

Book Reviews

Exkursionsflora von Österreich. W. Adler, K. Oswald & R. Fischer; edited by M. A. Fischer. Pp. 1180, 510 figures. Eugen Ulmer, Stuttgart & Vienna. 1994. Price DM 78 (ISBN 3–8001–3461–6).

Although Austria has long been a favourite holiday destination for those in search of Alpine plants, the only pocket-sized Flora in the language of that country which was available until now was the 1973 reprint of K. Fritsch's *Exkursionsflora für Österreich*, first published in 1897. French-speaking visitors are well served by books centred on Switzerland: see, for example, the review of Aeschimann & Burdet's *Flore de la Suisse* (1989) in *Watsonia* 18: 229, 1990. For the monoglot English visitor, the Swiss Alpine Club's *Our Alpine Flora* (1989) by E. Landolt & K. M. Urbanska is available in English, and there are many other popular guides to Alpine plants available in English, French, German and Italian.

The appearance of *Exkursionsflora von Österreich* is doubly welcome, as it effectively replaces as well as updates Janchen's rather inadequate account of Austria's flowering plants in *Catalogus florae Austriae*, edited by K. Hafler & F. Knoll. This was published in four parts from 1956–60 with four supplements from 1963–67. Within a concise format, the new Excursion Flora provides (to quote its subtitle) an identification book for all vascular plants growing in the wild in Austria as well as the most important cultivated plants, together with information on their ecology and distribution. Compiled by three main authors with major contributions from eleven others and smaller treatments and corrections from a further 26, the book was edited by Manfred Fischer. Illustrations of critical parts are mainly by Gabriele Hofer-Sabek and Anton Igersheim, together with seven other artists; in contrast to Aeschimann & Burdet, the figures are included within the keys.

As is usual with key-based Floras, most of the descriptive matter is presented within the terminal couplet of the keys, including notes on the economic uses of the plant. Diagnostic features are underlined. Introduced taxa are treated in a smaller font than native taxa, as are keys to infraspecific taxa, a distinction which is unlikely to help users in the field. It also contains a 16-page summary of the literature, and a very detailed 50-page glossary which includes an analysis of the Latin geographical epithets of the scientific names of plants.

A considerable degree of detail is provided in the taxonomic treatments of some of the more critical genera. The account of *Alchemilla*, for instance, occupies 22 pages; the more cursory treatment of *Rubus*, by contrast, still covers 13 pages. Even under familiar taxa there are some critical observations, such as the possibility that *Potentilla crantzii* subsp. *serpentina* is more deserving of varietal status.

A useful aspect of the book is its attention to synonymy. The second edition of *Flora Europaea* vol. 1 appeared (in 1993) too late for detailed consultation; thankfully, the Green Spleenwort here appears with its more familiar scientific name, *Asplenium viride*. Although the great majority of accepted names follow those given in W. Gutermann *et al.*'s *Liste der Gefäßpflanzen Mitteleuropas* (1973), the exceptions are shown by placing the synonym in bold italic font; other synonyms, including deviations from *Flora Europaea*, are given in medium italic font. In a similar way, standard vernacular names of plants are given in bold font, followed in some cases by alternative names in medium font, both being abbreviated wherever feasible. These conventions are easier to read than to explain.

Most botanists visiting Austria will wish to know the distribution of a particular plant within the country, and this is shown partly by means of a summary of occurrences within each of the eleven Länder (provinces) or, for commoner species, a list of provinces from which it is absent. Where infraspecies are included, this information is given at subspecific level. A summary of the distribution of each species outside Austria is also given, except for endemics; for these, a more detailed statement of distribution within Austria is provided. Geographical information is given in highly compressed form; the front end papers include not only a map of Austria and its provinces,

principal rivers, lakes and mountain ranges, but also a key to the abbreviations of places shown on the map which greatly aids legibility. This map also solves the problem, for German speakers at least, of what to call the new Czech and Slovak republics: 'Tschechien' and 'Slowakei'. These, together with another recently established country, 'Slowenien' (Slovenia), not to be confused with Slovakia, form three of the eight countries now sharing a border with Austria.

It is evident from a glance at the bibliography that local floristic studies are being actively pursued in Austria, and I would expect that the appearance of this new Flora will be welcomed enthusiastically by Austrian botanists as well as by visitors. Although its format is more complex, its practicality and comprehensiveness is on a par with Stace's *New Flora of the British Isles* (1991). Thanks to the extensive use of abbreviations, even users whose knowledge of German is patchy would find it eminently usable if a translation into English of the abbreviated terms listed on pp. 21–24 were to be provided in a future edition.

Students of botany will find the detailed chapter on "Morphology and Phytography" (pp. 38–91) interesting, and the summary data on endemics and near-endemics on pp. 114–116 will be convenient both for Flora-writers and conservationists. One must also mention the short chapter on the history of botanical studies of the flora of Austria (pp. 157–163) which ranges from Clusius to Janchen and ends with a sketch of a bulging plant press. At a price of around £33 at mid-1994 prices, this closely printed and meticulously edited book represents good value for money and may soon become the preferred German-language field Flora for much of central Europe as well as for Austria itself.

J. R. EDMONDSON

Illustrated Flora of Mallorca. E. Beckett. Pp. 223, with 96 colour plates and an illustrated glossary. Editorial Moll, Palma de Mallorca. 1993. Price Pta. 5500 (ISBN 84-273-0714-4).

This excellent illustrated guide to the flora of Mallorca, in a carefully and well edited format, follows the model of *The concise British Flora in Colour* of W. Keble Martin (1965). The most important part of the book is the inclusion of 96 plates, each one containing between five and 19 plants (the majority 10–14) drawn in pen and ink and watercolours. They represent both the commonest plants of the Mallorcan flora, those which the visitor sees most frequently, and also some of the rarer ones. The drawings were made by the author during repeated visits to Mallorca since 1976, the majority being from living specimens or photographs. In some cases, clearly indicated in the text, the drawings were made from non-Mallorcan plants. In a few cases the latter include some plants whose presence in Mallorca needs to be confirmed, such as *Carduncellus pinnatus*, or which have been recently deleted from the Balearic flora, like *Ranunculus monspeliacus*. The drawings include diagnostic details and, with rare exceptions (we could mention *Helianthemum salicifolium* and *Cistus clusii* as examples of those which have an unusual appearance) are very accurate reproductions of the form, appearance and true colour of the plants. Many of the drawings are really excellent; however some of the white-flowered Umbelliferae are on plates which also have a white background, and while they are not themselves of poor quality they have not printed well. The monocotyledons, with the exception of *Urginea maritima* (= *Drimia maritima*), have been drawn without the basal parts, doubtless to avoid having to uproot the plants.

