

Rhododendrons of subgenus Vireya

by Dr. George Argent

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For the past forty years, those with an interest in vireya rhododendron species have had to rely on the classic account by Professor Hermann Sleumer published in 1966 as part of *Flora Malesiana*, and later reprinted as *An Account of Rhododendron in Malesia*, as their principal point of reference. It is unsurprising, therefore, that Dr. Argent's revision has been eagerly anticipated since word of its production first emerged several years ago and I am pleased to report that readers of this new book will be generously rewarded for their patience.

Dr. Argent, who has recently retired from his role as Senior Tropical Botanist with the Royal Botanic Garden Edinburgh, is acknowledged as the world's foremost authority on vireya rhododendrons. He first became interested in this group of plants in 1977 and since that time has undertaken numerous field trips to South East Asia from where he has introduced many vireya species currently in cultivation as part of the superb Living Collection at the RBGE.

This extensive first-hand knowledge of the plants, both in the field and in cultivation, has enabled Dr. Argent to review and greatly expand upon the botanical descriptions of the species given in *Flora Malesiana*, based on living, rather than herbarium material as was largely the case in Sleumer's account. It is these descriptions that comprise the bulk, and principal purpose of this new volume – a total of 313 species set out over 300 pages, including a number of new taxa published here for the first time. A 'Key to the Sections and Subsections within Subgenus Vireya' precedes the descriptive accounts and further 'Keys to the Species' are also provided at the head of each Section. Accompanying the detailed descriptive data for each taxon are notes containing useful supplementary information. These variously cover, the plants' status in cultivation, its introduction, related species together with distinctive characteristics to look out for in such cases, naturally occurring hybrids and an explanation of any changes in taxonomic rank since Sleumer. Photographs of around 150 species, a small number of which appear to have unfortunately suffered at the hands of the printers, are included in this chapter of the book, a mix of both the more widely available and the lesser known,

amply illustrating the wide variation in flower form and colour seen within this group of plants.

Prior to commenting on the remaining chapters of the book, mention must be made at this point of Dr. Argent's, possibly somewhat controversial, decision to raise *Vireya* to the status of subgenus within *Rhododendron* as set out in the introduction to his revision. As the author points out in the conspectus of classification, this is not a new idea and has been proposed on several occasions over the years, most recently by Professor Spethman (1980, 1987). Dr. Argent gives two principal reasons for following this course: firstly it "recognises the distinctness of the group" – it is a clearly defined unit within *Rhododendron* with "no intermediates or species that are doubtfully placed". Secondly, bearing in mind that Dr. Argent's work closely follows Sleumer's classification – which itself is artificial in concept (based on morphology rather than phylogeny, i.e. leaf and flower characteristics rather than evolutionary relationships) – raising the status to subgenus is essentially practical, allowing for more appropriate use of subdivisions below this rank. Further arguments are presented, citing recent research, giving good morphological grounds for separating the vireyas including the unique presence of large idioblasts in the leaves (Nilsen, 2003) and distinct ovary, ovule and mega-gametophyte characters (Palser et al, 1991), as well as the long-established tailed seed characteristic.

As a result of raising *Vireya* to the rank of subgenus, all former subsections have been promoted to the level of section with the exception of *Solenovireya*, which has effectively been demoted as it remains a subsection, now moved to within the large section *Euvireya*. The principal defining characteristic of *Solenovireya*, flower shape (trumpet-shaped, white or pale pink, the lobes less than $\frac{1}{4}$ the length of the tube, as seen in the popular *Rhododendron jasminiflorum*), is considered too weak to be maintained at sectional level.

One further change to the classification, by Dr. Argent, is the introduction of *Discovireya* at sectional level, a name first proposed by Prof. Sleumer in his 1949 classification. This did not feature in *Flora Malesiana*, which dealt only with species occurring within the botanical region of Malesia, thereby omitting the outlying vireyas found on mainland Asia. Essentially, Dr. Argent has split the former subsection *Pseudovireya*, which, whilst retained and raised, now includes only those species found on the mainland (India, Taiwan, Vietnam and China), with the majority, those from the islands of the Malesian region, being moved into *Discovireya*.

Following on from the Introduction, Dr. Argent devotes a short chapter to 'A History of *Vireya*', from the first published description of a vireya, *Rhododendron malayanum*, by William Jack in 1822, through the early collections of explorers like Thomas Lobb and Charles Curtis, the ground-breaking work of George Henslow and Herbert Copeland, to Prof. Hermann Sleumer's revision for *Flora Malesiana*. Whilst much of this is documented elsewhere, Dr. Argent has taken the opportunity to record developments over the last 50 years by acknowledging the contributions made by members of the scientific community, enthusiastic amateur growers and dedicated small-scale, specialist nurserymen.

