

A GUIDE FOR LOCAL FLORA WRITERS

Compiled by FRANKLYN PERRING

During the last decade the number of local Floras being prepared has risen dramatically. This is a most welcome development. But, though some authors are able to produce a first-class book without assistance from any others, such achievements are rare, and in 1961 it was felt that many of those engaged in or contemplating the preparation of a local Flora might welcome a Conference devoted to an analysis of the problem from many angles: field workers and authors; editors and publishers; referees and accountants.

One of the main themes of this Conference* was individuality: it was agreed that a successful local Flora should, if possible, have an approach, a flavour, which makes it readily distinguishable from all others; at the same time it was felt that all local Floras ought to meet minimum standards in certain respects. The publication of a Flora of an area, whether good or bad, is likely to mean that no other Flora of that area will be published for a quarter of a century.

At the end of the Conference a resolution was passed recommending the Council to set up an *ad hoc* committee to consider local and comital Floras in all their aspects. The committee was set up and, after a series of meetings during 1962 and 1963, this guide was drawn up for the assistance of local Flora writers.

THE OBJECTS AND IMPORTANCE OF LOCAL FLORAS AND THEIR PREPARATION

Many people have their interest in wild flowers aroused by coming across, or being given, the Flora of their area. With such a book to guide them they have been able to find and get to know many more species than would have been possible if they had had to roam the countryside at random.

If the botanist is thus led to work on a local Flora for himself the experience will give him excellent training in taxonomy and nomenclature: some of this important knowledge will inevitably be transferred to any others who may assist him.

When his efforts are consummated in the publication of a local Flora, then, if it is a good Flora, that work will be of great value to all naturalists, present and future.

For botanists from other parts of the country an up-to-date local Flora is an essential companion for a holiday area if it gives details of localities, especially for the rare and local species which

*For an account of this conference see Wanstall, P. J., 1963, *Local Floras*. B.S.B.I. Conference Report No. 7.

do not occur in his home area: the task of scientists seeking experimental material is greatly simplified, if localities can be traced with ease: it hardly needs saying that the hundreds of local Floras which now exist for the British Isles have provided invaluable data in preparing such works as the *Atlas of the British Flora*.

The intensive surveys carried out by those preparing local Floras make it possible to provide much more useful notes on the habitats of plants than it is generally possible to include in a national Flora. The habitat of a species differs from one part of the country to another; a series of local Floras can show this. If the field data are collected with care and precision statistics can be prepared to support (or refute) the loose statements about habitat which generally have to suffice in Floras, are often copied from one to the other, and bear little relation to reality. *The Flora of Wiltshire* by J. D. Grose may be cited as a model of how to go about making an analysis of habitat preferences: many useful ideas may also be found in the paper on 'Collecting the Data' by Hawkes and Readett in the report of the Local Floras Conference (Wanstall, 1963).

If data are collected with sufficient precision from evenly placed stands or from recording units of uniform size it may be possible to produce maps of some or all of the plants in a region so that valuable correlations may be drawn between plant distribution and geological, topographical and other physical features, to a degree which was not possible in a publication such as the *Atlas of the British Flora*. *The Geographical Handbook of the Dorset Flora* by R. d'O. Good gives some idea of the possibilities.

The flora of the British Isles is always changing. Native species, particularly of bog and marsh, are disappearing rapidly from lowland Britain. In compensation new species are introduced from abroad and may spread to all parts of the country in a few decades. The pattern and speed of the changes is a fascinating one which can only be studied in detail in a country as closely watched botanically as our own, and only if the observations are recorded in print.

A national Flora, unless it is large and expensive, is usually unable to deal thoroughly with the complete range of variation exhibited by species. Local Floras can often with advantage draw attention to the varieties which occur in the area. Such information may be of inestimable value to any botanist making a detailed taxonomic study of a particular species.

The importance of local Floras is reflected both by the great number that have been produced in the past, and by the fact that there is still a demand for new and more up-to-date examples. The demand comes not only from botanists but from naturalists in other disciplines for whom a detailed knowledge of the distribution of the vascular plants is fundamental to an understanding of the distribution of the organisms with which they are concerned.

SOME METHODS AND STANDARDS WHICH MIGHT BE CONSIDERED BY
THOSE PREPARING TO COMPILE A LOCAL FLORA

1. Writers of Floras should cover a well defined area: it may be the vice-county as laid down by Watson in 1859, or the political county at the present day. Authors can save a lot of confusion by stating upon what their boundaries are based and by including a map of the area. Details of the vice-county boundaries of Great Britain can be obtained by consulting the set of 1" Ordnance Maps prepared by J. E. Dandy and kept in the Botany Dept., British Museum (Nat. Hist.), Cromwell Road, London, S.W.7. It is hoped that copies of these maps will be made so that regional sets are available for circulation. The Ray Society is shortly to publish the vice-county boundaries (including Ireland) on three sheets on a scale of about 10 miles to one inch. These will be adequate as a guide when planning a Flora, though every attempt should be made to see the larger scale maps before the work is completed. County Record Offices are often very helpful to those attempting to follow the boundaries of the past. On no account should the map published with *The Comital Flora* (Druce, 1932) be relied upon.

2. Collection of data should generally be organised in relation to the 10 km. squares of the National Grid: the size of the unit chosen will depend upon the area to be covered, the nature of the terrain and the number of volunteers available, but as far as possible the "tetrad" (2 x 2 km. square) should be adopted as the basic unit of collection. Further thoughts on dividing the area are given by Perring, in Wanstall (1963).

Although the National Grid does not cover Ireland, the grid was extended westward by Webb (1955) for the Distribution Maps Scheme, and copies of the $\frac{1}{2}$ " series of Irish Ordnance Survey maps marked with this grid are kept by Professor Webb at Trinity College, Dublin, by Dr. Perring at Monks Wood Experimental Station, Abbots Ripton, Hunts., and by Miss M. P. H. Kertland, Botany Dept., The University, Belfast (N. Ireland only). Arrangements for copying can be made by writing to any of these addresses.

If records are collected with grid references the data can be used on a national scale to prepare revised editions of the *Atlas of the British Flora*.

3. The data are probably most conveniently collected on record cards of a type similar to those used for the Maps Scheme. If the original Maps Scheme cards are suited to the area in question they can be obtained from Dr. Perring (present cost price including postage 15/- per 100, or less for larger quantities). To produce cards designed specially for one area may cost a little more than this especially if habitat and frequency data are also to be collected. When preparing cards there are a few points to consider:

- (i) The system of abbreviation used should not differ too widely

from that on the cards used for the Maps Scheme: volunteers would then find new cards easy to understand.