To compile the list of Mallorcan plants, the author has used not only the first edition of *Flora Europaea* and an unpublished catalogue by Professor Llorens, a Mallorcan botanist, but also the general Floras and catalogues currently in use for the Balearic islands, as well as some specialised works about particular genera which are grouped within the bibliography. It is surprising that the most recent Floras of Spain which included the Balearic islands in their circumscription have not been included: Bolòs & Vigo, *Flora dels Països Catalans* (vol. 1, 1984; vol. 2, 1990), and Castroviejo *et al.* (eds), *Flora Iberica* (four vols, 1986–). To have consulted them would have resolved some doubts expressed in the book such as the presence or absence in Mallorca of plants like *Asarum europaeum* or the previously mentioned *Ranunculus monspeliacus*.

The plants are ordered systematically, from the ferns to the monocotyledons, following the order of *Flora Europaea*. The information on each species includes the Latin name, the English name (where it exists), a short description based on *Flora Europaea*, the flowering period and indications

of ecological preference and degree of rarity. *Flora Europaea* has also been followed for the nomenclature, except in some cases where she uses names given in *Med-Checklist* by Greuter, Burdet & Long or in the previously mentioned Llorens catalogue. In these cases the name used in *Flora Europaea* is cited as a synonym. On occasion, this has led to the unnecessary inclusion of synonymous names older than the accepted ones, such as *Quercus humilis* Mill. (1768) vs *Q. lusitanica* Lam. (1785), *Gagea iberica* Terracc. (1804) vs *G. nevadensis* (1838) or *Asparagus stipularis* Forsk. (1775) vs *A. horridus* L. in Murray, 1774; L. f., 1781; this error has already been noted in *Flora Europaea*. This is a slightly embarrassing feature for a professional botanist, but it is probably unimportant for the majority of potential users of the book. The nomenclatural or taxonomic deviations from *Flora Europaea* are not always accurate; this is the case with the previously mentioned *Gagea iberica*, which actually has the correct name *G. durieui* Parl. ex Batt. & Trab. (1895) or in the case of *Teucrium balearicum* (Pau) Castrov. & Bayón, which scarcely differs from *T. subspinosa* and according to a recent publication (*Candollea* 46: 47–51 (1991)) must be included within *T. marum* L.

The work includes a preface, notes on the flora and vegetation of Mallorca, an illustrated glossary and an index of plates, and concludes with an index of Latin familial and generic names. The format of the book is not ideally suited to being taken into the field, but because of its very solid covers it can be handled without reducing its ease of use.

The book fills a large gap, in spectacular fashion, in the existing coverage of Mallorcan and Balearic Floras. I expect that it will be welcomed enthusiastically not only by the many nature lovers who visit Mallorca and the other Balearic islands each year, but also by the many Mallorcans with an interest in botany.

G. LÓPEZ

The art of botanical illustration. W. Blunt & W. T. Stearn. New edition, revised and enlarged. Pp. 368, illustrated. Antique Collectors' Club, Woodbridge in association with The Royal Botanic Gardens, Kew. 1994. Price £29.95 (ISBN 1-85149-177-5).

A new edition of such a familiar and treasured book is cause for excitement. There have been several recent histories of botanical illustration but 'Blunt' has earned a respect and devotion that deserves to be maintained. In the introduction to the new version we learn that, when the book was first mooted in 1946, two of the original editors of Collins' *New Naturalist* series separately asked Blunt and Stearn to write it! That situation surely highlights one of the difficulties of writing a history of this subject – whether to treat it as a branch of the history of art or of botany. Plants occupied a significant place in the whole canvas of subjects chosen for artistic depiction long before the needs of descriptive botany tailored that specially disciplined representation that we understand as 'botanical illustration'. So perhaps it was more fitting that Blunt, a student and teacher of the art and history of drawing, should have been the eventual choice as author of this history. A measure of his success is the classic status according to this history in the four decades since its publication and the fact that two other publishers have brazenly 'borrowed' his title for more recent histories of their own – sincere flattery one hopes!

Stearn's contribution to the original work, which Blunt graciously acknowledged, obviously amounted to an essential improvement in the specialised botanical view of the subject. Blunt had more feeling for the poetry of drawing, and the aesthetics of media, syntax, rhythm, texture, light and shade, perspective, etc., – but always with sensitivity for the 'personality' of the plant. Stearn's interest was more concerned with the importance of botanical illustration as one of the tools developed by descriptive botanists of the classical period and its significance as a visual information resource. Long before his death in 1987, Blunt had declined to undertake a full revision of the book, his view being that his history should stand as a product of its day. However, now that revision is possible, we are indeed fortunate to have the authority of knowledge of Blunt's original collaborator to perform that task.

In fact, although the outward appearance is radically altered, the internal structure of Blunt's work is not, and the text is mostly the same. Stearn has lightly revised it – altering outdated facts, inserting significant comments to strengthen botanical emphasis, adding biographical dates, and

supplying or enlarging footnotes that direct the reader's attention to more recent literature. Blunt's text has been slightly modernized here and there but, despite the title-page statement of dual authorship of this edition, those who knew him will still hear Blunt's unmistakable deep and cultured voice coming off the page and will appreciate his personal expressions of unashamed pleasure at the loveliness of some illustrations or the repulsion of others!

It is not until Chapter 23 "The Twentieth Century" that we really hear Stearn's voice. He has extended the densely packed account of contemporary artists, giving emphasis to British, Greek, South African and Australian work, and has included thematic passages on the illustration of comparative plant morphology and orchids. It must be said that Stearn's selection of contemporary artists for mention is a very personal one that only hints at the number of talented artists that have emerged since 1950. A notable trend of botanical art during the post-war period has been a broadening of the range of styles and the introduction of entirely new media, some of which have achieved general acceptance. Unfortunately for the reader, Stearn barely mentions the 32 year-old Hunt Institute for Botanical Documentation and its collection of over 30,000 examples of botanical art that includes a fully representative share of post-war artwork, merely alluding to its exhibitions on pages 12 & 13 of the Introduction, and does not touch on the prestigious 24 year-old Guild of Natural Science Illustrators and its informative *Handbook of scientific illustration* (1989). Also omitted is any mention of the famous Broughton Collection of some 119 flower paintings, 38 albums and almost 900 mounted drawings, a collection distinguished for the excellence of its examples from the classical period of European flower painting and botanical art. Given to the Fitzwilliam Museum, Cambridge between 1966 and 1973, it is probably Britain's most important collection of fine botanical art.

