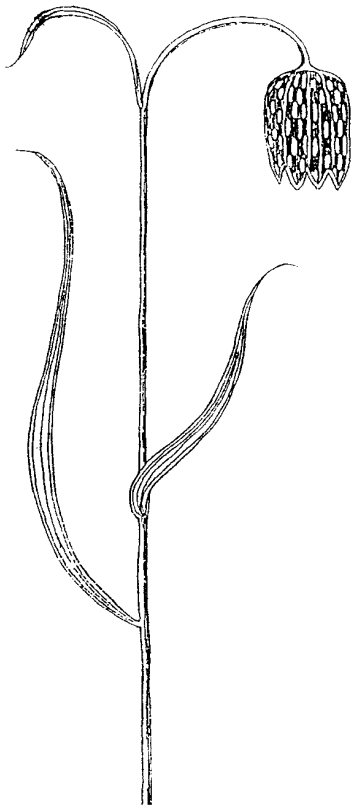
WILTSHIRE BOTANY



AFTER THE WILTSHIRE FLORA

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Wiltshire records after the recording for the 1993 Wiltshire Flora up to the end of 2003

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AFTER THE WILTSHIRE FLORA

1. EDITORIAL, INTRODUCTION AND GUIDE

Burnt Orchid *(Orchis ustulata)*

Recording for the 1993 Flora and after

This issue is devoted to a presentation and analysis of the most important plant records since recording for the 1993 Wiltshire Flora ceased at the end of 1991. Some records dating back to 1990 are included because they were not taken account of in the Flora. This should be borne in mind whenever such expresions as “since the 1993 Flora”, “before the 1993 Flora” and “after the 1993 Flora” are used.

The Wiltshire Flora (Gillam, Green and Hutchison 1993) covered the two botanical vice-counties into which Wiltshire is divided - Vice-county 7 in the North and Vice-county 8 in the South, with the Kennet and Avon Canal as the boundary between the two. It was written on the basis of the *Wiltshire Flora Mapping Project*, begun in 1983. It was initiated and overseen by the *Wiltshire Natural History Forum*, a body formed to improve liaison and cooperation amongst voluntary and statutory organisations concerned with natural history and conservation. Data handlers were able to make use of computers through the involvement of the *Wiltshire Biological Records Centre (WBRC)* at the *Wiltshire Wildlife Trust* headquarters in Devizes.

The project was run by a steering group in which the main influence came from the two vice-county recorders. Plants were recorded for their occurrence in each tetrad (group of 4 kilometre squares of the National Grid), with progressively more precise locations for less common species. The records were entered into a database and distribution maps were made from it. The Flora was prepared from this data.

Though the Flora was completed, members of the newly formed *Wiltshire Botanical Society* continued to record plants and maintain a database of these records. Indeed, that was one of the purposes for which it was formed. From early on, the most interesting of these records were published - at first in the Society’s newsletter and, from 1995 onwards, in its scientific journal *Wiltshire Botany*. At first, this was done on a subjective basis, but, gradually, criteria for inclusion were generated. The result is a large amount of sifted information, which is presented and analysed here. Only records up to and including those received in 2003 are covered, though the recording and sifting process is continuing.

Selecting records for publication

Many records have been submitted by members, but they have been too numerous to allow all to be published. Further, not all of them would be of widespread interest. For instance, records of common species made as part of a survey would be valuable in contributing to the survey’s results and analysis, but not particularly significant as individual records - the

announcement that such a species occurs in a particular area would not usually be news. Some means needed to be devised for selecting records for publication.

The selection process concerns itself with taxa. A *taxon* (plural *taxa*) is any name for a plant which is based on scientific classification of plants, appropriately called *taxonomy*. It makes use of its scientific (i.e. botanical) name and includes the usual identification categories. Thus a named *species* is a *taxon*, but *subspecies*, *varieties* and *forms* are also *taxa*.

The first step in reducing the number of records to publish was to make a list of *eligible taxa*. This applied to any taxon which was recorded in 3% or less of the 1km squares in the County in the *Wiltshire Flora Mapping Project.* This information is provided in the Flora for each taxon it includes. The only justification for using a criterion of 3%, rather than, say, 2% or 4%, is that it has regularly resulted in articles of a reasonable length. To the resulting list were added all taxa not included in the Flora at all but recorded since.

To publish all records of eligible taxa, however, would still result in an unacceptably high number. It was, therefore, decided to include only records where the taxon had not previously been recorded for the tetrad in which the record was made. A tetrad is made up of four adjacent 1km squares. For example, the 1km squares with national grid references 5066, 5067, 5166, and 5167 make up one tetrad, as shown in the diagram.

5067	5167
5066	5166

Tetrads were used rather than 1km squares because this is how taxa were mapped in the 1993 Flora, and the maps were, initially, the most accessible method of checking the distribution of those taxa for which a map was provided. For taxa with no map, the best estimate possible of whether a taxon had or had not been recorded in a tetrad previously was made from written data provided for that taxon in the Flora. At the end of the period covered here, however, the list of eligible species was modified to include a list of all the tetrads noted in the *Wiltshire Flora Mapping Project* for each unmapped taxon. Already, during most of the period, the tetrads newly noted for each taxon each year had been inserted in the list, so that subsequent records in those tetrads could be omitted at publication. The result to date is, in conjunction with the maps in the Flora, a hopefully complete record of all the tetrads for which a record has been made for each taxon, before and after the Flora. This should enable more accurate selection in the future.

Having described a rigorous process of selection, however, it must be said that its actual implementation is not rigid. Exceptions are made where there is some particularly interesting or important reason for including a record which does not meet the criteria. This could apply because a rare species has reappeared in a location from which it has been absent for some years, or where there has been a significant change in numbers or distribution in a population of a key species, or where an unusual variant of flower colour or some other feature has been observed, and so on.

The data and objectives of its publication

This introduction is followed by the list of eligible taxa and their tetrads described above. An exception is the genus *Rubus*, where many records surfaced after the analyses for this publication had been carried out. A separate account will be prepared for that genus and published in a later issue. The list here will henceforward be referred to as the *Record List*. It has the following objectives:

- To provide access to all available information on the tetrads in which each eligible taxon was recorded in the *Wiltshire Flora Mapping Project*. It is achieved by referring to the page in the 1993 Flora on which there is a distribution map for a taxon, or, where there is no distribution map for a taxon, listing the tetrads in which it was noted. The latter information is not in the Flora, only in the database, and its publication here is therefore a new contribution to the literature.
- To list all the tetrads additional to those in the 1993 Flora in which each eligible taxon has been recorded in *Wiltshire Botanical Society* records since the Flora (up to and including 2003).
- To enable comparisons to be made between the original Flora Mapping data and subsequent records.
- To provide a sort of "flora" for all the eligible taxa covering all records over the period from the early 80s to 2003.

The extent to which these objectives can be met is limited by the fact that the information represents only recorded additions to the distribution of each taxon covered; and that it is based on individual interests and targeted surveys, rather than on a systmatic study of the flora as a whole.

Understanding the list

The taxa are listed in alphabetical order by their scientific names. Space does not allow the inclusion of common names, except in the article on taxa not in the Flora. They can, however, be found in the 1993 Wiltshire Flora, in any of the floras by Stace (1993, 1997 or 1999) or, for alien species, in Clement and

Foster (1994). The data are presented as tetrad labels. The 1993 Flora did not use labels, since the tetrads were represented as dots on a map for some species and not given at all for others. In the *Wiltshire Flora Mapping Project*, tetrads were labeled by numbers and letters, but this information was not included in the Flora. This method is not used here, because it is felt that the list can be used in a more meaningful way if the labeling is based entirely on the national grid system. Each tetrad is, therefore, identified by its southwest component 1km square. For example, the tetrad labeled 5066 in the list includes the 1km squares 5066, 5067, 5166, and 5167. It is shown in bold in the illustrative diagram below.

5067	5167
5066	5166

The precise way in which the list is best used varies according to the treatment of each taxon in the Flora. This can be classified as follows:

- listed in the Flora with maps showing county-wide distribution (approximately 277 taxa);
- listed in the the Flora with no distribution map, either in the main part or in appendices and with mention of all or selected specific locations in some cases (approximately 582 taxa);
- not included in the Flora at all, ie. newcomers since then, though they may have been in earlier floras (approximately 175 taxa).

The recommended way of studying the Record List for each of these categories is given below. For systematic use, it is suggested that this page be copied and put beside whatever part of the Record List is being studied.

Taxa listed in the Flora with maps showing county-wide distribution. These are identified by having a 1993 Flora page number immediately following the name of the taxon (apart from an intervening asterisk in some cases). The page indicated has a distribution map, from which the tetrads in which it was recorded in the flora mapping can be observed with the aid of an overlay provided with the Flora. There follows:

- a list of all the tetrads in which the taxon has been recorded since the Flora Mapping up to 2003 inclusive, in numerical order, but separately for the national grid areas ST and SU;
- finally, after the letters **vc**, the vice-counties in which a taxon has been recorded, either before or after the Flora or both.

Taxa listed in the the Flora with no distribution map. The name (sometimes with an intervening asterisk) is followed by one of the following groups of letters:

- **slo** followed by a page number - the 1993 Flora mentions some specific localities on the page shown, but without identifying the tetrads;
- **nrif** - the 1993 Flora includes the taxon either in the main text or appendices, but mentions no specific localities.

These items are followed, in order, by:

- the tetrads (in square brackets) in which the taxon was recorded in the *Wiltshire Flora Mapping Project* (in numerical order, but separately for the national grid areas ST and SU);
- the tetrads (not in brackets) in which the taxon has been recorded since the Flora Mapping up to 2003 inclusive (in numerical order, but separately for the national grid areas ST and SU);
- after the letters **vc**, the vice-counties in which a taxon has been recorded, either before or after the Flora or both.

Taxa not included in the Flora. There are no Flora Mapping records for these, but there is information allowing a decision as to whether a taxon was known in Wiltshire in years before the Flora Mapping or whether it is completely new to the County. In the list, the name (sometimes with an intervening asterisk) is followed by one of the following groups of letters:

- **nif** - not in the 1993 Flora, nor in Grose's 1957 Flora, nor in Stearn's 1975 supplement;
- **nifg** - not in the 1993 Flora, but included in Grose's 1957 Flora;
- **nifs** - not in the 1993 Flora, nor in Grose's 1957 Flora, but included in Stearn's 1975 supplement.

These items are followed, in order, by:

- the tetrads in which the taxon has been recorded since the Flora Mapping up to 2003 inclusive (in numerical order, but separately for the national grid areas ST and SU);
- after the letters **vc**, the vice-counties in which a taxon has been recorded after the Flora Mapping.

Analyses in this publication

There are many ways in which the data presented here could be divided into units for analysis. In this issue, it is done mainly according to the method of treatment in the 1993 Flora. There are articles on taxa with distribution maps in the Flora, taxa in the the Flora with no distribution map, and taxa not included in the Flora. Portraits of particular plants or closely related groups of plants are included to help bring the data to life. Additionally there is an article focusing on the data for taxa designated as rare or scarce, both nationally and locally. Finally, the latest selection of records - for 2004 - is presented, taking us beyond the 1990-2003 era.

Future publication

There is almost endless scope for further analysis of the data on which this issue of the journal is based.

Hopefully, with the examples provided here to guide, potential authors will be inspired to submit further analyses of groups of plants which interest them, additional plant portraits or examination of particular recording or other issues. These could be published in later issues of the journal. Printouts of the data relevant to any topic can be supplied to help the process. The editor will be pleased to discuss any ideas for which potential contributors feel in need of encouragement or help.

Acknowledgements

Firstly, it needs to be pointed out that the data on which this issue is based derive from the work of many people - Wiltshire Botanical Society members and others. This is one reason why the constituent articles are not attributed to individual authors. Particular individuals have, however, contributed to the writing. Apart from the editor, these have included Jack Oliver, who provided many of the plant portraits, and Sharon Pilkington, whose writing and data have formed the basis of the article on rare taxa. Helpful information on some of the taxa not in the Flora was provided by Eric Clement. Many thanks to them and to all others whose work has contributed to the overall result.

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The next issue

Articles are invited for the next issue, either on the same theme as for this issue or on other topics. They should be submitted to John Presland, 175c Ashley Lane, Winsley, Bradford-on-Avon, Wiltshire BA15 2HR. He will also be pleased to discuss proposed articles informally (Tel: 01225 865125). A leaflet is available offering guidance to authors on the most helpful form in which to submit articles

AFTER THE WILTSHIRE FLORA

2. LIST OF ELIGIBLE TAXA AND THEIR TETRADS

Henbane *(Hyoscyamus niger)*

Key to the list entries

In the list below, all taxa selected for publication (except *Rubus* species) are listed alphabetically, with all the tetrads in which they have been recorded after Flora Mapping for the 1993 Flora and up to the end of 2003. A fuller explanation is given in the introduction. A key to the entries is provided below:

- ***** indicates not native to Wiltshire, the judgement being based on entries in the 1993 Flora and information in Stace - other sources disagree in some cases;
- **A page number on its own** shows the location of the distribution map in the Flora;
- **slo** - Flora mentions some specific localities, but without identifying the tetrads;
- **A page number following slo** is for specific localities mentioned;
- **nrif** - the 1993 Flora includes the taxon either in the main text or appendices, but mentions no specific localities;
- **nif** - not in the 1993 Flora, nor in Grose's 1957 Flora, nor in Stearn's 1975 supplement;
- **nifg** - not in the 1993 Flora, but included in Grose's 1957 Flora;
- **nifs** - not in the 1993 Flora, nor in Grose's 1957 Flora, but included in Stearn's 1975 supplement
- **[ ]** - (For taxa without a distribution map in the 1993 Flora) Tetrads in which the taxon was recorded in the Wiltshire Flora Mapping Project (WFMP) for the 1993 Flora (in numerical order, but separately for ST and SU 100km squares);
- **Tetrad references not in brackets** are all the new tetrads in which the taxon has been recorded since the Flora Mapping up to 2003 inclusive, and are in numerical order, but separately for ST and SU 100 km squares;
- after the letters **vc**, the vice-counties in which there is a record for a taxon either before or after the 1993 Flora or both.
- **nmr** means there's no map reference for the record.