(ii) The number of species to include, and which species, should be carefully considered. Very rare or extinct species should certainly not be included: for analysing the data it is probably best to print only the common, frequent and occasional species—which may account for only 50% of the total.

4. An attempt should be made to deal separately with the segregates in the groups in the following list. The list has been drawn up to indicate the minimum standard which would usually be expected from local Flora writers. In some cases there may be adequate reasons for not including all these groups and in others authors will wish to include groups not listed here. Notes on hybrids, subspecies, etc., should be included whenever possible. When it is not otherwise obvious a note should be added when a particular taxon has not been found after considerable search.

It is not necessary that the author himself should be competent to deal with the groups concerned: he can often prepare an adequate account, at least noting which taxa occur in his area, by consulting some of the main national herbaria, the literature, or living authorities in the various groups. In this last respect attention is drawn to the "Panel of Referees and Specialists" published from time to time in the *Proceedings* of the Society, and to the "List of Major Sources of information other than County Floras" which appears at the end of this paper (Appendix 2).

A word of warning here though. The services of specialists should not be abused and, to retain their co-operation, good specimens must be prepared and properly labelled, and an attempt made to name the plant, or at least place it in its section of a critical genus. If the Flora is being prepared by a number of people it is probably best to divide the critical groups between them: they can often be trained to name accurately the more widespread species in their groups. In this way the numbers of specimens which have to be sent to specialists can be considerably reduced.

For a more detailed account of the problems of a referee see Townsend in Wanstall (1963).

CRITICAL GROUPS

1. *Athyrium alpestre* s.l.—*A. alpestre* and *A. flexile*
2. *Dryopteris filix-mas* s.l.—*D. filix-mas*, *D. borleri* and *D. abbreviata*
3. *Polypodium vulgare* s.l.—*P. australe*, *P. vulgare* and *P. interjectum*
4. *Ranunculus aquatilis* s.l.—*R. aquatilis* and *R. peltatus*
5. *Papaver dubium* s.l.—*P. dubium* and *P. lecoqii*
6. *Fumaria* spp.
7. *Brassica rapa* and *B. napus*
8. *Rorippa nasturtium-aquaticum* s.l.—*R. nasturtium-aquaticum*, *R. microphylla* and the hybrid
9. *Viola canina* s.l.—*V. canina*, *V. lactea*, *V. reichenbachiana* and *V. riviniana*

10. *Sagina* spp.—*S. apetala*, *S. ciliata* and *S. procumbens*
11. *Arenaria serpyllifolia* agg.—*A. serpyllifolia* and *A. leptoclados*
12. *Chenopodium* spp.
13. *Erodium cicutarium* s.l.—*E. cicutarium* subsp. *cutarium* and subsp. *dunense*: *E. glutinosum*
14. *Alchemilla vulgaris* agg.
15. *Aphanes arvensis* s.l.—*A. arvensis* and *A. microcarpa*
16. *Crataegus monogyna* s.l.—*C. monogyna*, *C. oxyacanthoides* and hybrids
17. *Sorbus* spp.
18. *Epilobium adnatum* s.l.—*E. adnatum*, *E. lamyi* and *E. obscurum*
19. *Circaea alpina* and *C. × intermedia*
20. *Callitriche* spp.
21. *Oenanthe aquatica* s.l.—*O. aquatica* and *O. fluviatilis*
22. *Polygonum aviculare* s.l.—*P. aviculare*, *P. arenastrum*, *P. rurivagum* and *P. boreale*
23. *Rumex acetosella* s.l.—*R. acetosella* and *R. tenuifolius*
24. *Vaccinium oxycoccus* s.l.—*V. oxycoccus* and *V. microcarpum*
25. *Monotropa hypopithys* s.l.—*M. hypopithys* and *M. hypophegea*
26. *Empetrum nigrum* s.l.—*E. nigrum* and *E. hermaphroditum*
27. *Anagallis arvensis* s.l.—*A. arvensis* and *A. foemina*
28. *Gentianella amarella* s.l.—*G. amarella* and *G. septentrionalis*
29. *Calystegia sepium* s.l.—*C. sepium*, *C. pulchra* and *C. silvatica*
30. *Veronica anagallis-aquatica* s.l.—*V. anagallis-aquatica* and *V. catenata*
31. *Euphrasia officinalis* agg.
32. *Mentha* spp.
33. *Thymus drucei* s.l.—*T. drucei* and *T. pulegioides*
34. *Galium pumilum* s.l.—*G. pumilum* and *G. sternerii*
35. *Arctium* spp.
36. *Hieracium* spp.
37. *Crepis* spp.
38. *Taraxacum*—*T. officinale* agg., *T. palustre* agg., *T. spectabile* agg. and *T. laevigatum* agg.
39. *Potamogeton* spp.
40. *Dactylorhiza* spp.
41. *Carex flava* s.l.—*C. flava*, *C. lepidocarpa*, *C. demissa* and *C. serotina*
42. *Carex muricata* s.l.—*C. muricata*, *C. divulsa*, *C. polyphylla* and *C. spicata*
43. *Glyceria fluitans* s.l.—*G. fluitans*, *G. plicata*, *G. declinata* and the hybrid *G. fluitans × plicata*
44. *Festuca ovina* s.l.—*F. ovina*, *F. tenuifolia* and *F. vivipara*
45. *Poa pratensis* s.l.—*P. pratensis*, *P. angustifolia* and *P. subcaerulea*
46. *Bromus mollis* s.l.—*B. mollis*, *B. ferronii*, *B. thominii* and *B. lepidus*
47. *Bromus commutatus* s.l.—*B. commutatus* and *B. racemosus*
48. *Avena fatua* s.l.—*A. fatua* and *A. ludoviciana*
49. *Phleum pratense* s.l.—*P. pratense* and *P. bertolonii*

5. When writing an account of a species old records should be included where they are of significance in interpreting plant distribution and the process of change of the flora: in general, though, it is unnecessary to give long lists of records of one species for the same locality.

6. First records, including evidence from herbaria and unpublished sources, particularly of species only recently arrived, and last records for species believed to be extinct, should be included whenever possible. The records collected from the literature and the main public herbaria during the Distribution Maps Scheme are now kept by Dr. Perring at Monks Wood Experimental Station, Abbots Ripton, Huntingdonshire. He will be glad to search the records for data on a particular area.

7. It will increase the appeal of a local Flora to the public in the area it covers if generally used English names are included, such as those given in Clapham, Tutin and Warburg (1962) or in Fitter and McClintock (1956). Names in local use should also be added.