The authors had expressed disappointment at the distinctly poor quality of the illustrations in the original edition. The present publishers clearly decided that the visual element of the original should be radically enlarged and improved using much more colour. To achieve this they replaced the modest octavo format of the *New naturalist* series with a 27 × 21 cm quarto. In keeping with contemporary fashion in book-design, illustrations are variously placed about the pages within the discipline of the designer's invisible 'grid'; one, two or three illustrations may occupy the full width of a page, some are full-page. The column of text is fitted into this grid system leaving outer margins of 4.5 cm throughout the book, most of which are blank.

Most of the original choice of 55 colour images have been retained, not always in the same size, but some are much improved by re-photography with a wider field of view. Omissions from the original selection are usually filled with alternative illustrations from the same sources. The number of examples is increased making a new total of 125 colour illustrations and, of these, just over a dozen are devoted to post-1950 artwork. Of the original 47 monochrome plates, most are retained and ten more are added. Unfortunately, some plates that Blunt intentionally juxtaposed are now separated (e.g. Plates 8 & 13, now six pages apart), and several are reduced in size. The 61 figures, which were generally poor in the 1950 printing, are all repeated but with virtually no improvement in quality, and five more have been added. Three early intaglio illustrations are so badly reproduced as to obscure all fine detail (Figs 41, 45 & 46). Two others (Plates 32 & 33) are reproduced in half-tone but in such reduced size that they look like tonal drawings, the linear quality of the engraving being virtually obscured. This is doubly unfortunate because Blunt describes them as a "landmark in botanical illustration", a special feature of which was that plants were engraved *life size*.

Many illustrations are chosen from rare, sometimes unique, originals that most readers may never chance to see. Those who are fortunate enough to know and handle these source works may not need to be told, for example, that the 9 × 6 cm Colour Plate 44 illustrates an original painting of some 53 × 36.5 cm in the Victoria & Albert Museum. But what size is the drawing reproduced in Plate 24 at 8.5 × 4.5 cm, one of a thousand paintings in what Blunt calls "five noble volumes" in far-away St Mark's Library, Venice? Three colour reproductions from Thornton's famous *Temple of Flora* are presented in different sizes (Colour Plates 81–83). In short, the reader, however knowledgeable, seriously needs statements of the sizes of the original images.

A few textual errors deserve mention: on p. 171, the three-colour printing process is that of J. C. Le Blon (1667–1741), not to be confused with A. Le Blond (1819–1894), a colour-printer by the Baxter process; it was that same Baxter process that Wm. Dickes (1815–1892), a Baxter licensee, employed to print Anne Pratt's illustrations, and not chromolithography as stated on p. 276; the co-author of the *Nature-printed British seaweeds*, mentioned on p. 158, is not A. Crumb but actually

Alexander Croall (1809–1885); the “Hunt Botanical Collection”, on p. 347, should read Hunt Botanical Library.

The accurate colour reproduction of artwork is still difficult even today. Films, lighting and colour-printing techniques have all improved but many modern colour reproductions of artwork on paper still show disturbingly odd background tints: the present work is no exception. Generally, though, the colour work is good and quite acceptable for the price. What one gets for one's money is a much nicer version of Blunt but without a great deal of new information. It remains a selective outline of the development of a rich segment of specialised art, elegantly chronicled in a personal style, and providing a very reliable platform from which to launch into a broad range of specialised studies.

G. D. R. BRIDSON

Dictionary of British & Irish botanists and horticulturists, including plant collectors, flower painters and garden designers, revised edition. R. Desmond, assisted by C. Ellwood. Pp. xl + 825. Taylor & Francis and the Natural History Museum, London. 1994. Price £120.00 (ISBN 0–85066–843–3).

Ray Desmond's *Dictionary*, which was published in 1977, has since that time been the standard reference work of biographical data of British and Irish botanists and horticulturists. The author has now produced a new edition which is even bigger and better than the original volume, xl + 825 against xxvi + 747 pages, with an enlarged format which permits more entries per page, and with many more references in the bibliography. As well as providing data on a further 3000+ botanists, gardeners and nurserymen, the scope of the book has been extended to include flower painters, botanical artists and garden designers.

The book follows the arrangement of the earlier edition with dates and places of birth and death of each of the individuals, followed by a concise biography. A further paragraph provides data on books and papers written by the individual, and a final paragraph gives details of sources of further information. The rearrangement of the different categories into separate paragraphs adds greatly to the clarity of the work.

Eight years' scanning of periodicals and books was undertaken in the production of the new edition, but it is a pity that the termination date for periodicals was as early as December 1990 as this excludes entries for such worthies as John Codrington (1898–1991), John George Dony (1899–1991), Ronald d'Oyley Good (1896–1992), Mary Patricia Happer Kertland (1902–1991), William Arthur Sledge (1904–1991) and Bryan Thomas Styles (1934–1992). There appear to be few omissions, though Richard Pearse Libbey (1911–1987), a Norfolk botanist who studied *Oxalis* and Poaceae and whose herbarium is now at the University of Leicester (**LTR**) is not mentioned, nor are Clara Winsome Muirhead (1915–1985), an authority on the flora of Cumberland who worked at the Royal Botanic Garden, Edinburgh, and whose plants are at Carlisle Museum (**CLE**) and Plymouth (**PLH**), or Effie Moira Rosser (1923–1987), author of *Senecio cambrensis*, whose types and other plants are at Manchester Museum (**MANCH**).

Errors, as are to be expected in a work of this high standard, appear to be remarkably few, but John Blackstone's plants (p. 77) were donated to the British Museum (Natural History), London (**BM**) by Ripon Museum as long ago as 1947, Frederick J. Hutchison died in 1891, not 1981, and Barbara Welch's maiden name (p. 728) was Gullick not Gullicky.

