

Book Reviews

Mordecai Cubbitt Cooke. Victorian naturalist, mycologist, teacher and eccentric. M. P. English. Pp. xviii + 357, with numerous illustrations in black & white. Biopress Ltd., The Orchard, Clangage Road, Bristol BS3 2JX. 1987. Price £18.00 (ISBN 0-948-737-02-6).

It is a shame this book touches too marginally on the vascular plants of the British Isles to warrant more than a brief review in these pages, for it must surely be one of the best biographies of a botanist ever written. The product of an immense amount of research, taken to the point of tracing descendants in many parts of the world (and even interviewing one of them in Kenya), it is at the same time highly readable.

Socially unsure, tactlessly over-forthright, a crusty reactionary in a bushy red beard, 'M.C.' – as he liked to be called (he abominated his first name of Mordecai) – was one of those archetypal Victorian figures of almost superhuman energy who hardly seem to have stopped writing for a minute. Author of innumerable popular books and articles, some so ephemeral that even the indefatigable Dr English has been unable to run them to earth, he was driven all his life by a missionary fervour to spread to one and all the gospel of natural history. He was employed initially as an elementary schoolteacher and then, in a succession of humble posts sadly beneath his abilities, in the exhibiting of plant products in museums. He early found that his real love was mycology, a subject on which he also published prolifically, in which he was entirely self-taught and in which he achieved a place second only in Britain to the revered and incomparable Berkeley. In addition, he was the founder, in 1862, of the short-lived Society of Amateur Botanists, which met in Hardwicke's bookshop in Piccadilly and which included Trimen, Dyer, Newbould and Britten among its members, with the trend-setting *Flora of Middlesex* as its indirect product. The still-flourishing Quekett Microscopical Club is the offspring of that body. Hardwicke and Cooke subsequently strengthened their partnership with that fascinating miscellany, *Science Gossip*, of which Cooke acted as editor for its first seven years.

Not content with all that, Cooke also coped in secret with a family life of stunning bizarreness and complexity. With some brilliant detective work Dr English has uncovered the extraordinary fact that his children were not his wife's, as the world was led to suppose – but, most unexpectedly, her grandchildren. Cooke turns out to have had a series of illegitimate children by his stepdaughter and for long stretches of his life dwelt in what seems to have been a perfectly amicable *ménage à trois*. Truly, the more we learn of the Victorians, the more amazing they become.

D. E. ALLEN

Aroids. D. Bown. Pp. 266, with 24 colour plates and 44 line illustrations. Century Hutchinson Ltd., London. 1988. Price £25.00 (ISBN 0-7126-1822-8).

The Araceae are, without doubt, amongst the most commonly cultivated indoor plants, so it is surprising that there has been until recently a lack of books written for the non-specialist. Deni Bown's book more than adequately fills the need for an introduction to the family.

The book is divided into chapters that lead the reader from the elementary aspects of aroid identification through pollination, ecology, morphology, edible aroids and medicinal uses. To cover so many aspects of the family may seem daunting, but the way in which the information is presented is so readable that even most complex aspects are clear.

The Araceae are introduced in 'Variations on a theme'. The distinguishing floral features, vegetative architecture, distribution, position relative to other plant families and evolution are all

covered in great detail. Here also habitats are briefly discussed as a precursor to the later chapters devoted to them. With these basics covered the text moves on to look in detail at individual aspects of the family.

A full account of the pollination biology of the Araceae could easily fill several volumes, and so the chapter concerned with reproduction ('Of tails and traps and the underworld') is, of necessity, simplified. However, this in no way implies that it is superficial; in fact, every pollination mechanism employed by the family is covered in detail.

Most of the book is concerned with the varied habitats in which aroids are found. The chapter titles give the setting (e.g. 'Woodlanders', 'Aquatics and amphibians', 'A place in the sun', 'In the shadows' and 'Towards the light'), and the text describes the aroid inhabitants by genus (e.g. *Arisaema*, *Cryptocoryne*, *Biarum*, *Aglaonema* and *Monstera* respectively). Within these chapters almost all the major genera are covered, together with many poorly known taxa.

The giant tuberous aroids are allotted their own chapter, appropriately entitled 'The Titans'. The greater part of the text is devoted to the Sumatran *Amorphophallus titanum*, a plant which has fascinated both the public and the biologist alike since its discovery over a century ago. However, this is by no means the only giant in the Araceae, and I am pleased to see that *Dracontium* and *Anchomanes*, which both contain very substantial species, are not overlooked.

The chapters concerned with the edible aroids ('An acquired taste') and chemistry and medicinal uses ('Acids and crystals') contain a wealth of information, much of it drawn from scattered sources and skillfully synthesized into a more readily accessible form. As much has been gathered from obscure sources, this volume provides information that would otherwise be difficult to find.

Aroids is generously illustrated with superb photographs taken by the author as well as numerous line drawings, although I feel that the latter could have been of higher quality. The book ends with a very useful 'Check list of Aroid genera', selected bibliography, detailed glossary and an exhaustive reference section. This book, with its wealth of information and beautiful illustrations, will be an essential part of a plant-lover's library.

P. BOYCE

Wild flowers of Majorca, Minorca and Ibiza – with keys to the flora of the Balearic Islands. Elspeth Becket. Pp. 221 with 8 colour plates. A. A. Balkema, Rotterdam and Brookfield. 1988. Price £28.50 (ISBN 906-191-634-8).