8. Information about the distribution of species outside the area need not usually be included as it is nearly always available from other sources: however, there are special cases, e.g. in writing the Floras of islands, when comparison with the adjacent mainland may be an exciting feature of the work. Notes on the different abundance of the species in the area compared with surrounding areas, when this is great, are worthy of inclusion, but would usually only concern a small minority of the species.

9. The sequence and nomenclature followed should be based upon a standard list such as the *List of British Vascular Plants* by Dandy (1958) or upon the most recent edition of the *Flora of the British Isles* by Clapham, Tutin and Warburg, but there is no need to give each species a number. If all Floras follow the same order the need to refer to the index is considerably reduced. There should only be *one* Index of Plants: the former habit of placing common and scientific names in separate indices is most aggravating. A separate topographical index, particularly if it includes grid references, should be added if possible.

One of the most difficult problems facing the local Flora writer is how to prepare the data collected in such a way that the task of *writing* the Flora is simplified. There are two types of aid to this end and it may be advisable to use both. A species card-index is essential, particularly for noting first and last records, herbarium specimens, references, specialists' determinations, etc.; doubtless almost all the records of rare species will be compiled in this way. However, if the area has been divided into several hundred units it will be a very arduous task to transfer the records of common species to the index card, and almost unintelligible when complete: a far better method is to place the records in squares marked on pre-printed outline maps of the county using symbols to indicate the age and nature of the records. If the map is printed on a card index card, e.g. 8" x 5", the map and written record are combined in one document. If the area has been divided into fewer than 50 units it may be more convenient.

and will certainly be cheaper, to substitute a register for the map. This is a ruled book in which a line is given to each species and a column to each unit. Symbols can be used for the records in the same way as on the map.

Anyone wishing to have his own record cards or maps printed is advised to consult Dr. J. G. Dony beforehand. He may be able to save both trouble and money.

Perhaps the best way of appreciating the variety and quality of local Floras is to look at a few of the fine examples which have been produced over the years. Attention has been drawn to some of them already in this Guide; others will be found in the list of "Recent Local Floras and Supplements" which follows (Appendix I).

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APPENDIX I.

RECENT LOCAL FLORAS, SUPPLEMENTS, AND WORK IN PROGRESS, 1964

- CHANNEL ISLES No complete Flora exists. *Flora of Jersey*: L. V. Lester-Garland, 1903, indicates presence in other major islands. *Flora of Guernsey*: E. D. Marquand, 1901, is really a Flora of the Channel Isles excluding Jersey. A check-list of Herm plants was published by Mrs. F. Le Sueur and D. McClintock in 1962 (*La Société Guernesiaise Report and Transactions*, 17, 36-48), and a check list of Sark plants was published by the same authors in 1963 (*loc. cit.* 17, 303-318). These two are preparing data for a complete Flora of the Channel Isles.
- 1a ISLES OF SCILLY No published Flora: coverage in *Flora of Cornwall* by Davey is unreliable. J. E. Lousley has Flora in advanced state: the first draft was typed in 1940.
- 1-2 CORNWALL *Flora*: F. H. Davey, 1909. *Supplement*: E. Thurston and C. C. Vigurs, 1922 (*Supplement to J. Roy. Inst. Corn.*, 21). Together these give adequate coverage of all but some critical genera. R. W. David has prepared a card index of records which is now kept by Mrs. E. L. Almond and L. J. Margetts Wyndham. Treskillard. Redruth. who are collecting

- data. The Supplement may still be purchased from the Truro Museum, price 8/6, post free.
- 3-4 **DEVON Flora:** W. K. Martin and G. T. Fraser, 1939. A modern work which deals with most critical groups and covers well all but some parts of the west of the county.
- †5-6 **SOMERSET Flora:** R. P. Murray, 1896. *Supplement:* E. S. Marshall, 1914. Together these give adequate coverage of all but the critical genera. R. G. B. Roe is collecting data for a new Flora. The Supplement may still be purchased from the Taunton Museum.
- 7-8 **WILTS. Flora:** J. D. Grose, 1957. One of the outstanding modern Floras, admirable in every way. Supplements are regularly issued by the Wilts. Archaeological and Natural History Society, Devizes.
- 9 **DORSET Flora, ed. 2:** J. C. Mansel-Pleydell, 1895. *A Geographical Handbook of the Dorset Flora:* R. d'O. Good, 1948. These together give an adequate account. Good has produced supplements in 1955 and 1961 which can be obtained from the Dorset Natural History and Archaeological Society, Dorchester. The original maps of the distribution of Dorset plants have been given to the Nature Conservancy, Furzebrook, Wareham, Dorset.
- 10-11-12 **HANTS and ISLE OF WIGHT Flora, ed. 2:** F. Townsend, 1904. *Supplement:* J. F. Rayner, 1929. These together give adequate coverage of all but critical groups. The late A. W. Westrup began resurveying the county on a 2 × 2 km. square basis about 1960. This will be continued under the guidance of a committee of the Hampshire Naturalists Trust.
- 13-14 **SUSSEX Flora:** A. H. Wolley-Dod, 1937. This is adequate in most respects but contains some unfortunate errors. O. Buckle is directing a group sponsored by the Sussex Naturalists' Trust which intends to publish a new Flora.
- 15-*16 **KENT Flora:** F. J. Hanbury and E. S. Marshall, 1899. No supplement to this Flora, which was adequate in its day, has been published and a new account is now needed. This has been prepared by F. Rose and should be published in the 1960s.
- *17 **SURREY Flora:** C. E. Salmon, 1931. Well over half this Flora is admirable, but it was completed by W. H. Pearsall after the death of Salmon and the accounts of the monocotyledons and some of the critical groups are poor. For this reason a new Flora or an extensive supplement is needed. Recording the flora on a 2 × 2 km. basis is being organised by the Surrey Flora Committee of which the Chairman is J. E. Lousley.

†The *Flora of Bristol*, J. W. White, 1912, covers a large area of N. Somerset and has been kept up-to-date by annual supplements in the *Proceedings of the Bristol Naturalists' Society*.

*See starred footnote on opposite page.

