

Book Reviews

Fumitories of Britain and Ireland. R. J. Murphy. Pp. vi + 121. B.S.B.I. Handbook No. 12. Botanical Society of the British Isles, London. 2009. Paper covers. £12.50. ISBN 978-0-901158-40-6.

The B.S.B.I. handbook series is undergoing something of a resurgence at the moment: first, the much-expanded edition of *Sedges*, then last year the eagerly awaited *Water-starworts of Europe*, and now *Fumitories* and *Grasses* in quick succession. I used to steadfastly record water-starworts as ‘*Callitriche* agg’, and had always believed that many of the fumitories were probably best avoided as well. But this new handbook convinces me that these plants really do *matter*, and that they’re not quite as difficult as I had thought.

The handbook follows the usual format. A brief introduction to the genus is followed by an excellent chapter describing floral characters – with a helpful emphasis on those features used to distinguish between taxa – then identification keys, illustrated species accounts with distribution maps, glossary, references, lists of vice-counties in which the various taxa have been recorded, and an index (with synonyms) to the 12 species, seven subspecies, four hybrids and 20 varieties covered by the species accounts.

The text is a model of clarity, and the author’s enthusiasm for her subjects is infectious. “Fumitories are a fascinating group of plants”, she claims in the very first sentence of the introduction, and from then on you are left in no doubt about the truth of this assertion. The keys and species accounts are ‘two-tiered’, enabling beginners to confidently identify their fumitories to species level, while the more adventurous can revel in the delights of subspecies, varieties and forms. The identification keys seem to work admirably well and are based largely on the helpful key in *Plant Crib* (Sell 1998). Anyone tempted to have a go at infraspecific taxa will have a field day: in my own case, it took only a few minutes, with ×15 hand lens and ×10 scale loupe with graticule, to work out that my local *Fumaria muralis* was subsp. *boraei* (probably var. *britannica*) while, unsurprisingly, my *F. officinalis* was subsp. *officinalis* var. *officinalis*. A scale loupe is probably a wise purchase for the would-be fumitory aficionado, as successful use of the keys relies heavily on the accurate measuring of petals, sepals and fruits.

Aside from the text, what really sets this volume apart from other B.S.B.I. handbooks is the extensive use of colour illustrations. For each species, and for most subspecies, there are splendid full-page colour plates with images of flowers, sepals, lower petals and fruits, plus smaller close-up photographs of leaves, inflorescences, dried fruits, and portraits of plants in the wild. The scope of the illustrations is excellent, only *F. muralis* being let down by the fact that all the photographs are of subsp. *boraei*. The reason for this is presumably that neither subsp. *muralis* nor subsp. *neglecta* have been seen recently – indeed it is thought that *neglecta* may possibly be extinct – but without pictures to support the text it is unlikely that many of us will be skilled enough (or feel brave enough) to hunt them down in the future.

The species accounts include E. W. Hunnybun’s line illustrations originally drawn for the Cambridge British Flora (Moss 1920). These are lovely drawings, but much less useful than the author’s own illustrations comparing the flowers and fruits of easily confused species such as *F. capreolata* and *F. occidentalis* (p. 31), *F. capreolata* and *F. purpurea* (p. 73) and *F. muralis* subsp. *boraei* and *F. purpurea* (p. 65). The line drawings of flowers and sepals of the five *Fumaria* archaeophytes on p. 83 are especially helpful.

This small genus has many taxa of conservation importance, including several declining arable archaeophytes; and the handbook will be widely used by those involved, for example, in surveying farmland habitats and the targeting or monitoring of agri-environment schemes. *F. occidentalis* and *F. purpurea* are British-and-Irish endemics, while one subspecies, *F. capreolata* subsp. *babingtonii*, and two varieties, *F. bastardii* var. *hibernica* and *F. parviflora* var. *symei*, are also endemic to these islands. *F. parviflora* and *F. vaillantii* are listed as ‘Vulnerable’ in the Red Data List (Cheffings & Farrell 2005), and *F. purpurea* is a UK BAP Priority Species. *F. reuteri* is ‘Nationally Rare’ in Great Britain and listed on Schedule 8 of the Wildlife & Countryside Act 1981 (as amended), while four species – *F. occidentalis*, *F. purpurea*, *F. parviflora* and

F. vaillantii – are ‘Nationally Scarce’. However, contrary to the statement on p. 84, *F. densiflora* is no longer ‘Nationally Scarce’, having been recorded in more than 100 10-km squares in the 1987–1999 date class in the New Atlas.

