Notes RBG Edinb. 43(2): 335–343 (1986)

Book Reviews

The Cape Flora may reasonably be described as the botanical pride of South Africa; yet, though a few families and a number of genera have been monographed in recent years, there is no treatment of the flora as a whole. A full scale Flora to cover 8500 species is admittedly a massive undertaking, roughly equivalent to P. H. Davis's *Flora of Turkey*, of which the ninth and final volume is due out in 1985, some 20 years after the first. Unfortunately South Africa has produced no botanist with the necessary nerve to tackle a Flora of the Cape.

Now, Pauline Bond and Peter Goldblatt have produced a catalogue* which one hopes will prove a spur to the greater undertaking; it certainly makes an admirable launching pad for it. The catalogue provides a complete list of species, each with a very brief descriptive phrase and an indication of its range. Thus, taxonomists now have access to information, for each genus, of the number of species generally accepted as occurring in the Cape Flora, the names in current use and their overall distribution. Previously this information could only be obtained after a much time-consuming search.

Too much must not be expected of such a catalogue. The user must go elsewhere to identify genera that he does not already know, and he will just have been lucky if the combination of descriptive phrase and distribution fulfil the authors' faint hope and occasionally enable him to identify a species. In fact, the descriptive phrases are not very well done. Although the size of the plant is always given, flowers are repeatedly referred to as large or small without any standard being set for the genus. The phrases have not been made diagnostic even where this could easily have been done. For instance, under *Halleria* (p. 412) *H. lucida* could so easily have been distinguished by 'corolla arcuate', in comparison to 'campanulate' for *H. elliptica* and *H. ovata*. So too in *Zaluzianskya* (p. 423), where there are 15 species: four stand apart by reason of their bifid corolla-lobes and two have only one pair of stamens fertile. Such information would have been far more useful than the highly non-diagnostic stem lengths. Unless some such attempt is made it is doubtful if the provision of descriptive notes is worthwhile.

The arrangement (apart from the three main divisions Gymnosperms, Monocotyledons and Dicotyledons) is alphabetical by family and genus. There is a generic index and its constant use is strongly recommended; this avoids the frustration caused by the disappearance of Gramineae, Liliaceae, Compositae, Cruciferae, Leguminosae and Umbelliferae and the recognition of Mesembryanthemaceae. It also obviates uncertainty whether Selaginaceae and Lobeliaceae have been maintained (sensibly they have not) or where certain anomalous genera have been placed. Clusiaceae is wrongly used for Hypericaceae, which has priority over it (but not over the alternative Guttiferae) when the two are united.

It is easy to appreciate the authors' anxiety that the catalogue shall not rapidly become out of date due to changes in nomenclature. Nevertheless the use of unpublished names is irresponsible: there is many a slip 'twixt notes and print'. P. H. Linder proposes to dismember *Restio*, but the segregate genera could have been indicated by an initial letter after the name in *Restio*: as it is one knows not where to look for a particular species; and what *Polhillia* (p.295) may be is a complete mystery. A book should not be unintelligible till later publications appear. Again the use of old manuscript names from the herbarium is wholly reprehensible. Who is going to publish Grant's names in *Nemesia*, that of Schonland in *Lobelia* or of M. Moss in *Gnidia*. These botanists died many years ago.

Naturally there are mistakes, but in a catalogue of this nature 1% error would permit 85 in all, and my own list is certainly not so long. Authors face two difficulties in this type of work: picking up the information from the literature, and then knowing whether to believe it or not. *Zaluzianksya pseudoafricana* Paclt stemmed from a nomenclatural misunderstanding and should not be adopted: *Z. africana* (Thunb.) Hiern remains correct. On the other hand Meikle's note showing that *Laurentia* Adans. is illegitimate and must be replaced, by *Solenopsis* Presl if S African and European species are congeneric, has been missed (see *Kew Bull.* 34:373, 1979). One specific omission worth mentioning is *Anaglypha acicularis* Benth., never collected since Burchell found it on hills near George; it is not an *Anaglypha* (see

*Pauline Bond & Peter Goldblatt. The Cape Flora. Plants of the Cape Flora: a descriptive catalogue. *Journal of South African Botany*, Supplementary volume No. 13. National Botanic Gardens of South Africa, Kirstenbosch, Claremont 7735. ISBN 0 620 07668. Price 18 Rand.