- ESSEX *Flora*: G. S. Gibson, 1862. A new *Flora* is long overdue. Work is in hand under the direction of B. T. Ward and S. T. Jermyn. The 10 km. squares are being used as a basis of recording.
- *20 HERTS. *Flora*: A. R. Pryor, 1887. Although the county was well served with two nineteenth-century *Floras* a new one is now needed. Collection of data on a 2 × 2 km. basis started in 1955 and is being co-ordinated by J. G. Dony. A new *Flora* may be ready during the 1960s.
- *21 MIDDLESEX *Flora*: H. Trimen and W. T. Thistleton Dyer, 1869. Although this largely metropolitan county was well covered by *A Hand List of the Plants of the London Area* the publication of a new *Flora* of the whole county is desirable. A complete ms. has been prepared by D. H. Kent.
- 22 BERKS. *Flora*: G. C. Druce, 1897. *Supplement*: G. C. Druce, 1919 (*Rep. Bot. Soc. & E.C.*, 5, 443). These together give an adequate account of the *Flora* with the exception of the critical groups. The historical introduction is good. H. J. M. Bowen has been collecting records for a new *Flora* since 1960 on a 5 × 5 km. basis.
- 23 OXFORD *Flora*, ed. 2: G. C. Druce, 1927. An adequate account with the exception of the critical groups. Extensive historical introduction. No work at present.
- *24 BUCKS. *Flora*: G. C. Druce, 1926. A moderate *Flora* covering the area unevenly, but the history of the botany of the county is well covered. A supplement would be valuable in the next decade.
- SUFFOLK *Flora*: W. M. Hind, 1889. A rather poor *Flora* for its late date. A complete and up-to-date *Flora* is badly needed. Recording on a parish basis has been co-ordinated by F. W. Simpson and Miss J. C. N. Willis and the former has prepared an ms.
- NORFOLK *Flora*: W. A. Nicholson, 1914. *W. Norfolk Plants To-day*: C. P. Petch and E. L. Swann, 1962 (*Supplement to Proc. B.S.B.I.*, 4 (4)): a supplement was published in 1964 (*Proc. B.S.B.I.*, 5, 227-229). Although the county has been fortunate in the number of *Floras* and *Supplements* published it has never had a full-scale comprehensive *Flora*. Messrs. Petch and Swann are now preparing one.
- 29 CAMBRIDGE *Flora*: F. H. Perring, P. D. Sell, S. M. Walters and H. L. K. Whitehouse, 1964. A county *flora* based on 10 km-square recording.

*For some account of the flora of the parts of these counties which occur within 20 miles of St. Paul's Cathedral see Kent, D. H., and Lousley, J. E., 1951-57, *A Naturalist*, 30-36. Obtainable from Mrs. L. M. P. Small, 13 Woodfield Crescent, London, W.5, price 11/6, post free.

†Mr Swann is Chairman of a Committee which has begun work on the *Flora of Breckland*

- 30 BEDFORD *Flora*: J. G. Dony, 1953. A modern *Flora* with a modern look. A fine example to all prospective local *Flora* writers. Available from Dr. Dony, 9 Stanton Road, Luton, Beds.
- 31 HUNTS. No *Flora* as such has ever been published. There is an account by G. C. Druce, 1926, in the *Victoria County History*. It is a little more than a list with a few localities. Part of an ms. *Flora* of the Cambridge/Hunts. Border by A. Fryer is kept in the Botany Dept., Oxford University. J. L. Gilbert is collecting data for a modern *Flora*, which it is hoped will be published at the end of 1964.
- 32 NORTHAMPTON *Flora*: G. C. Druce, 1930. A very full historical introduction is backed by a rather moderate account of the *Flora*. A comprehensive supplement would be valuable in the next ten to fifteen years. G. F. Laundon of the Commonwealth Mycological Institute, Ferry Lane, Kew, Richmond, Surrey, made a start on the collection of data in 1960.
- 33-§34 GLOUCESTER *Flora*: H. J. Riddelsdell, G. W. Hedley and W. R. Price, 1948. A very useful and complete *Flora* for which a supplement would be of value in about 1980.
- *35 MONMOUTH *Flora*: S. Hamilton, 1909. (*Chepstow Flora*: W. H. Shoolbred, 1921, covers the east of the county). No completely adequate *Flora* has ever been published. Data for a *Flora* were collected by A. E. Wade between 1920 and 1940. An ms. was prepared about 1942: it would now need revision before publication. If unpublished it will be kept by the National Museum of Wales.
- 36 HEREFORD *Flora*: W. H. Purchas and A. Ley, 1889. *Additions*: A. Ley 1894; F. M. Kendrick, 1956-7 (*Transactions of the Woolhope Club*). The adequate records of the past now need collecting together and bringing up to date. Work on a new *Flora* was begun in 1950 by Mrs. L. E. Whitehead.
- 37 WORCESTER *Flora*: J. Amphlett and C. Rea, 1909. A distinguished and interesting *Flora* when published, now very much in need of a comprehensive supplement, though no organised work is known of at present.
- 38 WARWICK *Flora*: J. E. Bagnall, 1891. A moderate *Flora* now very much outdated. Since 1950 J. G. Hawkes and R. C. Readett have devised a comprehensive and ambitious scheme of recording on a 1 km. square basis. When published about 1966 their *Flora* promises to be one of the most exciting of the post-war period. Their methods could be adapted to other areas with advantage.
- 39 STAFFORD *Flora*: J. E. Bagnall, 1901. *Flora of North Staffordshire*: W. T. Boydon-Ridge, 1931. Bagnall's *Flora* was published as a Supplement to *Journal of Botany*, 39, and has

§*The Flora of Bristol*, J. W. White, 1912, covers a large area of W. Gloucester, and has been kept up-to-date by annual supplements in the *Proceedings of the Bristol Naturalists' Society*.

*See footnote on opposite page.

never been readily available. Since 1941 E. S. Eedes has been collecting data for a Flora on a 2 × 2 km. basis and hopes to publish his work early in the 1970s.

