

REVIEW

A. C. SMITH: *Flora Vitiensis Nova*. A new Flora of Fiji (Spermatophytes only). Vol. 5. National Tropical Botanical Garden, Lanai, Kauai, Hawaii, 1991. 626 pp., 92 figs. Hardcover. Price US\$ 85.00 (price of the complete series US\$ 380.00).

The fifth and final volume of A. C. Smith's '*Flora Vitiensis Nova*' was issued in June 1991, thirteen years after the appearance of the first volume and nearly 120 years after Berthold Seemann's '*Flora Vitiensis*'. The present volume contains the long awaited treatment of the Orchidaceae (by P. J. Kores) along with the following Dicot families (in alphabetical order): Acanthaceae, Asteraceae (with G. D. Carr), Bignoniaceae, Boraginaceae, Buddlejaceae, Campanulaceae, Convolvulaceae, Cuscutaceae, Gesneriaceae, Goodeniaceae, Lamiaceae (with S. P. Darwin), Menyanthaceae, Plantaginaceae, Scrophulariaceae, Solanaceae, and Verbenaceae (with S. P. Darwin). The volume furthermore contains addenda and corrigenda to the previous four volumes and an index to the whole series.

The completion of this Flora is of major significance to students of Pacific Botany, who have earlier been greatly served by the '*Manual of the flowering plants of Hawaii*' by Wagner et al. (1990). An overview of the completed *Flora Vitiensis* is now due. The flora follows Takhtajan's system. Treatment of genera and species within each family follows the sequence in which they appear in the keys. The genus descriptions are ample but species descriptions are concise. Much attention is given to the typification, taxonomic problems, distribution (often also outside Fiji) and uses. No notes are added on ecology. Illustrations consist of photographs (mostly of herbarium specimens), some in colour (of living plants). Only some of the Orchidaceae are also illustrated by line drawings.

The Fiji archipelago is one of the largest island groups in the Pacific. Its land area of c. 18,000 sq. km is comparable to that of Hawaii (c. 16,000 sq. km) and New Caledonia (c. 22,000 sq. km). In all, the five volumes of *Flora Vitiensis Nova* deal with 178 families, 966 genera and 2262 species. All native, adventive and cultivated species are treated and elaborate keys provided. The indigenous flora comprises 470 genera of which 12 are endemic (c. 3%) and 1320 species of which 816 are endemic (c. 63%). This accentuates the distinctiveness of the Fijian flora, although it does not match the figures for Hawaii: 216 genera, 32 endemic (15%) and 956 species, of which 850 endemic (89%) provided by Wagner et al. or those for New Caledonia provided by Morat et al. (1986): 791 genera, 107 endemic (13.5%) and 3138 species of which 2348 endemic (75%).

In a review of Volume 4 (*Blumea* 34, 1989, 102) I have praised the high quality of this flora, a standard maintained in the final volume. Consultants of the flora must be aware that there is no key to the families. The index to the complete series has one major drawback, it contains only accepted names, not the synonyms. No two systematic botanists have the same species concept and some will feel that the species concept in *Flora Vitiensis* is rather narrow. However, in my opinion taxa that can be distinguished even on minor characters should be kept separate and be given a name, the rank given is a matter of taste.

'Rapa' mentioned on p. 594 is not the name of a journal but the name of a publication edited by N. Hallé & J. Florence on the geology and natural history of the island Rapa in SE Polynesia.

Execution of the fifth volume is what we expect after seeing the first four: well-nigh flawless. The distinguished main author and his collaborators, as well as the National Tropical Botanical Garden, are to be warmly congratulated with their contribution to Pacific Botany.

M. M. J. VAN BALGOOY

Morat, Ph., T. Jaffré & J. M. Veillon. 1986. *Bull. Mus. Nat. Hist. Nat. Paris* IV, 8, sect. B. *Adansonia* 2: 133–182.

Wagner, W. L., D. R. Herbst & S. H. Sohmer. 1990. *Manual of the flowering plants of Hawaii*, vols. 1 & 2.