

REVIEW

P. O'BYRNE: *Lowland Orchids of Papua New Guinea*. SNP Publishers, Singapore, 1994. XIX + 584 pp., black & white drawings, colour photographs. ISBN 981-00-6082-3. Available from: SNP Publishers Pte Ltd., 97, Ubi Avenue 4, Singapore 1440, Republic of Singapore. Price: Sing \$ 98.88.

The number of orchid species in New Guinea is not easily estimated; there are many large, poorly studied genera, of which scores of undescribed species as well as many synonyms are waiting to be discovered. There may well be about 2500 species in all: almost double the size of the entire phanerogamous flora of the Netherlands! Only few recent publications (apart from taxonomic revisions of individual genera) are available to those who want to learn more about them. The most important is still the translation into English of Schlechter's 1914 classic 'Die Orchidaceen von Deutsch-Neu-Guinea', which appeared in 1982 as 'The Orchidaceae of German New Guinea'. Unfortunately the Latin descriptions were not translated, and Schlechter's illustrations consist exclusively of floral analyses. Then there is A. Millar's 'Orchids of Papua New Guinea, an introduction' which has fine colour photographs but too many serious misidentifications to be of much use. Finally, the orchid part in volume 2 (1979) of Van Royen's 'Alpine Flora of New Guinea' can be mentioned; this is restricted to species occurring above 3000 m and suffers from Van Royen's extremely narrow species concept. On the positive side the latter work contains habit drawings of many species.

Peter O'Byrne's massive book is a very welcome addition. It consists largely of accurate descriptions and page-size pencil drawings, depicting habit as well as floral details of 269 species occurring below 1000 m in Papua New Guinea. Next to the descriptions there are many interesting observations on the individual species. Almost half of them are illustrated by good colour photographs. This book was written by the author, a chemistry teacher by profession, in his spare time in about five years while temporarily stationed in Papua New Guinea. This is a remarkable accomplishment, considering that, as we learn in the preface, in this period he had to teach himself to read botanical Latin, to draw plants and to learn many other things. Evidently he has been a good pupil of himself.

Quite a few species have been left unidentified; some of these are probably undescribed, others did not match existing descriptions sufficiently well to allow for a positive identification. It is laudable that O'Byrne resisted the temptation to describe new species, which can only be reliably done by persons with access to a large herbarium. Still, it is a pity that many distinctive orchids are now referred to merely as e. g. *Diplocaulobium species D1090*. The ones that O'Byrne did manage to label are generally correctly identified, although several names, e. g. most of the *Cadetia* species, are bound to become synonyms after revision. Ironically, the flamboyant *Dendrobium* species which figures so prominently on the cover is one of the very few misidentified species. In my opinion this is not *D. obtusisepalum* J.J. Sm., and probably a synonym of *D. wentianum* J.J. Sm., a high altitude species. O'Byrne's *Dendrobium* is very similar to *D. subclausum* Rolfe var. *speciosum* J.J. Wood, but differs in certain vegetative characters. It may be an undescribed taxon.

There are no keys to the species or to the 55 genera illustrated in this book (which is less than half the number of orchid genera known to occur in Papua New Guinea). Quite a few names are misspelled or have wrong author citations, e. g. *Cheristylis* instead of *Cheirostylis*, *Saccalobium* instead of *Saccolabium* (several times), *Erythrorchis* Garay instead of *Erythrorchis* Blume. To my knowledge the last-mentioned genus has not yet been recorded from New Guinea (but may well occur there); O'Byrne refers to '*E. gracilis* (Schltr.) Garay', a non-existent name, which should have been *Pseudovanilla gracilis* (Schltr.) Garay. The genus *Nephelaphyllum* does not occur in New Guinea, *N. papuanum* Schltr. being *Collabium papuanum* (Schltr.) Schltr. *Podochilus* species are never 'large, robust plants' as asserted on p. 115, on the contrary! Finally, to end this enumeration of minor criticisms, I should like to point out a (rather amusing) mistranslation in the English version of Schlechter's book, which has been adopted by O'Byrne (p. 12) while referring to *Liparis* sect. *Sturmia*. The German phrase 'krautige Blätter' means 'herbaceous leaves', not 'cabbage-like leaves'!

The strength of this book lies in the wealth of original observations and in the illustrations depicting many poorly known species. It is an important asset not to be missed by those interested in New Guinea Orchidaceae.

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