- 40 SALOP *Flora*: W. A. Leighton, 1841. *Handlist of the Shropshire Flora*: L. C. Lloyd and E. M. Rutter, 1957 (Caradoc and Severn Valley Field Club). Leighton's work included accounts of the species (excluding the Pteridophytes) but rather few localities. Lloyd and Rutter summarised recent knowledge on an area basis, including information based on an ms. Flora prepared in 1913 by W. P. Hamilton which is kept at the Shrewsbury Museum. A modern Flora of this exciting county is badly needed. C. A. Sinker has made a good start in the collection of the data and would welcome assistance.
- *41 GLAMORGAN *Flora*: H. J. Riddelsdell, 1907 (Supplement to *J. Bot.*, 45). *Flora*: A. H. Trow, 1911. *Flowering Plants and Ferns of Glamorganshire*: E. Vachell, 1936 (*Glamorgan County History*, Vol. 1). Trow's Flora was not reliable and Miss Vachell's account was only a check-list. An up-to-date account is needed. No work at present.
- BRECON No Flora has been published, though an ms. Flora by D. P. M. Guile is kept at the National Museum of Wales.
- *43 RADNOR No Flora has been published. No work at present.
- *44 CARMARTHEN No Flora has been published. The collection of data for a Flora is being co-ordinated by R. F. May and Mrs. I. M. Vaughan. The former has prepared an ms.
- PEMBROKE No complete Flora. *List of Pembrokeshire Plants*: F. L. Rees, 1950. This is incomplete. A modern Flora is required. T. A. W. Davis is studying the critical groups of the county, and collecting data for a Flora.
- *46 CARDIGAN *Flora*: J. H. Salter, 1935. *Supplement*: A. E. Wade, 1952. These two combine to give an adequate account of the Flora of the county. The works are modest but well suited to small, underpopulated counties. Both may be purchased from the University of Wales Press, Cathays Park, Cardiff.
- *47 MONTGOMERY No Flora has been published. No work known at present. Miss V. J. MacNair has a wide knowledge of the area.
- *48 MERIONETH *Flora*, ed. 2: P. M. Benoit and M. Richards, 1963 (West Wales Naturalists' Trust). A valuable new Flora with particularly good coverage of the critical groups. Remarkable value for the money. A good example of what can be done for small, underpopulated counties.
- *49 CAERNARVON *Flora* (with Anglesey): J. E. Griffith, 1895. A modest account with only a limited number of localities. Work on a new Flora (with Anglesey) using 2 × 2 km. squares is being organised by P. W. Richards.

Localities for the less common species based on specimens in the National Museum of Wales for these counties are published in *Welsh Flowering Plants*, ed. 2. H. A. Hyde and A. E. Wade 1957, and *Welsh Ferns*, ed. 4. H. A. Hyde and A. E. Wade 1969

- *50 DENBIGH *Flora*: A. A. Dallman, 1911-13. Dallman's *Flora* was published in parts in the *Journal of Botany* and has never been readily available. It was little more than a check-list. No work at present.
- *51 FLINT *Flora*: A. A. Dallman, 1907-11. Dallman's *Flora* was published in parts in the *Journal of Botany* and has never been readily available. It was little more than a check-list. No work at present.
- *52 ANGLESEY *Flora* (with Caernarvon): J. E. Griffith, 1895. A modest account with only a limited number of localities. Work on a new *Flora* (with Caernarvon) using 2 × 2 km. squares is being organised by P. W. Richards.
- 53-54 LINCOLN No complete *Flora*. *Check-list*: E. A. Woodruffe-Peacock, 1909 (*Transactions of the Lincolnshire Naturalists' Union*). The second largest English county and yet it has no *Flora*. Woodruffe-Peacock left an ms. *Flora* which is kept in the Botany School, Cambridge University. Miss E. J. Gibbons has been collecting data for many years and it is expected that a *Flora* will be published before 1970.
- 55 LEICESTER and RUTLAND *Flora*: A. R. Horwood and C. W. F. Noel, 1933. A very exhaustive account of the *Flora* with extensive historical introduction. A supplement within the next decade would be of value. J. Chandler and G. Messenger are preparing a *Flora* of Rutland.
- 56 NOTTINGHAM *Flora*: R. C. L. Howitt & B. Howitt, 1963. A new *Flora* of the county with a very distinct flavour of its own. Fills a gap which has existed for far too long.
- 57 DERBY *Flora*: W. R. Linton, 1903. An average county *Flora* now out of date. Work on a new *Flora* has been in progress since 1930 directed by a committee based at Derby Museum.
- 58 CHESTER *Flora*: Lord de Tabley, 1899. *Flora of the Liverpool District*, ed. 2: C. T. Green, 1933. These together give moderate cover but little is known of the south of the county. A full supplement or a new *Flora* is due. Work on the *Flora* is being co-ordinated by Mrs. M. Cullen.
- 59 SOUTH LANCASTER *Flora*: J. P. Savidge, V. H. Heywood and V. Gordon (Editors), 1963. A most important new *Flora* for a highly populated vice-county which has never before had a comprehensive account. The introductory material is particularly interesting: details of the climate are extensive. Collection of data is to continue.
- 60 W. LANCASTER *Flora*: J. A. Wheldon and A. Wilson, 1907. An adequate account at the time of publication, but both taxonomy and distribution now in need of revision. A supplement is needed and may be prepared by a team led by E. F. Greenwood, 11 Crawshay Drive, Emmer Green, Reading, Berks.

- *61 E. YORK *Flora*: J. F. Robinson, 1902. A mediocre *Flora*: something on a more ambitious scale is needed. Work has been going on since 1945 directed by R. d'O. Good and Miss E. M. Crackles.
- *63-64 W. YORK *Flora*: F. A. Lees, 1888. A fine *Flora* in its day but a new one or full supplement is badly needed. No work at present.
- *62 & 65 N. YORK *Flora*, ed. 2: J. G. Baker, 1906. A good *Flora* and guide to the area which now needs bringing up to date with a full supplement at least. Miss C. M. Rob has been collecting data on a 10 km. square basis and keeps an up-to-date card index.
- †66 DURHAM *Flora* (with Northumberland): J. G. Baker and G. Tate, 1868. An inadequate account. A full *Flora* is needed. Work began in 1962 under the direction of Dr. M. E. Bradshaw to collect data on a 1 km. square basis.
- †67-68 NORTHUMBERLAND *Flora* (with Durham): J. G. Baker and G. Tate, 1868. An inadequate account. A full *Flora* is needed. Dr. and Mrs. G. A. Swan have made an exhaustive survey of the county during the last decade.
- 69 WESTMORLAND *Flora*: A. Wilson, 1938. A reasonably adequate *Flora* with extensive guide to the area in the introduction. A supplement would be valuable soon. No work at present.
- 69b N. LANCASTER *A Flora of the English Lake District*: J. G. Baker, 1885. No modern *Flora* covers this area adequately: the *Floras* of W. Lancs. and Westmorland omitted it. No work at present.
- †70 CUMBERLAND *Flora*: W. Hodgson, 1899. A modest *Flora*, mainly of the west of the county. A new comprehensive *Flora* is needed. D. A. Ratcliffe and Miss C. W. Muirhead are collecting data for a new *Flora*.
- 71 ISLE OF MAN *Flora*: C. I. Paton, 1933 (*Supplement to N.W. Nat.*, 3). This was little more than a check-list: a complete *Flora* is badly needed. D. E. Allen has been co-ordinating the collecting of data for a *Flora* since 1949.
- 72 DUMFRIES *Flora*: G. F. Scott-Elliot, 1896. An odd *Flora* which also covers Kirkcudbright and Wigtown sketchily. The format is muddling, which makes it a difficult book to use. A complete modern *Flora* is needed. No work at present.
- 73 KIRKCUDBRIGHT No complete *Flora* but many references in Scott-Elliot's *Flora of Dumfriesshire*. No work on a *Flora* at present, but Dr. H. Milne-Redhead and A. McG. Stirling have covered the area extensively in the last decade.
- 74 WIGTOWN No complete *Flora*. *A list of Wigtownshire Plants*: A. C. M'Candlish, 1931. No work at present.