There can be little doubt that there is ample room for a concise guide to the flora of the Balearic Islands that goes beyond basic picture books to provide a satisfying resource for the serious naturalist. When I first visited Majorca some 35 years ago, friends responded with puzzled comments like "Where on earth is that"? However, since then, with the immense development of cheap package holidays, countless botanists must have cut their teeth on the Mediterranean flora through visits to these islands. Does this book then meet the needs of the present-day botanical tourist? It is essentially a compilation of keys based very closely on those in *Flora Europaea*, and, as such, it should provide an effective means for identification, at least for those reasonably experienced in the use of Floras. The keys are clearly set out, but contain redundant abbreviations, e.g. Annl, bnnl and usu, which are irritating and save no space at all. Distributions are indicated by Ma, Mi and I for the three large islands, generally without any further information. Each family has an introductory section describing its features, sometimes accompanied by supplementary matter of general interest. Vernacular names are given in English, German, French, Spanish and Catalan. Eight composite colour plates are provided which may help beginners, who will probably find the keys hard going, but the large number of species depicted (71 on Plate 5) inevitably means that their utility is rather limited. A general introduction explains the use of keys and very properly urges the need for the conservation of this flora, which is under considerable pressure as a result of the tourist trade. The section on classification betrays such a state of mental confusion about the basics of nomenclature that we can only be heartily thankful that the text rests so firmly on the foundation of *Flora Europaea*. What then is lacking? Some introductory information on habitats and biogeogra-

phy would have been most welcome, especially with regard to the very interesting endemic element. The space devoted to vernacular names would have been better allocated to more detailed distributional data, as there are hardly any indications as to whether species are abundant on every roadside or restricted to a few remote localities. The book is elegantly presented with high quality printing, but a clearer typographical distinction between family and generic names would have been an improvement.

I wish I could feel more enthusiastic about this book, which does seek to meet a real need. At £28.50 it is very expensive for the information it contains, and it would have been much better if its *de luxe* format had been bypassed in favour of a cheap, compact field guide that would have fitted into the pocket and cost half the price or less.

J. F. M. CANNON

Key works to the fauna and flora of the British Isles and north-western Europe. Edited by R. W. Sims, P. Freeman & D. L. Hawksworth. Fifth edition. Pp. xii + 312. The Systematics Association Special Volume No. 33, Oxford. 1988. Price £35.00 (ISBN 0-19-857706-0).

This work provides references to books and papers which are considered key works for identifying living organisms in the British Isles and north-western Europe. Apart from a great deal of updating, it differs conspicuously from the fourth edition (1978) in having a new and admirably clear layout, each entry starting with the title on the left and ending with the author's name in bold on the right. It is arranged taxonomically, with no index, and under, for example, Spermatophyta, the entries are arranged under countries in a Geographic section ('Britain' includes Ireland), under Trees and Shrubs, Water Plants, Sedges and Grasses, and Orchids in a Monographs of Special Groups section, and under Bibliography, History, Glossary, Anatomy and Morphology, and Pollen and Spores Identification. It is this part, and the Pteridophyta, that should be of chief concern to *Watsonia* readers, but it must be said that the flowering plants are poorly served in comparison with most of the other groups for which I am familiar with the literature.

A number of entries are very out-of-date. For example, W. Keble Martin, *The concise British flora in colour* (1969) is given rather than *The new concise British flora* (1982), J. Lid, *Norsk og Svensk flora* ed. 4 (1963) is given rather than *Norsk, Svensk, Finsk flora* ed. 5 (1985), and W. Rothmaler, *Excursionsflora* ed. 3 (1962-63) is given rather than ed. 12 (1984). No Floras of either Spitsbergen or the Faeroes are included. It would have been more helpful to give Å. Löve, *Flora of Iceland* (1983) in English rather than the Icelandic equivalent *Íslenzk - Ferðaflóra* ed. 2 (1977, erroneously given as 1983).

The taxonomic coverage of flowering plants is very uneven and poor in comparison with that for, say, bryophytes or many animal groups. Although P. F. Yeo's 1978 revision of *Euphrasia* and A. J. Richards's *Taraxacum* Flora of 1972 are included, there is nothing at all on *Hieracium*, and C. A. Stace & M. Ingrouille on *Limonium* are omitted. W. C. R. Watson, *Handbook of the Rubi* (1958) is included, but not H. E. Weber's works on the genus which are superior in almost all respects. No choice of Floras and field guides will suit everyone, but it is difficult to see why J. D. Hooker, *The student's flora of the British Isles* ed. 3 (1937) and E. Step, *Wayside and woodland ferns* new ed. (1949) are included; admirable though they once were, they have now been so totally superseded that they are positively misleading. The inclusion of G. C. Druce, *Hayward's botanist's pocket-book* ed. 19 (1948) is slightly more justifiable for its wealth of infraspecific taxa. It is a pity that works on galls seem to have been excluded, except for incidental mentions under some of the causers, and there are no works on seeds or seedlings although pollen and spores are well covered.

There are numerous errors in titles. The B.S.B.I. Handbook *Sedges of the British Isles* ed. 2 (1982) confusingly retains the title of ed. 1. Although in the headings, names such as Orchids are given their Latin equivalents, the *Docks and Knotweeds* Handbook lacks them which is unhelpful, at least to non-English users.

