

South Africa, to *Hyaenanthus globosa*, which is toxic enough, but of such limited distribution that few people have ever seen it, and even the authors of this well illustrated book apparently could not get a photo of the attractive male flowers.

Each native plant has two pages, one with a description, account of the pharmacology and distribution, and the chemical formula of the main toxic constituent, where known, together with leading references. Occasionally, two or more related species are dealt with on the same page. On the facing page are photographs of the plant or plants. The exotics are dealt with more briefly, having one page each with similar information in a more condensed form. The language is English, but Afrikaans names of plants, and of specific illnesses caused by them are also given.

The book is attractively presented, with very good photographs. It is likely to be indispensable for South African poison units, and of interest to South African naturalists and stock farmers, as well as all doctors and

veterinarians who have an interest in poisoning by plants.

For readers of *Phytochemistry*, its main interest may be as a very pretty addition to the bookshelf, for most of the entries are of plants which have been extensively investigated, though there are a few whose content is still unknown, such as *Melica decumbens*, (*Poaceae*), which it is suggested on pharmacological grounds may contain a neurotoxin.

There is an extensive index, and lists of plants according to type of toxin, and probable symptoms if ingested. In spite of the care which has been taken in production, there are a few misprints, such as *Thevesia* on p. 268 and *melinoon* on p. 144, but these are obvious enough to see.

David A.H. Taylor

Department of Chemistry

University of Natal, Durban, South Africa

E-mail address: daht@tesco.net

doi:10.1016/S0031-9422(03)00210-3

Taxus: The Genus *Taxus*

Hideji Itokawa, Kuo-Hsiung Lee (Eds.); Taylor & Francis, London and New York, 2003, 474 pages with extensive illustrations and tables, ISBN 0-415-29837-7, £90.00 (US\$ 145.00)

This volume, number 32 of the series “*Medicinal and Aromatic Plants—Industrial Profiles*”, is intended to update the 1995 compendia “*Taxol Science and Application*” edited by the late Matt Suffness. This goal is largely achieved in most topic areas, with reliable coverage of the literature through 2000. Few of the contributors to this volume are very well known in the Taxol field. This can be a good approach, if fresh insights and interpretations, or new perspectives, are provided. While there are notable exceptions, and the coverage is quite thorough, most chapter authors simply paraphrase earlier reviews. Chapter 1, by Editor Itokawa, provides the standard historical overview with emphasis on taxoid isolation and analytics, and a discussion of the nomenclature problem. Chapter 2 on the biosynthesis of taxoids is a bit disappointing; much recent work is not covered and the approach, while detailed, is not very integrative. Chapter 3, again by Itokawa, covers the naturally occurring taxoids well, and is quite similar in scope to Kingston’s 1999 review

in the *Journal of Natural Products*. Chapter 4 describes physical methods for taxoid identification, and the compilation of NMR spectra provided here is a useful resource. Chapter 5 by Takeya provides a compact overview of *Taxus* tissue culture methods and approaches in readily accessible tabular form. Chapter 6 describes commercial cultivation of *Taxus*, a topic rarely reviewed, and Chapter 7 covers analytical aspects, including large-scale processing, with very thorough treatment. Chapter 8 reviews the chemistry of the taxoids. The organization and emphases differ from Kingston’s 2000 review in *Progress in the Chemistry of Organic Natural Products*. This chapter is useful but, for coverage of the topic, the latter is recommended as the more integrative and accessible. Chapter 9, by Xiao, Itokawa and Editor Lee, provides a comprehensive, retrospective overview of Taxol total syntheses; this is an excellent contribution to the volume. Chapter 10 on structure–activity relationships is also notable. The coverage of this important topic is exceptionally thorough, and the summaries are useful. Chapter 11, by D.T. Brown, on preclinical and clinical studies is also outstanding. This chapter provides a nice historical introduction, an excellent update on all aspects of taxoid chemotherapy, good summaries, and a meaningful view to the future. The book concludes with a brief summary of the Taxol content of Irish yews.

Overall, the coverage within chapters is a bit uneven and a section on taxonomy and other botanical aspects of *Taxus* would have been a most welcome addition to this book. Nevertheless, this volume provides a worthy update on a wide range of relevant topics and a highly useful compendia of the 1995–2000 literature of the field. The production is of high quality and generally free of errors. There is a wealth of information here compiled in a single volume. Those with an abiding

interest in *Taxus* and Taxol should have this book in their collection.

Rodney Croteau
Institute of Biological Chemistry
Washington State University
Pullman, WA, 99163-6340, USA
E-mail address: croteau@wsu.edu