Notes RBG Edinb. 41(2):278–279 (1983)

BOOK REVIEW

Windowsill Orchids. Though there have been many land-marks in the 196-year history of *Curtis's Botanical Magazine*, the issue devoted entirely to species, hybrids and cultivars of *Pleione** must rank as one of the more important. For the first time, in addition to the exquisite illustrations and detailed descriptions to which we are accustomed, we are given a taxonomic history of the genus, cultivation instructions, notes on pests and diseases, a grower's calendar, a key and distribution maps for the whole genus, and descriptions of artificial hybrids. These attractive and relatively easily-grown orchids have become increasingly popular during the last twenty years or so and this up-to-date and well presented monograph will provide a very useful reference work on all aspects of the genus.

The section on cultivation is detailed and informative though some of the jargon such as 'starting into growth' and 'watering should be given' grates a little on the non-horticultural ear. It could be slightly confusing that *Pleione maculata* and *P. praecox* are described as having a late-flowering habit while on the same page being noted as the first species to come into flower.

The major references are all hidden under the generic citation where many readers might not think of looking for them. Surely the only references that truly belong here are those that exemplify what the authors understand to be the correct use of the name *Pleione*. General references should also be placed at the end or in some more obvious part of the article. The generic description makes no mention of the prominent saccate base or short spur found in the lip of several species, though this character is mentioned under some of the species that show it.

I should like to have seen a formal conspectus following the generic description. This could have included synonyms and chromosome numbers (both omitted from the majority of the species descriptions) and might also have given the plate numbers of previous *Botanical Magazine* illustrations which will now be difficult to identify because of the name changes proposed.

The key seems to work quite well once a few of its idiosyncracies are understood. There are some inconsistencies in terminology both within the key and between the key and the species descriptions, particularly in the terms used to describe the nature of the lip callus. In *Pleione* the callus consists of continuous or interrupted parallel keels or lines of hair-like outgrowths running along the median line of the lip; the number and nature of these keels or lines is crucial in keying out the species. The words 'keels' and 'lamellae' have been used interchangeably throughout, which could cause confusion if the reader expected some difference between them. To key out *P. hookeriana* and *P. humilis* at couplet 5 one has to opt for a lip with lines of hair-like outgrowths rather than one with lamellae; in the text, both are described as having barbate lamellae. Further confusion develops at couplet 10 where the word 'entire' is used in two quite different senses making the dichotomy less than abundantly clear. The first lead of couplet 12 selects flowers lacking any lip-markings yet this is only reached by deciding at couplet 8 that the flowers have reddish-purple or brown lip-markings. The most difficult part of the key is that concerned with the species that make up the 'bulbocodioides complex'. The obvious problems encountered by the authors in finding satisfactory dichotomies, reflect how unclear the specific limits are within this group. Hunt & Vosa (*Kew Bull.* 25: 423–432, 1971) considered that *P. formosana, P. limprichtii* and *P. speciosa* should all be regarded as part of *P. bulbocodioides*. The present authors treat them as separate species, reflecting established horticultural practice, but clearly feel some reservations on this point.

There are also some discrepancies between the key and the illustrations. *P. coronaria* keys out as having the central keel longest; figure 7 shows this keel to be by far the shortest. *P. praecox* is reached through couplet 2 by choosing 'peduncle short, covered entirely by sheaths': t.861 shows a flower with a long exposed peduncle.

Individual cultivation requirements, history, position in the genus and synonomy are all very fully discussed under each species, though formal citation of synonomy, as noted above, is almost entirely lacking. This could be a nuisance in cases where the authors have had to

* P. J. Cribb, C. Z. Tang & I. Butterfield, *The Genus Pleione. Curtis's Botanical Magazine* 184 part 3. 154pp., 12 coloured plates, 9 line drawings and 4 maps. The Bentham-Moxon Trust, Royal Botanic Gardens, Kew in association with Curwen Books, London. £15.00 (1983).

establish new names for well-known species. It would surely be useful to see '*P. forrestii* auct. non Schlechter' under *P.* × *confusa* and '*P. pogonioides* auct. non Rolfe' under *P. speciosa*. Synonyms are however clearly dealt with in the index. The latter would be much more useful if it had page numbers as well as species numbers. The names of countries cited for the distribution of each species are listed in alphabetical order, rather than systematically from north to south or east to west. This makes the pattern very difficult to visualise. The maps are mostly very clear and informative though in map 3, which lacks any coastline, it is not immediately apparent which lines are rivers and which are political boundaries.

The authors seem a little uncertain about the origin of *P.* × *lagenaria*. In most of the work it is cited as, and stated to be, a hybrid, but in discussion it is said to be of 'possible hybrid origin'. It seems a rather circular argument to suggest that the existence of a putative hybrid testifies to an overlap in the flowering times of its supposed parents. There is similar ambiguity on the parentage of *P.* × *confusa*. Its origin from *P. forrestii* × *P. grandiflora* is 'undoubted' on pp. 117 and 126 but merely 'likely' on p. 123.

The water-colours and line-drawings are beautifully executed and well up to the standard that has been the hallmark of the *Botanical Magazine* for nearly two centuries. Chittenden's remark (*Curtis's Botanical Magazine Index,* 1956) that mechanical printing could compare favourably with the best hand-colouring was somewhat optimistic at the time but is much closer to the mark in 1983. However, this is only true if great care is taken with the registration of the different overlays. In the copy reviewed this was very poor in three of the plates and less than perfect in some others. It seems a shame that badly printed plates are ever bound, let alone leave the printer. It is slightly inconvenient that the plate numbers are on the inner rather than the outer corner of the page.

The original aim of the magazine was the display of ornamental foreign plants. I feel sure that horticulturist and taxonomist alike will welcome this recent issue and agree that in spite of minor irritations it amply fulfils that early objective, even if the ravages of inflation mean that the price they have to pay per plate is rather more than seventy times what it was in 1787. Since that time well over 10,000 plates have been published (an average of over one per week). Recent years have seen a steady production of about 22 per year with a standard of presentation higher than ever.

J. C. M. ALEXANDER