It is much to be hoped that in the next edition the section on flowering plants will be brought up to the standard of the rest of the book. It is unlikely to be of much use to B.S.B.I. members for this

section, but (and this is not, I think, just the reviewer's perspective) it can be warmly recommended to members wishing to extend their knowledge to other groups of plants and animals.

A. O. CHATER

Wildlife conservation in churchyards. Pp. 16. Norfolk Naturalists Trust and Diocese of Norwich, Norwich. 1988. Price £3.00 incl. p. & p. Obtainable from Norfolk Naturalists Trust, 72 Cathedral Close, Norwich, NR1 4DF.

The increasing awareness in recent years of the importance of churchyards in conservation, stimulated to a large extent by the B.S.B.I. and R.S.N.C. churchyards survey, has led to the production of a number of booklets on the management of churchyards. Most of these have been done on a county basis, and the one under review, arising out of the Norfolk Naturalists Trust Churchyard Conservation Scheme started in 1981, is one of the most practical, detailed and helpful that I have seen. It explains the ecological and floristic value of churchyards, including the remarkable fact that six species characteristic of old meadows (*Conopodium majus*, *Pimpinella saxifraga*, *Primula veris*, *Saxifraga granulata*, *Leucanthemum vulgare* and *Galium verum*) now have about 50% of their Norfolk populations in churchyards. It gives advice on grass cutting, grazing, hedging, tree planting, clearance of overgrown churchyards, renovating and repointing stonework, management for lichens, birds and bats, the importance of ivy and many other matters. A one-page summary of the recommendations is an especially helpful feature, and it is attractively illustrated.

Although tailored to Norfolk, most of the booklet's advice is of very widespread applicability. It is strongly recommended to everyone interested in churchyards, and could profitably be taken as a model by anyone intending to produce a similar booklet for their own area.

A. O. CHATER

Flowers of Cyprus – Plants of medicine, vols. 1 & 2. C. C. Georgiades. Vol. 1: pp. 103 + 89 colour plates; vol. 2: pp. 103 + 91 colour plates. Cosmos Press Ltd, Nicosia. 1987. Price not stated (ISBN 9963-7540-1-5, vol. 1; 9963-7540-2-3, vol. 2).

Mediterranean people have tended to take a pragmatic approach to plants and animals in the country around them; indeed they can often ill afford the 'luxury' of sentimentality when competing for the land. By concentrating in a wide brief on the medicinal plants of Cyprus, Christos Georgiades has performed a service in showing the large number of species (180 illustrated) which are 'useful' in this context.

The third largest island in the Mediterranean (area – 9144 sq. km), Cyprus can boast some 1500 species of flowering plants, 75 of which are endemics. Its unique position has not only made it of strategic importance throughout its history but a botanical crossroads too. The isolation from neighbouring land masses for a significant time-span has enabled endemics to evolve, and the varied geology and wide range of habitat types has ensured floral diversity. Botanically the island can prove confusing since popular floras on the Mediterranean area are only partially relevant.

Though not claiming to be exhaustive, these two volumes cover a wide range of plants not illustrated elsewhere with a text that is clearly written and highly informative. On the whole, the illustrations are good for a work of this sort; anyone who has selected slides for plates will know that the pressure to publish necessitates one or two compromise shots having to be used. The blockmakers have done a good job in combatting the shrinkage of paper that bedevils the printing of colour in hot climes and only a few of the plates are 'out of register'.

For the serious student of the island's flora there is no recourse but to invest in light-weight clothing and use the baggage allowance for R. D. Meikle's incomparable two-volume *Flora of Cyprus*. However, for an acquaintance with the likes of the endemic *Crocus cyprius* and *C. hartmannianus*, unusual plants in the Troodos massif such as *Smyrniium connatum* (Perfoliate Alexanders) and *Phytolacca pruinosa* (Red Ink plant) or the merits of herbal tea 'Spazia'

(pronounced Spacha) made from shade-grown leaves of *Salvia fruticosa* (syn. *S. cypria*) these volumes are certainly a worthwhile holiday purchase.

P. H. & J. A. DAVIES

Supplement to the Wild Flowers of Guernsey. D. McClintock. Pp. 54. La Société Guernésiaise, Candie Museum & Art Gallery, St Peter Port, Guernsey. 1987. Price £4.40 incl. p. & p.

The Flora to which this is a supplement was published by Collins in 1975, and was reviewed in *Watsonia* 11: 83 (1976). Subsequent field work by members of the Société, together with numerous records submitted by visiting botanists, yielded much of the information in this tersely presented booklet. The five-page introduction updates the preliminary pages of the Flora with additional historical information, but fails to remedy the principal weakness of the earlier work with its scanty treatment of the vegetational history and ecology of the northern Channel Isles.

The information in the Supplement is cross-referenced to the Flora by page numbers in bold type. Taxonomic novelties are highlighted in three footnotes: *Hedera helix* subsp. *hibernica* (based on Kirchner's var. *hibernica*), *Elymus repens* var. *aristatus* (transferred from *Agropyron repens* var. *aristatus*), and \times *Agropyron* [sic] *robinsonii*, which should read \times *Agropogon robinsonii* as stated in the text. This hybrid between *Agrostis stolonifera* and *Polypogon viridis* has nothing to do with *Agropyron*.