The list

Abies cephalonica * nif SU 0638, vc8
Abutilon theophrasti * nrif [ST 8068, SU 3880], vc7
Acer macrophyllum * nif ST 9418, vc8
Acer platanoides * p226, vc78
Aceras anthropomorphum slo p362 [SU 0418] ST 9052, vc8
Aconitum napellus ssp. napellus p136 [ST 8058, 8076, 8256, 8276, 8452, 8472, 9234, 9648, 9662, SU 0288, 0626, 1446, 2050, 2466] SU 0478, 9434, vc78
Acorus calamus * slo p307 [ST 97, 9860] ST 8042, vc78
Adiantum capillus-veneris slo p124 [SU 0858], vc78
Adonis annua * p139 SU 1422, 1434, vc78
Aesculus carnea * nrif [SU 1670, 1680] SU 2662,

vc78
Ageratum houstonianum * nrif [ST 9250], vc8
Agrimonia procera slo p195 [ST 8868, 9054, 9426, 9426, SU 1222, 1266, 1454, 1456, 1458, 1462, 1464, 1652, 1844, 1846, 1848, 1852, 1856, 2026, 2030, 2044, 2046, 2060, 2068, 2226, 2228, 2286, 2420, 2422, 2428, 2458, 2466, 2622, 2664, 2664, 2818] SU 1022, 1222, 2066, 2238, 2264, 2266, 2420, 2470, 2618, 2862, vc78
Agrostemma githago * slo p156 [ST 8650] ST 8260, 8656, SU 1284, vc78
Agrostis castellana * nif SU 1218, vc8
Agrostis curtisii p340, vc8
Agrostis gigantea p337 SU 1466, 1868, 2064, 2618, vc78
Ailanthus altissima * nif ST 9272, vc7
Aira caryophyllea p337 SU 0026, vc78
Aira praecox p337 ST 8442, SU 2462, 2618, vc78
Alcea rosea * nrif [SU 0886, 1880], vc7
Alchemilla filicaulis ssp. vestita p199 [this map includes many records listed only as agg. in WFMP] ST 8282, SU 2268, 2662, 2672, vc78
Alchemilla mollis * nif SU 1268, 1466, 1868, vc7
Alchemilla vulgaris agg. nif [but lots of records in WFMP, all included in p191 Flora map for A. filicaulis ssp. vestita] ST 9630, SU 2026, vc78
Alisma lanceolatum slo p302 [ST 8060, 8862, 9892], vc78
Allium aflatunense * nrif [SU 3270], vc7
Allium carinatum * nrif [ST 8060], vc7
Allium nigrum * nif SU 3270, vc7
Allium oleraceum slo p350 [ST 9864], vc7
Allium paradoxum * slo p350 [ST 9658, 9858, SU 0676] ST 8668, 9484, SU 1670, vc78
Allium schoenoprasum * nrif [ST 9862, SU 1868, 2670] ST 8060, SU 1266, 1468, vc78
Allium sphaerocephalon * nif SU 1868, vc7
Allium triquetrum * nifs SU 2428, vc8
Alnus incana * slo p148 [ST 9856, 9858, 9862, 9892, SU 1484] SU 1460, vc78
Alnus viridis * nif SU 1868, vc7
Alopecurus aequalis nifg SU 2274, vc7
Althaea hirsuta * nrif [SU 1868, 2818], vc8
Amaranthus albus* nif SU 2218, vc8
Amaranthus retroflexus * slo p151 [SU 0230, 0824] SU 1868, vc78
Ambrosia artemisiifolia* nifg ST 8650, SU 0638, 1430, 2872, vc78
Ammi majus * nrif [ST 8880, SU 0230], vc78
Amsinckia micrantha * p245 ST 9468, SU 1688, vc78
Anagallis arvense ssp. caerulea slo p185 [ST 8070, SU 2060] SU 1028, 1060, 1688, 2218, 2260, vc78
Anagallis tenella p187 ST 9470, SU 2220, vc78
Anaphalis margaritacea * nrif [ST 9092] SU 2224, vc8
Anchusa arvensis p245 SU 1688, 2218, 2260, vc78
Anchusa azurea * nifg SU 0636, 1234, vc8
Anchusa officinalis * slo p243 [SU 0236, 0834, 0836, 0846, 1074, 2420], vc78
Anemone blanda * nrif [ST 9292, SU 1892], vc7
Antennaria dioica * nifg SU 0418, vc8
Anthemis arvensis slo p295 [ST 9858, SU 0046, 2030], vc8
Anthemis cotula p298 ST 9216, 9418, 9818, SU 0620, 0816, 1018, 1422, 2224, vc78
Anthemis tinctoria * nrif [SU 2818], vc8
Anthriscus caucalis slo p230 [SU 0638, 1026], vc8
Antirrhinum majus * nrif [ST 8452, 8884, SU 0054, 0274, 0486, 0834, 0886, 1074, 1230, 1430, 1460, 1680, 2218] ST 9272, SU 1868, 2462, 2650, vc78
Apera spica-venti p340, vc78
Aphanes inexspectata p199 ST 9634, SU 0616, 0816, 1482, vc78
Apium graveolens slo p234 [ST 9456, 9656], vc8
Apium inundatum slo p234 [SU 2018, 2216, 2226, 2264], vc78
Aquilegia vulgaris p139 ST91, SU 0238, 0614, 0616, 0814, 1066, 1466, 1468, 1668, 2034, 2064, 2268, vc78
Arabis glabra slo p176 [ST 9666], vc7
Arabis caucasica * nif ST 8060, SU 1268, vc78
Arabis hirsuta p177 ST 7836, 8234, 8244, vc78
Araucaria araucana * nif SU 1466, 2464, vc7
Aristolochia clematitis * nrif [SU 1226], vc8
Arrhenatherum elatius ssp. bulbosum nrif [ST 8428, SU 1660, 2416, 2418, 2618, 2814, 2816, 2818, 3270] SU 1468, vc8
Artemisia absinthum * slo p295 [ST 8078, 8272, 8858, 9694, SU 0094, 2668], vc78
Arum italicum * slo p307 [ST 8884, SU 1868] SU 1466, vc7
Asarina procumbens * slo p261 [SU 1230], vc8
Asarum europaeum slo p131 [ST 9824, SU 1820] SU 2020, vc8
Asparagus officinalis * nrif [ST 8658, SU 0430, 1482, 1484], vc78
Asplenium adiantum-nigrum p125 ST 8652, SU 0022, 0692, 2026, 2266, 2450, 2426, 2650, vc78
Aster laevis * nrif [Treated as agg.]
Aster lanceolatus * nrif [No confirmed records] ST 9072, 9082, 9268, 9860, 9870, SU 0466, 0624, SU 0638, 0844, 1060, 1226, 1268, 1430, 1446, 1460, 1482, 1660, 1634, 1646, 1668, 1836,1868, 1870, 1872, 2024, 2038, 2040, 2046, 2048, 2058, 2238, 2244, 2246, 2248, 2608, 2650, 4278, vc78
Aster novi-belgii * nrif [Treated as agg.]
Aster x salignus (A. lanceolatus x A. novi-belgii) * nif ST 8068, 8258, 8260, 8456, 9870, SU 0036, 0644, 1058, 1060, 1430, 1444, 1446, 1460, 1482, 1638, 1660, 1668, 1826, 1868, 1870, 1874, 2040, 2238, 2242, 2244, 2248, 2448, 2450, 2650, vc78
Aster schreberi * nrif [Treated as agg.]
Aster x versicolor (A. laevis x A. novi-belgii) * nrif [Treated as agg.] ST 8258, 8456, SU 0246, 0638, 1060, 1430, 1642, 1680, 1868, 1882, 2024, 2040, 2238, vc78
Astragalus danicus slo p202 [SU 1436, 1846, 1848, 2044, 2048] SU 1844, vc8
Astragalus glycophyllos slo p202 [ST 7860, 8472,

9630, SU 1078, 2430] ST 9876, vc78
Atriplex hortensis * nrif [SU 0236], vc8
Atropa belladonna p241 ST 7860, SU 2040, 2238, vc78
Aubrieta deltoides * nrif [ST 8680, SU 0886, 1868], vc7
Avena sativa * nrif [SU 0056, 0644, 1070, 1678], vc78
Avena sterilis ssp. ludoviciana * nrif [SU 1070, 1426, 1690, 2090], vc78
Azolla filiculoides * p133 ST 8484, 8486, 9064, 9486, SU 0084, 0284, 2260, 2260, vc78
Bambusoideaea spp. * nrif [SU 3270], vc7
Barbarea stricta slo p173 [SU 1878], vc7
Barbarea intermedia * slo p173 [SU 0652, 0654, 1466, 1832, 2614] SU 0616, 0812, 1824, 2036, vc78
Barbarea verna nifg ST 8060, SU 2818, vc78
Berberis darwinii * nif ST 9272, vc7
Berberis vulgaris p143 SU 0694, 1468, hedge nr Standlynch nmr, vc78
Berula erecta p233 ST 8652, SU 1228, 1668, vc78
Beta vulgaris * nrif [SU 1070, 2274], vc7
Betula x aurata (B. pendula x B. pubescens) slo p146 [SU 0688], vc7
Betula pubescens ssp. pubescens p150 ST 8856, 9418, 9618, SU 0616, 1468, 2268, vc78
Bidens cernua p301 ST 8042, SU 1232, 1428, 2264, vc78
Bidens pilosa * nif ST 8060, vc7
Bidens tripartita p301 SU 1428, 1682, 3018, vc78
Blackstonia perfoliata p241 ST 8060, 8066, 9888, SU 0238 2048, 2276, vc78
Blechnum spicant p133 ST 8042, 8442, SU 0484, 1856, 2422, 2662, 2862, vc78
Blysmus compressus slo p316 [ST 8274, 8674, SU 0292, 2870], vc7
Bolboschoenus maritimus * slo p315 [ST 9874], vc78
Borago officinalis * nrif [ST 8064, 8478, 8654, 8664, 8824, 9058, 9260, 9656, 9886, SU 0264, 0286, 0656, 1236, 1252, 2676] SU 0262, 2040, 2852, vc78
Botrychium lunaria slo p123 [SU 0686], vc78
Brassica rapa ssp. rapa slo p179 [recorded just as B. rapa: ST 7660, 8040, 8060, 8074, 8076, 8078, 8260, 8880, 9048, 9060, 9076, 9224, 9268, 9424, 9434, 9672, 9678, 9694, SU 0038, 0238, 0262, 0626, 0656, 0894, 1064, 1070, 1088, 1252, 1254, 1266, 1454, 1468, 1476, 1494, 1654, 1668, 1860, 1864, 2024, 2042, 2268, 2274, 2278, 2454, 2478, 2870, 2872, 3066], vc78
Brassica nigra p181 vc78
Briza maxima nifg SU 1668, 1878, vc7
Briza minor * nifg SU 2222, vc8
Bromopsis inermis * slo p341 [ST 8274, 8280, 8482, 9068, 9078, 9082] SU 0816, 1230, vc78
Bromus commutatus p340 ST 9866, SU 0894, 1668, 1680, 2448, vc78
Bromus hordeaceus ‘longipedicillatus’ nif ST 8838, vc8
Bromus lepidus slo p339 [ST 9050], vc8
Bromus x pseudothominei (B. hordeaceus x B. lepidus) slo p339 [SU 0688, 0824, 0864, 1270, 1470], vc78
Bromus racemosus p340, vc78
Bromus secalinus * slo p339 [SU 1294] SU 8886, vc7
Brunnera macrophylla * nif ST 7860, vc7
Buddleja globosa * nif ST 9866, vc7
Bupleurum rotundifolium nifg [but SU 0858 in records - may have been suspicion it was really B. subovatum], vc8
Bupleurum subovatum * nrif [ST 8880], vc7
Butomus umbellatus p304 ST 8456, 8644, 8656, SU 0454, 1428, vc78
Calamagrostis epigejos p340 ST 8446, 8656, 9418, 9618, SU 1830, 2026, 2228, vc78
Calendula arvensis * nrif [SU 0834], vc8
Calendula officinalis * nrif [ST 8452, SU 1468, 1680, 2032] SU 1266, vc78
Callitriche brutia slo p257 [SU 2816], vc8
Callitriche hamulata slo p257 [ST 7634, 9438, 9830, SU 0030, 0268, 1254, 2020, 2216, 2422, 2814, 2818, 2820], vc78
Callitriche hermaphroditica slo p256 [SU 2018], vc8
Callitriche obtusangula slo p257 [ST 9438, SU 0036, 0052, 0236, 0834, 0894, 1228, 1254, 1620, 1632, 1634, 2226] SU 0868, 1428, 1468, 2068, 2268, 2426, 2670, 2870, vc78
Callitriche platycarpa slo p257 [ST 8862, SU 0236, 0636, 0638, 0832, 2428, 2616] ST 9640, SU 0868, 1468, 2068, 2670, 2870, vc78
Calluna vulgaris p184 ST 8442, SU 0422, vc78
Calystegia x lucana (C. sepium x C. silvatica) * nif SU 1668, vc7
Calystegia pulchra * slo p240 [SU 1868] SU 1466, vc78
Calystegia silvatica * nrif [ST 7838, 8062, 8068, 8262, 8456, 8488, 8626, 8652, 8660, 8660, 8664, 8674, 8676, 8826, 8862, 9026, 9074, 9228, 9260, 9262, 9268, 9460, 9660, 9660, 9862, 9872, 9874, SU 0052, 0064, 0252, 0258, 0262, 0266, 0274, 0274, 0284, 0654, 0854, 0858, 0874, 1030, 1070, 1230, 1234, 1236, 1298, 1430, 1468, 1638, 1668, 1680, 1844, 1868, 1870, 1876, 2028, 2292, 2466, 2666, 6056] SU 1268, 1428, 1466, 2068, 2428, 2650, vc78
Campanula latifolia * slo p270 [SU 0294, 0688, 2250], vc78
Campanula patula slo p270 [ST8488], vc7
Campanula persificolia * nrif [ST 9852, SU 1074, 1484] SU 1868, vc78
Campanula portenschlagiana * nif ST 7860, 8060, SU 1066, 1282, 1466, vc78
Campanula poscharskyana * nrif [SU 1868] ST 8260, SU 1466, 1668, vc7
Campanula rapunculoides * nrif [SU 0262, 2040] SU 1484, vc78
Cannabis sativa * nif SU 2024, vc8
Cardamine bulbifera slo p175 [ST 9270] SU 0062, vc7
Cardamine impatiens nif ST 7432, vc8
Carduus tenuiflorus slo p281 [SU 1632], vc8