Ray Desmond is again to be congratulated on a fine revision of his most useful reference work, which despite its high price should be in the hands of all those who are seriously interested in the history of Irish- and British-born botanists and gardeners.

D. H. KENT

Field guide to wild flowers of Britain and Northern Europe. R. Gibbons & P. Davies. Pp. 330, illustrated. The Crowood Press, Marlborough. 1994. Price £9.99 (ISBN 1–85223–784–8).

Field guide to trees of Britain, Europe and North America. A. Cleave. Pp. 320, illustrated. The Crowood Press, Marlborough. 1994. Price £10.99 (ISBN 1–85223–801–1).

The field guide market is a crowded one and some people feel it is in danger of being overwhelmed by a flood of clonal works offering little more than recycled information packaged in slightly different ways. As an author of field guides myself I have been told that no new works of this genre should be written. Obviously I disagree with this extreme sentiment. Nomenclature changes over the years if nothing else, and even favourite references eventually become outdated or too worn to be risked in the field, so it is worth perusing new works with an eye to finding suitable replacements, preferably ones offering a little extra – a greater coverage (in terms of species or area) than is already available, new information or easier access, better illustrations or some other significant improvement.

How, then, do these latest offerings from the Crowood Press measure up? They are genuinely pocket-sized, well-bound with attractive covers and modestly priced for books illustrated with over 720 colour photographs. Descriptions are brief and avoid jargon, those for wild flowers being very succinct while the guide to trees uses a more discursive style. The two books are clearly meant to form part of a series but beyond the points mentioned, the similarities diminish. The *Field guide to wildflowers* embraces Britain and Northern Europe (i.e. the British Isles and northern France eastwards to Germany, Denmark and the southern tips of Norway and Sweden). The usefulness of the concept of Northern Europe is at best questionable and in my view usually denotes a publisher's ruse to encourage take up of foreign editions while maintaining a British market, rather than an attempt to add real value to the book. Another sure sign that the Northern European factor has been added simply to increase sales potential is the giving of separate distributions of species for Britain and for the continent, as is done here. Like almost all modern flower guides, this one contains only a selection of the flora of the area and its claim to be comprehensive is somewhat tongue-in-cheek. However, with a species list exceeding 1400, it compares favourably with other works. While there are many good photographs the overall quality is patchy. I found this surprising since the authors are experts who normally produce a consistently high level of work.

The *Field guide to trees* fares better. The much smaller total number of tree species allows a better coverage in the book and, while its usefulness as a reference for North America in doubtful, it does include most of the common introductions from that continent encountered in Europe. The overall quality of the photographs is also better and many species are represented by several shots to illustrate the different features of the tree. The descriptions are followed by comments giving additional characters and snippets of interesting information.

My biggest single complaint about these books (and many similar ones) is how to get into them. There are no keys in either book, with Gibbons & Davies claiming these "demand a level of detail . . . finer than most people will want". Fair enough, though I find the reluctance of authors to tempt inexperienced users with simple, usable keys regrettable. In photoguides of this kind, especially for wild flowers where lack of space restricts species to a single photograph, many species will be inadequately portrayed for rapid identification and some bear little resemblance to the plants as they would be seen in the field. Can less experienced botanists (presumably the main target audience) expect to 'get a result' simply by skimming the pages and 'picture spotting' before checking descriptions, as Gibbons & Davies suggest? I think the answer frequently must be no. Without any alternative means of entry, potentially useful and attractively packaged books of this kind remain less accessible than they need be. Experienced botanists, on the other hand, will find the books little different from many already available. On balance then, *Field guide to wildflowers* falls into the 'clone' category, while *Field guide to trees*, by virtue of the extra information, escapes – just.

J. R. PRESS

Index of garden plants. M. Griffiths. Pp. lxi + 1234; 16 figs. Macmillan, London. 1994. Price £35.00 (ISBN 0-333-59149-6).

This is not so much an index to the *Royal Horticultural Society Dictionary of Gardening*, rather than a condensed version of it compiled by Mark Griffiths with unfortunately only a cursory acknowledgment to some 250 contributors to the original book whose work it mainly is. In order to

reduce the four volumes to one, the general entries, biographies and the many pages of plates (except those which illustrate the glossary) have been lost. Family entries have been reduced to a list of included genera, which is quite useful unless one is looking at Fumariaceae. This family is now often included in Papaveraceae and this seems to have been the fate of *Corydalis* while related genera such as *Dicentra* remain in Fumariaceae. Descriptions have been cut to the bare essentials, with no information on cultivation, but room is found for number of species, hardiness and distribution details. One particularly important piece of information which seems to have been lost is reference to the poisonous nature of any of the plants listed.

In several ways I prefer the layout to that used in the original. Common names are incorporated into the alphabetical list, and synonyms, instead of being relegated to the end of each genus, are incorporated into the list of accepted names. One problem I am sure some will have, is the size of the text which is very small and may test the eyes of those with less than perfect sight.

Although the introduction has been much reduced, the comprehensive illustrated glossary is retained and incorporates a glossary of plant taxonomy. A useful section is included on the naming of plants. Examples show how names are applied to the various ranks of cultivated plants, and how different terminations are used. These are often a cause of considerable confusion, for while the example *Crinodendron hookerianum* is given, the epithet is correctly cited as *hookerianum* in the main body of the text.

Confusion also seems to have arisen over the designation of hybrids, with x used in the examples but \times used in the text. While both are acceptable, usage should be consistent within one work. When a multiplication sign is used it should always be lower case; however, in the main text (but not in the examples, where the letter x is used) upper case multiplication signs are used for intergeneric hybrids, except for \times *Pyraecomeles* where a combination can be found. Another confusing and annoying typographical error is the consistent placing of the multiplication sign immediately before the name of the second parent in a hybrid formula as if it were an intergeneric hybrid.

The *R.H.S. Dictionary* itself has been heavily criticised for its numerous spelling mistakes and other errors. Although some of these have been corrected (for example the cultivars incorrectly assigned to *Buxus harlandii* are now correctly placed under *B. microphylla*) others have not. *Ilex* \times *altaclerensis* is still in as *altaclarensis* although its correct spelling has long been settled. *Acer palmatum* 'Senkaki' is still incorrect, *A. platanoides* 'Crimson King' now appears twice, once as 'Crimson king', and *Helichrysum italicum* still grows to 50 m. I could go on.