Where taxonomic changes have been published elsewhere, such as Ingrouille's revision of the *Limonium binervosum* group, particulars are included. The author delights in alluding to obscure observations, such as in *Calluna* where he first dismisses a monographer's record of var. *hirsuta* from the Channel Islands and then pops in a reference to an aphid recorded from Guernsey on heather. Some of the information in this booklet verges on the whimsical ("four tons of Primroses were sent to England in connection with the inauguration of the memorial to Lord Beaconsfield on 16 April 1893"), but the underlying intention to stress the economic importance of cultivated plants to the Channel Islands is commendable.

J. R. EDMONDSON

An introduction to the flowering plants and ferns of Lochbroom & Assynt. C. Scouller, Pp. 33 with map. Lochbroom Field Club, 1988. Price £1.50 incl. p. & p. from P. Harrison, Leckmelm, Ullapool, Ross-shire.

This booklet is a botanical guide to two of the largest parishes in the British Isles, covering nearly 1000 sq. km. The introduction deals mainly with the history of botanical exploration in the area and the factors influencing plant distribution. Climate is given little coverage, but the geology is well treated although some of the geological terms may be unfamiliar to botanists.

The largest part of the book is a description of the special plants of the region, divided into ecological groupings of moorland, mountains, woodland, wetland and coastal plants, with a special mention of orchids. Arctic-alpines are identified throughout the text by the letters "AA" after their name.

The guide is intended to be used in conjunction with a field guide or flora with the key features of local subspecies and varieties described. This is a very useful feature, although the description of *Empetrum nigrum* subsp. *hermaphroditum* would lead you to think that it was monoecious.

A weak point of the booklet is the rather curious usage of some English plant names and terms, referring to Cyperaceae such as cotton grasses as "sedges" or calling *Ophioglossum vulgatum* a "fern ally". A more serious reservation is the lack of a contents page or index.

Regional guides may seem to be part of an old-fashioned tradition which has been squeezed out by general field guides on the one hand and local nature trail guides on the other, but as an introduction to the area, or as a useful souvenir of a visit, it can be recommended.

A. S. GUNN

Molecules and morphology in evolution: conflict or compromise? Edited by C. Patterson. Pp. x + 229. Cambridge University Press. 1987. Price £22.50 boards (ISBN 0-521-32271-5), £9.50 paperback (ISBN 0-521-33860-3).

Anyone who attended the systematic sessions at the recent XIV Botanical Congress in Berlin would have been astounded at the phenomenal rise in the number of people now working on the molecular aspects of evolution. A symposium entitled "Molecules versus morphology" was held at the Third International Congress of Systematic Biology, Sussex University, July 1985, to assess this burgeoning mass of molecular data. It produced a wide-ranging debate on a variety of animal groups. There were no plants considered at all, but any reader of *Watsonia* interested in the history of life will find an enormous amount of information about general principles and broad patterns of relationships achieved by modern methods.

This is one of the most interesting and digestible books to have been produced on a very complex subject. Buying it for Patterson's very lucid introduction alone provides an instant *entrée* for those readers who, like me, tend to skip the fine print of molecular evolution.

C. J. HUMPHRIES

The Fauna and Flora of Exmoor National Park. A provisional Check-List. Compiled by members of the Exmoor Natural History Society. Pp. 272, incl. 4 maps. Exmoor Natural History Society, Minehead. 1988. Available from the Exmoor National Park Office, Exmoor House, Dulverton, Somerset. Price £7.00, post free. (ISBN 0-9512893-0-6).

Exmoor National Park, established in 1954, embraces an area of 686 sq. km., comprising moorland, woodland and sea coast, much of which is between 360 and 580 m above sea level. The biological survey made was extensive and detailed, and the resultant check-list covers all branches of the plant and animal kingdoms. The account of the flowering plants, ferns and fern allies, which number over 900 taxa has been compiled by our member Caroline Giddens and occupies pages 60 to 115. These are arranged in the system of Holmes, *Outline of Plant Classification* (1986) and scientific names are based on those given in Clapham, Tutin and Warburg, *Excursion Flora of the British Isles*, ed. 3 (1980). English names follow Dony *et al.*, *English Names of Wild Flowers*, ed. 2 (1986). The list is supplemented by frequency data, habitat preferences and in a few instances locations.

D. H. KENT

The Natural History of the Chew Valley. K. Allen *et al.* Pp. 80. 1987. Available from 143 High Street, Pensford, Avon, BS18 4BH. Price £3.90, post free.

The Chew Valley lies some 11 km S. of Bristol in North Somerset (now Avon), and this account of its natural history by Keith Allen and 24 other contributors, including our members Clive Lovatt and Ron Payne, as well as that great authority on trees, Alan Mitchell, is unlike any local account that I have read before. Aimed not only at naturalists, it features walks and cycle rides in the area, chapters on local characters past and present, and information on orchards, geology and habitats. Several chapters are devoted to vascular cryptogams and a detailed list of species recorded from the valley is given.

This is a delightful and very readable pot-pourri of biological data presented in an unusual manner, and its profits are designated to the Avon Wildlife Trust, Friends of the Earth and the World Wildlife Fund.

D. H. KENT

Natural Science Collections in Scotland (Botany, Geology, Zoology). H. E. Stace, C. W. A. Pettitt, C. D. Waterston. Pp. xxvi-xxvii-xxx + 373 + 8 microfiches. National Museums of Scotland, Edinburgh. 1988. Price £25.00 (ISBN 0-948636-08-4).

Data on the natural science collections held at 286 Scottish institutions are given, as well as information on collections in the hands of 180 private individuals.