Carex acuta p327 SU 1680, vc7
Carex binervis slo p322 [ST7434, 7634, 8242, SU 2018, 2020, 2216, 2218, 2416, 2418] ST 8442, 8876, 9416, 9480, vc78
Carex curta slo p319 [SU 2818] SU 2616, 2618, vc8
Carex digitata slo p323 [ST 8278, 8474], vc78
Carex distans p324, vc78
Carex disticha p321 ST 9692, 9878, SU 0816, 0814, 1090, vc78
Carex divulsa ssp. leersii nif ST 7860, SU 0616, 0814, 0816, 1426, 1466, 2020, 2022, 2220, vc78
Carex echinata slo p319 [ST 7432, 7840, 8442, 9228, 9252, 9428, 9452, 9858, SU 0834, 1646, 1742, 1826, 2018, 2020, 2026, 2220, 2222, 2264, 2418, 2616, 2618, 2620, 2814, 2816, 2818, 2820, 2852, 2870], vc78
Carex filiformis slo p323 [SU 0092, 0292], vc7
Carex x grossii (C. hirta x C. vesicaria) nif SU 0816, vc8
Carex hostiana slo p322 [SU 0292, 0294, 3270], vc7
Carex humilis p 324 ST 9418, SU 0818, 2034, vc8
Carex laevigata slo p320 [ST 7432, 9466, 9830, SU 2018, 2020, 2028, 2216, 2218, 2220, 2416, 2420, 2620] ST 9480, vc78
Carex muricata slo p317 [ST 9468, SU 2620, 2818, 2820], vc78
Carex ovalis p321 ST 8830, SU 0490, 1660, 2820, 3664, vc78
Carex pallescens p324 SU 2026, SU 0816, 2230, 2238, 2262, 2662, vc78
Carex panicea p324 SU 0616, 0812, vc78
Carex paniculata p318 SU 3040, vc78
Carex pilulifera p324 ST 8260, 8442, 9226, 9480, 9634, SU 0616, 2274, 2466, 2662, vc78
Carex x pseudoaxillaris (C. otrubae x C. remota) nif SU 1680, vc7
Carex pseudocyperus p321 ST 7632, 9284, SU 0496, vc78
Carex pulicaria p327, vc78
Carex rostrata slo p320 [SU 0858, 1660, 2020, 2870] SU 2618, vc78
Carex strigosa p324 ST 7830, SU 0076, 0816, 2428, vc78
Carex viridula ssp. brachyrrhyncha slo p322 [ST 7862, 8070, 8880, SU 0292, 0494, 0816, 1834], vc78
Carex viridula ssp. oedocarpa p324, vc78
Carex viridula ssp. viridula nif ST 8442, vc8
Carum carvi * slo p235 [ST 8456, SU 1484, 3072], vc78
Catabrosa aquatica slo p330 [ST 8682, SU 0684, 1822, 2422] SU 0244, 1268, 1628, vc78
Catapodium rigidum p331 ST 8260, vc78
Centaurea cyanus p290 ST 8442, SU 1286, 2442, 3062, vc78
Centaurea montana * nrif [SU 0052, 0654, 1480, 1660, 1680, 2076, 2078, 2268] SU 1466, 1868, vc78
Centaurea nigra white form p285 nrif SU 0092, vc7
Centaurium pulchellum slo p237 [ST 8272, 8472, 8870, SU 0294] ST 8060, 9434, SU 0286, 0288, 0422, 0488, 2050, 2430, vc78
Centranthus ruber * p280 SU 2222, vc78
Cephalanthera damasonium p356 ST 8058, SU 1278, 1428, 1624, 2036, 2430, 2438, 2448, vc78
Cephalaria gigantea * nif SU 1468, vc7
Cerastium arvense p153 SU 2234, vc78
Cerastium diffusum slo p154 [SU 0862, 1062] SU 2034, vc78
Cerastium pumilum slo p154 [SU 1062], vc7
Cerastium semidecandrum slo p154 [SU 0034, 0046, 0454, 0864, 1482, 2050], vc78
Cerastium tomentosum * nrif [ST 8680, 9066, 9266, SU 0838, 1066, 1074, 1434, 1680, 1878, 1880, 2090] ST 8060, 9670, SU 1266, 1460, vc78
Ceratocapnos claviculata p143, vc78
Ceratochloa carinata * p343, vc8
Ceratophyllum demersum p133 ST 9064, SU 0830, 1682, 2274, vc78
Chaerophyllum aureum * nif ST 8060, vc7
Chamaecyparis lawsoniana * nrif [ST 7838, 9638, SU 0060, 0872, 1466] SU 1660, 2428, 2448, vc78
Chamaemelum nobile slo p295 [SU 2614, 2616, 2618, 2814, 2816, 2818], vc8
Chara globularis sensu strictu nif SU 1868, vc7
Chara vulgaris nif ST 9040, SU 1868, vc78
Chara vulgaris ssp. vulgaris nif ST 9040, SU 2268, 2862, vc8
Chara vulgaris var. longibracteata nif SU 2862, vc8
Chenopodium bonus-henricus slo p148 [ST 7860, 7862, 8060, 8068, 8260, 8462, 8466, 8656, 8864, 9052, 9056, 9064, 9086, 9224, 9226, 9228, 9250, 9252, 9258, 9424, 9426, 9648, 9658, 9856, SU 0052, 0066, 0236, 0238, 0256, 0258, 0260, 0456, 0458, 0480, 0658, 1040, 1230, 1292, 1428, 1446, 1620, 1626, 1644, 1860, 2018, 2020, 2022, 2026, 2060, 2090, 2282, 2282, 2424, 2426, 2460, 2624, 2674, 3052], vc78
Chenopodium ficifolium p150 ST 9850, Dinton nmr, SU 0030, vc78
Chenopodium hybridum * slo p149 [ST 8652, 9860, SU 0236, 0836, 1036, 1038, 1230, 1430, 1438, 1628, 1634, 1852], vc78
Chenopodium murale slo p149 [ST 9030, 9630], vc78
Chionodoxa forbesii * nif SU 1634, vc8
Chrysanthemum segetum * p298 ST 9216, 9418, SU 1468, 1660, 1826, 3020, 3062, vc78
Chrysosplenium alternifolium slo p189 [ST 7632, 9028, 9468, 9664, SU 0030, 1868], vc78
Cicerbita bourgaei * nrif [ST 9890] vc7
Cicerbita macrophylla ssp. uralensis * slo p287 [ST 9052, 0236, 0644, 0670, 1224, 1430, 1466, 1470, 1470, 1668, 1676, 1680, 1870, 1878, 1878, 1880, 2474, 2676, 8454, 9054, 9228, 9426, 9428, 9648, 9648, 9828, 9882 SU 0224, 0680, 0826, 0878, 1668, 1868, 2264] SU 0438, 1426, vc78
Cichorium intybus p290 SU 0030, 1446, vc78
Cirsium acaule var. caulescens nifg SU 1232, 2050, vc7
Cirsium dissectum p284 ST 8442, 9450, SU 0282, 0286, 1058, 1090, vc78

Cirsium heterophyllum * slo p282 [ST 9022], vc8
Cirsium x medium (C. tuberosum x C. acaule) slo p282 [ST 8234, 9030, 9048, 9050, 9246, 9250, 9436, 9448, SU 0064, 0468, 0862, 1062, 1068, 1262], vc78
Cirsium x semidecurrens (C. tuberosum x C. palustre) slo p282 [No precise records - just ST93], vc8
Cirsium tuberosum slo p83 and 282 [ST 8234, 8848, 9036, 9048, 9050, 9246, 9248, 9250, 9448, 9450, SU 0034, 0220, 0468, 1026, 1062, 1262] SU 0036, 2050, vc78
Cladium mariscus * slo p316 [SU 0094], vc7
Claytonia sibirica * slo p151 [SU 0234, 1680, 3062] SU 1826, vc78
Clematis x jackmanii * nrif [SU 1880], vc7
Clinopodium acinos p254 ST 8060, SU 2236, vc78
Clinopodium ascendens p254 ST 9086, vc78
Cochlearia danica * nif ST 8232, 87 (M4), 9076, 9232, 9234, 97 (M4), SU 0868, 1040, 1076, 1218, 1624, 1626, 1642, 1868, 1886, vc78
Cochlearia officinalis * nif SU 1880, vc7
Coeloglossum viride p360 ST 9218, SU 0422, 2034, 2050, 2092, vc78
Colchicum autumnale p347 ST 7634, 9636, 9692, SU 2268, 2468, vc78
Conringia austriaca * nif SU 0614, vc8
Consolida ajacis * slo p134 [ST 7858, 8470, 9068, 9862, SU 0834, 1024, 1460, 1630, 1830, 2234, 2236, 2240, 2426], vc78
Convallaria majalis p347 SU 1868, 2230, 2430, vc78
Conyza canadensis * p294 ST 7860, 8060, 9018, 9062, 9272, SU 1228, 1268, 1286, 1868, 1876, 2276, vc78
Coriandrum sativum * nifg SU 1428, vc8
Cornus mas * nrif [ST 8890, 9084], vc7
Cornus sericea * nrif [SU 1868] ST 7634, 9272, SU 0470, 1072, 1468, 1680, 1880, vc78
Coronopus didymus * p181 ST 8060, SU 1016, 1468, 1668, 1868, 2284, 2472, vc78
Corydalis solida * nrif [SU 1466], vc7
Cotoneaster bullatus* nif SU 1228, 1268, 1282, vc78
Cotoneaster franchetii * nrif [SU 1868], vc7
Cotoneaster frigidus * nrif SU 1668 [ST 9068], vc7
Cotoneaster horizontalis * slo p201 [ST 7632, 8268, 9242, SU 1440, 2072] ST 8860, 9072, SU 0456, 0474, 1268, 1282, 1868, vc78
Cotoneaster integrifolius * slo p201 [ST 9440, 9838] SU 1682, vc78
Cotoneaster salicifolius * nif SU 1868, vc7
Cotoneaster simonsii * p203 SU 1464, 2026, vc78
Cotoneaster sternianus * nif ST 7860, 8242, 9272, SU 1282, 1868, 2478, vc78
Cotoneaster x watereri (C. frigidus x C. salicifolius)* nif SU 1228, vc8
Crassula helmsii * slo p186 [ST 8060, 9484, SU 1426, 1680, 2050, 2818] SU 1682, 2266, vc78
Crataegus laciniata * nif SU 1866, vc7
Crataegus laevigata p203, vc78
Crataegus x macrocarpa = x media (C. monogyna x C. laevigata) slo p202 [ST 8466, 9892, SU 0880, 1490], vc7
Crepis biennis * slo p288 [ST 8230, 8432, 8440, 8454, 8474, 8476, 8482, 8640, 8654, 8834, 8838, 8844, 8882, 9024, 9028, 9036, 9052, 9054, 9070, 9228, 9270, 9282, 9448, 9454, 9458, 9652, 9820, 9844, SU 0030, 0054, 0056, 0238, 0258, 0284, 0434, 0436, 0488, 0828, 0832, 0834, 0836, 1054, 1250, 1278, 1454, 1646, 1652, 1654, 1656, 1658, 1842, 1846, 1852, 1856, 2022, 2024, 2048, 2220, 2222, 2238, 2248, 2260, 2428, 2432, 2456, 2458, 2460, 2852, 2854, 2864, 2872] SU 2448, vc78
Crocosmia x crocosmiflora (C. pottsii x C. aurea) * nrif [ST 9898, SU 0250, 1460, 1680, 2026, 2228, 2232, 2264, 2868, 2876] SU 2066, vc78
Crocosmia paniculata * nif SU 0638, vc8
Crocus flavus * nrif [SU 1230], vc8
Crocus nudiflorus * nrif [SU 1074], vc7
Crocus tommasinianus * nif ST 8060, SU 1868, vc7
Crocus vernus * nif SU 1868, vc7
Cruciata laevipes p278 SU 2034, vc78
Cuscuta campestris * nif SU 1630, vc8
Cuscuta epithymum p241 SU 0440, 0448, 2026, 2048, vc78
Cuscuta europaea p241, vc7
Cyclamen hederifolium * nrif [SU 1074] ST 8656, SU 1462, vc78
Cyclamen repandum * nrif [SU 0032], vc8
Cydonia oblonga * slo p198 [SU 3270], vc7
Cynoglossum officinale p248 ST 9624, SU 0224, 2244, 2446, 2448, vc78
Cyperus eragrostis * nrif [SU 2082], vc7
Cyperus longus * slo p316 [ST 8660, 9024, 9896, SU 0294, 0468, 2226] SU 1228, 1632, vc78
Cystopteris fragilis slo p127 [ST 8262, 9068, 9272, SU 0030, 0060], vc78
X Dactylodenia st-quintinii (Gymnadenia conopsea x Dactylorhiza fuchsii) slo p358 [SU 0266, 1236], vc78
Dactylorhiza x grandis (D. fuchsii x D. praetermissa) p360, vc78
Dactylorhiza incarnata p360 ST 8644, SU 0092, 0292, 1030, 1220, 1428, vc78
Dactylorhiza incarnata ssp. pulchella nif SU 0496, 0894, vc7
Dactylorhiza maculata p360 SU 0286, 0290, vc78
Dactylorhiza praetermissa p363 ST 8640, SU 0484, 0496, 0816, 1428, 1660, 2050, 2068, vc78
Dactylorhiza praetermissa ssp. juniales nifg ST 8640, vc8
Danthonia decumbens p343, vc78
Daphne x burkwoodii (D. caucasia x D. cneorum) * nif SU 1488, vc7
Daphne laureola p217 ST 8060, 9418, 9684, 9692, 9886, SU 0286, 0484, 1824, 2818, vc78
Daphne mezereum slo p216 [ST 8882, SU 3270], vc7
Datura stramonium * slo p239 [ST 8844, 9820, SU 1448, 2040, 3072] ST 8244, SU 0636, 2260, vc78
Delphinium spp. * nrif [ST 8844, 9820, SU 1448, 2040, 3072], vc78
Deschampsia flexuosa p337 ST 9418, vc78
Descurainia sophia * nrif [SU 1444], vc8
Dianthus armeria nifg SU 0650, vc8

Dianthus deltoides slo p158 [Flora record overruled] SU 1848, vc8
Digitalis lutea * slo p264 [ST 9638], vc8
Digitaria sanguinalis * nrif [ST 8658], vc8
Diplotaxis muralis * p181 SU 0060, vc78
Diplotaxis tenuifolia slo p179 [ST 8062, SU 0234, 1430, 1482, 1484], vc78
Dipsacus pilosus p280, vc78
Doronicum pardalianches * slo p299 [ST 8660, SU 0054, 0060, 0062, 0688, 0846] ST7860, 9230, 9228, SU 1286, 1630, 2022, vc78
Draba muralis slo p176 [ST 9090] SU 0826, vc78
Drosera rotundifolia p167, vc8
Drosera intermedia slo p166 [ST 8654, 9024, 9226, 9426, 9468, 9628, SU 0086, 0088, 0286, 0288, 2018, 2416, 3062, 2418, 2614], v78
Dryopteris aemula slo p128 [SU 2220], vc8
Dryopteris affinis agg. p129 ST 8442, 9216, 9418, 9618, SU 0614, 0814, 2026, 2034, 2066, 2264, 2464, 2662, Porton Thorney Down no mr, vc78
Dryopteris affinis ssp. afffinis nrif [Recorded only as agg.] SU 0614, 0616, 0814, 0816, 2026, 2068, 2424, 2464, vc78
Dryopteris affinis ssp. borreri nrif [Recorded only as agg.] SU 0614, 0616, 0814, 2424, vc8
Dryopteris carthusiana p129 ST 8442, SU 2026, 2226, 2264, 2464, 2472, vc78
Dryopteris x complexa (D. affinis x D. filix-mas) nif SU 2662, vc8
Dryopteris x mantoniae (D. filix-mas x D. oreades) nif ST 9418, vc8
Duchesnia indica * slo p193 [ST 7860] SU 1466, vc7
Eccremocarpus scaber * nif SU 1868, 2218, vc7
Echinochloa crusgalli * slo p344 [ST 8880, 9258, 9858, SU 1868] SU 1430, vc78
Echinops sphaeocephalus * nrif [SU 1230, 1844, 1876], vc78
Eleocharis acicularis slo p313 [ST 9282, SU 0292, 0294, 2816], vc78
Eleocharis multicaulis slo p313 [SU 2418, 2618, 2814, 2816, 2818], vc8
Eleocharis quinqueflora slo p313 [SU 0292] SU 2816, vc78
Eleocharis uniglumis p318, vc78
Eleogiton fluitans slo p316 [SU 2216, 2814, 2816, 2818], vc8
Elodea canadensis * p304 SU 2068, 2670, vc78
Elodea nuttallii * p304 SU 1282, 2066, 2428, vc78
Elytregia repens var. aristata (the common form) nif SU 2068, vc7
Epilobium lanceolatum slo p216 [ST 7632, 9828, SU 1270, 2026, 2868], vc78
Epilobium obscurum nrif [ST 7434, 7634, 8458, 8652, 8664, 8824, 8860, 9028, 9030, 9042, 9052, 9258, 9272, 9630, 9652, 9692, 9854, 9858, SU 0062, 0092, 0256, 0644, 0858, 1014, 1060, 1074, 1254, 1262, 1268, 1270, 1276, 1298, 1358, 1460, 1466, 1468, 1470, 1478, 1678, 1680, 1826, 1836, 1870, 1876, 2024, 2028, 2084, 2220, 2420, 2422, 2454, 2614, 2664, 2816, 2818] SU 1866, 1868, 1880, 2276, vc78
Epilobium palustre p220 SU 0624, vc78
Epilobium roseum slo p218 [ST 7432, 7838, 8656, 8666, 8827, 8858, 8862, 8868, 8880, 8882, 9036, 9058, 9232, 9236, 9448, 9630, 9654, 9670, 9688, 9854, 9856, 9858, 9860, SU 0030, 0054, 0060, 0230, 0232, 0260, 0280, 0430, 0460, 0656, 0830, 1028, 1060, 1226, 1228, 1424, 1426, 1428, 1454, 1620, 1624, 1628, 1634, 1652, 1668, 1680, 1820, 1826, 1828, 1860, 2024, 2028, 2082, 2084, 2264, 2420, 2664, 2862] ST 9832, vc78
Epipactis helleborine p356 ST 8060, SU 2430, 2674, vc78
Epipactis leptochila slo p354 [SU 2230] SU 0018, vc78
Epipactis palustris slo p354 [SU 0266] ST 9470, 0496, vc7
Epipactis phyllanthes slo p354 [ST 9032, 9452, SU 0236, 1230, 2264, 2266, 2814, 3070] SU 0438, 0638, 1228, 1428, 1660, vc78
Epipactis purpurata p356 ST 8656, SU 0076, 2464, 2644, vc78
Epipactis purpurata var. chlorotica slo p354 [ST8488, 9268, 9470, 9692, SU 0088, 0092, 0288, 0478, 0678, 0686, 2264, 2266], vc7
Equisetum fluviatile slo p125 [ST 7634, 8430, 8458, 8459, 8466, 8470, 8474, 8642, 8660, 8844, 8880, 9044, 9258, 9268, 9452, 9462, 9466, 9468, 9474, 9476, 9672, 9860, 9874, 9876, 9886, 9888, SU 0030, 0036, 0062, 0080, 0088, 0230, 0236, 0258, 0280, 0292, 0292, 0458, 0462, 0488, 0560, 0638, 0658, 0662, 0676, 0858, 0880, 0894, 1014, 1060, 1082, 1286, 1288, 1450, 1458, 1460, 1468, 1488, 1644, 1660, 1682, 1834, 1836, 1858, 1860, 1880, 2018, 2020, 2062, 2218, 2220, 2268, 2470, 2670, 2870, 3066, 3070] SU 2820, vc78
Equisetum sylvaticum slo p123 [ST 7432, 7634, SU 0258], vc8
Eranthis hyemalis * slo p132 [ST 8468, 9484, 9882, SU 0050, 0052, 0096, 0420, 0840, 0856, 1254, 1658, 1892, 2096, 2240] SU 1460, 1668, 1868, vc78
Erica tetralix p184 SU 2428, vc8
Erica cinerea p184 ST 8442, vc8
Erigeron acer p294 ST 9082, SU 0496, 1228, 2024, 2478, 2650, vc78
Erigeron karvinskianus * nrif [ST 8060] ST 8260, 9272 SU 0060, vc7
Eriophorum angustifolium p314, vc78
Erinus alpinus * nrif [ST 8666, 9668], vc7
Erodium cicutarium p229 SU 2820, vc78
Erophila glabrescens nrif [agg. only] SU 2616, vc8
Erophila majuscula nrif [agg. only]
Erophila verna s.l. nrif (must mean agg., as in Flora) [agg. only] SU 1868 ST 9428 SU 1282, 1426, 2466, 2616, vc78
Erophila verna s.s. nrif [agg. only]
Erophila verna var. praecox nrif [agg. only]
Eruca vesicaria * nif ST 8460, vc7
Erucastrum gallicum * p181 SU 0248, 1838, 2034, 2448, vc8