Although brief, the individual descriptions in most cases give enough information to be useful but it could be argued that describing the leaves of *Pieris japonica* 'Pygmaea' as "blade-like" says little about this very distinct form. Works such as this often fall short on their inclusion of cultivars but we are told that out of more than 60,000 names, some 30,000 are cultivars. Some inconsistencies do arise, however, when hybrid cultivars are treated. These are occasionally (as in *Ceanothus*) given individual entries, or (as in *Pieris*) listed under one of the parents, or (as in *Diascia*) listed at the end of the entry where (as in the original *Dictionary*) only very scanty information is given.

The list of entries appears to contain most of those in the *Dictionary* itself except for "the vast array of cultivars of *Rosa* or *Rhododendron* or those of economic plants". Indeed I have come across several additions the inclusion of which seems to have been prompted by works published too late to influence the *Dictionary* itself. These include *Colutea buhsei* (as "bushei") and *C. multiflora*, both unfortunately with incorrect author citations.

While this work will undoubtedly appeal to gardeners and students of cultivated plants, its use to those interested in the British flora is less obvious. It is certainly a valuable guide to plants in cultivation but it is unlikely that many of these will escape and naturalise in this country. Those that do will not be easy to identify from this work with no illustrations and no keys. I find it hard to believe, for example, that many of the species of *Cotoneaster* naturalised here will be easy to name from the descriptions (apart from the fact that not all naturalised species are included), and one species prominent by its absence, because it is rarely cultivated, is the only native member of the genus, *C. cambricus*.

In spite of its far from minor defects, this will be a useful book and it has, in addition to its extensive coverage, a major factor in its favour, the price. At £35 it is a bargain, and one that I have no hesitation in recommending.

Index Kewensis on CD-ROM. Compiled by Royal Botanic Gardens, Kew. One Compact Disk and spiral-bound manual. Oxford University Press, Oxford. 1993. Price £995.00 + VAT (ISBN 0-19-268003-X); additional manuals £7.50 (ISBN 0-19-268004-8).

Index Kewensis, that wonderful work that is treasured, cursed, and used daily in almost any herbarium, is now available on Compact Disk. The books have been like old friends to us – over the years they have become tattered and sometimes slightly unglued, the pages darkened from the touch of thousands of fingers over many decades, the edges rounded from wear. Many of us have copies that have been cut up and pasted back together, and the publication of each Supplement has required another round of this. Those of us who don't cut and paste are familiar with the long slow crawl through each Supplement. *Index Kewensis on CD-ROM* brings this enormous amount of data into one easily searchable place.

Charles Darwin believed it would be useful to have an updated version of Steudel's *Nomenclature* (1840–1841). *Index Kewensis* was begun in January 1882 and funded at first by a provision in Darwin's will. *Index Kewensis* today is a list of plant names with bibliographic references to the place of first publication and the geographic distribution reported in the original publication. It is compiled by a team of people at the Royal Botanic Gardens, Kew, and is one of the many useful references produced by that institution.

The *Index Kewensis on CD-ROM* provides the information from the original publication plus all 19 Supplements, cleaned up and standardized somewhat, in a form that allows a wide variety of searches and report generation. This was done by electronically scanning the text using an optical character reader. The project was started some years ago, when scanners were not as smart as they are now, and a great deal of time and effort has had to be invested in cleaning up errors in misreading text due to changes in and peculiarities of type-faces over the years. The addenda to the original two volumes and to Supplements I and II were not read by the optical character reader, but those addenda that could be interpreted have been added to the CD-ROM files.

When one purchases *Index Kewensis on CD-ROM*, one receives a floppy diskette, the CD-ROM itself, and a spiral-bound manual which also describes how the software can be installed on a network. The manual is extremely useful not only because it leads one step-by-step in the use of the CD-ROM but also because it gives a very clear history of *Index Kewensis*, including an explanation of conventions that have been used. To use *Index Kewensis on CD-ROM* one requires, at a minimum, an IBM AT or PS/2 or compatible equipped with a hard-disk drive; 2 Mb of free hard-disk space; 640 Kb of RAM with 420 Kb free; and DOS version 3.0 or higher. One also needs a CD-ROM drive and MS-DOS CD-ROM extensions version 2.0 or higher.

It is possible to search seven lists or fields using one of two search methods. The lists include family, infrafamily, genus, infragenus, species, infraspecies and full author names (data for the 'infra' categories only after 1971). Three additional files can be searched using a text search: publication, notes and author. A few notes on specific files may be useful: the manual warns that familial and generic concepts have changed over the years. Considerable effort has been made to standardize author names on Brummitt and Powell's *Authors of plant names* (1992), and a search on the full name will pull up records regardless of the abbreviation used in the original *Index Kewensis* entry.

Searches can be done using wild cards and Boolean operators, and one can move from field to field using a mouse or a combination of keys or arrow keys. At any point one can click on a field and see a display of the item. One can display or download full records for any taxon or author name, or one can list names of taxa with publication information or notes. Distribution information is contained in notes and searches on distribution need to be carefully constructed. It is really a treat to be able to list all names published in a certain journal, or described by a given individual, or described over a specified period of years.

Inevitably there are some problems, but considering the magnitude of this project, they are few. Firstly, the quality of the data of the CD-ROM is not much better than it was in the original book (except for the author files), and many errors have crept in as a result of the optical scanning exercise. The folks at Kew welcome corrections. To prevent users from simply absorbing all the data into their own databases, there is an upper limit on records that can be downloaded at one time. Names of families and genera are in upper case letters. The infraspecific rank is not displayed in lists. Searches using many wild cards, or wild cards at the beginning rather than at the end of a complete

search with many wild cards may seem to take forever, and I know that some searches have been terminated after failing to be completed overnight.

These problems are minor, however, compared with the overall utility of *Index Kewensis on CD-ROM*, and I think every herbarium that uses the books regularly, and most libraries that might be reluctant to buy the books but that have patrons who need to look up names of plants, will want to invest in it. Updates will be issued regularly on subscription; the first is due in 1995 and thereafter the publishers plan to issue them on a yearly basis.