The list of institutions surveyed is arranged alphabetically by location, followed by a combined arrangement of institutions and individuals with details of the collections. Some biographical data are provided, but for botanical collectors it is patchy and very inadequate, and many years of birth and death which could have been easily ascertained are omitted.

A short series of microfiches covers subject indices to botany, geology and zoology and literature references. They are excellent for institutions with the necessary reading equipment, but are of little use to private individuals like the reviewer who lack that facility.

The book offers an insight into Scottish natural history collections, but with more skilful editing it could have been greatly improved.

D. H. KENT

The correspondence of Charles Darwin, Vol. 3, 1844-1846. Edited by F. Burkhardt and S. Smith. Pp. xxix + 523. Cambridge University Press, Cambridge. 1987. Price £30.00 (ISBN 0-521-25589-9).

This volume commences with the 35-year-old Darwin married and ensconced at Down House. 381 pages provide us with a clear insight into his preoccupations during the two years the book encompasses. An additional 142 pages include appendices which explain translations (13 pp.), chronology (4 pp.), Darwin's notes arising from conversations with Hooker (4 pp.) and his interest in breeding captive animals (2 pp.), together with comments on the manuscripts (18 pp.), a bibliography (25 pp.), a biographical register (36 pp.) and an index (35 pp.).

During the two years concerned, Darwin was evidently still digesting the results of his voyage aboard *Beagle*. He published his *Volcanic Islands* (1844) and *Geological Observations on South America* (1846), whilst also bringing forth the much-revised second edition of his *Journal of Researches* (1845) and a number of papers relating to the *Beagle* collections.

The impression has not infrequently been given that, once he settled at Down, Darwin became a hypochondriac recluse. The correspondence published here shows such a view to be far from the truth. He was a member and, at times, an officer of the Geological, Royal Geographical and Royal Societies of London, regularly travelling to the capital to attend their meetings. He maintained his lively correspondence with Forbes, Henslow, Lyell, Owen and Waterhouse, seen in the earlier volumes of this series, but the emergence of the young Hooker as confidant and 'sparring partner' begins to become clear here, with an exchange of no less than 107 letters.

In 1843 Joseph Dalton Hooker returned from his four-year voyage with James Clark Ross, who took *Erebus* and *Terror* into and around the southern oceans. Hooker, a botanist, was exercised by the relationship between the plants of the austral continents, and his perceptive Introductory Essay to the *Flora of Tasmania* is still required reading for students of these affinities. Henslow, who was originally charged with identifying Darwin's *Beagle* plants, found that his East Anglian responsibilities made this virtually impossible. Hooker took on this task, and the *Beagle* plants are dealt with in his mammoth *Botany of the Antarctic Voyage*. In the volume under review the exploitation by Darwin of Hooker's botanical knowledge is seen to be gradually transformed into an increasingly close friendship. Darwin was assembling his notes and mulling over his ideas on evolution, and, increasingly, he used Hooker as his 'sounding board'. It is interesting to read that he was also considering his mortality. Should he die, he wrote to his wife, his preliminary essay should be published. Possible editors of his essay were Lyell, Henslow, Forbes, Lonsdale, Strickland or, perhaps, Owen; various emendations to this list resulted in his final choice - Hooker. The sum to be devoted to the publication was £400! Think on that!

As I have said before in relation to the previous two volumes of this *Correspondence* (*Watsonia*

16(2), 17(1)), this is a book to be read and savoured; a review is inadequate. The high scholarship involved is maintained, the presentation is excellent, the price acceptable.

D. M. MOORE

The flora and vegetation of County Durham. G. G. Graham. Pp. vi + 526. The Durham Flora Committee and Durham County Conservation Trust. 1988. Price £30.00 (ISBN 0-905362-02-0).

This book is divided broadly into three main parts. Firstly, an introduction (64 pp.) covers such matters as climate, soils, geomorphology and topography, as well as lists of recorders, abbreviations and herbaria consulted. Secondly, there is a list of all plants (263 pp.), from bryophytes and lichens to angiosperms. For each species are given other names by which it has been known in literature dealing with Durham, its status (native, introduced etc.), the phytogeographical element to which it pertains, its frequency and abundance, and up to eight records, including the first; most species are mapped by their occurrence in 2 km × 2 km tetrads. Thirdly, an account of the vegetation (149 pp.) in which, grouped under general structural/habitat headings, are listed the phytosociological associations, together with the relevés on which they are based. The text is adorned by line drawings of the major vegetation-types, prepared at the Sunderland Polytechnic. A bibliography (19 pp.), a gazetteer (7 pp.) and an index to plant names (21 pp.) complete the book.

In the British Isles there is a long and distinguished tradition of producing local Floras; in giving us the volume under review, Gordon Graham and his associates have added a jewel to this record – it must be a model for all future ventures of this sort. The organizational flair required to co-ordinate the activities of the numerous people and groups who contributed to the programme must be remarkable, while acknowledged financial support for the project reflects personal, regional and national commitment to, and affection for, the County Palatine.

Born and brought up in Barnard Castle, I spent the first 18 years of my life exploring the scenic, geological and biological riches of Teesdale, not to mention the search for fat brown trout in the river. During the next six years, as a student at Durham, I was introduced to the 'lowlands' of the eastern part of the County. Whilst I am not exactly languishing in the Thames valley, Graham's Flora has afforded me innumerable opportunities to return to the land of my youth. The vegetation described is recognizable, the plants listed recall memories of many happy days in the field, while the maps and place names bring a lump to the throat. The colour paintings of *Gentiana verna* and *Epipactis atrorubens*, by Derek Hall, are stunning.