Eryngium campestre nifg SU 1432, vc8
Erysimum cheiranthoides * slo p172 [ST 7832, 8874, 9286, SU 0094, 0294, 0640, 0694, 1084, 2420] SU 0438, vc78
Erysimum cheiri * slo 172 [ST 9286, SU 0886], vc7
Euphorbia amygdaloides ssp. amygdaloides (it's the ordinary one) nrif SU 0616, 0816, vc 8
Euphorbia cyparissias slo p222 [SU 0650, 0848, 1046, 1048, 1844, 2048] ST 7860, 7886, 93, SU 1466, 1468, 1668, 2436, vc78
Euphorbia esula * nrif [ST 8850, SU 1436], vc8
Euphorbia lathyris slo p221 [ST 7860, 8254, 8452, 8828, 8884, 9262, 9268, 9458, 9656, SU 0038, 0230, 0236, 0486, 0680, 0830, 0834, 0886, 0888, 1436, 1460, 1468, 1478, 1634, 1664, 1668, 1678, 1830, 2218, 2428, 2450, 2670, 2874, 3072] ST 8260, SU 0240, 1262, 1456, 1640, 2462, vc78
Euphorbia platyphyllos slo p221 [ST 9822, SU 0618, 0656, 0816] ST 8060, SU 0620, 1028, 1826, 2224, 2232, 2426, 2462, v78
Euphorbia x pseudovirgata (E. esula x E. waldsteinii) * slo p222 [ST 8074, 8460, SU 0066, 1822, 1848] ST 2036, vc78
Euphorbia serratula* slo p221 [SU 1466] ST 8032, vc78
Euphrasia anglica nifg SU 0818, vc8
Euphrasia nemorosa x E. pseudokerneri slo p268 [SU 1262], vc7
Euphrasia pseudokerneri slo p268 [ST 9092, SU 0662, 1262, 1420], vc78
Fagopyrum esculentum * slo p159 [ST9264, 9834, 9858, 9892, SU 0052, 0250, 0278, 0642, 1650, 1846, 2090, 2264, 3074] SU 1634, vc78
Fagus sylvatica Oak-barked Beech * nif SU 2266, vc7
Fallopia x bohemica (F. japonica x F. sachalinensis) ?* nif SU 1428, vc8
Fallopia baldschuanica * slo p160 nrif [ST 8458, 8668, 9272, SU 1028, 1468, 1660, 1680, 1866, 1876, 1880, 2670, 2868] vc78
Fallopia sachalinensis * nif ST 9466, vc7
Festuca filiformis slo p326 [SU 2218, 2616, 2816, 2818], vc8
Festuca heterophylla * p327 vc8
Festuca rubra ssp. megastachys nifg SU 1066, 1466, 1486, 1876, vc7
X Festulolium brinkmannii (Festuca gigantea x Lolium perenne) nif ST 7862, vc8
X festulolium loliaceum (Festuca pratensis x Lolium perenne) p331, vc78
Filago vulgaris slo p291 [ST 9660, 9668, SU 0834, 1072, 2462] SU 2422, vc78
Foeniculum vulgare * slo p232 [SU 1230, 1680] ST 7860, vc78
Fragaria ananassa * nrif [SU 0494, 0858, 1070, 1878] SU 1868, vc78
Frangula alnus p226 SU 1294, 3020, vc78
Fraxinus excelsior var. monophylla * slo p259 [SU 1876], vc7
Fritillaria meleagris p347 ST 8830, vc78
Fumaria bastardii * nifg SU 2042, vc8
Fumaria densiflora p147 SU 1028, 1422, 1620, 1838, 2224, vc78
Fumaria muralis slo p142 [ST 8032, 9664, 9826, SU 1430, 2818, 2820], vc78
Fumaria muralis ssp. boraei slo p142 [ST 9664, SU 2818, 2820], vc78
Fumaria officinalis ssp. wirtgenii slo p142 [SU 0440] SU 2820, vc8
Fumaria parviflora slo p144 [SU 1420] SU 2034, 2042, 2234, vc8
Gagea lutea slo p345 [ST 7660], vc8
Galactites tomentosa * nif ST 8060, vc7
Galanthus caucasicus * nif ST 8060, 9218, vc78
Galanthus plicatus * nrif [ST 8274], vc7
Galega officinalis *nrif [SU 1286] ST 8456, SU 0092, 1282, vc78
Galeopsis angustifolia p251, vc8
Galeopsis bifida nrif p250 [ST 9892, SU 1466, 1666, 2664] ST 9418, 9420, SU 1264, 1468, 1664, 1668, 2066, 2264, 2266, 2268, 2464, 3020, vc78
Galeopsis speciosa * slo p250 [SU 0230], vc8
Galinsoga parviflora * slo p300 [ST 9664, SU 1878], vc7
Galinsoga quadriradiata * p301 ST 8032, 8864, SU 1058, 1218, 1228, 1428, 1868, vc78
Galium palustre ssp. elongatum nifg ST 8442, vc8
Galium constrictum = debile slo p273 [ST 9830, SU 1624], vc8
Galium pumilum slo p275 [SU 0848, 2034] SU 2436, vc8
Galium uliginosum p274 ST 9266, 9268, SU 1016, 186, vc78
Gaudinia fragilis * p334 ST 8030, vc78
Genista anglica slo p214 [SU 2616, 2618, 2816, 2818], vc8
Gentianella anglica p241 ST 8244, 9418, 9420, SU 0036, 0062, 0422, 1656, 2276, vc78
Geranium endressii * nrif [ST 7632, SU 0038, 0058, 2068] ST 9630, SU 0638, 1868, 2248, vc78
Geranium macrorhizum "alba" * nif ST 7840, vc8
Geranium x oxonianum (G. endressii x G. versicolor)* nif SU 0638, 1262, 1466, 2248, 2464, vc78
Geranium phaeum * nrif [ST 9232], vc8
Geranium pusillum p229 SU 2042, 2426, vc78
Geranium rotundifolium slo p226 [ST 7860, 8056, 8058, 8060, 8062, 8258, 8260, 8262, 8266, 8658, 8660, 8868, 8882, 9448, 9464, 9478, 9660, 9666, 9860, SU 0054, 0260, 0464, 0476, 0644, 0874, 1022, 1026, 1644, 1654, 1662, 2024, 2058, 2458, 2866], vc78
Geranium sanguineum slo p227 [SU 0834] ST 8066, vc78
Geranium sylvaticum slo p 227 [SU 0038], vc8
Geranium versicolor * nrif [SU 1426] SU 0438, vc8
Geum x intermedium (G. rivale x G. urbanum) p195 ST 9078, SU 1830, 2022, 2228, 2448, 2662, vc78
Gladiolus communis ssp. byzantinus * nif ST 9416, 9418, vc8
Glyceria declinata p334 ST 8442, vc78

Glyceria notata p334 SU 1016, 1064, 1072, 1428, 1660, 1668, 1880, vc78
Glyceria x pedicillata (G. fluitans x G. notata) slo p332 [ST 8480, 8482, 9462, SU 0460] ST 8844, SU 1268, 1668, vc78
Gnaphalium sylvaticum slo p291 [ST 9035] SU 0654, 2466, vc78
Groenlandia densa slo p306 [ST 8868, SU 0092, 0294, 0492, 2662], vc78
Guizotia abyssinica * nrif [SU 0262, 1466, 3072], vc7
Gunnera tinctoria * nif SU 2818, vc8
Gymnadena conopsea ssp. borealis nif ST 8474, 9216, vc78
x Gymnanacamptis (Anacamptis pyramidalis x Gymnadena conopsea) nif SU 2474, vc7
Hedera colchica * nif SU 1868, vc7
Hedera helix ssp. hibernica * nrif [SU 1692, 2464] SU 1066, 1668, 1868, 2464, vc7
Helianthus annuus * nrif [ST 8632, 9892, SU 0052, 0082, 2274], vc78
Helianthus ssp. * nrif [SU 2040], vc8
Helleborus foetidus p136 ST 9418, SU 1638, 1828, 1830, 1870, 2236, Porton Roche Court Down nmr, Porton Wilts and Hants nmr, vc78
Helleborus orientalis * nif SU 1668, vc7
Helleborus viridis p136 ST 9416, SU 1830, 1870, vc78
Hemerocallus fulva * nif SU 2618, vc8
Heracleum mantegazzianum * p236 SU 0636, 1428, 1430, 1466, 1880, 2466, 2860, vc78
Heracleum sphondylium ssp. sphondylium var. angustifolum slo p235 [ST 9468, SU 1066, 2030] SU 1466, vc78
Heracleum sphondylium ssp. sibirica slo p235 [ST 8836, 9032, SU 1466] SU 0256, 1466, 3270, vc78
Herminium monorchis slo p357 [ST 9620, 9622, 9822, SU 0266, 3260], vc78
Hesperis matronalis * p174 ST 8262, SU 0238, 0628, 1066, 1642, 1668, vc78
Hieracium acuminatum = strumentosum nrif p291 [ST 8060, 8268, 8280, 8860, 8870, 9070, SU 0080, 0484, 0686, 1892] SU 0468, 2818, vc78
Hieracium calcaricola slo p289 [ST 8066], vc7
Hieracium exotericum * slo p291 [ST 8482, SU 1228, 1464, 1466, 1666] ST 8442, SU 1228, vc78
Hieracium maculatum p294 ST 8850, SU 0026, 1050, 1868, 2032, 2058, 2068, 2450, vc78
Hieracium rigens slo p289 [SU 0452], vc8
Hieracium sabaudum (= perpropinquum) slo p289 [ST 7432, 9430, 9628, 9892, SU 1230, 1680, 1686, 2420, 2422, 2466, 2622] SU 2230, vc78
Hieracium salticola slo p289 [ST 8066], vc7
Hieracium sublepistoides * slo p291 [No records] SU 1870, 2068, vc7
Hieracium trichocaulon slo p289 [SU 2616] SU 2416, 2420, vc8
Hieracium vagum slo p289 [ST 8066], vc7
Hieracium vulgatum * slo p289 [ST 7860, SU 1484, 1686] SU 1464, 1466, vc78
Hippophae rhamnoides slo p215 [ST 8284, SU 1254], vc78
Hirschfeldia incana * slo p180 [SU 1484, 1680], vc7
Hordeum jubatum * nrif [ST 9078, SU 0884], vc7
Hordeum distichon * nrif [SU 0050, 0056, 0252, 0256, 0284, 0654, 0656, 0854, 0856, 0888, 1070, 1278, 1474, 1478, 1670, 1676, 1678, 1680, 1876, 1878, 2868], vc78
Hordeum vulgare * nrif [SU 0284, 0644, 1680] ST 9218, 9418, vc78
Hyacinthoides hispanica * nrif [ST 8892, 9648, SU 0252, 0268, 0654, 1030, 1032, 1230, 1232, 1236, 1238, 1282, 1430, 1466, 1490, 1632, 1680, 1690, 1692, 1832, 1836, 1890, 1892, 2092, 2890] SU 0256, 1268, 1668, 1868, 2664, 3270, vc78
Hyacinthoides x massartia, formerly x variabilis (H. non-scripta x H. hispanica) * slo p349 [SU 1230, 1234] ST 7418, 8060, SU 0256, 0868, 1466, 1668, 1868, 2664, 2818, 3270, vc78
Hydrocharis morsus-ranae nif [but ST 8662 in FMP] ?vc7
Hydrocotyle vulgaris p229, vc78
Hyoscyamus niger slo p239 [ST 8658, SU 1024] ST 8060, 9424, SU 0444, 0624, 1868, 2036, 2446, 2650, vc78
Hypericum androsaemum p165 ST 7634, 9618, SU 0220, 0288, 2066, 2424, vc78
Hypericum calycinum * slo p162 [ST 8488, 9042, SU 0054, 1074, 1680, 2668, 2870] ST 9272, vc78
Hypericum x desetangsii (H. perforatum x H. maculatum) nif SU 0226, 1218, 3018, vc8
Hypericum elodes p165, vc8
Hypericum hircinum * nrif [SU 1070] ST ST 8260, vc7
Hypericum humifusum p165 ST 7432, 9480, SU 0422, 0816, 2464, 2468, vc78
Hypericum x inodorum (H. androsaemum x H. hircinum) * nrif [SU 1074, 1680] ST 8060, SU 1266, vc7
Hypericum maculatum p165 ST 8656, SU 0818, 1016, vc78
Hypericum pulchrum p165 ST 8442, 8856, SU 0026, 0816, 2026, 2220, 2424, 2432, 2468, 2618, vc78
Iberis amara slo p178 [SU 2236], vc8
Iberis umbellata * nif SU 2262, vc7
Ilex x altaclerensis (I. aquifolium x I. perado) ?* nif ST 9006, vc8
Impatiens capensis * p229, vc8
Impatiens glandulifera * p229 ST 8040, 9272, SU 0020, 1628, vc78
Impatiens parviflora * slo p228, [SU 0060, 0062, 0676, 2820] SU 1080, vc78
Inula conyzae p294 ST 9272, 9418, SU 1232, 1630, 2244, Old Sarum nmr, vc78
Inula helenium * slo p292 [SU 0882, 1084], vc7
Iris foetidissuma p356 ST 9418, SU 0614, 0816, 1018, 1668, 1868, 2020, 2264, 2420, 2422, 2424, 2818, vc78
Isatis tinctoria * nifg SU 0256, vc8
Isolepis setacea p318 SU 2020, 2266, vc78
Jasione montana slo p272 [SU 2814], vc8