N. R. MORIN

Trees of Ireland, native and naturalized. E. C. Nelson & W. F. Walsh. Pp. 247, with 30 coloured plates and 30 black and white vignettes. The Lilliput Press, Dublin. 1993. Price IR£17.99 (paperbound) and IR£35.00 (cloth bound) (ISBN 1-874675-24-4).

Irish trees and shrubs. P. Wyse Jackson. Pp. 72, with 32 coloured plates. Appletree Press, Belfast. 1994. Price £3.99 (ISBN 0-86281-420-0).

The nearly simultaneous appearance of two illustrated books on Irish trees suggests, at first sight, either bad planning or bad luck. This is not so, however, as the books are of very different type, and aimed at different markets. Nelson & Walsh is an archetypal coffee-table book, and will be bought by most purchasers mainly with the illustrations in mind. Wyse Jackson's book is a cheap pocket manual designed for day-to-day reference.

Nelson & Walsh deal only with trees; their delimitation from shrubs is fully discussed. It is all the more surprising to find *Rhamnus catharticus* and *Frangula alnus* included. I will not deny that they can attain tree size, but in sixty years' botanizing in Ireland I have never seen a specimen approximating to tree dimensions. It makes me wonder whether the text may have been written to fit a pre-existing set of illustrations. Mrs Walsh's illustrations, amounting to 30 full-page plates, each with three or four detailed paintings in colour, and a pencil sketch to show the general form of the tree, have the attractive elegance and botanical accuracy characteristic of her work. In particular she must be congratulated on the remarkable accuracy of the colour throughout. It is a pity, accordingly, that a few plates show one of her characteristic defects – a poor choice of specimen. It is impossible, for example, to deduce from these pictures what is the shape of a horse-chestnut leaf, or how many leaflets there are normally on the leaf of an elder.

Nelson's text contains the necessary minimum of botanical description, but the greater part consists of a mixture of history, folk-lore and poetry, the last-named often rather thinly linked to the plant in question. Folk-lore is a legitimate field of serious study, but I think it a mistake to mix in odd snippets of it with botanical facts; the borderline between fact and fancy is too easily blurred. Nelson has done some very good work in Irish botanical history, but his enthusiasm sometimes runs away with him, and there are rather too many quotations from Dr Ruttie.

The scope of the book is restricted to native and naturalized trees, and excludes those that are merely planted. It is rather surprising that *Pyrus pyraeaster* should be included; the tree is extremely rare in Ireland, and I believe that most of the trees alleged to be naturalized have been, in fact, planted. It could, with advantage, have yielded place to *Sorbus intermedia*, which is abundantly naturalized in some districts. Equally eccentric is his treatment of the genus *Betula*. After a needless mockery of the methods of distinguishing the two species (fairly difficult, but by no means impossible), he decides that the only method is to count the chromosomes, and flies in the face of the virtually unanimous opinion of European botanists by proclaiming that there is only one species, *B. alba* L. There are quite a few interesting and reliable pieces of information to be picked out of Nelson's *causeries*, but on the whole one is forced to the conclusion that Mrs Walsh's illustrations deserve a less self-indulgent text.

Peter Wyse Jackson's book is very different. It slips easily into the hip-pocket; it includes shrubs as well as trees; and it covers a few planted conifers, which are all too often treated as pariahs. In fact it includes all the woody plants one is apt to see when wandering round the country. The only serious omission is *Populus × canadensis*, which is by far the commonest poplar in most of Ireland, and is recognizable from afar. *Pinus radiata* could have been sacrificed to allow for its inclusion. In other respects, however, the choice is sensible. Each species is given about 200 words of text and a half-

page (75 cm²) of illustration. The text is practical and down-to-earth, with a minimum of folk-lore, though even Jackson cannot resist telling us that the carrying of a hazel-nut in the pocket "was said" (more honest than the usual 'is said') to keep away rheumatism. The illustrations are variable in quality; many are entirely satisfactory, but some (*Rhododendron* and *Escallonia*, for example) are misleading in their colour, and a few others have faults in design. In most of the willows and a few others the leaves appear too glossy. Nevertheless, with only a few exceptions they will serve well enough as aids to identification.

If Jackson has a tendency to political correctness it is to be found in the 'Food for free' syndrome. His assessment of the gastronomic value of the various 'wines' and other products which he cites as derivable from the trees and shrubs of the countryside is often too enthusiastic. He even tries to make us eat ash-fruits: "its fruits can be eaten if picked very young, boiled and pickled in vinegar". 'Can', I think, is the operative word.

D. A. WEBB

Sedges and their allies in Dorset. An atlas of the distribution of the family Cyperaceae in Dorset. D. A. Pearman. Pp. 108. Dorset Environmental Records Centre, Dorchester. 1994. Price £5.00 (ISBN 0-9511394-4-4).

Having been brought up to believe that Scotland was the place to visit to see sedges, I was surprised to learn that Dorset contained 69 species of Cyperaceae, probably more than in any other county and almost 70% of all the British species. For this reason among many others the *Atlas* under review is of much more than local interest. It covers modern administrative Dorset, chiefly v.c. 9 and a part of v.c. 11, and includes maps on a 1-km square grid for all species and subspecies, post-1980 records being distinguished from pre-1980 ones (what has happened to the 1980 records is not made clear). The text for each taxon is full of interesting information on the Dorset habitats for the plants, associations with other sedges, hints on separation from other similar species, the distribution in Dorset with lists of sites for the rarer species and a note on the British distribution.

There is a great emphasis on historical records and on changes in abundance or distribution. Several of the larger waterside species seem to have disappeared from most of their former sites, and changes in grazing regimes, lowering of water-tables and spread of *Phragmites australis* (because of increase in nutrients) are suggested as possible causes. Lack of grazing and consequent overgrowth of many of the sites for other species seems another major reason for losses. Much use has been made of the uniquely detailed survey of Dorset by Professor R. d'O. Good in the 1930s, when he made species lists for over 7,000 vegetation stands. I was sorry to learn from the *Atlas* that the forthcoming new *Flora of Dorset* will not have space for similar discursiveness on historical changes. It is ironic that whilst one of the most frequently cited justifications for producing local Floras is to document changes, this aspect is so often given short shrift when it comes to the crunch. The present *Atlas* is a most welcome attempt to draw conclusions and not just to add yet more undigested information.