Notes RBG Edinb. 34:256, 1976) and a decision on its position may have to await its rediscovery.

Naturally, there is space for little synonymy; nevertheless it is disturbing to find that some of the synonyms given can only represent misidentifications of Cape material. For instance 'Fumaria muralis Sond. ex Koch—(=F. officinalis L.)' is certainly not a true statement as it stands, nor can 'Scirpus leucanthus Boeckeler—(=S. supinus L.)' be correct, or why is the earlier name not used? The entry under *Erigeron*, '*Capensis Houtt.—(=Conyza ambigua DC.)', is completely baffling. *Erigeron capensis* Houtt. is the basionym of *Vernonia capensis* (Houtt.) Druce, correctly cited further on. *Conyza ambigua* DC. is a synonym of *Erigeron bonariensis* (L.) Cronquist, which is an introduced weed, and the latter name is almost certainly the entry required here.

So much for the errors: they can be corrected. Like so many books containing a few mistakes, this one will be much used and much valued by those who deal with the Cape Flora and the authors have earned our gratitude.

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Two bulbous Southern Africans. In 1939 Dyer published a complete review of the genus *Cyrtanthus* as then known, including the species growing in tropical Africa. In the present account* the southern African species have been 'lifted' word-for-word from the 1939 paper, and seven new species have been added. Also included are species from the genera *Vallota* and *Anoiganthus*, now included in *Cyrtanthus*, and *C. herrei* which has been transferred from *Cryptostephanus*.

Altogether, 50 species are covered and there are 16 colour photographs, 31 black and white drawings and 21 maps showing the distribution of 46 of the species. Herbarium specimens at Edinburgh which were put through the key, were successfully identified, although occasionally specimens displayed characters outside the range of variation given in the descriptions. However, there are discrepancies between the descriptions of some species and the key: *C. huttonii* does not fit with the key lead 1b in bulb, leaf, peduncle or umbel characters; *C. falcatus* is keyed out as having a green to yellow-orange perianth with red-margined lobes, whereas the description says 'perianth red'; the leaves of *C. speciosus* are described as '1·25–2 cm broad', but the key (at lead 45b) gives them as 'up to 11 mm broad'—statements which in the latter case do not actually prevent one from keying out the species but in all cases make one wonder exactly what to believe. The key at lead 1b should read 'up to 60 mm in *C. purpureus*' if the description of the latter is correct.

A further discrepancy is the use of millimetres in the key and centimetres in the descriptions, which is both unnecessary and irritating and liable to lead to confusion should concentration waver. It is a pity that a complete index has not been provided; there is an index to the accepted species but one has to search through the text for synonyms which wastes time and patience.

Nevertheless, despite the criticisms, it is useful to have this updated account (which does not pretend to be a monograph) of a genus which has contributed a number of plants to European gardens, greenhouses and window-sills, and which deserves to be more widely cultivated.

Snijman's revision of *Haemanthus*† brings us another ornamental genus in the Amaryllidaceae. It is welcome in that it resolves the uncertainty over the actual size of the genus. Twenty-one species have finally been recognized, and each one has a detailed description followed by flowering and leafing time, distribution, habitat and relevant remarks about the plants. There are 23 distribution maps and 9 black and white figures. It is however, the colour plates (23 by Ellaphie Ward-Hilhorst, perhaps best-known in Britain for her *Pelargonium* illustrations, and 1 by Fay Anderson) which add enormously to the value of this revision, the detailed watercolour painting bringing the plants to life in a way that a botanical description rarely does. It is a great pity that so few revisions include illustrations

**A review of the southern African species of Cyrtanthus* by C. Reid & R. A. Dyer. American Plant Life Society, iv & 68 pp. 1984. $14 ($12 in USA and Canada).

†*A revision of the genus Haemanthus L. (Amaryllidaceae)* by Deirdré Snijman. National Botanic Gardens of South Africa; Journal of South African Botany, Supplementary Volume No. 12. viii & 139 pp. 1984. R18.