Juglans regia * nrif [ST 7660, 7860, 7862, 8058, 8060, 8068, 8266, 8466, 8624, 8632, 8644, 8828, 8880, 8892, 9070, 9246, 9260, 9270, 9274, 9282, 9294, 9440, 9454, 9466, 9474, 9638, 9660, 9664, 9822, 9860, SU 0050, 0060, 0060, 0094, 0096, 0226, 0238, 0640, 0642, 0818, 0824, 0826, 0830, 0832, 0836, 0886, 1024, 1032, 1058, 1072, 1084, 1224, 1232, 1236, 1238, 1252, 1254, 1268, 1298, 1430, 1438, 1444, 1466, 1478, 1480, 1654, 1670, 1680, 1682, 1834, 1858, 1862, 1878, 2026, 2040, 2226, 2260, 2262, 2282, 2426, 2474, 2624, 2852, 2854, 2868, 2874, 2954, 3062, 3070] SU 1226, vc78

Juncus bulbosus p311 ST 8442, 9480, vc78

Juncus compressus slo [ST 8278, SU 2870], vc7

Juncus effusus var. subglomeratus (= compactus) slo p310 [SU 0056, 0256, 0458, 0658, 0858, others missing], vc78

Juncus x diffusus (J. inflexus x J. effusus) nifg ST 8442, vc8

Juncus foliosus nif SU 2816, vc8

Juncus squarrosus slo p309 [SU 2216, 2416, 2418, 2616, 2618, 2814, 2816, 2818], vc8

Juncus subnodulosus slo p309 [SU 0292, 0684, 1488, 1688] SU 0682 1280, 1660, vc7

Juncus tenuis * slo p309 [ST 8042, 8060, 8442, 9436, SU 2216, 2218] SU 2066, vc78

Juniperus communis p133 ST 9424, SU 0228, 0616, 1662, vc78

Kerria japonica * nrif [SU 1680] SU 0486, vc7

Kickxia elatine p265 ST 8060, 91, SU 0620, 1018, SU 12, 1424, 1826, 22, vc78

Kickxia spuria p265 ST 8060, SU 0438, 0620, 1826, 2022, 2228, 2448, 12 most of K elatine sites, vc78

Laburnum anagyroides * nrif [ST 7680, 8650, 8680, 8884, 9896, SU 0258] SU 1216, vc78

Lactuca serriola * p290 ST 8060, 9062, 9272, 9418, 9618, SU 0224, 0234, 0238, 0422, 0438, 1426, 1468, 1668, vc78

Lactuca virosa * slo p287 SU 2234, vc7

Lagarosiphon major slo p303 [ST 8266, 9294, 9660, SU 0092, 0292, 0294, 1084, 1460, 1680, 2620] SU 0456, 0870, 1282, 2428, 2674, vc78

Lagurus ovatus * nrif [ST 8658] SU 0868, vc78

Lamiastrum galeobdolon ssp. argentatum * nrif p249 [ST 9020, SU 0628, 1074, 1870, 1872, 1874, 2068, 2460] ST 9416, SU 0062, 0220, 0420, 1024, 1266, 1466, 1468, 1656, 1668, 1868, 2066, 2264, 2266, 2268, 2272, vc78

Lamiastrum galeobdolon ssp. montanum nif SU 0614, 0616, 0816, vc8

Lamium hybridum p251, vc78

Lamium maculatum * nrif [ST 8234, 9066, SU 0052, 0294, 1238, 1282, 1430, 1436, 1680, 1872, 1880, 2872, 3272] SU 1024, 2264, vc78

Lathraea clandestina * slo p269 [SU 0056] SU 0062, 1468, 1668, vc78

Lathraea squamaria p271 ST 9016, 9218, 9416, 9418, vc78

Lathyrus aphaca p210, vc78

Lathyrus latifolius * slo p208 [ST 7860, 8070, 8856, 9478, SU 0084, 0258, 0458, 1046, 1232, 1286, 1686] SU 1228, 1482, Salisbury Churchfields just SU02 nmr, vc78

Lathyrus linifolius var. montana p207 SU 2066, 2662, vc78

Lathyrus linifolius var. tenuifolius slo p206 [SU 0288] SU 2066, 2230, 2268, vc78

Lathyrus nissolia p207 ST 8868, SU 0482, 0880, 1838, 2668, vc78

Lathyrus sylvestris p207, vc78

Lathyrus tuberosus * slo p206 [ST 9854, SU 0250, 1444, 1488], vc78

Lavatera arborea * nrif [ST 9226], vc8

Lavatera thuringiaca * nifg SU 1256, vc8

Legousia hybrida p274 SU 0438, 0614, 0632, 0638, 0814, 1426, 1452, 2022, 2024, 2042, 2224, 2238, 2448, 3262, vc78

Lemna gibba slo p307 [ST 9262, 9680, SU 0262, 0462, 0662, 0692, 0860, 0862, 1060], vc78

Lemna minuta * p311 ST 7632, 7634, 7860, 9064, 9072, 9286, 9486, SU 0456, 0870, 9272, SU 1064, 1626, 1680, 1696, 1868, 2068, 2098, 2228, 2264, 2268, 2428, 2670, 2676, vc78

Lemna trisulca p311 ST 9272, 9676, SU 1066, 1668, 2274, vc78

Lepidium campestre nrif [ST 8880, 9070, 9090, 9270, 9480, 9650, 9656, 9960, SU 0070, 0094, 0450, 0458, 0650, 0652, 1030, 1084, 1230, 1638, 1838, 1850, 1870, 2184] ST 8456, vc78

Lepidium draba ssp. draba * p181 ST 9026, SU 0038, 0640, 1058, 1842, 2282, 2448, vc78

Lepidium heterophyllum p178 SU 1230, 1840, vc8

Lepidium latifolium slo p178, [ST 8862], vc7

Lepidium ruderale slo p178 [ST 8078, SU 0060, 2670], vc78

Lepidium sativum * nrif [ST 7862, 8428, 8880, 9088, SU 0022, 0436, 1860], ST 8260, vc78

Leucanthemum x superbum (L. lacustre x L. maximum) * nrif [SU 0886, 1280, 2472, 2474], vc7

Leucojum aestivum slo p350 [ST 8674, 9020, SU 0256, 1074, 1230, 1234, 1236, 2870, 3270] SU 12, 1868, vc78

Leucojum vernum slo p 350 [SU 1626] SU 0256, 1628, vc8

Leycesteria formosa * nrif [SU 0030] ST 7634, SU 0060, 1268, 1466, vc78

Lilium martagon * slo p346 [ST 7858, 8686, SU 0060, 0062, 0688], vc78

Linaria x dominii (L. purpurea x L. repens) slo p263 [SU 1484], vc7

Linaria maroccana * nifg SU 1666, vc7

Linaria purpurea * p265 ST 7860, 91, SU 0422, 0620, 1282, 1430, 1466, 1468, 1488, 1868, 2268, vc78

Linaria repens * p265, vc78

Linum bienne slo p224 [ST 8474, 9236, SU 0256, 1850], vc78

Linum usitatissimus * slo p224 [ST 8858, 8876, 9446, 9646, 9448, 9848, 9892, SU 0046, 0242, 0246, 0248, 0444, 0446, 2068, 2666, 2672] ST 9216, 9418,

SU 1430, 1664, vc78
Lobelia erinus * nrif [ST 8486] ST 9272, SU 1826, 1868, vc78
Lobularia maritima * nrif [SU 1872, 1874] SU 1266, 1466, vc78
Lolium x boucheanum (L. perenne x L. multiflorum) * nrif [Couldn't distinguish in Flora recording] ST 9850, 9870, SU 0284, 0668, 1286, 1466, 1468, 1486, 1658, 1868, 1878, 2068, vc78
Lolium multiflorum x L. rigidum ?* nif ST 9418, vc8
Lolium perenne var. cristata nif SU 0868, 1466, vc7
Lolium perenne semipaniculata form nif SU 1286, vc7
Lolium temulentum * slo p328 [ST 9258], vc8
Lonicera caprifolium * nrif [ST 9258], vc8
Lonicera nitida * nrif [ST 7834, 8466, 9228, 9232, 9638, 9830, 9832, 9838, SU, 0030, 0034, 0038, 0638, 0832, 0834, 0836] SU 2066, vc78
Lonicera pileata * nif ST 9272, vc7
Lonicera xylosteum * nrif [ST 9232, 9454, 9478, 9652, SU 0038] ST 9030, vc78
Lotus glaber slo p204 [ST 9282, SU 1688, 2040] SU 0046, 0250, 1052, vc78
Lunaria annua * nrif [ST 7838, 8046, 8256, 8436, 8472, 8650, 8664, 8680, 8892, 9266, 9652, 9656, 9856, 9892, SU 0038, 0084, 0090, 0098, 0228, 0266, 0492, 0692, 0830, 1232, 1432, 1450, 1466, 1490, 1666, 1680, 1868, 1892, 2240, 2416, 2482, 2818, 2820] SU 0076, 1266, 1268, vc78
Luzula forsteri p314 ST 8442, 8856, SU 0614, 0816, 1216, 2426, 2818, vc8
Luzula multiflora p314 ST, 8830, 8856, 9226, SU 2818, vc78
Luzula multiflora ssp. congesta nrif [ST 7432, 9830, SU 2020, 2026, 2216, 2220, 2222, 2416, 2418, 2420, 2422] SU 0616, 0816, 2020, 2818, vc8
Luzula sylvatica p314 ST 8822, 8830, 9436, SU 0614, 0814, 0816, vc78
Lychnis flos-cuculi white form nifg SU 2870, vc7
Lycium barbarum * slo p238 [ST 8074, 8282, 8284, 8880, 9032, 9228, 9266, 9464, 9620, 9638, 9866, SU 0624, 0630, 1066, 1074, 1226, 1230, 1268, 2060, 2074, 2226, 2422], vc78
Lycoperson esculentum nrif [SU 1878], vc7
Lycopodiella inundata nifg SU 2618, vc8
Lysimachia punctata * nrif [SU 0290, 0858, 2068] ST 9474, SU 1468, 2426, vc78
Lysimachia vulgaris p187 ST 9474, 9630, 9682, SU 0818, 1696, vc78
Lythrum portula slo p215 [ST 8066, 8242, 9466, SU 0030, 0288, 0484, 2018, 2066, 2264, 2466, 2616, 2618, 2620, 2662, 2666, 2816, 2818] ST 8442, vc78
Mahonia aquifolium * nrif [ST 8058, 8086, 8466, 8480, 8646, 8648, 8856, 8870, 8890, 8892, 9090, 9870, 9890, SU 0050, 0052, 0086, 0854, 0886, 1074, 1844, 2240, 2676, 2874] ST 9416, SU 2466, vc78
Malva neglecta p167 SU 0832, 1232, 2020, 2218, 2226, 2236, 2292, vc78
Meconopsis cambrica nrif [ST 7860, 8058, 8668, 9286, SU 0676, 1660, 1868] ST 7860, SU 1466, 1668, vc78
Medicago arabica p210 SU 0060, 2246, vc78
Medicago sativa ssp. varia slo p209 [SU 1438] ST 9072, 9272, vc78,
Medicago sativa ssp. sativa * p210 ST 7860, vc78
Melampyrum arvense slo p266 [SU 0682], vc7
Melampyrum pratense ssp. pratense p271 SU 0282, 0658, 0848, 1464, 1664, 1864, 2266, vc78
Melampyrum pratense ssp. commutatum slo p268 [ST 8474] SU 1218, c78
Melilotus albus * nrif [ST 8268, 8466, 8638, 8674, 9070, 9660, 9666, SU 1044, 1046, 1048, 1082, 1238, 1266, 1284, 1634, 1684, 1838, 2072, 2074, 2242, 2454, 2466] ST 9866, SU 0294, vc78
Melilotus indicus * nrif [SU 1230], vc8
Melissa officinalis * nrif [ST 7860, 8060, 8874, 9070, 9438, 9478, 9848, SU 0038, 0240, 0638, 1030, 1046, 1046, 1054, 1230, 1236, 1256, 1266, 1428, 1430, 1466, 1482, 1836, 2040, 2216, 2218] ST 9418, SU 0638, 1468, 2430, 2618, vc78
Melittis melissophyllum slo p250 [SU 2022], vc8
Mentha x gracilis (= gentilis) (M. arvensis x M. spicata) slo p255 [SU 2616] ST 9216, 9218, 9418, vc8
Mentha x piperita (M. aquatica x M. spicata) nrif [SU 1626], vc8
Mentha x smithiana (M. arvensis x M. aquatica x M. spicata) slo p255 [SU 0036, 0436, 0638, 1226, 1430, 1620, 1628, 1836, 1838] SU 2436, 2674, vc78
Mentha spicata * slo p256 [SU 1030, 1230], vc78
Mentha suaveolens * slo p256 [ST 8474, 8486, 8648, 8864, 9058, 9220, 9228, 9266, 9448, 9450, 9632, 9834, 9854, SU 0030, 0220, 0230, 0236, 0272, 0436, 0682, 1074, 1274, 1466, 1470, 1644, 1868, 2232, 2260, 2268, 2274, 2468, 2474, 2670, 2672, 2674, 2852, 2868, 2870, 3056, 3066], vc78
Mentha x verticillata (M. arvensis x M. aquatica) p258 ST 9418, 9878, SU 2618, vc78
Mentha x villosa (M. spicata x M. suaveolens) * nrif [ST8858, 9626, SU 0052, 0054, 0058, 0236, 0454, 0638, 1430, 2090] ST 9416, 9418, SU 1262, vc7
Mentha x villosonervata (M. spicata x M. longifolia) * nif ST 8060, vc7
Menyanthes trifoliata p245 SU 1428, 2266, vc78
Mimulus guttatus * p262, vc78
Mimulus luteus * slo p261 [ST 9856, SU 0052] SU 2268, 2464, vc78
Mimulus moschatus * slo p261 [ST 9882] SU 2464, vc7
Minuartia hybrida slo p152 [ST 7434, 7634, SU 0228, 0454, 1454, 1458, 1652, 1654, 2034, 2050, 2234, 2236, 2864] SU 2052, vc8
Misopates orontium p262 SU 1482, 1826, 2430, vc78
Moenchia erecta slo p154 [ST 8284, SU 2614, 2616, 2816], vc78
Molinia caerulea p343 ST 8442, SU 2428, vc78
Molinia caerulea ssp. caerulea nrif [not distinguished] SU 2264, vc7
Monotropa hypopitys ssp. hypophegea slo p183 [ST 7866] SU 1820, 2430, 2436, vc78