*Additional records for these counties may be found in *Supplement to the Yorkshire Floras*: F. A. Lees *et al.*, 1942.

†Further information for these counties will be found in an account of the *Flora of the Three Northern Counties*: J. W. H. Harrison and G. W. Temperley in *The Three Northern Counties of England*, Sir Cuthbert Headlam (Editor), 1939.

- *75 AYR *Flora*: J. Smith, 1896. A short *Flora* on a parish basis with few exact localities. An up-to-date *Flora* is needed. No work at present.
- *76 RENFREW No complete *Flora*. The Andersonian Naturalists have started work on collecting data for a *Flora*.
- *77 LANARK No complete *Flora*. No work at present.
- 78 PEEBLES No *Flora* as such has ever been published. There is an account by F.R.S. Balfour in *The History of Peebleshire*: J. W. Buchan, 1925. No work at present.
- 79 SELKIRK No *Flora* has been published. No work at present.
- 80 ROXBURGH No complete *Flora*. There is some limited information in *Natural History of the Eastern Borders*: G. Johnston, 1853. No work at present.
- 81 BERWICK *Flora*: G. Johnston, 1829. Not really a complete *Flora* of the County. One is needed. Since 1959 A. G. Long has been co-ordinating the collection of data for a *Flora*.
- 82-84 LOTHIANS *Field Club Flora*: I. H. Martin, 1927. A moderate account which lacks exact localities, is poor on critical plants and has an infuriating index. Since 1955 Miss E. Beattie has been collecting data on a 10 km. basis for a new *Flora*.
- 85 FIFE and KINROSS *Flora*: W. Young, 1936. An adequate account which could be brought up to date with a supplement, particularly for critical groups. Copies are available from the Secretary, Botanical Society of Edinburgh, c/o Royal Botanic Garden, Edinburgh, 3, price 10/-, post free.
- *86 STIRLING No *Flora* has been published. No work at present. (*The Flora of the Clyde Area* deals with only a small part of the west of the county.)
- 87-89 PERTH with CLACKMANNAN *Flora*: F. Buchanan White, 1898. The only Scottish *Flora* which resembles its English counterparts, but exact localities are few. A supplement at least is needed. A. W. Robson is Chairman of the Botanical Section of the Perth Society for Natural Science, which is collecting together all available data.
- 90 FORFAR *Flora*: W. Gardiner, 1848. A very early *Flora* now out of date. An ms. *Flora* was prepared many years ago by Mr. and Mrs. R. H. Corstorphine. It is now in the hands of Sir George Taylor at Kew. Eventually he hopes to bring it up to date for publication. Miss U. K. Duncan has done a great deal of work in the county during the last 20 years.
- †91 KINCARDINE No complete *Flora*. Since 1958 Mrs. A. H. Somerville has been collecting data.

*Further information for these counties may be found in *The Flora of the Clyde Area*: J. R. Lee, 1933, copies of which are available from the publishers, John Smith & Son (Glasgow) Ltd., 57-61 St. Vincent Street, Glasgow, C.2, price 10/-, post free. Separates of *Lees Additions* are available from A. A. Percy, 5 Buckingham Drive, Glasgow, E.2.

+See footnote marked † on opposite page.

- †92 S. ABERDEEN No complete Flora. *Flora of the City Parish of Aberdeen*: J. W. H. Trail, 1923. With Dickie's *Botanist's Guide* there is moderate coverage of the vice-county, but a full Flora is needed. No work at present.
- †93 N. ABERDEEN *Flora (of Buchan)*: J. W. H. Trail, 1902. This Flora lists in columns the parishes from which species have been recorded. Some of the parishes are very large and in the absence of more precise localities, many records would be difficult to trace in the field. No work at present.
- †94 BANFF *Flora*: W. G. Craib, 1912. This Flora lists the species in the same way as the *Flora of Buchan* and the same observations apply. No work on a Flora at present but Miss M. McCallum Webster has studied the county on a 10 km. basis during the last decade and has extensive information.
- 95 MORAY *Flora*: J. J. Burgess, 1935. A short Flora with abbreviated parish records and few exact localities. A supplement at least is needed. Miss M. McCallum Webster has studied the county on a 10 km. basis during the last decade and has extensive information (see 96b Nairn).
- §96a-97 INVERNESS (8) No Flora. No work at present.
- 96b NAIRN No Flora. During the last decade Miss M. McCallum Webster has been collecting data for a Flora. She may include both Nairn and Moray (Elgin) between the same covers.
- §98 ARGYLL (main) No Flora.
- *99 DUNBARTON No Flora. Mr. A. McG. Stirling is collecting data for a Flora.
- *100 CLYDE ISLES No Flora. Mrs. A. H. Sommerville is collecting data for a Flora of Arran.
- §101 KINTYRE No Flora. *The Flora of the Clyde Area* includes only a small part of Kintyre. Two resident botanists, Miss M. H. Cunningham and A. G. Kenneth, have a wide knowledge of the area, and are currently working on a check-list.
- 102 S. EBODES No complete Flora. *Flora of Islay and Jura*: J. K. Morton, 1959 (Supplement to *Proc. B.S.B.I.*, 3). *An account of the Flora in Colonsay*: M. McNeill, 1910. *Flora of Easdale and The Garvellachs*: C. W. Muirhead, 1962 (*Trans. & Proc. Bot. Soc. Edin.*, 39, 316). These together give adequate cover of the vice-county.
- 103 MID EBODES No complete Flora. *Flora of the Isles of Coll, Tiree and Gunna*. J. W. H. Harrison *et al.*, 1941 (*Proc. Univ. Durham Phil. Soc.*, 10, 274). This work needs revision, and extension to include the other islands in the vice-county.
- 104 N. EBODES No complete Flora. *Papers*: J. W. H. Harrison *et al.*, 1939, *et seq.* (*Proc. Univ. Durham Phil. Soc.*, 10-13).

†Further information on these counties may be found in the *Botanist's Guide to the Counties of Kincardine, Aberdeen and Banff*: G. Dickie 1860.

§For over 25 years K. N. G. MacLeay has been collecting data for a Flora of the political county of Argyll which he hopes to publish before 1970.