As a botanist I like this Flora, and as a Durham patriot I am proud of it. I was intrigued to see that *Phalaris arundinacea*, amongst others, grows on the banks of 'rivulets'; are they only called becks amongst we of the hill-tribes in the west of the County? David Bellamy's Foreword is well worth a read in its own right.

The book's publication was delayed by problems with a vital component of the computer-printing system. The wait was worthwhile; the Flora is well-produced and attractively packaged. The price is very competitive and I commend this volume to anyone with an interest in, or love for, the plants and landscape of part of the land once controlled by the Prince-Bishops of Durham.

D. M. MOORE

The genus Cyclamen (A Kew Magazine monograph). C. Grey-Wilson. Pp. 147, 12 colour plates. London; Royal Botanic Gardens, Kew, in association with Christopher Helm & Timber Press, Portland, Oregon. 1988. Price £13.95. (ISBN 0-7470-1221-0).

Cyclamen (Primulaceae) is not native in Britain and Ireland but it is a popular garden plant; several species are naturalized in woodland gardens (*C. hederifolium* and *C. coum*, in particular), and *C. persicum* in the guise of its various, over-blown cultivars is ubiquitous as a pot-plant. The natural habitats of the 19 species recognized by Dr Grey-Wilson range from southern France eastwards through southern Europe into Asia Minor and northern Iran, with outlying populations in the Balearic islands, north Africa and, as has recently been discovered, the Horn of Africa.

This *Kew Magazine* monograph, illustrated with full colour portraits of species (and some garden variants) by Mary Grierson and line drawings by Judith Gauden, follows the pattern established in the first one which treated *Paphiopedilum* (Orchidaceae). Species are the primary concern; each is described in detail, its history is discussed, and natural variation patterns are noted. *Cyclamen* is a notoriously difficult genus to understand, and many wild populations do not readily fit into a neat, 'pigeon-hole' taxonomic system. The long horticultural history of *Cyclamen*, the numerous garden hybrids and minor intraspecific variants recognized and named by gardeners, add to the confusion. Chris Grey-Wilson discusses these problems and defines a number of new taxa in his monograph.

As it is the second book in the *Kew Magazine* series, I compared it with the first one (*Paphiopedilum*) and was not favourably impressed. While the text is printed clearly, the colour plates are reproduced on such poor, thin paper that the image of the *Cyclamen* on the reverse of each sheet, as well as the text opposite that, are visible through the page; this is most distracting. The line drawings of *Cyclamen* are not as expertly executed nor as crisply printed as those of *Paphiopedilum*. It is a pity that the quality of the production has deteriorated, and I hope that this trend will be arrested promptly.

The *Cyclamen* volume includes blank pages at the end – instead of wasting paper, could the series editors not have included information on the sources of the plants depicted? In such a taxonomically perplexing genus the provenance of illustrated materials is of considerable significance. Moreover properly documented plates would greatly enhance the scientific and historical content of these otherwise excellent books.

For the numerous gardeners with a passion for *Cyclamen*, this book will be more than welcome as it contains substantial information about the cultivation of species and cultivars. For botanists it is an excellent introduction to the genus.

E. C. NELSON

Plant Crib. Compiled by T. C. G. Rich & M. D. B. Rich with the editorial assistance of F. H. Perring. Pp. (vii +) 141: numerous line drawings. B.S.B.I. Publications, 24 Glapthorn Road, Oundle, Peterborough PE8 4JQ. 1988. Price £8.00, post paid (ISBN 0-901158-17-8).

This latest spin-off from the Monitoring Scheme appeared in time for the second season of field recording. The book is an aid to the identification of some of the more tricky British flowering plants. It is largely based on Wigginton & Graham's *Guide to the identification of some of the more difficult vascular plant species*, published by the Nature Conservancy Council in 1981, which despite its original terms of reference has proved so useful nationally. In addition to making corrections and additions to 'Wigginton & Graham' (which remains indispensable, since the satisfactory accounts are cross-referenced and indexed, but not reprinted), the chief virtue of the *Plant Crib* is in making available in one place a vast range of previously scattered material from published and as yet unpublished sources and from a wealth of anecdotal field-knowledge.

One of the commonest sources used has been the various publications of the B.S.B.I.; reprinting of these has occasionally led to overlooking changes of mind on the part of the author (e.g. in *Gentianella*). Some of the sources, however, are less easily available and the re-publication of relevant details is a useful service (e.g. the interesting account of *Erophila*).

Summaries of much new information are given in Clapham, Tutin & Moore's *Flora of the British Isles* (3rd edition), but the *Plant Crib* makes this information more generally available. Accounts vary in style and content, from the lavish 10 pages allotted to the Water Buttercups to the simple drawings of leaf-shapes of the 'London Pride' Saxifrages. The many excellent thumb-nail sketches of diagnostic characters make the *Plant Crib* especially useful.

The large, traditional 'critical' groups are generally omitted, though there are useful new keys to *Rosa* and to the sections of *Taraxacum*. Four main types of plant group are concentrated on: introduced species (e.g. *Spiraea*, *Doronicum*), hybrids (e.g. *Reynoutria*), infraspecific taxa and what may be termed 'old chestnuts' (e.g. vegetative *Littorella*/*Isoetes*/*Subularia*/*Lobelia*).

