Gerard Bodeker, Philippe Rasoanaivo (Eds.), 2004. Traditional Medicinal Plants and Malaria, CRC Press, Boca Raton, FL, USA, p. 431. Foreword by David A. Warrell. Epilogue by Merlin Willcox. Numerous figures and tables, bibliographies, index, glossary of technical terms and abbreviations, Traditional Herbal Medicines for Modern Times, vol. 4, US\$ 99.95/UK£ 60.99, ISBN 0-415-30112-2 (hardcover).

Malaria remains one of the main health threats to many people especially in poorer regions of the world. Traditional and local medicines have often been seen as a source for new lead molecules to treat this ‘tropical illness’, but in this volume the focus is on a neglected area of malaria research—the role of traditional medicines as safe and efficacious means to contribute to the control of malaria. While malaria medication is relatively cheap (at least compared to AIDS/HIV medication), the use of herbal remedies continues. It is essential to recognise this fact and to initiate research on such medications not from the perspective of drug discovery, but with the goal to contribute to the safe use of such local resources and to an understanding of its role in solving health problems locally. Unfortunately, this concept is mostly not accepted by funding agencies and policy makers and thus the book is a timely reminder of the role of traditional medicine in combating major diseases. Such an approach has to be part of a broader reassessment of the role of sociocultural sciences in malaria control (cf. Williams and Jones, 2004).

Traditional medicinal plants and malaria is divided into five parts:

- Traditional medicine and malaria control,
- case studies on plant-based medicines for malaria,
- ethnomedical approaches,
- laboratory research,
- clinical research,
- repellence and vector control.

Each of the 25 chapters is written by experts in the respective fields. The breadth of disciplines represented in this single volume is truly impressive. The case studies of plant-based medicines (part 2) include *Cinchona*, *Artemisia annua* (qinghao), *Dichroa febrifuga* (changshan), Ayus-64 (an Ayurvedic preparation composed of four medicinal plants), *Azadirachta indica* (neem), Malarial-5 (a standardised phyto-medicine composed of *Cassia occidentalis*, *Lippia chevalieri* and *Spilanthes oleraceae*), *Cryptolepis sanguinolenta* and *Strychnos myrtoides*. Each chapter provides data on the botanical, chemical, pharmacological and clinical aspects as well as on the species traditional uses. Methodological issues are normally not addressed and, for example, in case of Malarial-5 an unpublished clinical study (a thesis at the University of Bamako, Mali) and a preliminary study are summarised. Unfortunately, in this case very little information on the methodology is included. The importance of these parts lie in highlighting results which otherwise would never be available in a comprehensive form to the international community and each of these chapters will hopefully stimulate further research on the species antimalarial effects, their toxicology and clinical effectiveness.

Another normally overlooked aspect of malaria control is the use of repellents and the control of the malaria vectors. This is addressed in a separate part with four chapters on commonly used species for controlling the malaria vectors or as repellents and, importantly, general guidelines for studying such species. Guidelines for research are also provided in other parts, a very useful way of highlighting the methodological needs in the respective fields. Ethnomedical aspects are another area which is covered in detail and includes chapters on historical aspects, an overview on ethnobotanical studies and a historical chapter on the discovery of indigenous febrifuges in the British East Indies. In a very short chapter somewhat misnamed as ‘Overview of

Ethnobotanical Studies on Plants Used for the Treatment of Malaria’ a database is presented which summaries plants from 94 original publications in 33 tropical countries. Overall 1277 species have so far been included. Eleven species are recorded from three continents, while 45 are known from two continents. While the most widely known species are generally also ones which are widely cultivated (e.g. *Mangifera indica*) and relatively well known phytochemically and often also pharmacologically, the approach as such may point to particularly promising candidates for further research.

Overall the book is well edited. I am concerned about the high price of this volume, which will be a serious obstacle to a wide distribution of this important book in regions where malaria is endemic. This is the fourth book in a relatively new series. ‘Traditional Herbal Medicines for Modern Times’, which so far addressed relatively little known formulations and specialised topics. It remains to be seen how this series develops.

The book is of relevance not only in the area of ethnopharmacology and natural product biology, but also to anyone interested in public health and novel approaches to control infectious diseases. I very much hope that the book will stimulate research in this important area.

Reference

- Williams, H.A., Jones, C.O.H., 2004. A critical review of behavioral issues related to malaria control in sub-Saharan Africa: what contributions have social scientists made? *Social Science and Medicine* 59, 501–523.

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