The remaining three chapters of the book deal with "Collecting and Conservation", "Cultivation and Propagation" and "Pests, Diseases and Disorders". In the first, Dr. Argent gives us a brief glimpse into the world of the modern day plant hunter, with its emphasis on responsible collecting and protection of natural habitats. The second chapter is written by David Mitchell and Louise Galloway of the Royal Botanic Garden Edinburgh and is the product of their vast experience in maintaining the vireya collection at the Garden. Much useful advice is to be gleaned here by the amateur grower, although some of the cultivation requirements suggested may need to be adapted (e.g. shading), or even disregarded (e.g. supplementary lighting), to take account of local growing conditions by readers in more favourable climates than northern Europe. The final chapter has again been written by a member of the RBGE staff, Stephan Helfer, and covers a multitude of potential pitfalls that could befall one's vireyas, accompanied by some useful photographs of afflicted plants for reference.

The book closes with a seven-page glossary of botanical terms used therein; followed by six pages of line drawings to illustrate the various leaf shapes, scale types, etc. seen in *Vireya*. The 'References' appendix, with its extensive list of literature cited throughout the book, leaves the enthusiastic reader with much to investigate.

By including a good selection of photographs, together with chapters on the history of *Vireya*, collecting and conservation, cultivation and propagation, and pests and diseases, Dr. Argent and his publishers, the RHS, have moved away from the customarily rather "dry" monograph of years gone by, towards a more user-friendly, all-encompassing volume that should appeal to a wider audience. It could perhaps be argued, however, that with a cover price of £55, the book is unlikely to appeal to the newcomer to vireyas looking for cultural information, most of which

is covered in other publications, and these pages might have been better-used. Expanding the notes accompanying the individual species descriptions to include further information on each taxon would have been one option, (many of Dr. Argent's own papers describing new species, in journals such as *The New Plantsman*, run to several pages each), with more species represented by a photograph, preferably in a slightly larger format. A set of distribution maps with lists of species found in each of the island groups of the region would also have been welcome.

Dr. Argent, in his introductory comments, acknowledges the molecular work carried out by various parties over recent years, but appears cautious in accepting some of the findings at this stage, and states that “the present work is not trying to represent evolution or monophyly but to present a practical way of dividing this large group of species into subunits so that species can be identified”. This he has surely achieved and in the process given us an indispensable guide to the vireyas. The timely publication of the book seems appropriate, bringing the morphology-based classification of *Vireya* right up to date just as advances in molecular research gather pace. As further DNA analysis is undertaken, and a wider range of taxa sampled, an alternative classification based on the phylogeny of *Vireya* will undoubtedly emerge, at which time a better comparison will be possible between the author's morphological classification and the evolutionary relationships of *Vireya* uncovered from such research – fascinating times ahead!

So, how would this reviewer sum up the book? To borrow a much over-used phrase, which in this case I believe genuinely appropriate, it is “essential reading” for anyone with an interest in vireyas; or, indeed, rhododendrons in general, bearing in mind that the vireyas represent around one third of the genus. It is the first full account of *Vireya* to be published and, judging by the fact that the initial print run was almost fully allocated through advance orders alone, is already considered the new standard reference work. The book will do much to stimulate interest in these plants, as the lack of easy access to relevant authoritative literature has for many years undoubtedly been a barrier to a greater awareness of the group.

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Vireyas are tropical rhododendrons and have scales, hence they are often lumped with the lepidote rhododendrons. The scales on the underside of the leaves are star-shaped, disk-shaped or lobed. Another unique feature, vireyas have no blue pigments, so there are no mauve, blue, purple or violet vireyas. Also, vireyas never have spotted flowers. Vireyas do have seeds with "tails" or "wings" on each end, and idioblast cells (very large storage cells), neither of which occurs with other rhododendrons. For the purpose of this website, the vireyas will be treated separately since they are very different from other lepidotes. Second, vireyas do not grow where other rhododendrons grow. They grow more like orchids and grow where orchids grow. Rhododendron section Vireya (vireyas) is a tropical group of Rhododendron species, numbering about 300 in all.[1] Vireyas are native to southeastern Asia and range from Thailand to Australia.[2]. Contents. 1 Description. ^ a b Argent, G. Rhododendrons of subgenus Vireya. 2006. Royal Horticultural Society. ISBN 1-902896-61-0. Rhododendrons of subgenus Vireya. Royal Horticultural Society, London. Argent GCG. 1995. New combinations and synonymy in some rhododendrons of section Vireya. Edinburgh Journal of Botany 52: 363-365. vireya "Two distinctly different taxa within subsection Pseudovireya and their relation to the rooting of section Vireya within subgenus Rhododendron. Rhododendron Species 1: 72, 91-97. Hedegaard J. 1980. Morphological studies in the genus Rhododendron: dealing with fruits, seeds and seedlings and their associated hairs. 2 vols.