My one reservation is the inclusion of so many infraspecific taxa (an extreme example of which

may be seen in the key to *Fumaria*, which largely reverts to the excellent, but dated, work of Pugsley of 1912). They are perhaps inappropriate in what is intended primarily as an aid for field recording. Too many of the subspecies and varieties are not clear-cut enough to be recorded without collecting vouchers on which any serious study will always rely.

The usefulness of the Crib will only emerge from extensive testing in the field, and I hope that botanists will exploit it to the full. It is exactly the sort of floristic work that the B.S.B.I. should be publishing – flexible in format, practical and affordable. If your favourite nasty group (*Callitriche* for instance) has not been adequately covered, then I am sure the editors would welcome additions and amendments. Such a work should be frequently updated and reprinted, if it is to remain useful – as implied in the Introduction.

H. J. NOLTE

The Flowering Plants and Ferns of the Shetland Islands. W. Scott & R. Palmer. Pp. 468 + ix, with 16 colour plates. The Shetland Times Ltd., Lerwick. Price £20.00 (ISBN 0-900662-56-5).

The authors of this book have been collaborating on its production for over thirty years and the result is a well written, meticulously researched work of fine scholarship. In all aspects it meets the authors' hopes that it represents a considerable advance over previous Shetland Floras. The present Flora begins with a 'General Account of Shetland' which describes the general environment. It is followed by 'An Outline of Shetland Plant Habitats' which introduces the most important ecological and floristic features of the fifteen main types of plant community recognized by the authors. The third chapter is on 'The Changing Vegetation of Shetland' which emphasizes the recent pressures on the flora. These are so severe that the authors sadly conclude "The meagre flora of our islands has been severely depleted, our rarities have now become even rarer; we cannot afford to lose much more". There follows 'A Botanical Itinerary through Shetland' which will be of great use to the visitor and can conveniently be used in conjunction with the 1:100,000 map of the Shetland Islands which is bound in the book's centre. The maps show the boundaries of the thirty-nine 10-km squares which the authors used as the basis for their distribution records.

There follows an 'Analysis of the Flora' which discusses generally the status and geographical affinities of the Shetland plants including some intriguing contrasts and similarities with the Orkney and Faeroe Islands. There is a final introductory Chapter on the 'History of Botanical Exploration in Shetland'.

Most of the book concerns detailed accounts of the Shetland taxa and includes a full treatment of critical genera such as *Hieracium* and *Taraxacum*. It is good to read in depth about outstanding Shetland rarities such as *Arenaria norvegica* subsp. *norvegica* and the endemic *Cerastium nigrescens* subsp. *nigrescens*. The authors give excellent taxonomic criticisms on many Shetland taxa. For example they reject Druce's *Plantago edmondstonii* but favour renewed investigations into the taxonomic status of the Shetland sea-cliff *Silene dioica*. Many of the descriptions are entertaining: I would like to know the reasons why (for *Trientalis europaea*) "women seem particularly successful at finding it."!

I have little on the negative side to say about this book. I missed any attempt to deal with the non-vascular cryptogamic flora of Shetland. More details of the Quaternary history of the Shetland flora would have been welcome along with some speculation on its source. I noticed only one factual error: fertiliser addition and surface seeding began in 1966 on the Keen of Hamar – not 1967 as implied on p. 30.

This book is essential for all naturalists who plan to visit Shetland. Its pleasing production and high quality colour photographs, combined with its clear and informative text will make it a desideratum for most botanical bookshelves. It is a pity that so much of the delight I found in the book was tempered by the sombre messages of the third chapter which reveals the great and continuing threats to the Shetland flora.

J. PROCTOR

The naturalist's garden. John Feltwell. Pp. 160, with numerous black & white and colour plates. Ebury Press, London. 1987. Price £12.95 (ISBN 0-85223-661-1).

There have been histories of gardening written from various viewpoints, e.g. landscape, cultivation, plant introduction; but I know of no previous works that have considered the gardeners and garden makers as naturalists. This new and revealing point of view has enabled the author to show, for example, not only that the Moorish gardens of southern Spain reflect an interest in the ambient plants and animals by their mediaeval designers, but that famous gardens of our own day, such as Christopher Lloyd's at Great Dixter, East Sussex, often betray an interest in local wild life. His 'wild lawn' is famous, and he favours mixed borders rather than beds of roses, for instance, as having the advantages of natural communities, attracting varied wild life and reducing attacks of diseases and pests.

The book is attractively written and illustrated, giving a good general history of gardens and gardeners as well as the abovementioned emphasis on their natural history interests. The historical sequence is interrupted by chapters on relevant but tangential subjects, such as 'Birds in the garden', 'North American explorers', 'The parson-naturalists' and 'Encouraging wild flowers', all of which combine to make this book most useful as well as decorative. B.S.B.I. members, in particular those who have hitherto confined their interests to truly wild plants, should read it in order to see how many aspects of natural history (other than distribution, of course) can be studied in a garden.

N. K. B. ROBSON

The heritage of Clonmacnoise. Edited by M. Tubridy. Pp. 136. Environmental Sciences Unit, Trinity College [Dublin] in association with County Offaly Vocational Educational Committee. 1987. Price not stated (ISBN 0-9512627-0-X, hardback; 0-9512627-1-8, softback).