Montia fontana p153 SU 2462, vc78
Montia fontana ssp. chondrosperma nrif [ST 9278, SU 2818], vc78
Montia fontana ssp. minor slo p151 [SU 0490] SU 0616, 0812, vc78
Muscari armeniacum * nif SU 0052, 0628, 0816, 1660, 1664, 1668, 1868, 2818, vc78
Muscari botryoides * nrif [SU 1030, 1230, 1232, 1430, 1638], vc8
Muscari comosum * nif ST 9642, vc8
Muscari neglectum * slo p349 [ST 8466, 9430, SU 0052, 0064, 0074, 0628, 0658, 0670, 1084], vc78
Myosotis arvensis var. sylvestris nifg SU 1466, 2066, vc7
Myosotis discolor p248 SU 0614, 0616, 0812, 0814, 0816, 1218, 1468, 1668, vc78
Myosotis laxa ssp. caespitosa p248 SU 1680, 2618, vc78
Myosotis ramosissima p248 SU 0420, 1468, 2448, vc78
Myosotis secunda p248 ST 8442, vc78
Myosotis sylvatica p248 SU 1468, 1660, 1668, 1866, 1868, 1882, 2064, 2066, 2266, 2664, 3270, vc78
Myosotis sylvatica var. culta slo p246 [presumably SU 1430, though “culta” not specified] SU 1660, vc8
Myosotis sylvatica var. italica ?* slo p246 [No records], vc8
Myosurus minimus slo p138 [SU 1256, 1258, 2660] SU 1060, 3062, vc8
Myrica gale slo p145 [SU 2218, 2418, 2616, 2618, 2816, 2818], vc8
Myriophyllum alterniflorum slo p215 [ST 7434], vc8
Myriophyllum aquaticum slo p215 [SU 1426, 2066] SU 2670, vc78
Myriophyllum spicatum p217 ST 9478, SU 0830, 1868, 2058, 2068, 2098, 2268, 2870, 3070, vc78
Narcisus x incomparabilis (N. poeticus x N. pseudonarcissus) * nrif p351 [ST 8892, SU 1074, 1474, 1478, 1670, 1680, 1878, 2260, 2666, 2668, 2484] SU 1468, 1668, 1868, 2662, vc78
Narcissus x odorus (N. jonquilla x N. pseudonarcissus) ?* nif SU 1668, vc7
Narcisus poeticus * nrif p351 gives only ssp. poeticus [just species - ie at variance with Flora ST 9290, 9648, SU 0840, 1458, 2260] ST 7418, SU 1668, 1868, 2266, vc78
Narcisus poeticus ssp. poeticus * nrif slo p351 nrif [ST 9290, 9648, SU 0840, 1458, 2260] SU 1668, 1868, 2266, vc78
Narcissus pseudonarcissus nrif [ST 7432, 7434, 7634, 8044, 8892, 9024, 9430, 9492, 9652, 9690, 9892, 9896, SU 0032, 0052, 0054, 0234, 0280, 0432, 0632, 1070, 1278, 1460, 1462, 1464, 1466, 1662, 1664, 1666, 1680, 2022, 2024, 2026, 2028, 2038, 2080, 2084, 2220, 2222, 2224, 2238, 2268, 2282, 2420, 2424, 2472, 2614, 2620, 2622, 2820, 2868, 3070, 3072, 3074, + ssp. major records below] ST 9074, SU 1012, 1826, 2024, 2422, vc78
Narcisus pseudonarcissus ssp. major * nrif [ST 7432, 7434, 7634, 8044, 8892, 9024, 9090, 9430, 9452, 9482, 9690, 9892, 9896, SU 0052, 0054, 0234, 0280, 0432, 0632, 1070, 1074, 1278, 1432, 1460, 1462, 1464, 1466, 1468, 1472, 1474, 1662, 1664, 1666, 1668, 1670, 1680, 1862, 1866, 1868, 1870, 1874, 2022, 2024, 2026, 2028, 2038, 2080, 2084, 2222, 2224, 2268, 2282, 2338, 2420, 2424, 2472, 2614, 2620, 2622, 2820, 2868, 3070, 3072, 3074] SU 2662, vc78
Narcisus pseudonarcissus ssp. pseudonarcissus * p352 SU 0616, 1466, 1468, 1668, 1826, vc78
Nardus stricta slo p325 [SU 2056, 2264, 2464, 2616, 2618, 2816, 2818], vc78
Narthecium ossifragum p347, vc8
Neotttia nidus-avis p356 ST 7860, 9618, 9818, SU 2026, 2220, 2224, 2244, 2436, Porton Hants nmr, vc78
Nepeta cataria p254 SU 1422, 1622, vc78
Nicandra physalodes * nrif [SU 2238], ST 8032, vc8
Nigella damascena * nrif [ST 9082, 9658, SU 0056, 1432, 2032] SU 0236, 1268, vc78
Nitella opaca (N. flexilis agg.) nifg SU 2862, vc8
Nuphar lutea p133, vc78
Nymphaea alba ssp. alba p133 ST 8844, 9682, vc78
Nymphoides peltata * slo p242 [ST 8260, 8668, 9276, SU 0082] ST 8644, 8656, SU 1680, 1880, 2266, vc78
Oenanthe aquatica slo p232 [ST 9440], vc8
Oenanthe fistulosa p233 ST 8830, SU 0892, 1428, vc78
Oenanthe fluviatilis p233 SU 1236, vc8
Oenanthe lachenalii slo p232 [ST 9888, SU 0094, 0292, 0684], vc7
Oenanthe pimpinelloides p233 ST 8632, 8660, 9460, SU 2026, vc78
Oenothera agg. * p218/220, also include records of all Oenothera spp. below. Identification of Oenothera spp. in chaos - the existing categorization is held to be invalid and there is no new one. So all records for spp. below are suspect. vc78
Oenothera biennis nrif [ST 7660, 7862, 8074, 8076, 8160, 8276, 8628, 8658, 8844, 9070, 9230, 9258, 9264, 9274, 9418, 9448, 9470, 9632, 9652, 9664, 9848, 9860, SU 0028, 0060, 0070, 0094, 0230, 0236, 0294, 0828, 0832, 0836, 1026, 1070, 1086, 1088, 1230, 1456, 1466, 1482, 1484, 1620, 1680, 1684, 1686, 1888, 2028, 2086, 2420, 2422, 2668, 2720, 2864, 3072], vc78
Oenothera cambrica * nrif [not recorded separately from agg.] SU 1466, 1468, 1668, conf. needed for all, vc7
Oenothera fallax * nrif [not recorded separately from agg.] ST 8060 conf. needed, vc7
Oenothera glazioviana * nrif [ST 8826, 9228, 9428, 9648, 9896, SU 0272, 0292, 1230, 1632, 1430] ST 8060, 8258, SU 1668, conf. needed for all, vc78
Oenothera stricta * nrif [not recorded separately from agg.]
Omphalodes verna * nrif [ST 9492, 9892], vc7
Ononis spinosa p210 ST 8244, SU 0248, 0266, 0440, vc78

Onopordum acanthium * nrif [ST 9474, SU 0060, 0236, 0468, 1230, 1286, 2676, 1430, 1432, 1488, 1630, 1678, 2668] ST 8062, SU 0844, 2274, vc78
Ophioglossum vulgatum p125 ST 8656, 8836, 8856, 9074, 9890, SU 0638, 1428, 2662, vc78
Ophrys apifera p363 ST 8850, 9072, 9418, 9424, 9428, 9678, 9680, SU 0026, 0092, 0246, 0268, 0496, 0694, 0868, 1426, 1442, 2032, 2080, 2282, 2430, 2482, vc78
Ophrys apifera var. belgarum nif ST 8266, vc7
Ophrys apifera var. chlorantha slo p362 [SU 2026] ST 9050, vc8
Ophrys apifera var. friburgensis slo p362 [No record and no location in Flora], vc8
Ophrys apifera ssp. jurana slo p362 [No record - but Flora says Bidcombe Hill site destroyed 85/6], vc8
Ophrys insectifera p363 ST 9416, 9418, 9818, SU 1278, vc78
Ophrys sphegodes slo p362 [SU 2024], vc8
Orchis morio p363 SU 0492, 2464, 2678, vc78
Orchis ustulata p363 SU 1224, 1424, 1656, 2234, 2436, vc78
Oreopteris limbosperma slo p125, vc8
Ornithogalum angustifolium p352 ST 9852, SU0636, 0638, 1620, 2020, vc78
Ornithogalum nutans * slo p349 [SU 2098], vc7
Ornithogalum pyrenaicum p352 ST 8654, SU 2228, vc78
Ornithopus perpusillus p207, vc78
Osmunda regalis slo p124 [ST 7634, SU 1460, 1878, 2416, 2418, 2618, 2816, 2818, 3270], vc78
Oxalis corniculata * nrif [ST 7860, 8058, 9876, SU 0880, 1070, 1074, 1460, 1878, 2020, 2226, 2418, 2670, 2816, 2856] SU 1466, 1468, 1660, 1668, 1868, 2068, vc78
Oxalis exilis * nif SU 1426, 2228, vc8
Oxalis incarnata * nif ST 8260, vc7
Oxalis latifolia * nrif [SU 1460, 1660], vc7
Oxalis stricta *(but name changes may have confused) nrif [ST 8452, 8880] SU 1218, vc78
Paeonia spp. * nrif
Panicum capillare * nifg ST 8040, vc8
Panicum miliaceum * nrf [ST 8658, 9264] ST 8060, vc78
Papaver atlanticum * nrif [SU 1430] ST 8060, vc78
Papaver argemone p143 SU 0438, 0668, 1426, 1858, 2024, 2042, vc78
Papaver dubium ssp. lecocquii p143 SU 2076, 2448, vc78
Papaver hybridum p143 ST91, SU 0026, 0422, 0438, 0620, 1426, 1446, 1838, 1846, 2042, 2224, 2424, 2442, 2448, vc8
Papaver orientale * nrif [SU 1684, 1880, 2068], vc7
Papaver somniferum * nrif [ST 8062, 8076, 8246, 8284, 8486, 8876, 9044, 9054, 9056, 9058, 9062, 9224, 9256, 9492, 9656, 9660, 9662, 9678, 9858, SU 0030, 0052, 0060, 0454, 0486, 0626, 0656, 0834, 0836, 0854, 0868, 0872, 0886, 1022, 1030, 1032, 1060, 1062, 1068, 1070, 1074, 1076, 1080, 1222, 1230, 1234, 1236, 1280, 1282, 1288, 1296, 1430, 1432, 1434, 1436, 1452, 1460, 1466, 1468, 1468, 1480, 1482, 1630, 1632, 1640, 1660, 1668, 1670, 1678, 1680, 1686, 1868, 1870, 1878, 1880, 1888, 2052, 2068, 2082, 2226, 2240, 2260, 2274, 2472, 2474, 2668, 2676, 2864, 2874, 3050, 3072, 3272] SU 0262, 1266, 1268, 1278, vc78
Parentucellia viscosa * slo p269 [SU 1660] ST 8442, SU 1428**,** vc8
Paris quadrifolia p352 ST 9218, SU 2430, vc78
Parthenocissus quinquefolia * nrif [ST 9464], vc7
Pedicularis palustris slo p269 [SU 0030], vc8
Pedicularis sylvatica p271 ST 8248, 9670, 9890, SU 0616, 2028, vc78
Pentaglottis sempervirens * p245 SU 1628, vc78
Persicaria amplexicaulis * nrif [SU 1074, 1874] SU 2262, v78
Persicaria bistorta nrif [ST 7634, 8060, 8076, 8260, 8624, 8844, 9022, 9036, 9066, 9272, 9426, 9438, 9466, 9858, SU 0022, 0258, 0280, 0430, 0488, 1060, 1258, 1426, 1454, 1458, 1624, 1852, 1868, 2026, 2062, 2260, 2820, 2862], vc78
Persicaria capitata * nif SU 1428, 1430, vc8
Persicaria minor slo p159 [SU 2616, 2816] SU 2818, vc8
Petasites fragrans * p301 ST 9216, 9416, 9678, SU 1430, 1868, 2266, vc78
Petasites japonicus * slo p299 [SU 1658, 3270], vc78
Petroselinum crispum * nrif [SU 0886, 1030, 1484], vc78
Petroselinum segetum p236 SU 1024, 1232, 1430, 1434, vc78
Phacelia tanacetifolia * nrif [ST 9664] SU 0470, 1634, 1824, 2060, vc78
Phalaris aquatica * slo p336 [SU 1476] SU 0064, 2222, vc78
Phalaris paradoxa * slo p336 [ST 8068, 9268], vc7
Philadelphus coronarius * nrif [SU 1440, 2274], vc78
Phuopsis stylosa* nif ST 9626, vc8
Physocarpus opulifolius * nrif [ST 9898], vc7
Phyteuma orbiculare p274 SU 0446, 1658, 2034, 2414, 2434, vc78
Phytolacca americana * slo p148 [SU 1428], vc7 but doubts about whether this is the sp that occurs in GB
Picea sitchensis * nrif [ST 9236, SU 2030] ST 8442, vc8
Picris hieracioides p290 ST 7862, SU 0050, vc78
Pilosella aurantiaca agg. * nrif [ST 7860, 9228, 9660, 9858, SU 0022, 0052, 0054, 0430, 1230, 1460, 1466, 1680, 1682, 1878, 1880, 1888, 2024, 2026, 2268, 2418, 2422, 2676, 2816] SU 0816, 1062, 1626, 1668, 1874, vc78
Pilosella aurantiaca ssp. aurantiaca * nrif [treated as agg.] ST 8060, SU 1262, 1466, vc7
Pilosella aurantiaca ssp. carpathicola * nrif [treated as agg.], SU 1262, vc7
Pilosella prealta ssp. arvorum* slo p288 [ST 8458], vc8
Pimpinella major nrif [ST 9656], vc8
Pinguicula lusitanica slo p270 [SU 2814, 2816, 2818], vc8

