

BOOK REVIEWS

Guide to the Vascular Plants of Central French Guiana. Part 1. Pteridophytes, Gymnosperms, and Monocotyledons. Scott A. Mori, Georges Cremers, Carol Gracie, Jean-Jacques de Granville, Michel Hoff & John D. Mitchell. *Memoirs of the New York Botanical Garden* Volume 76, Part 1. Bronx, New York 10458: New York Botanical Garden. 1997. 422pp. ISBN 0 89327 398 8. US\$50.00 (hardback).

In order for informed decisions on the conservation value and management of ecosystems to be made, the ecosystems need to be understood. This understanding is frequently hindered by a poor knowledge of their floras, and the inability (and reluctance) of scientists to identify the component plants of their studies. This problem is most acute in the humid tropics which typically have a fantastically diverse, complex and daunting flora. Fortunately, the last few years have seen the timely and very welcome appearance of a number of Floras and Field Guides focusing on the vegetation of tropical South America. These are helping to catalogue and make accessible the plant diversity of their target regions and are at last providing researchers with the necessary tools to identify the plants they are studying. Amongst the most notable of these publications are Alwyn Gentry's *Field Guide to the Families and Genera of Woody Plants of Northwest South America* and *The Flora of the Venezuelan Guayana*.

Complementing these publications, the *Guide to the Vascular Plants of Central French Guiana* is another important work which is further helping to demystify the tropical flora. It focuses on a 140,250 hectare area of forest in central French Guiana, and serves as an aid for the identification of the majority of native and naturalized vascular plants found there. Although the geographical focus of the guide is narrow, it has broader relevance, being useful in helping identify families and genera of vascular plants throughout the forests of lowland northeastern South America. The guide is in two parts: the first gives keys and treatments to the pteridophytes (182 species), gymnosperms (1 species) and monocotyledons (426 species), together with additional annotated identification notes on the most conspicuous and therefore most easily identifiable species, including dicotyledons; the second will provide keys and treatments of the dicotyledons.

The guide begins with a brief rationale for its existence, and then tightly defines its scope by delimiting the geographical area covered. It continues by explaining and justifying its format and the systematic concepts followed. All of this general introduction is brief, and it is a pity that there is no detailed discussion concerning the general ecology of the area and how it relates to other areas in northern South America. This would put the guide in context and emphasize its significance. Fuller coverage of the range and history of the vegetation types, soils, geomorphology, climate and conservation status of the area would have made the guide more informative to the reader, providing an enjoyable backdrop to the keys and taxonomic treatments.

The rest of the guide is hard to fault. Its second section is an absolute joy, and gives useful hints on the identification of the most easily identifiable species by listing together those that have similar striking characters, such as a specific niche, habit, bark or coloured exudate. This section spans 44 pages and is beautifully illustrated, by both line drawings and abundant high-quality colour photographs. This part of the guide reminds one of Al Gentry's rather quirky identification aids, and its use is fun, facilitating the quick identification of a plant, whilst acting as an important educational tool.

The final section of the guide provides keys and taxonomic treatments, including a page on how to use the keys, something that is often omitted and is very valuable for first-time users. The authors have attempted to use only characters that are visible to the naked eye or with a 10× hand lens. However, the keys are based primarily on fertile material, sadly so frequently unavailable to the field worker. The keys are indented and dichotomous, and are clearly written and easily understandable. Likewise, the taxonomic treatments are of high quality. Where complex terminology is used, the annotated glossary at the back of the book quickly removes doubt as to the meaning of a word. There are abundant colour plates and line drawings throughout the book, reinforcing the keys and treatments and thereby further assisting the user. They also help to lighten the tone by bringing the flora to life and illustrating the remarkable variation and beauty of the plants of this region. The plants practically wink at you from the pages and whilst viewing the book one is immediately tempted to pack one's plant press, set forth to French Guiana and identify.

This is a beautiful quality guide, one that is easily usable in the field whilst acting as an important reference document. It sets out to provide the necessary tools for people to identify the vascular plants of central French Guiana, and does just that. Hopefully it will stimulate the appearance of many more such guides for other regions of South America.

S. BRIDGEWATER

Orchids of Samoa. Phillip J. Cribb & W. Arthur Whistler. Royal Botanic Gardens Kew. 1996. vii + 141pp. ISBN 1 900347 01 6. £15.00 (softback).

Perhaps best known for once memorably defeating the Welsh national rugby team, the Samoan Islands are also international players in the orchid league. This self-contained overview of the orchids of Samoa exhibits the quality of production and classical taxonomy that one would expect from the Royal Botanic Gardens Kew.

The bulk of the book comprises formal descriptions of, plus artificial keys and an index to, 101 species of 47 genera, building on the earlier work of such luminaries as Reichenbach, Schlechter and Rechinger. The text is aided by 27 sets of line drawings and 81 colour photographs, most flash-lit and of varying quality, arranged