Clonmacnoise, along the River Shannon, is right in the middle of Ireland in the Central Lowlands. It is the site of a combination of conservation interests – Mongan Bog, one of the few remaining raised bogs left in Western Europe; The Callow, a flat area adjacent to the river which regularly floods in winter and occasionally in summer; eskers, formed in rivers 20,000 years ago, which now commonly support species-rich grasslands and a number of interesting esker woods; a small lake, Fin Lough, which is surrounded by a variety of vegetation types including fen and a distinct community associated with lime-rich spring water; and areas of outcropping limestone. As well as this considerable diversity of vegetation, the bird life is similarly rich and varied.

This book represents an attempt to bring together a number of experts, a team from Trinity College, Dublin, to record their observations on the Clonmacnoise region. This has been combined with fascinating accounts of the early history of the area including the very famous monastery and an insight into farming in the area since the 1830s. The result is a most readable work, full of detail, illustrations, photographs (some in colour) and maps which form an excellent guide to the history and conservation interest of the region and which will become an indispensable guide for any visitor. It should serve as a model for any inter-disciplinary approach to conservation areas and the authors and sponsors are to be congratulated on a fine combined effort.

B. S. RUSHTON

The difficult and critical plants of the Lizard District of Cornwall. L. J. Margetts, assisted by A. J. Byfield, R. W. David & P. L. Smith. Pp. x + 77, with 16 b/w plates, 88 distribution maps & transparent overlay. Grenfell Publications Ltd., Bristol. 1988. Price £7.95 (ISBN 0-948715-01-4).

Much as the Lizard acts as a magnet, it is usually the rare 'specials' that attract botanists, with most of Britain's clovers present, masses of *Erica vagans* (Cornish Heath) and many other taxa of extreme rarity in the British Isles. Some of the observations in this neatly presented and closely written book are evocative: Polypody "makes a more or less continuous fringe at shoulder height" (for the specialist, both *Polypodium interjectum* and *P. vulgare* are meant); the Prickly Sedge, *Carex*

muricata subsp. *lamprocarpa*, grows "where the cows are still driven for milking and lightly graze the hedges as they pass", hedges in Cornwall being solid banks.

This approach means that other books will be needed for identification, despite the clear and succinct descriptions. These include *Rubus stanneus*, with "deeply toothed, overlapping leaflets" very characteristic of this bramble, and a one-line description of the leaf, flower and odour of *Mentha* \times *piperita*. The 1-km square dot-maps show the amount of work achieved by the University of Bristol's Lizard Project, from which this book stems; they have researched the Lizard vascular flora with great intensity.

The presentation of the book is stylish, the writing is excellent, and it should inspire readers to take (or further) an interest in critical groups. The Lizard itself scarcely needs to be commended to botanists.

K. L. SPURGIN

The flora of Lough Neagh. J. Harron and B. Rushton. Pp. iii + 270 with 1 colour plate, 3 figures and 334 plant distribution maps. Irish Naturalists Journal Committee, Belfast and University of Ulster, Coleraine. 1986. Price £5.00 (ISBN 0-901229-82-2).

Tansley in 1939 observed that L. Neagh fenlands were "probably the most extensive in the British Isles still remaining comparatively unspoilt". Unfortunately, even as Tansley was writing, Shephard was 'improving' the discharge of the R. Lower Bann and regulating lough levels; subsequent lowerings of lough levels by 1.5 m markedly reduced the fenlands and, by 30%, the open water area of the small macrophyte-rich L. Beg.

Nearly 50 years after Tansley's 'probably' and 'comparatively' comes this excellent volume actually recording what is there, a modern stock-taking of the wetland flora associated with L. Neagh. Its Introduction concisely reports on the topography and geology of the area, reviews the limited evidence of the pre- and post-glacial history of the vegetation and gives a synopsis of the drainage activities. The characteristics of the present vegetation (comprising some 700 species) are outlined in an Irish context; much of the flora is characteristic of much of lowland Ireland, although several species are of particular local significance, such as *Ranunculus fluitans* which has its only known Irish site in the Six Mile Water and *Spiranthes romanoffiana* subsp. *stricta* which is also beautifully illustrated in Piper's coloured frontispiece, while for others L. Neagh appears to be the centre of their Irish distribution. The regrettable disappearance of half-a-dozen species including *Carex buxbaumii* and *Thelypteris palustris* is confirmed.

Some 200 pages of the book are devoted to the species records based on but authoritatively updating three previous and separate floras of the North-East of Ireland, Tyrone, and Armagh published in 1888, 1893 and 1942 respectively. There is a most helpful list of field workers, their publications and active periods, a clear map of the basin, and a good index.

The flora is the botanical offspring of a happy marriage of John Harron's amateur (in the loving sense of that oft-misused term) skills and enthusiasm for plants and Brian Rushton's equal but more professional academic talents. Bridesmaids and groomsmen come from a circle of colleagues, principally the Belfast Naturalists' Field Club, the Ulster Museum and the Irish Naturalists Journal.

Merely to say that the Flora is welcome would be a gross understatement. It comes at a time of increasing conservation activity in Ulster's post-Balfour era and must help in that. At £5.00 (machine type-set) it is a bargain even if the contents will last much longer than the soft covers. This – with the soon-to-appear revision of Stewart and Corry – will serve local botanists well.

R. B. WOOD