Pinus nigra * nrif [ST 9238, SU 0856, 1278, 1876, 2868], vc78
Pinus radiata *nif SU 0820, vc8
Plantago arenaria * nif ST 9666, vc7
Plantago coronopus slo p257 [ST 9676, SU 1230, 2416, 2614, 2616, 2622, 2816, 2818] SU 1430, vc78
Platanthera bifolia p360 SU 1656, vc78
Platanthera chlorantha p360 ST 9416, 9424, SU 0286, 2022, 2268, 2446, 2632, 2674, vc78
Platanthera x hybrida (P. bifolia x P. chlorantha) nif SU 0638, vc8
Platanus x hispanica = hybrida (P. occidentalis x P. orientalis) * nrif [ST 9226] SU 0638, vc8
Poa angustifolia slo p329 [ST8474, 8476, SU 0424, 2234] SU 0614, 0616, 0812, 0816, 1022, 1426, 2430, vc78
Poa compressa slo p329 [ST 8060, 8260, 8660, 8668, 8672, 8670, 8678, 8854, 8870, 8882, 9068, 9268, 9286, SU 0292, 0296, 0494, 1092, 2034, 2456], vc78
Poa humilis = subcaerulea slo p329 [SU 1062, 2616, 2816], vc78
Polemonium caeruleum * slo p242 [ST 9628, SU 0038, 1236, 2226] SU 2664, vc8
Polygala serpyllifolia slo p224 [ST 8046, 8848, 9274, 9450, 9452, 9628, 9634, 9650, 9894, SU 0062, 0484, 2216, 2220, 2228, 2264, 2418, 2420, 2428, 2466, 2616, 2618, 2666, 2814, 2816, 2818] ST 8442, vc78
Polygonatum x hybridum (P. multiflorum x P. odoratum) slo p348 [ST 8272, SU 1830], vc78
Polygonatum odoratum slo p348 [ST 8272, 8274, 8276], vc7
Polygonum rurivagum slo p159 [ST 8672, 9074, SU 0282, 1224], ST 9634, vc78
Polypodium interjectum nrif p124 [ST 8824, SU 0030, 1660, 2220, 2420, 2672] ST 7634, 8442, 8444, 9410, 9428 SU 1268, 1660, 1668, 1868, 2064, 2066, 2068, 2264, 2266, vc78
Polypodium x mantoniae (P. interjectum x P. vulgare) nif SU 1660, vc8
Polystichum aculeatum p129 ST 9428, 9886, SU 0060, 0230, 0616, 1668, 1868, vc78
Polystichum x bicknellii (P. aculeatum x P. setiferum) nif SU 3020, vc8
Populus alba * nrif [ST 8462, 8664, 9022, 9264, 9286, 9822, 9868, SU 0280, 0832, 0896, 1062, 1090, 1284, 1658, 1680] ST 8860, 8886, 9682, SU 0268, 1466, 1468, 1680, 2450, vc78
Populus x canadensis (P. deltoides x P. nigra) * nrif [ST 8540, 9054, 9258, 9652, 9654, 9854, SU 0488] SU 1680, 1880, vc78
Populus x canadensis 'Serotina' (P. deltoides x P. nigra) nif SU 0820, vc8
Populus candicans * nrif [ST 8068, 9024, 9426, 9628, SU 0492, 0690] SU 1488, 1680, 1868, 2068, vc78
Populus nigra [included in Populus agg. in FMPC, but ssp. betulifolia recorded separately as below]. Records since Flora here also include ssp. betulifolia: SU 0036, 0038, 0626, 0636, 0662, 0666, 0690, 0834, 0860, 1230, 1234, 1240, 1250, 1252, 1254, 1284, 1468, 1668, 1694, 1882, 1884, 2068, 2084, 2088, 2268, 2284, vc78
Populus nigra ssp. betulifolia p171 SU 0036, 0038, 0636, 0662, 0666, 0690, 0834, 0860, 1230, 1234, 1250, 1252, 1254, 1284, 1468, 1668, 1694, 1882, 1984, 2068, 2084, 2088, 2284, vc78
Populus trichocarpa * slo p169 [ST 8068, SU 0084, 0488, 0690], vc7
Potamogeton berchtoldii p308 SU 1428, 2274, vc78
Potamogeton crispus p308 ST 7860, 8844, 9286, 9486, 9676, SU 1282, 1428, 2472, vc78
Potamogeton friesii slo [ST 9860, SU 3066], Both in canal so don't know which vc.
Potamogeton lucens p308, vc78
Potamogeton natans p304 SU 0614, 0814, 1282, 2274, vc78
Potamogeton nodosus p308, vc7
Potamogeton obtusifolius slo p305 [ST 9860], In canal so don't know which vc
Potamogeton pectinatus p308 SU 0236, 1088, 1282, vc78
Potamogeton perfoliatus p308 ST 8060, SU 1236, 1428, vc78
Potamogeton polygonifolius p304, vc8
Potamogeton pusillus p308 SU 2068, 2274, vc7
Potamogeton trichoides slo p306 [SU 0294, 1060], vc7 and one in canal so don't know which vc
Potentilla anglica slo p193 [ST 8826, 9464, 9468, SU 2820], vc78
Potentilla argentea * slo p192 [ST 8660], vc7
Potentilla x mixta (P. anglica x P. reptans) slo p193 [ST 9466] SU 0286, vc7
Potentilla palustris nifg SU 2816, vc8
Potentilla recta * slo p192 [ST 8882, SU 1484], vc7
Primula x polyantha (P. vulgaris x P. veris) p184 ST 9218, SU 2664, 2818, 3064, vc78
Primula 'Wanda' (P. juliae x P. vulgaris) * nif SU 1668, 1868, vc7
Prunus cerasifera * slo p198 [ST 9268, 9462, SU 0830, 0880, 1036, 1234, 1334, 1460, 1876, 2868] ST 7860, 9244, 9672, SU 0048, 1466, Clarendon nmr, vc78
Prunus cerasifera var. pissardii * nif SU 2464, vc7
Prunus cerasus * nrif [SU 1230] SU 1466, 1468, 1668, vc7
Prunus conradinae* nif SU 1628, vc8
Prunus domestica ssp. italica * nif SU 3018, vc8
Prunus x fruticans (P. spinosa x P. domestica) nrif [treated as agg.] SU 1466, 1668, 1866, vc7
Prunus lusitanica * nrif [ST 7842, 8452, SU 1680, 2622] SU 2462, 2464, 3070, 3270, vc78
Prunus padus slo p198 [ST 9028, 9254, SU 0688] SU 0614, 0816, 2066, vc78
Pseudotsuga menziesii * nrif [ST 7638, 7838, 8044, 8426, 8224, 9028, 9228, 9666, 9828, SU 0622, 2030, 2228, 2448] ST 7634, 8442, SU 2428, 2468, vc8
Pucciniella distans nif SU 1880, vc7
Pulicaria vulgaris nif [but FMPC ST 9082], vc7
Pulmonaria officinalis * nrif [ST 8044, 8074, 9050, 9232, 9290, 9432, 9858, SU 0038, 0234, 0236, 0264, 0638, 0656, 0836, 0858, 0878, 1070, 1074, 1234,

1236, 1436, 1664, 1868, 2026, 2032, 2066, 2074, 2472, 2482, 2670] ST 9672, SU 1466, 1668, 2662, vc78
Pyrola minor * slo p183 [ST 9032], vc8
Pyrus communis * p199, vc78
Pyrus pyraster slo p200 nrif [ST 7860, 8286, 8882, 9082, 9228, 9476, 9648, SU 1636, 2224] SU 2464, vc78
Quercus cerris * nrif [ST 7860, 7866, 8078, 8276, 8486, 8660, 8674, 8678, 8824, 8854, 9042, 9494, 9676, 9856, SU 0086, 0688, 0880, 1036, 1466, 1480, 2026, 2238, 2622] ST 8442, 9410, 9818 SU 1882, 2226, 2264, 2266, vc78
Quercus cerris x Q. robur ?* nif ST 9818, vc8
Quercus ilex * nrif [ST 7860, 8466, 8678, 9022, 9268, 9852, 9896, SU 0062, 0660, 0872] SU 3070, vc78
Quercus petraea p147 ST 8442, 9418, 9618, SU 0814, 1218, 2268, 2662, 2862, vc78
Quercus robur var. cristata ?* nifg SU 2064, vc7
Quercus x rosacea (Q. petraea x Q. robur) nifg SU 1462, 1880, 2066, 2268, 2466, 2662, 2862, vc78
Quercus rubra * nrif [SU 2066, 2458] ST 9418, SU 1682, 2064, vc78
Radiola linoides slo p224 [SU 2816, 2818] SU 2220, vc8
Ranunculus aquatilis p139 ST 8652, 9418, SU 0868, 0870, 2260, 2662, vc78
Ranunculus arvensis slo p135 [ST 8648, 9082, 9084, SU 1658, 3062] SU 1228, 2872, 3072, vc78
Ranunculus circinatus slo p138 [ST 8246] ST 9286, vc7
Ranunculus ficara ssp. bulbilifer nif SU 0614, 0814, 0816, 0868, 1466, 1866, 1488, vc78
Ranunculus ficaria ssp. chrysocephalus nif ST 9426, 9428, Tisbury nmr, vc8
Ranunculus fluitans p139, vc78
Ranunculus hederaceus slo p137 [SU 0858, 2020, 2222, 2616, 2618, 2620, 2816, 2818] SU 0616, 0812, 2820, vc78
Ranunculus lingua slo p135 [ST 9066, 9888, SU 1228, 2020, 2428] ST 8486, SU 2266, 2664, vc78
Ranunculus omiophyllus p139 SU 0616, 0812, 2664, vc8
Ranunculus parviflorus nifg SU 1826, 2430, vc8
Ranunculus penicillatus ssp. penicillatus slo p138 [recorded as species only], vc7
Ranunculus penicillatus ssp. pseudofluitans nrif [recorded as species only] SU 0816, vc8
Ranunculus peltatus slo p137 [ST 9892, SU 0050, 0052, 0864, 1062, 1262, 2816, 2820] ST 9658, 9832, SU 0640, vc78
Ranunculus sardous slo p135 [SU 2616, 2816], vc8
Ranunculus trichophyllus p139 SU 0894, vc78
Raphanus raphanistrum * p181 SU 1668, vc78
Rapistrum rugosum * slo p180 [ST 8456, SU 1082] ST 7860, 8060, vc78
Rhinanthus minor ssp. calcareus slo p269 [ST 9050, SU 0266, 0292] SU 0418, vc78
Rhododendron luteum * nrif [ST 7838] ST 8442, vc8
Rhynchospora alba slo p316 [SU 2416, 2418, 2616, 2618, 2814, 2816, 2818], vc78
Rhynchospora fusca slo p316 [SU 2618], vc8
Ribes nigrum p187 SU 1466, 1836, vc78
Ribes odoratum* nif SU 1668, vc7
Ribes sanguineum * nrif [SU 1680] ST 9474, SU 1660, 1668, 1868, vc78
Robinia pseudoacacia * nrif [ST 7660, 8068, 8462, 8466, 9276, 9438, 9648, SU 0836, 0840, 0886, 1876, 2028], vc78
Rorippa amphibia p177 [ST 7660, 8068, 8462, 8466, 9216, 9438, 9448, 9648, SU 0836, 0840, 0886, 1876, 2028] ST 8460, 8660, 9486, vc78
Rorippa austriaca slo p175 [SU 1084], vc7
Rorippa microphylla slo p173 [ST 8482, 9476, SU 0484, 0688] ST 8060, vc7
Rorippa palustris p174 ST 9268, SU 1466, 1868, vc78
Rorippa x sterilis (R. nasturtium-aquatica x R. microphylla) nifg SU 1468, 1668, 1868, vc78
Rorippa sylvestris p177 ST 8460, 9064, SU 0638, 1466, 1468, 1668, 1868, 2670, vc78
Rosa agrestis nifg SU 0212, vc8
Rosa x andegavensis (R. stylosa x R. canina) slo p196 [SU 0288], vc7
Rosa x bishopii (R. agrestis x R. micrantha) nif SU 0820, vc8
Rosa micrantha slo p197 [ST 8270, 8274, SU 0880, 1640, 2238, 2818] ST 9634, SU 2024, 2072, vc78
Rosa multiflora * nif SU 1668, vc7
Rosa x nitidula (= latens) (R. canina x R. rubiginosa) slo p197 [SU 0470], vc7
Rosa obtusifolia slo p197 [ST 8280, 8282, SU 2818], vc78
Rosa rubiginosa slo p197 [ST 7632, 9822, SU 0020, 0468, 0824, 0880, 2026, 2032, 2034, 2044, 2050, 2234, 2238, 2428] ST 8244, SU 1438, 1680, 1868, vc78
Rosa rugosa * nrif [SU 1286, 1460, 1484, 1680] SU 1668, 1868, vc78
Rosa x scabriuscula (R. canina x R. tomentosa) slo p197 [ST 8470, 8480, 8872, SU 0288, 0478, 0678], vc7
Rosa sherardii slo p197 [ST 8482, SU 0880, 1264] ST 8058, 8282, vc7
Rosa stylosa slo p196 [ST 7860, 8272, 8472, 8482, 8626, 8882, 9262, 9276, 9280, 9282, 9660, 9670, SU 0286] SU 0270, 2024, 2220, 2226, 2624, vc78
Rosa tomentosa slo p197 [ST 7866, 8070, 8266, 8272, 8280, 8468, 8470, 8684, 8872, 8882, 9068, 9070, 9268, 9282, 9462, 9464, 9466, 9494, 9868, SU 0288, 0292, 0880, 0884] SU 1668, 1868, 2276, 2420, vc78
Rosa tomentosa var. dimorpha slo p197 [ST 9068, 9070], vc7
Rosa x verticillicantha (R. canina x R. arvensis) nif (Grose has R. canina var. verticillantha) SU 2424, vc8
Rumex hydrolapathum p161 ST 8484, 9678, SU 1282, 2660, vc78

Rumex maritimus slo p162 [SU 1880], vc7
Rumex x pratensis (R. crispus x R. obtusifolius) nrif p160 [ST 7838, 7638, 9462, SU 0274, 0486, 1066, 1680, 1668, 1680, 1868, 1870, 1876, 1878, 1880, 1884, 2276, 2674], vc78
Rumex pulcher slo p162 [ST 8060, 8264, 8870, SU 1438, 1624, 1880] ST 8484, vc78
Rumex x ruhmeri (R. conglomeratus x R. sanguineus) nif SU 1668, vc7
Rumex sanguineus var. sanguineus slo p162 * [SU 2264] SU 1466, 2020, vc7
Sagina apetala ssp. erecta p157, vc78
Sagina nodosa slo p155 [ST 7632, SU 0094, 0292, 3052] SU 2050, vc78
Sagittaria sagittifolia p304 ST 8644, SU 1428, vc78
Salix alba var. caerulea slo p170 [no record] ST 8844, vc8
Salix alba var. vitellina nrif [SU 0688], vc7
Salix aurita slo p172 [ST 8060, 8062, 8626, 8650, 8660, 9052, 9084, 9250, 9276, 9478, 9492, 9678, 9854, 9858, 9870, 9878, 9886, SU 0256, 0280, 0678, 0832, 0834, 1252, 2226, 2466, 2664, 2864], vc78
Salix cinerea ssp. cinerea nif SU 1482, 1880, vc7
Salix eleagnos * nif ST 9272, SU 1286, vc7
Salix fragilis var. fragilis ?* nif ST 8062, vc7
Salix pentandra slo p169 [ST 8478, 9478, 9678, SU 2870], vc7
Salix purpurea p171 SU 0222, 1468, 1624, 2246, 2482, 2660, vc78
Salix x reichardtii (S. caprea x S. cinerea) slo p170 [ST 9898] SU 1286, 2066, 2464, vc7
Salix repens p174, vc8
Salix x rubens * (S. alba x S. fragilis) nifg SU 1428, vc8
Salix x rubra (S. purpurea x S. viminalis) nifg SU 1880, vc7
Salix x sericans (S. viminalis x S. caprea) slo p170 [ST 9484, SU 0094, 0680, 1262, 1468, 1668, 1880, 2090] ST 9286, vc7
Salix x smithiana (S. viminalis x S. cinerea) slo p170 [ST 8280, SU 1680] SU 1668, 1868, vc7
Salvia officinalis * nrif [SU 1832], vc8
Salvia pratensis slo 256 [ST 9250], vc8
Salvia verbenaca p258 ST 8464, 8646, SU 0234, 0640, vc78
Sambucus ebulus * slo p278 [ST 8068, 8274, 8474, 8872, 9252, 9840, 9842, SU 0094, 0640, 1086, 2292, 2870], vc78
Samolus valerandi p187 SU 0496, vc7
Sanguisorba minor ssp. muricata slo p194 [SU 0236, 0634, 1440, 2030], vc8
Sanguisorba officinalis p195 ST 8456, SU 0284, 0286, 0290, 0482, 0694, 2086, vc78
Saponaria officinalis p161 ST 9416, 9418, SU 1430, 1838, 2036, 2038, 2470, 1230, vc78
Saxifraga cymbalaria * slo p189 [ST 8260], vc7
Saxifraga granulata p190 ST 8234, 9230, SU 1230, 1430, vc78
Saxifraga tridactylites p190 SU 1228, 1426, 1428, 1430, 2050, vc78
Scandix pecten-veneris slo p230 [SU 3072] SU 0662, 0664, 2040, 2650, 2856, vc78
Sciadopitys verticillata * nif ST 8242, vc8
Schizostylis coccinea * nrif [ST 8456], vc8
Schoenoplectus lacustris p318 ST 9428, vc78
Schoenoplectus tabernaemontani p318 ST 9470, SU 0496, 1088, 1486, vc7
Scilla bithynica * nif SU 1668, 1868, vc7
Scilla siberica* nif SU 1868, vc7
Scirpus sylvaticus p318 ST 7434, vc78
Scleranthus annuus slo p260 [SU 1634, 2218, 2264, 2418, 2654] SU 1668, vc8
Scrophularia umbrosa slo p260 [SU 3062], vc8
Scrophularia vernalis * slo p260 [SU 1226], vc8
Scutellaria galericulata p254, vc78
Scutellaria minor p254, vc8
Secale cereale * nrif [SU 0272, 2030], vc78
Securigera varia * slo p204 [ST 9080, SU 0684, 2040, 2042] ST 9082, vc78
Sedum album * p190 ST 8666, SU 1268, vc78
Sedum anglicum * slo p188 [SU 1844], vc8
Sedum dasyphyllum * p190, vc7
Sedum forsterianum * slo p188 [SU 0886 - also been called reflexum, so could be some confusion], vc7
Sedum rupestre (= reflexum) * nrif [ST 7838, 8062, 8874, 9228, 9830, 9888, SU 0296, 0482, 0496, 0496, 0886, 1466, 1494, 1634, 1678, 1680, 2670, 2872 - see also forsterianum] ST 9486, SU 1268, 2618, vc78
Sedum spurium * nrif [ST 8284] SU 1266, vc7
Sedum telephium p190 ST 9280, SU 0282, 0848, 0872, 1468, 2450, vc78
Senecio fluviatilis * slo p296 [ST 7860, 8450], vc8
Senecio jacobaea ssp. (a dwarf coastal ssp. not known in Wilts ?confirmed) * ST 9418, vc8
Senecio x subnebrodensis (S. squalidus x S. viscosus) ?* nif SU 0614, vc8
Senecio sylvaticus p301 ST 9418, SU 0816, vc78
Senecio viscosus p301 SU 1228, 426, vc78
Sequoiadendron giganteum * nif ST 8442, vc8
Setaria pumila * slo p344 [ST 8658, 8862, 9882, SU 0060, 1868, 2224] SU 2222, vc78
Setaria viridis * nrif [SU 1868], vc7
Sidalcia malvaeflora * nrif [SU 0436], vc8
Silene gallica slo p158 [ST 9668], vc7
Silene noctiflora p157 SU 0422, 1628, 2022, 2024, 2042, vc78
Silybum marianum * slo p283 [ST 8064, 9260, SU 0236, 0464] SU 0638, vc78
Sinapis alba * p181 SU 0814, vc78
Sisymbrium altissimum * nrif [ST 9270], vc7
Sisyrhinchium bermudianum * slo p353 [ST 9278], vc7
Smyrnium olusatrum * slo p230 [SU 1466] SU 0060, 0064, 1430, 1468, 1668, vc78
Solanum rostratum * nrif [SU 1660], vc8
Solanum sarachoides * slo p239 [ST 9268, 9664], vc78
Solanum tuberosum * nrif [ST 9892], vc7
Soleirolia soleirolii * slo p145 [ST 7860, 8058, 8476, SU 0830] ST 7880, 8060, SU 1428, 1868, vc78

