

Book Review

Guide to Standard Floras of the World

Edited by David Frodin

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I could not resist prefacing this review with the observation by EO Wilson that the description and mapping of the world biota is scientifically more important and far more urgent for human welfare than the current focus on phylogenetic reconstruction. It is an embarrassing reality that we still have no consensus on the number of species of angiosperms, the best-known group of plants. Estimates range from 215 000 (Cronquist 1988) to as many as 320 000 (Prance *et al.* 2000), with little hope of achieving a more accurate estimate. One of the main reasons for this deficiency is simply the time-consuming nature of monographs and revisions. It is in this light that I compliment Frodin on monographing the world's Floras.

This book is nothing less than an annotated bibliography of the more useful standard, or nominally complete, floristic works on vascular plants that covers the entire world, region by region. The first edition of this work was published just over 15 years ago but it is a gratifying observation that, in the twenty years since coverage for this edition was closed, floras and related works have continued to appear, improving coverage for many parts of the world. The current edition has a cut-off date at 1999. With some exceptions, no detailed coverage of florulas or local lists is provided and limited attention has been given to weeds and poisonous or useful plants. In contrast, some ecological classes (somewhat sententiously referred to as physiographic or sinusal isolates), such as alpine zones and wetlands, are included.

The work kicks off with an extensive expose on its scope, sources and structure, including an interesting but unfortunately dated map (circa 1980) showing the approximate state of world floristic knowledge at the time. The most practical part of this chapter is the very necessary explanation of the plan and philosophy of the work. The world's floras are divided into a three-tier hierarchical system, starting with a breakdown into 10 geographic divisions, corresponding largely to continents or subcontinents. Within each of these divisions are various regions (sometimes grouped into super-regions), corresponding to large countries or areas of comparable size, which in turn comprise units, generally corresponding to smaller countries or states. A parallel system of ecological units is also recognised at the level of the divisions, covering such treatments as Hedberg (1957) *Afroalpine vascular plants* or Davies and Gasse (eds) (1988)

African wetlands and shallow water bodies. With some application one soon gets the hang of this system but, necessary as it was to devise, I suspect the average user will be better served by referring directly to the Conspectus of categories that precedes the treatment of each of the divisions.

Then follows a very scholarly chapter on the evolution of Floras. Frodin, in a synthetic tour de force that highlights his extraordinary familiarity with the subject, thoroughly covers the history and development of Floras. The rise of the age of information technology does not escape his notice, including the development of the PRECIS database by the National Botanical Institute. He ends with the prediction that Floras of the twenty-first century will not be merely on-line in electronic form but entirely absorbed into floristic information systems, with the more traditional forms comprising just some of its products. This is certainly likely but I would feel more comfortable if there seemed to be any surety that the compilation of up-to date Floras could keep pace with the development of the information systems that will disseminate them. Chapter 3 focuses on the philosophy, progress and prospects of Floras at the end of the twentieth century. One of the more pertinent points to emerge here is that Floras are useful only if they are accessible to the users. Two of the keys to this are less jargon and more illustrations.

A mammoth 840 pages forms the main body of the work. The treatment for each geographic subdivision starts with a few useful statistics where these are available, usually land area and number of vascular plant species, accompanied by notes on the status of knowledge of its flora and any available bibliographies. Then follows an annotated listing of the most modern, more or less complete Flora treatments. The annotations that accompany each entry are wonderfully thorough and give a very good indication of what each treatment comprises. I was pleasantly astonished to even encounter a separate listing for the Kruger National Park. Unfortunately what emerges is that the coverage of southern Africa's flora is not as good as might be expected. It is sobering to read, for instance, that despite the initiation of the *Flora of southern Africa* in 1963, 'by 1990–91 only a relatively small proportion of the flora had been covered'. Admittedly various further treatments have appeared since then and, of course, this analysis does not take into account the wonderful variety of taxon-based treatments that have

been published for the region. But the point is well made. A selection of apposite quotations taken from various publications appear at the start of each chapter as a light counterpoint to the more ponderous text that follows. Two appendices appear after the main body, listing respectively the major bibliographies, catalogues etc. that are available, and the abbreviations of serials cited. These are followed by an addendum of more recent works that appeared while the book was in proof and I, pardonably, was delighted to see that the announcement of the imminent appearance of Goldblatt and Manning (2000) Cape Plants did not escape Frodin. The book closes with geographical and author indices. Altogether it is an extraordinary achievement.

References

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