There is a most interesting introductory chapter on habitats, including discussions of the historical changes, species to be found in each type and a selection of accessible representative sites. The few drawings by Robin Walls scattered through the book are so expressive of the characters of the species depicted that I wish there had been room for more. The Latin nomenclature follows Stace (1991) and Kent (1992). Among the English names used are several that are new to me. Whether they are of local or personal origin is not made clear, but I hope that one of them at least, Gingerbread Sedge for *Carex elongata*, will become popular. Errors seem few, but a couple could seriously mislead: *Isolepis cernua* is said to be "easily told from *I. setacea* by the wrinkled seed", but it is the latter that has the longitudinally ribbed nut; and the male glumes of *Carex acutiformis* cannot be described as "ovate or truncate" for they are oblong-lanceolate and subacute or obtuse. The subspecific epithet of what used to be *Carex demissa* is several times mis-spelled, perhaps reflecting the author's stated difficulty in accepting the taxonomy. An odd omission is any mention of the subspecies of *Eleocharis palustris*. Subsp. *palustris* is shown in the *Critical supplement to the*

atlas of the British flora for two 10-km squares (SZ/1.9 and SU/1.0) that are partly covered by the *Dorset Atlas*, so it would have been helpful to have made clear whether any of the Dorset plants are this or whether they are all subsp. *vulgaris*.

Anyone interested in sedges should learn a lot from this work. As Clive Jermy says in his preface, it illustrates how plant recording on a local level can, when properly written up, contribute to conservation and academic understanding in a wider context. The author and the Dorset Environmental Records Centre (which only last year produced its *County red data book*) are to be congratulated on producing this work and on making it available in such an attractive format and at such a reasonable price. The rest of us must look to our laurels.

A. O. CHATER

Wild and garden plants. S. M. Walters. Pp. 200 with 16 pp. of colour plates. HarperCollins Publishers, London. 1993. Price £27.50 (ISBN 0-00219376-0).

How far are the English passions for gardening and 'wild nature' linked and how far are they opposed? Max Walters poses these questions in his foreword and explicitly makes the answering of them the underlying theme of this volume, the 80th, in 'The New Naturalist Library'.

Wild and garden plants is divided into three parts, each comprising four chapters. The first quartet explores general topics under these headings: 'The sources of wild and garden plants', 'The kinds of plants', 'The variation of plants' and 'Hybridisation and sterility'. The author's emphasis is on basic botanical matters including, for example, the definition of a species and a genus, the application of Latin names, plant ecology and the variability of plant populations, the history of the native flora, and the recognition of a 'native' plant. Dr Walters also pursues briefly such topics as hardiness, and the impoverished flora of "what we now call the British Isles". The second part, headed 'Life forms and adaptations', explores another four subjects, broadly defined groupings of plants: native and exotic trees, shrubs and shrubberies, some 'special' life forms including parasites, carnivores, succulents and epiphytes, and in a chapter on 'Herbs, 'Flowers' and 'Grasses' Dr Walters expatiates on the different meanings that the word 'herb' has for pedantic botanists and common-or-garden folk. The last set of four chapters is headed 'Botany and horticulture as modern hobbies': the individual chapters are entitled 'The science of genetics and horticultural practice', 'Botanists, gardeners and social change', 'The rise of ecology' and 'Late twentieth century attitudes'. The final chapter includes a diversity of subjects from the work of the N.C.C.P.G. (National Council for the Conservation of Plants and Gardens), to the *European garden Flora* project, and the spread of alien plants of garden origin.

The book is illustrated with black and white photographs, a variety of line drawings and 39 colour plates.

'The New Naturalist Library' is an estimable and collectable series of natural history books. The aim of these monographs remains, as the editors affirm in their preface, to make up-to-date information and ideas accessible to all with an interest in the countryside and its wildlife. To this end, previous volumes have had excellent, comprehensive bibliographies. The bibliography in *Wild and garden plants* is restricted to three pages, albeit set in double columns, which is parsimonious compared with as many as 30 pages in former volumes.

The flora of gardens within our lands is immeasurably rich in exotic species and those plants of various origins, called cultivars, that have been deliberately selected and are deliberately maintained merely to beautify and exhilarate gardeners. Max Walters' book provides some insights into the biological background to the garden flora, and interweaves fascinating details about the less bountiful native flora and the naturalized plants that inhabit the envelope of countryside beyond garden hedges.

With such phrases as "the green English countryside" or "the two ancient Universities" sprinkled liberally throughout, indeed from the first sentence, this is very much an England-centred book, which is a pity for surely the other nations that share the Celtic Archipelago possess equally interesting wild floras, and their people have as much of a passion for gardening and wilderness and have contributed as significantly to the creation, maintenance and embellishment of fascinating

gardens. Indeed, the repeated use of the adjective 'English' becomes irritating when it was inexactly juxtaposed with statements or illustrations referring obviously to a wider context (for example, a discussion of epiphytes in 'English' woodlands illustrated by a photograph of ivy (*Hedera helix*) and polypody (*Polypodium vulgare*) on a tree in Anglesey). The author and his editors might have taken more care to ensure that this book served a wider context than eastern England.

Gardening is an intensely personal activity and many gardeners are eccentrics with contagious enthusiasm, yet there were very few people in this book. Plants also have characters – colours, scents, textures, extraordinary habits – but they are rarely described with enough enthusiasm to ignite the reader's mind to paint enticing pictures in the mind's eye. I tried hard to discover that passion for gardening and wilderness presaged in the foreword. The English attitude towards gardens and wild nature is strangely impersonal and muted when envisioned through *Wild and garden plants*.

Wild and garden plants is an erudite book, informed by the author's life as a botanist and director of the University of Cambridge Botanic Garden, but its pages failed to enthrall me.

E. C. NELSON

Flora of the Christchurch area. F. Woodhead. Pp. 120, ten figures, four colour plates. Privately published, Bournemouth. 1994. Price £7.95 (ISBN 0-9522857-0-3). Available from 28 Hungerford Road, Bournemouth, BH8 0EH, price £9.00 including postage and packing.

This new Flora, on a 1-km square basis, covers much of Britain's fastest growing urban area, most of which is on the acid Tertiary soils which extend west towards Dorchester and east to the New Forest and beyond. E. F. Linton, in his *Flora of Bournemouth*, covered this area too, but that was 80 years ago. There is tremendous pressure here from roads, housing, airports, and from leisure activities, but there are some superb remaining sites sandwiched in between, such as Christchurch harbour, the lower Avon valley, the heaths around Hurn, and the Bournemouth cliffs themselves, where many 'Red Data' and 'Scarce' species have been found.

