

## Book Reviews

---

**African Traditional Medicine: A Dictionary of Plant Use and Applications.** By H. D. Neuwinger (St. Leon-Rot, Germany). Medpharm Scientific Publishers, Stuttgart, Germany. 2000. x + 589 pp; + 46 pp paper supplement. 19.5 × 26.5 cm. \$168.00. ISBN 3-88763-086-6.

Hans Dieter Neuwinger has produced several excellent contributions to the study of African ethnobotany, and his most recent dictionary is a superb compilation of published information on African medicinal plants. However the present dictionary is in Neuwinger's own words "purely a reference book, not one to be read for entertainment". The dictionary is impressive in its comprehensive listing of more than 16 000 referenced medicinal uses for 5400 species of African plants, or about 10% of the 55 000 species known from continental Africa and Madagascar. While there is no specific discussion of the geographical range covered, the references cited indicate that the focus is on tropical and southern Africa and to a somewhat lesser extent Madagascar, and there are few references to north African plants. The entries are concise, each consisting of a brief description of medicinal use, preparation, and application followed by a literature reference, but no information on active chemical principles is included. The entries are arranged alphabetically by scientific name of the plants. Unfortunately the cross index by therapeutic use is included as a 46 page paper supplement, rather than included in the bound volume. The cross referencing system relies on a somewhat cumbersome numerical system, but does provide precise indexing to a specific literature report, rather than just to plant name. While there is some inconsistency in the form of literature citation and cross referencing (eye inflammation in dictionary = conjunctivitis in supplement; year of publication given for some but not all references), these do not seem to hinder finding the original reference for the report of medicinal use. Neuwinger is right in his assumption that few readers are likely to settle into an armchair with this book, but it is an invaluable reference that will be of great use to anyone interested in ethnobotany, pharmacology, African culture, or medicinal plants in general. The amount of literature referenced here provides a comprehensive window in the literature of African medicinal plants that has long been lacking.

**James S. Miller**

Missouri Botanical Garden  
P.O. Box 299  
St. Louis, Missouri 63166-0299

NP000748V

10.1021/np000748v

**Natural and Selected Synthetic Toxins: Biological Implications.** Edited by A. T. Tu (Colorado State University) and W. Gaffield (U.S. Department of Agriculture). American Chemical Society, Washington D. C. 2000. xi + 426 pp. 15 × 22.5 cm. \$140.00. ISBN 0-8412-3630-5.

This book is ACS Symposium Series 745 and was derived from presentations at the Third International Symposium on Natural Toxins, 216th National ACS Meeting, Boston, August 1998. It contains 25 chapters organized in four areas, each roughly 100 pages in extent: Marine, Fungal, and Microbial Toxins; Plant Toxins; Animal Toxins; Nerve Agents and Doping Compounds.

Among the first group are chapters on cytotoxins from coral reef organisms, cellular signaling by paradaxin (an excitatory peptide neurotoxin), anacardic acids and naphthoquinones as tree nut antiaflatoxins, a review on fumonins, and bacterial typing by mass spectrometry. The second group has chapters devoted to pyrrolizidine alkaloid toxicity, calystegines, *Phalaris* alkaloids, poisonous plant compounds that affect livestock reproduction, *Veratrum*-alkaloid-induced teratogenesis, plant-associated photosensitization, the use of plant toxins in molecular neurosurgery, and a very short presentation of some aspects of DNA damage from cigarette tar extracts.

The chapters on animal toxins are represented by three on snake venoms and one on lizard venoms. The main focus of the last section on nerve agents is on the 1995 Sarin terrorist attack in Japan and gives a very detailed case history as well as biotoxicity data.

Most of the chapters deal with results stemming mainly from the respective authors' own research and are thus fairly highly focused, but by the same token are also reasonably authoritative. Those readers whose own studies are in these or closely related areas will benefit from the presentations, and libraries should certainly add this to their collection of ACS Symposium Series volumes.

**Frank R. Stermitz**

Department of Chemistry  
Colorado State University  
Fort Collins, Colorado 80523

NP000746A

10.1021/np000746a