The Cornish endemic *F. occidentalis* features on the old UK BAP list, but not the new, and the author is uneasy about it listed as being of ‘Least Concern’ in Cheffings & Farrell (2005), highlighting how difficult it is to assess long-term trends in this species. Nevertheless, she reports that “...it has disappeared from many arable fields on the Isles of Scilly... [and] there are also several Cornish pre-1987 tetrads where it has never been re-found. It may be that this plant requires a threat status that is more than of ‘Least Concern’” (p. 34). There are many in Cornwall who would agree with this assessment, and this species is clearly one we need to be keeping a close eye on.

In her preface, Rose Murphy thanks the B.S.B.I. for publishing this handbook. A nice thought, but surely it’s the Society that should be thanking *her* for writing it. In terms of design, the book certainly breaks new ground, and it will serve as a fine model for future handbooks on other relatively small but ‘difficult’ genera. What wouldn’t we give to have similar colour-guides to the broomrapes, glassworts, crowfoots, rock sea-lavenders and lady’s-mantles, to name but five? It is a lovely volume: written, illustrated, edited and printed to the highest standards, attractively priced, and a huge credit to the author and all those associated with its production. Anyone who, like me, has tended to struggle with these delightful little plants, should make sure they get hold of a copy and *use* it. And enjoy it, too!

S. J. LEACH

REFERENCES

- CHEFFINGS, C. M. & FARRELL, L. eds. (2005). *Species Status no. 7: The Vascular Plant Red Data List for Great Britain*. Joint Nature Conservation Committee, Peterborough.
- MOSS, C. E. (1920). *Cambridge British Flora*. Cambridge University Press, Cambridge.
- SELL, P. D. (1998). *Fumaria*. In Rich, T. C. G. & Jermy, A. C. *Plant Crib 1998*, pp. 67–72. Botanical Society of the British Isles, London.

Mabberley’s plant-book: a portable dictionary of plants, their classification and uses. D. J. Mabberley. Pp. xviii + 1021. Cambridge University Press, Cambridge. 2008. Pictorial hard covers. £50.00. ISBN 978-0-521-82071-4.

The origins of this book can be traced to J. C. Willis’s *Dictionary of the flowering plants and ferns*, whose title more accurately reflects the taxonomic scope of the present work which is still largely restricted to vascular plants. Despite this limitation, ‘Mabberley’ has become an essential adjunct to the working botanist’s library and the main question which might be posed by the owner of one of the previous editions is whether it provides sufficient by way of novelty and up-to-dateness to justify the expenditure.

As the previous edition was reviewed in *Watsonia* 22: 197–198 (1998) a detailed description of the format and contents is unnecessary; the various innovations are outlined in the introduction, which helpfully states that there are 169 humorous statements hidden among the definitions, following the tradition of Samuel Johnson. In casual use, I only spotted a couple. Those unfamiliar with the format will find the sample entries and their

expanded equivalents on pp. xvii–xviii useful, as in order to accommodate around 1650 new entries the definitions have been kept extremely terse. Despite this, the major families and genera often get half a page.

A noteworthy feature of the present edition is the effort that has been made to reposition families into their true relationships based on evidence from DNA studies. This affects both the classification, and the circumscription, of families and inevitably challenges conventional wisdom; but the author pleads “kindly don’t shoot the messenger”. The publication in the *Botanical Journal of the Linnean Society* of the third instar of the Angiosperm Phylogeny Group’s reclassification, accompanied by an internationally agreed linear sequence of orders and families suitable for use by herbarium curators and flora-writers, has in some respects superseded the treatment adopted by Mabberley, who acknowledges the not yet completed *The families and genera of vascular*

plants by Kubitzki (reviewed in *Watsonia* 20: 162–163, 1994) as a principal reference. But no doubt this will be corrected in a future edition. By hedging his bets in a number of instances (e.g. Apocynaceae in the Gentianales, which now encompasses the Asclepiadaceae) he still records the subfamilies and tribes to which a genus belongs in each constituent former family. Personally I find this confusing.

One notable improvement in the present version is the inclusion of a much larger number of vernacular names of cultivated and economic plants. Another more minor innovation is the inclusion of a few names of bryophytes, such as *Sphagnum*, though one looks in vain for any mention of *Bryum*,

possibly because it lacks economic value. Of great value as a point of reference is the Appendix on pages 927–938, which helpfully gives the former ordinal affiliation of families whose position has recently been changed. Occasionally, Mabberley's digressions are almost worthy of Eric Cantona: "A goldfish grazing green algae in its fishbowl is effectively a modern version of the ancestors of human vegetarians at home".

