

BOOK REVIEW

New Key to Wild Flowers.* Despite the plethora of currently available illustrated field-guides to British vascular plants, this book is a singularly useful addition to the literature, since it should allow the rapid, yet accurate, identification of a very large proportion of species with a minimum of botanical knowledge and a minimum of effort. With the great increase in the number of ecological surveys (such as those sponsored by the Manpower Services Commission), the growth of interest in botany amongst the general public and the ever decreasing amount of systematic botany taught to undergraduates, the need for such a book has never been greater.

As the title implies, the book consists of a series of keys in a new format: these are not of the old-fashioned dichotomous type, but consist of series of statements laid out in parallel columns. Nomenclature and use of English names sensibly follow the third edition of Clapham, Tutin and Warburg, and Dony, Rob and Perring respectively. The keys are amply supplied with the thoroughly excellent thumbnail sketches by Michael Hickey which illuminate many a pair of alternative character states much more concisely and accurately than could be done by words (e.g. the achenes of *Alisma lanceolata* and *A. plantago-aquatica* or the stamens of *Luzula campestris* and *L. multiflora*). Such carefully chosen details are far more useful than the poorly reproduced, coloured illustrations of whole plants seen in the more traditional field-guides.

The keys are pragmatic in approach separating out artificial, but easily recognized groups (rather than doggedly sticking to a taxonomic scheme) where this is appropriate and useful—for instance in the first key which separates trees, herbs with zygomorphic flowers, etc., and also in the splitting up of some of the more cumbersome families. It usefully keys out peculiar looking genera like *Tamarix* with the conifers and *Lemna* with the non-flowering plants (with statements of their true affinities) in addition to keying them out under their correct families.

To use the keys one reads down the left-hand column until the first true statement is reached which applies to the specimen in hand, further distinguishing characters are given in the second (and/or third) column and the name appears on the right. The use of artificial groups, the illustrations, and the avoidance of ambiguous or difficult couplets make the keys very quick to use. The other great advantage of the format is that many species key out more than once—allowing both for differences of opinion and variability. Thus *Teucrium scorodonia* keys out under flowers 'yellowish' (subjective) and under 'corolla without upper lip'. The format also enables plants which look similar (to the unwary) to appear in juxtaposition, thereby allowing more critical comparison (e.g. *Cichorium intybus* and *Cicerbita macrophylla*).

The book is, of course, not faultless: there are far too many spelling mistakes (e.g. on p. 156 we have a new Turkish-sounding genus *Myosotic*), the page numbers for internal references have been omitted, as have many hybrid signs . . . More seriously, for those of us who live 'north of the Thames' (given as a character for *Cirsium helenioides*!) is the strong southern bias in choice of species included. Although the book claims not to be comprehensive and to exclude rarities, it does include many extremely local southern species (such as *Ophrys sphegodes*) at the expense of some quite widespread northerners (e.g. *Galium pumilum* but not *G. sternerii*, *Cerastium pumilum* but not *C. arcticum*, *Allium triquetrum* but not *A. paradoxum*). It is also too restrictive in its inclusion of introduced species. This is serious where there is an introduced species similar to and often mistaken for a less-commonly encountered native (e.g. *Lysimachia punctata*/L. *vulgaris*, *Telekia speciosa*/Inula *helenium*, *Polygonatum* × *hybridum*/P. *multiflorum*). The key also omits some of the more common hybrids such as *Stachys* × *ambigua*.

There are occasional errors and inaccuracies, e.g. the number of rows of seeds is not a very good character for separating *Nasturtium officinale* from *N. microphyllum*; *Petasites fragrans* has mauve flowers, not cream; *Cakile maritima* does not have pinnate leaves.

The only really bad key is that for *Salix*, which is surprising since AIDGAP (the sponsoring body of the book) have already produced a much better key for this troublesome and promiscuous genus, albeit in a different ('lateral') format. In view of the intended audience, it would have been better to provide a key only for trees with mature leaves and to forget about trees only in catkin. In this key the slightly dangerous tendency (occurring throughout) to rely on habitat and plant height is carried to the ludicrous extreme whereby *Salix lapponum* keys out as a plant 'up to 150cm high on mountain rocks in Cumbria and Scotland'. This could also be said of at least 8 other species, let alone their various hybrids!

I tested the keys for several families and in general they worked best for relatively straight-forward groups such as the Cruciferae; but it also coped very well with groups often regarded as difficult such as the ferns and grasses. The keys for tricky genera like *Mentha*, *Fumaria* and *Epilobium* also worked surprisingly well. I had less success with, for example, the water crowfoots—due to the unaccountable omission of two very common species (*Ranunculus penicillatus* and *R. peltatus*) and the pondweeds—the distinction between *Potamogeton natans* and *P. polygonifolius* is not good and *P. berchtoldii* did not key out.

The book is issued in two formats: in hardback (at £25) and in softback, with a plastic articulated spine (at £8.95). I doubt if the perforated pages of the latter will stand up to use in the field and the cost of the former is typical of the unreasonably high prices we have sadly come to expect of the Cambridge University Press.

The true test of this book will come with extensive use in the field, but I strongly recommend it both to students and botanical beginners who want to name British vascular plants by a more rigorous method than by merely looking at coloured pictures. I also commend it to those who are interested in producing easy-to-use, consumer-oriented keys.

H. J. NOLTIE

**A New Key to Wild Flowers* by John Hayward, published for AIDGAP by Cambridge University Press.