This work covers an area of v.c. 11, South Hampshire, which was absorbed into Dorset in 1974, with the addition of a small part of modern Bournemouth from v.c. 9, Dorset. Thus although it has no natural boundary, it is a whole in itself. The same area will be covered by the long-awaited new *Flora of Hampshire*, but that work will be on a tetrad basis and will, I understand, cover records from the 1960s onwards, whereas this volume incorporates records from 1981 to 1993. The proposed new *Flora of Dorset* might await developments from the boundary commissioners before covering the same area again! Incidentally the part of Bournemouth that is most densely urban is not actually covered in this work. Perhaps it should have been for completeness.

The introductory chapters are concise but comprehensive, with clear maps and explanations. Figure 4 shows the extent of the conurbation, and reinforces one's surprise that eight S.S.S.I.s are found within the survey area. The records are all made by the author, and incorporate a few pointed out by others and subsequently verified. It is this aspect that would be the basis of the only reservation I feel about the book. By all means check anything rare, or critical or unlikely, but to eschew all records of others seems slightly surprising, and is certainly at variance with almost every other recent county Flora. Perhaps the very smallness of the survey area – 122 1-km squares – is an excuse for this approach.

Overall the 1-km square grid coverage works well indeed. I often feel most dubious about what tetrad maps actually show, other than a generalised demonstration of surface geology. Site surveys seem far more preferable, and their incorporation into maps at least serves two useful purposes. The 1-km square grid is intermediate between the two methods and is fine enough to convey some of the benefit of a site approach. The maps are clear, and of course, are far better interwoven with the text than in a separate section at the end. I feel it is carrying secrecy too far to omit maps of *Osmunda regalis*, *Orchis morio* and all dactylorchids; there are enough real threats without inventing more. The commentary is to the point, and places the records within the context of the historical position and that of the rest of Dorset (but not Hampshire).

The book is spaciouly and pleasingly laid out. As with many recent county Floras there are the obligatory colour photographs, presumably for the benefit of a 'wider public'. I like very much the

idea of a 'local' Flora, especially of a definite area. Whilst this particular area might not have the immediate appeal of the Lizard or the Avon Gorge, perusal of the contents reveals a wealth of rare plants and it can only be a timely contribution to conservation by its presentation of hard facts on a threatened area.

D. A. PEARMAN

Flora of Flintshire. G. Wynne. Pp. 400, with 25 colour and three black and white plates. Gee & Son, Denbigh. 1993. Price £25.00 (ISBN 0-7074-0224-7).

Flintshire can now be crossed off the decreasing list of counties that has never had a county Flora thanks to this work by Goronwy Wynne. Although no longer existing as an administrative unit, being amalgamated with Denbighshire to form Clywd in 1974, Flintshire covers the Watsonian v.c. 51. This makes a compact recording unit some 38 km × 16 km forming the north-east corner of Wales, every part of which is within half an hour's drive of the author's home. It is 30 years since the death of Arthur Dallman who, although he never published his *Flora of Flintshire*, left extensive botanical notes covering the first half of this century and indeed a draft manuscript for his projected Flora. These are housed in the Botany Department at the National Museum and Galleries on Merseyside. This current *Flora*, which draws heavily on Dallman's work and for which fieldwork started in the early 1970s, therefore spans virtually the entire 20th Century. It is apparent that Goronwy Wynne's surveys are no less meticulous than those of Arthur Dallman before him.

The *Flora* is divided into three sections. Part I deals with the description of the county and includes sections on botanical exploration and a guide to some of the best botanical localities (omitting some sensitive sites). The climatic data are well presented and demonstrate that even in such a relatively small area as Flintshire, climatic variations do occur. The effect of climatic variation on species distribution within the County is dealt with in Part II.

Part II explains the survey techniques and analyses the results. Species recording is at the tetrad level, in common with the majority of recent county Floras. There are 172 tetrads in Flintshire. In order to attempt to explain patterns of plant distribution in Flintshire, a total of 119 environmental attributes were identified and assigned to each tetrad. These environmental attributes range from soil type to altitude and include land use such as golf courses, railways and built up areas. By using the TWINSpan ordination technique on these environmental attributes, eleven different land classes were identified in Flintshire. It could be argued that the 2-km square is rather large for such a technique, but it appears that a series of clearly defined units has been produced.

The species records were also subjected to TWINSpan ordination and produced 13 different floristic classes. Clearly one test of whether such techniques is valid is to see if there is any correlation between the land and floristic classes. Although statistically tested (using DECORANA) it is also visually apparent that there is such a correlation. Geographical elements, floristic gains and losses as well as individual habitat studies are also included in Part II.

Part III is concerned with the details of individual species occurring in Flintshire. This is comprehensively and clearly presented. Of great value are the tetrad distribution maps for every species with more than one record. Many of these additionally have a small graph attached showing the species' position on the first two axes of the DECORANA ordination.

The tri-lingual index is rather lengthy. It might have been more manageable to index Latin names separately from Welsh and English ones. A similar problem occurs with the gazetteer. All the places named in the *Flora* are listed in the gazetteer with a 4-figure grid reference. Their inclusion on a map is therefore superfluous, especially as this necessitates the use of very small print.

Presentation of the *Flora* is most attractive and the text is well laid-out, although not without the occasional typographical error (such as the addition of a 't' in rainfall on page 81). The excellent colour plates are a welcome addition. Both colour photographs and plant portraits by Margaret Gillison Todd and Jean Hughes are included. Their presence in such a competitively-priced book is due to sponsorship of individual plates by organisations such as the Countryside Council for Wales and the Liverpool Botanical Society. Whilst admittedly the Wood Horsetail (*Equisetum sylvaticum*) is perhaps no great botanical art subject, its black and white photograph along with three other

uncommon Flintshire plants (*Pyrola rotundifolia*, *Epipactis phyllanthes* and *E. helleborine*), is unfortunately lifeless in comparison to the colour plates in the book.

The *Flora of Flintshire* goes a long way to satisfying a wide readership. It has a high scientific content, but at the same time is very readable and will be of value to land managers and conservationists as well as botanists.

B. D. GREENWOOD