*See footnote marked * on opposite page.

- Revision and extension of this work is needed. No work at present.
- 105 W. ROSS *Flora*: G. C. Druce, 1929. By no means complete, but a useful *Flora* of a very large county. Published as a supplement to *Rep. Bot. Soc. & E.C.*, 8. A modern supplement required. No work at present.
- 106 E. ROSS No *Flora*. Miss U. K. Duncan is collecting data on a 10 km. square basis and hopes to publish a *Flora* in due course.
- 107-108 SUTHERLAND No *Flora*. For nearly 10 years J. Anthony has been collecting data on a parish basis for a *Flora* of this very large county. He hopes to publish the results of his investigations by about 1965.
- 109 CAITHNESS No *Flora*. *The Vegetation of Caithness*: C. B. Crampton, 1911. A list of the species, and some information contributed by R. M. Adam, occur in *The Red Deer of Langwell and Braemore*: The Duke of Portland, K.G., G.C.V.O., 1935. No work at present.
- 110 OUTER HEBRIDES No *Flora*. Papers: J. W. H. Harrison *et al.*, 1941, *et seq.* (*Proc. Univ. Durham Phil. Soc.*, 10-13). Revision and completion of this work is needed. See also *The Flora of Uig*: M. S. Campbell, 1945. Miss Campbell and J. Heslop Harrison hope to prepare a *Flora* some time in the future.
- 111 ORKNEY *Flora*: M. Spence, 1914. Papers: H. H. Johnston, 1895, *et seq.* (1914-26, *Trans. Bot. Soc. Edin.*, 26-29, and privately). Copies are available from the Secretary, Botanical Society of Edinburgh, c/o Royal Botanic Garden, Edinburgh 3. For a remote part of the British Isles the coverage is remarkably good. An up-to-date supplement is needed. Miss E. R. Bullard is collecting together all available data on a 10 km. and island basis.
- 112 ZETLAND *Flora*: G. C. Druce, 1921. *Supplement*: G. C. Druce, 1924. Another of Druce's many *Floras*. Of average standard but the area is in need of a supplement, or a full *Flora*, Druce's works were published as supplements to *Rep. Bot. Soc. & E.C.* and sold as separates. R. C. Palmer and W. Scott are assembling all available data.
- H. 1-2 KERRY *Flora*: R. W. Scully, 1916. An excellent *Flora* from the classical mould, with some valuable taxonomic notes. A supplement with special attention to critical groups needed. No work at present.
- H. 3-5 CORK *Flora*: T. Allin, 1883. Neither this, nor either of the earlier *Floras*, did justice to this large and variable county. A full scale *Flora* is required. No work at present.
- H. 6 WATERFORD No *Flora*. No work at present.
- H. 7 & 10 TIPPERARY No *Flora*. No work at present.

- *H. 8 LIMERICK No Flora. No work at present.
- *H. 9 CLARE No Flora. The north of the county will be covered by a Flora of the Galway Region being prepared by the Irish Regional Committee.
- H.11 KILKENNY No Flora. No work at present.
- H.12 WEXFORD No Flora. No work at present.
- H.13 CARLOW No Flora. No work at present. Miss E. M. Booth is a resident with a very wide knowledge of the flora.
- H.14 QUEEN'S COUNTY (LEIX) No Flora. No work at present.
- *H.15-17 GALWAY No Flora. The whole of H.16 and parts of the west of H.15 will be covered by a Flora of the Galway Region being prepared by the Irish Region Committee.
- H.18 KING'S COUNTY (OFFALY) No Flora. No work at present.
- H.19 KILDARE No Flora. Work on Flora may be undertaken by the Dublin Naturalists' Field Club.
WICKLOW *Flora*: J. P. Bruncker, 1951. The only post-war Irish County Flora, which would serve as an admirable model for others.
- H.21 DUBLIN *Flora*: N. Colgan, 1904. *Supplement*: Dublin Naturalists' Field Club, 1961. The two together give adequate coverage of the county with the exception of the critical groups.
- H.22 MEATH No Flora. No work at present.
- H.23 WESTMEATH No Flora. No work at present.
- H.24 LONGFORD No Flora. No work at present.
- *H.25 ROSCOMMON No Flora. No work at present.
- *H.26-27 MAYO No Flora. No work at present.
- *H.28 SLIGO No Flora. No work at present.
- *H.29 LEITRIM No Flora. No work at present.
- H.30 CAVAN No Flora. No work at present.
- H.31 LOUTH No Flora. No work at present.
- H.32 MONAGHAN No Flora. No work at present.
- *H.33 FERMANAGH No Flora. For the last 20 years R. D. Meikle has been collecting data for a Flora, and an ms. has now been prepared.
- H.34-35 DONEGAL *Flora*: H. C. Hart, 1898. A comprehensive Flora adequate in its day, with a long and valuable introduction, and meteorological appendix. A modern supplement is now needed. No work at present.
- H.36 TYRONE No Flora. No work at present.
- H.37 ARMAGH No Flora. Members of the B.S.B.I., the Belfast Naturalists' Field Club and the Armagh Field Club have started collecting data for a Flora.
DOWN *Flora*, ed. 2 (with Antrim and Derry): R. Ll. Praeger and W. R. Megaw, 1938. An adequate account with independent treatment of casuals and aliens.
- H.39 ANTRIM *Flora*, ed. 2 (with Down and Derry): R. Ll. Praeger and W. R. Megaw, 1938. See above.

*Localities for the less common species for these counties may be found in *A Tourist's Flora of the West of Ireland*: R. Ll. Praeger, 1909.

- H.40 LONDONDERRY *Flora*, ed. 2 (with Down and Antrim): R. L. Praeger and W. R. Megaw, 1938. See above.

PRIORITIES FOR WORK ON LOCAL (COUNTY) FLORAS

Using the above list as a basis an attempt has been made to place each vice-county into one of five arbitrary categories from the highest to the lowest priority for the publication of a new *Flora* or Supplement.

Fundamentally the categories are as follows:

- I. No *Flora* has ever been published.
 - II. The *Flora* published is either incomplete because it lacks localities and/or some species, or it was published before 1850.
 - III. The last *Flora* or Supplement was published between 1850 and 1899.
 - IV. The last *Flora* or Supplement was published between 1900 and 1929.
 - V. The last *Flora* or Supplement was published from 1930 onwards.
- A vice-county has been placed in a priority category one higher if its last *Flora* or Supplement was deficient in some way.