In conclusion, one cannot argue with the blurb on the rear cover which states that "*Mabberley's Plant-book* continues to rank among the most practical and authoritative botanical texts available".

JOHN EDMONDSON

The Vegetative Key to the British Flora. Poland, J. & Clement, E. Privately published by John Poland, Southampton, in association with the Botanical Society of the British Isles. 2009. Pp. 526. Price £25.00 ISBN 978-0-9560144-0-5.

One of the most successful strategies for identifying plants is to use a range of keys and guides depending on the state and stage it is in. The *Vegetative Key* appears to be an unusual and invaluable addition to the existing guides available. However, long before its publication it was hailed by many as a panacea for all identification problems, especially for consultants having to survey sites out of the field season – so does it live up to the hype?

The key covers over 3,000 species of vascular plants that are native or naturalized in Britain and follows an unusual format as identification is tackled using entirely artificial vegetative characters using polychotomous indented keys. Much of the information used in the keys appears to be original and this perhaps is the most remarkable aspect of this book, reflecting the extraordinary amount of field-work put in by John Poland over the last few years.

I was able to test the key over several weeks with different groups of students of varying abilities and it is worth noting some caveats to be observed before using the key. First of all, read the instructions! *Bupleurum rotundifolium* resolutely refused to be keyed out as it did not produce latex an hour after picking although the key insists it should have latex. There are several features that work only if the book is taken to the plant – and of course this is what is stated in the introduction. Latex and smell are two features that are used extensively and it is

difficult to extract latex if a specimen is left for a while after picking; similarly *Sison amomum* loses its distinctive smell very swiftly after collecting, so the point in the introduction about the book being an 'in situ' guide is an important one.

The best points of the Key are the speed at which it can be used – identification is very swift – and the grasses section, which is remarkable in its simplicity. The number of vascular bundles in the petioles of ferns as a diagnostic feature is a revelation. There is a comprehensive glossary, as there are many technical terms even for an experienced botanist and getting to grips with locating stomata and cartilaginous teeth is not a skill acquired immediately. The illustrations and colour plates are excellent – more in the next edition please.

Unusual features of the Key are the polychotomous options and the indentations – even if you are used to indented keys, they are often subtle so care should be taken in moving between rows. Try to avoid mis-reading leaflets for leaves as I and several others did in the main key. Printing the main key on the first page is an excellent idea as it can be turned to immediately if you are starting from scratch but it will be obscured in library copies as there are no blank pages for library stickers or stamps. The sections are clearly labelled with letter codes although it took two goes to realize that the genus groups are at the back (also

remedied by reading the instructions before using the key). A slight irritation is that the 'bibliography' should have been more comprehensive (and also should have been at the back).

There appear to be very few errors – the only one detected was in the *Myriophyllum* key which still relies on the number of leaves in a whorl rather than number of leaf segments and leaf to internode ratio. What cannot be identified? The usual suspects such as *Galeopsis tetrahit sensu lato* which remains s.l. in its vegetative state, and of course some of the Batrachian *Ranunculi*.

Is it a book for complete beginners? One of the main problems for novices is the use of technical keys that depend on diagnostic features based on (usually) reproductive parts of vascular plants. Dissection of flowering parts, deciding whether the ovary is inferior or superior, counting perianth segments and carpels often deters new botanists from progressing on to technical keys, but vegetative parts are generally regarded as more accessible and easier to define. However, using a key

based on taxonomic distinctions helps botanists to learn family characteristics and relationships between species and although there is much to be learnt from this book even by experienced botanists, it is probably not a suitable book for beginners, but every botanist should aspire to use the Key at some point in their botanical activities. Will all keys look like this in the future? Undoubtedly a lot of the new features will be incorporated into future taxonomic keys; the Vegetative Key will not replace them but, like the Plant Crib, will become a virtually indispensable adjunct to them.

So who should buy it? Anyone seriously interested in identifying British plants – the Key gives insights into vegetative features that are not present in most other texts so using it will undoubtedly teach most of us a lot about features that we tend to take for granted. For improvers and experienced botanists, this extraordinary book is essential reading. Will it be the consultants' panacea for winter identification? If the consultants are good enough botanists, then yes.

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