

## BOOK REVIEW

**Flora of India. Vol. 1** (1 July 1993): xiv+467pp with 19 colour plates & 66 line drawings; **Vol. 2** (12 July 1993): xi+625pp with 16 colour plates & 118 line drawings; **Vol. 3** (20 July 1993): xi+639pp with 15 colour plates & 167 line drawings. B. D. Sharma et al. (1993). Botanical Survey of India, Calcutta.

The first that westerners knew of the flora of the tropics were reports of Indian plants: when Alexander the Great defeated the Persian King Darius in 331 BC, he pushed on over the Khyber Pass to the Punjab, so that the Indus became the eastern boundary of his extended Asiatic Empire. Though the extent of this enormous enterprise was short-lived, the culture and natural history of India was forever linked thereafter to that of the western world. Findings from his invasion were incorporated in Theophrastus's influential *Enquiry into plants*: the banana, the mango and the jak fruit, cotton, mangroves and banyans. The first scientific work on India's flora was van Rheede's *Hortus indicus malabaricus* (1678–1693) in twelve elephant-folio volumes with nearly 700 plants: it was cited by Linnaeus and is a landmark in botanical progress.

The next landmark was J. D. Hooker's *Flora of British India* (1872–1897), though this had been prefaced by his and Thomson's *Flora Indica* (1855), which reached only Volume 1 (as had its predecessor, Robert Wight's and George Walker Arnott's *Prodromus florum peninsulae Indiae orientalis* (1834)). The *Flora of British India* included the plants of the other British possessions in tropical Asia: Ceylon, Burma and the Straits settlements. It was a colossal undertaking and was completed in 25 years. It has been reprinted and has acted as the 'mother volume' for the very many regional floras produced throughout peninsular India and neighbouring regions in recent years, the first major one being the *Handbook to the Flora of Ceylon* (1893–1900) by Hooker and Trimen, followed by many on the mainland, notably Gamble's *Flora of Madras* (1915–1938).

Since 1978 *Fascicles of Flora of India* have been appearing from the Botanical Survey of India, some devoted to family treatments, some to tribes and some to genera, the last two (19 and 20) seen comprising bumper numbers with several family treatments each. Rather as with the *Revised Handbook to the Flora of Ceylon* (1980–), which first appeared in such fascicles, these are now being superseded by hard-bound volumes with many families in each. So far we have three from the Botanical Survey of India, which, beginning in 1986, set itself the task of producing the complete flora of about 17,000 species in 32 volumes, to be published as ready and not in any particular sequence.

The families are, perhaps surprisingly, arranged according to the scheme of Bentham and Hooker, Volume 1 being Ranunculaceae to Barclayaceae (489 species in 18 families), Volume 2 comprising Papaveraceae to Caryophyllaceae (611 species in 13 families), and Volume 3 containing Portulacaceae to Ixonanthaceae (19 families). After the family description comes a paragraph on

pertinent literature and a key to genera. The genera are arranged alphabetically within the accounts, again with relevant literature listed after the description, and the species alphabetically within the generic accounts (sometimes alphabetically within sections or other infrageneric categories). Basionyms and synonyms used in Indian literature, as well as vernacular names, are added. After the descriptions there are flowering and fruiting times and distributions; under 'Notes' are economic uses and discussion of nomenclatural, taxonomic or phyto-geographic matters. Plants known only in cultivation in India are appended to each family account. There are line drawings (of very varying quality) scattered throughout the work, and coloured plates gathered at the beginning. Each volume has its own indexes of Latin and vernacular names.

Of the families not treated in the earlier fascicles, Volume I includes Ranunculaceae; the keys seem to work but the distinctions between species are sometimes not clear from the descriptions, which vary greatly in length. Bearing in mind the large amount of work, particularly carried out in India, in not only local floristics but also in giving a nomenclatural overhaul to the indigenous angiosperms (see S. S. R. Bennet (1987) *Name changes in flowering plants of India and adjacent regions*), it is perhaps surprising to see so many errors in names (as well as many other typographical mistakes). In this family alone, a cursory glance shows the generic names *Ceratocephala* and *Dichocarpum* incorrectly rendered, wrong names in *Consolida*, wrong authorities in *Callianthemum*, and so on. In other families there are errors and omissions: among these, for example, again wrong authorities in *Mahonia leschenaultii* (Berberidaceae, an account perhaps following too slavishly the outdated work of Ahrendt) and *Cocculus hirsutus* (Menispermaceae), while in Tiliaceae you will search in vain for *Triumfetta malabarica*, and so on. But these are minor cavils readily put right in corrigenda. More serious perhaps are the numbers of new names and taxa sprinkled throughout the work: some are described as in press elsewhere, others are intended to be novelties. Sadly, much is already overtaken, e.g. new combinations in *Lychnis* when that genus is now subsumed in *Silene* for example, but most serious are the novelties from the Andaman and Nicobar Islands. These are politically part of India but phytogeographically essentially Malesian. It will be of interest to see whether the alleged new endemic taxa from these islands survive monographic treatment associated with *Flora Malesiana* work.

These worries aside, the publication of a major tropical flora, when it is estimated that 10% of the species to be covered are endangered, is to be welcomed and encouraged. There was a flying start in 1993. Let us hope that this endeavour will be the Indian botanical landmark of the twentieth century and not another one aborted like so many of its predecessors.

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