PRIORITIES

- I. 42, 43, 44, 47, 79, 86, 96a, 96b, 97, 98, 101, 106, 107, 108, H.6, 7, 10, 11, 12, 13, 14, 18, 19, 22, 23, 24, 30, 31, 32, 36, 37.
- II. 1a, 31, 45, 53, 54, 66, 67, 68, 69b, 71, 73, 74, 76, 77, 78, 80, 81, 90, 91, 92, 99, 100, 103, 104, 109, 110, H.8, 9, 15, 16, 17, 25, 26, 27, 28, 29, 33.
- III. 15, 16, 18, 19, 20, 21, 25, 26, 35, 36, 38, 39, 40, 41, 49, 50, 51, 52, 58, 61, 63, 64, 69b, 70, 72, 75, 87, 88, 89, 93, 94, H.3, 4, 5, 34, 35.
- IV. S, 1, 2, 5, 6, 10, 11, 12, 17, 22, 23, 24, 27, 32, 37, 57, 60, 62, 65, 82, 83, 84, 95, 102, 105, 111, 112, H.1, 2.
- V. 3, 4, 7, 8, 9, 13, 14, 28, 29, 30, 33, 34, 46, 48, 55, 56, 59, 69a, 85, H.20, 21, 38, 39, 40.

APPENDIX 2.

MAJOR SOURCES OF RECORDS OTHER THAN COUNTY FLORAS

(1) GENERAL REFERENCE

British Herbaria. D. H. Kent, 1958.

A Bibliographical Index of the British Flora. N. D. Simpson, 1960.
(Fuller citations to many of the works listed below will be found here).

(2) THE BRITISH ISLES

Topographical Botany, ed. 2. H. C. Watson, 1883. Details of most of the records can be obtained by reference to Watson's mss. and herbarium which are preserved at Kew.

Supplement to *Topographical Botany*, ed. 2. A. Bennett, 1906.

Second Supplement to Watson's *Topographical Botany*. A. Bennett, C. E. Salmon, and J. R. Matthews, 1929-30.

The Comital Flora of the British Isles. G. C. Druce, 1932.
Reports of Botanical Exchange Club, 1858-1948 (as Thirsk N.H.S., 1858-66; as London B.E.C., 1866-79; as B.E.C. of the British Isles, 1879-1909; as B.E.C. and Society of the British Isles, 1909-48).
Reports of Watson Botanical Exchange Club, 1884-1934.
Reports of Botanical Locality Record Club and Botanical Record Club, 1873-86.
 Botanical Society of the British Isles Year Books, 1949-53.
Proceedings of the B.S.B.I., 1954→
Watsonia, 1949→
Journal of Botany, 1863-1942.
Journal of Ecology, 1913→
Phytologist, 1841-63.
Science Gossip, 1865-93.
British Association Handbooks.
 Victoria County Histories.
First Records of British Flowering Plants, ed. 2. W. A. Clarke, 1900.
Altitudinal Range of British Plants, ed. 2. A. Wilson, 1956.
British Fern Gazette, 1909→ (especially the Census list prepared by A. C. Jermy, 1960, Supplement to vol. 9).

3) ENGLAND

Naturalist (v.-cs. 53-71). 1837-9, 1851-8, 1864, 1867, 1873 (as *Yorkshire Naturalists' Recorder*), 1875→
North Western Naturalist, 1926-55.
Vasculum (and *Vasculum (Substitute)*) (v.-cs. 62, 66-8, and 70), 1915→
South-Eastern Naturalist, 1890→

(4) SCOTLAND

Annals of Scottish Natural History, 1892-1911.
Scottish Naturalist, 1871-91, 1912→
Transactions and Proceedings of the Botanical Society of Edinburgh, 1840→
Transactions and Proceedings of the Natural History Society of Glasgow, 1869-1908.
Glasgow Naturalist, 1908→

(5) IRELAND

Cybele Hibernica, ed. 2. N. Colgan and R. W. Scully, 1898.
Irish Topographical Botany. R. Ll. Praeger, 1901.
 1st Supplement to *Irish Topographical Botany, 1901-1905*, R. Ll. Praeger. *Proc. Roy. Irish Acad.*, 24 B, 13, 1906.
 2nd Supplement, 1906-1928. R. Ll. Praeger, *loc. cit.*, 39 B, 57, 1929
 3rd Supplement, 1929-1933. R. Ll. Praeger, *loc. cit.*, 42 B, 55, 1934.
 4th Supplement, 1934-1938. R. Ll. Praeger, *loc. cit.*, 45 B, 231, 1939.
 5th Supplement, 1939-1945. R. Ll. Praeger, *loc. cit.*, 51 B, 27, 1946.
Irish Plant Records. D. A. Webb, *Watsonia*, 2, 217, 1952.
The Botanist in Ireland. R. Ll. Praeger, 1934.
Irish Naturalist, 1892-1924.
Irish Naturalists' Journal, 1925→

(6) WALES

Welsh Flowering Plants, ed. 2. H. A. Hyde and A. E. Wade, 1957.

Welsh Ferns, ed. 4. H. A. Hyde and A. E. Wade, 1962.

Welsh Timber Trees, ed. 3. H. A. Hyde, 1961.

Nature in Wales, 1955→

(7) MONOGRAPHS

The genus *Fumaria* in Britain. H. W. Pugsley. Supplement to *J. Bot.*, **50**, 1912. See also *J. Bot.*, **51**, 50, 1913.

Revision of the genera *Fumaria* and *Rupicapnos*. H. W. Pugsley. *J. Linn. Soc.*, **44**, 233, 1919; **47**, 427, 1927; **49**, 93, 1932; **49**, 517, 1934; **50**, 541, 1937.

Handbook of the Rubi of Great Britain and Ireland. W. C. R. Watson, 1958. In the European herbarium of the British Museum there are the ms. record books of W. Moyle Rogers, and a catalogue of the vast Barton collection.

A Revision of the British Roses. A. H. Wolley-Dod. Supplements to *J. Bot.*, **68**, 1930, and **69**, 1931.

A monograph of British Willows. E. F. Linton. Supplement to *J. Bot.*, **51**, 1913.

A revision of the British Euphrasiae. H. W. Pugsley. *J. Linn. Soc.*, **48**, 467, 1930.

A prodromus of the British Hieracia. H. W. Pugsley. *J. Linn. Soc.*, **54**, 1948. P. D. Sell maintains an Index of the genus at the Botany School, Cambridge, where it may be consulted by arrangement.

Studies of British Potamogetons. I-XVIII. J. E. Dandy and G. Taylor. *J. Bot.*, **76**, 1938-80, 1942. J. E. Dandy, British Museum (Natural History), Cromwell Road, London, S.W.7, maintains a card index of the genus.