

## Botany

*The Moraees of Southern Africa* by P. Goldblatt (with watercolours by Fay Anderson). 1986. *Annals of Kirstenbosch Botanic Gardens* Vol. 14. Pp 224. Price R44,00 (including GST, postage and packaging).

The National Botanic Gardens of the RSA aim to promote the conservation and research of the flora of southern Africa. Since 1944, some 13 publications were issued at regular intervals as supplementary volumes to the *Journal of South African Botany*. In 1984 the latter amalgamated with the *South African Journal of Botany* which is produced for both the National Botanic Gardens and the South African Association of Botanists. The numbering of volumes followed that of the *Journal of South African Botany*.

Over the years the National Botanic Gardens increased its research output emphasising the need for publication of longer texts. It was then decided that the title of a new serial publication would be “*Annals of Kirstenbosch Botanic Gardens*” to cater for the publication of major works on southern African flora and that the numbering would follow on the supplementary volumes now discontinued.

The volume under review has been co-sponsored by the Missouri Botanic Gardens where Peter Goldblatt is the B.A. Krukoff Curator of African Botany.

The genus *Moraea* is a large one (119 species currently recognised), belonging to the liliopsid order Iridales. These Iridaceae are native to Africa south of the Sahara but occur especially in the south-western Cape and the Drakensberg Range. In the area to the south of the Zambezi-Cunene rivers, 103 species are encountered and in excess of 65 of these are restricted to the winter rainfall area of the south and west coasts and immediate interior of South Africa.

Goldblatt interprets *Moraea* as a late Tertiary genus which differentiated from ancestors in central and south-western Africa when much of these areas was still heavily forested. With the onset of drier climates and more pronounced seasonality of Africa's climate after the end of the Oligocene, and the concomitant establishment in the Pliocene and Pleistocene of a mediterranean climate in the south-western Cape, Goldblatt speculates that *Moraea* underwent an extensive radiation in the drier parts of southern Africa (e.g. in Namaqualand) where all of the more primitive species and many of the most specialised members of the genus are encountered today.

The taxonomic history of *Moraea* begins in 1758 with Phillip Miller's publication of the genus MOREA and Goldblatt takes the reader through an interesting and well-documented historical account of these monocots. He divides his material into four time-spans: The Linnaean Period (1758 – 1778); The Early Exploration of southern Africa (1778 – 1830); The Period of African Exploration (1830 – 1896); and The Modern Period (1896 – 1985). The overall result is that the general taxonomy of the genus *Moraea* is now reasonably well worked out. Goldblatt points out that the stage is now set for more detailed and extensive studies of pollination, evolution and biology that require a basic taxonomic framework (presented in this volume) before further research can continue.

The taxonomic overview of *Moraea* is followed by sections devoted to its gross morphology, aspects of conservation, a discussion of its horticultural importance

and cultivation, a discussion of its distribution and evolution (including notes on subgeneric classification) as well as a thorough deliberation on the relationships and systematic position of *Moraea* as a member of the Iridoideae, one of the two major subfamilies of the Iridaceae. As is to be expected the greater portion of the book is devoted to a systematic treatment of the 103 species. The species are treated in a uniform way under the following headings: Synonyms, Distribution and habitat, Diagnosis and relationships and History. The distribution maps accompanying the descriptions are clear and of distributional relevance.

A significant feature of this book, are the 66 magnificent watercolours by Fay Anderson, illustrating some 64% of the species discussed by Goldblatt. The artwork is precise, detailed and has evidently been created with love and enthusiasm. Even if one were to use the book for nothing else, it is a sure pleasure just paging through it and taking in Fay Anderson's wonderful artwork. Species which are not illustrated in full page colour are also illustrated by Margo L. Branch and Janet E. Klein by means of neat and clear line drawings.

The contents of this beautifully produced book is of relevance to the RSA, Lesotho, Swaziland, Transkei, Botswana and Zimbabwe, where the genus *Moraea* is found. The volume reflects all four of the functional areas in which the National Botanic Gardens are involved: scientific research, horticulture, conservation and education. Although it is a book of immense value to the professional botanist, the amateur botanist will find much of relevance making interesting and absorbing reading. I fully agree with the sentiments of J.N. Eloff, the Executive Director of the National Botanic Gardens who states that the scientific and artistic value of this volume is so great it will be extremely difficult for subsequent volumes to surpass it.

In summary: buy and enjoy a copy for yourself; use it in the field, laboratory or in an armchair — it is excellent value for your money.

**G. De Graaff**

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