Solidago agg. * p294 ST 8260, 8656, 9418, SU 0844, 1430, 1454, 2020, and records of S. canadensis and S. gigantea below, vc78
Solidago canadensis * nrif [ST 9222, 9424] ST 8456, 9272, vc78
Solidago gigantea * nrif [ST 8456, 9268, SU 1442, 1450, 1660, 1678, 1680, 1868, 1872, 1876, 1878, 2250] ST 8862, 9272, SU 0844, 1430, 1468, 1668, 1868, 2450, 2818, vc78
Solidago virgaurea p294 SU 0286, 0838, 2450, vc78
Sorbaria sorbifolia * nif SU 1466, vc7
Sorbus domestica * nif SU 1228, vc8
Sorbus hupehensis * nif SU 2262, vc8
Sorbus intermedia agg. * slo p200 [ST 9074, 9450, 1466, 1480, 1680, 1866, 1876] SU 1030, 2068, 2450, vc78
Sorbus intermedia sens. str. * slo [recorded as agg.] SU 1866, 2068, vc7
Sorbus torminalis p203 ST 8476, SU 1466, 2620, vc78
Sorghum bicolor * nrif [ST 8658], vc8
Sorghum halepense * nrif ST 8658], vc8
Sparganium emersum p347 ST 7860, 8456, 9064, SU 0424, 0826, 1026, 1226, 1696, 2068, 2098, 2268, vc78
Sparganium erectum ssp. neglectum nifg SU 3018, vc8
Spergula arvensis p157 ST 9418, SU 0052, 0812, vc78
Spergularia rubra slo p155 [ST 9466, 9468, 9666, SU 2816, 2818] SU 0616, 1468, 2066, 2422, 2616, vc78
Spiraea x billardii (S. alba x S. douglasii) * nrif [SU 2818], vc8
Spiraea douglasii * nrif [ST 9042], vc8
Spiraea salicifolia * nrif [SU 1460, 1878, 2618], vc78
Spiranthes spirales p356 ST 8244, 9290, 9416, SU 0064, 0422, 1224, 1662, 1820, vc78
Spirodela polyrhiza p308 SU 1064, 2264, vc78
Stachys x ambigua (S. sylvatica x S. palustris) p251 ST 9018, vc78
Stachys arvensis p251 SU 0024, 0424, 2222, vc78
Stachys byzantina * nrif [SU 2090], vc7
Staphylea pinnata * nrif [SU 0062] ST 9418, vc78
Stellaria neglecta p153 ST 8060, 8856, vc78
Stellaria pallida nif ST 8630, vc8
Stratiotes aloides * slo p302 [ST 9294] SU 2066, 2228, vc78
Symphytum grandiflorum slo p243 [ST 8854, 8874, 8886, 9022, 9294, 9640] SU 0456, 1466, 1656, 1868, vc78
Symphytum 'Hidcote Blue' (S. asperum x S. grandiflorum x S. officinale) * nif SU 1466, 1668, vc7
Symphytum orientale * slo p243 [SU 1060, 1868, 2458] SU 0456, vc78
Symphytum tuberosum * slo p243 [ST 8874, 9232] ST 9030, SU 1034, vc78
Symphytum x uplandicum (S. officinale x S. asperum) * p245 ST 9218, 9272, SU 0816, 1626, vc78
Tanacetum balsamita * nif ST 9618, vc8
Taraxacum laevigatum slo p287 [ST 8626, 9416, SU 0226, 0422, 0622, 0628, 0848, 1846, 1848, 2048, 2236, 4822], vc8
Taraxacum palustre slo p287 [SU 0458, 0658, 0858], vc8
Tellima grandiflora * nif SU 0256, vc8
Tephroseris integrifolia ssp. integfrifolia p301 SU 0028, 1656, vc78
Teucrium chamaedrys ?* nifg SU 1466, vc7
Thalictrum flavum p143 SU 0816, 0818, 0848, 0890, 1026, 1444, 1626, 3270, vc78
Thalictrum minus * slo p140 [ST 8068, 9672, SU 2226, 2264] SU 2450, vc78
Thalictrum simplex ssp. galioides * nif SU 0246, vc8
Thesium humifusum p220 SU 1424, 2234, vc78
Thlaspi arvense * p177 SU 0270, 0470, 1466, 1468, 1660, 1668, 2042, 2224, 2448, 3042, vc78
Thuja plicata * nrif [ST 7838, SU 1460, 1464, 1466, 1664], vc78
Thymus pulegioides p258 ST 9218, 9228, 9824, SU 0064, 3260, vc78
Tilia cordata p167 ST 8474, 9890, SU 0092, 0288, 0686, 0694, 0838, 1030, 2020, 2064, Savernake Marie Louise Track nmr, vc78
Tilia platyphyllos nrif [Huge number but all listed in Flora as x vulgaris because of uncertainty over identification] SU 0614, 0816, 2428, 2430, 2448, 2464, vc8
Torilis arvensis slo p237 [ST 9052, SU 1026] ST 9024, SU 1222, vc8
Torilis nodosa slo p237 [ST 9268, SU 0866, 1228], vc78
Trachystemon orientalis * slo p244 [ST 9230, 9232], vc8
Tragopogon porrifolius * nrif [ST 8472, 9652, SU 3072] ST 8034, 8844, 9428, vc78
Trichophorum cespitosum p314, vc8
Trifolium arvense p213, vc78
Trifolium fragiferum p213 ST 8486, SU 0284, 0636, 0642, 1228, 1230, 2870, vc78
Trifolium hybridum * p213 SU 0266, vc78
Trifolium incarnatum ssp. incarnatum * slo p212 [SU 0856] SU 2042, vc8
Trifolium micranthum p213 SU 1868, 1878, vc78
Trifolium medium p213 SU 0220, vc78
Trifolium ornithopodioides slo p211 [SU 2614, 2616, 2816, 2818], vc8
Trifolium striatum p213 ST 9468, vc78
Trifolium subterraneum slo p212 [SU 2614] ST 9468, vc8
Triglochin palustre * p304 SU 1236, 1240, 1428, vc78
Triticum aestivum * nrif [ST 7638, 7838, 8038, 8452, SU 0052, 0054, 0056, 0056, 0250, 0252, 0252, 0254, 0256, 0482, 0654, 0656, 0658, 0854, 0858, 0886, 1070, 1278, 1474, 1670, 1680, 1878, 2030, 2668, 2868, 4000] ST 9418, vc78
Tropaeolum majus * nrif [SU 0250, 0654] SU 1878, vc78
Tsuga heterophylla * nrif [ST 7838] ST 7634, vc8
Tulipa sylvestris * slo p345 [ST 9652, SU 1252,

1820] SU 2020, vc8
Typha angustifolia slo p344 [ST 9066, SU 0094, 0280, 2226, 2422] SU 2266, vc78
Ulex gallii p217 ST 7434, 7638, 7838, 8442, 9666, vc78
Ulex minor p217 SU 2264, vc78
Umbilicus rupestris p187 ST 9426, SU Ansty nmr, vc78
Ulmus minor ssp. minor slo p144 [ST 8062, SU 2030] SU 1668, vc78
Urtica galeopsifolia * nif SU 0038, vc8
Utricularia minor ?* nif SU 2814, 2816, vc8
Vaccinium myrtillus p184 ST 8442, SU 0616, 1468, vc78
Valeriana dioica p280 ST 9646, SU 1428, vc78
Valerianella carinata slo p277 [ST 9268, 9628, SU 0094, 1236, 1422, 1436, 1482] ST 7880, 8060, SU 1060, vc78
Valerianella dentata p278 SU 0620, 1426, 1466, 2024, vc78
Valerianella locusta p278 SU 1066, 1426, 1466, vc78
Valerianella rimosa slo p277 [SU 2024], vc8
Verbascum blattaria * slo p259 [ST 8462, SU 1286], vc7
Verbascum densiflorum * slo p260 [ST 8444], vc8
Verbascum nigrum p262 ST 9678, SU 0026, 0420, 0618, 0818, vc78
Verbascum phlomoides * slo p260 [ST 8886, 9464] ST 8060, vc7
Verbascum virgatum slo p260 [ST 8652, SU 1684] ST 8060, vc78
Verbena officinalis p248 ST 8484, SU 0420, 0818, vc78
Veronica agrestis p267 SU 1426, 2022, 2818, vc78
Veronica austriaca * nif SU 1668, 2034, vc78
Veronica catenata p267 SU 0870, 1228, 1428, vc78
Veronica hederifolia ssp. hederifolia nrif [recorded only as agg. in WFMP] SU 0814, 0816, 1426, vc8
Veronica hederifolia ssp. lucorum nrif [recorded only as agg. in WFMP] ST 9428, 9626, SU 0616, 0812, 0816, 1012, 1426, 1468, vc78
Veronica x lackschewitzii (V. catenata x V. anagallis-aquatica) nrif [SU 0644] ST 8656, SU 0816, 0868, 0872, 1016, 1066, 1068, 1072, 1228, 1268, 1468, 1668, 1868, 1870, 2068, 2098, 2268, 2426, 2470, 2670, 2870, vc78
Veronica longifolia * slo p266 [SU 1832] SU 1868, vc78
Veronica polita p267 SU 2022, 2448, vc78
Veronica scutellata p267 ST 8826, SU 2428, 2618, vc78
Veronica serpyllifolia ssp. serpyllifolia nif SU 0614, 1426, 2036, vc8
Vicia bithynica * nifg SU 1482, vc7
Vicia faba * nif ST 8262, vc7
Vicia hybrida * nif SU 1468, vc7
Vicia lutea * slo p206 [SU 2024, 2280], vc78
Vicia parviflora slo p205 [ST 8066], vc7
Vicia sativa ssp. nigra nrif [ST 8280, 8842, 9262, 9268, 9682, SU 2030], vc78
Vicia sativa ssp. sativa nrif [ST 9090, 9238, SU 2030], vc78
Vicia sativa ssp. segetalis nrif [ST 8250] SU 0620, vc8
Vicia sylvatica p207, vc78
Vicia tetrasperma p207 SU 0614, 2672, vc78
Vicia villosa * nifg ST 8656, vc8
Vinca major * slo p238 nrif [ST 7632, 7838, 8066, 8074, 8078, 8276, 8428, 8468, 8472, 8646, 8664, 8856, 8858, 8874, 8892, 9070, 9074, 9240, 9256, 9262, 9268, 9270, 9462, 9474, 9630, 9632, 9652, 9658, 9664, 9672, SU 0038, 0068, 0082, 0090, 0174, 0272, 0430, 0490, 0626, 0636, 0688, 0834, 0840, 0856, 0886, 0969, 1074, 1080, 1082, 1094, 1232, 1234, 1236, 1238, 1242, 1282, 1286, 1288, 1292, 1294, 1428, 1430, 1442, 1460, 1466, 1468, 1478, 1478, 1480, 1482, 1484, 1488, 1620, 1626, 1640, 1670, 1680, 1682, 1688, 1820, 1880, 1882, 1884, 1886, 1888, 2032, 2098, 2226, 2240, 2268, 2282, 2432, 2482, 2674] SU 2448, 2818, vc78
Vinca minor * slo 238 nrif [ST 7432, 7634, 7862, 8058, 8062, 8270, 8274, 8442, 8628, 8740, 9024, 9026, 9028, 9040, 9062, 9232, 9242, 9256, 9282, 9440, 9452, 9454, 9488, 9660, 9672, 9730, 9828, 9852, 9856, 9892, 9894, SU 0036, 0052, 0054, 0060, 0090, 0224, 0254, 0624, 0630, 0660, 0688, 0826, 0830, 0834, 0856, 1076, 1082, 1084, 1222, 1234, 1238, 1450, 1466, 1482, 1484, 1486, 1540, 1626, 1644, 1682, 1684, 1686, 1826, 1882, 2022, 2220, 2222, 2226, 2232, 2282, 2426, 2618, 2620, 2670, 2816, 2820, 2870, 3050, 3052, 3258, 3460] SU 1426, 2818, vc78
Viola canina ssp. canina (all Wilts records are ssp. canina) slo p168 [ST 9454, 9630, 9650, 9652, 9670, SU 0686, 1048, 1258, 1442, 1464, 2066, 2226, 2264, 2654, 2852, 2854] ST 8042, 9450, SU 0286, vc78
Viola intersita (V. riviniana x V. canina) slo p166 [ST 9278], vc7
Viola palustris slo p168 [ST 7432, 8824, 9466, SU 2616, 2618, 2816, 2818], vc78
Viola x scabra (V. odorata x V. hirta) slo p166 [SU 1228], vc8
Viola tricolor slo p168 [ST 8058, 8824, 9082, SU 0092, 2668], vc78
Viola x wittrockiana (V. altaica x V. lutea x V. tricolor) ?* nif SU 1468, vc7
Viscum album p220 ST 8878, 9080, 9288, 9416, 9418, 9674, SU 0020, 0030, 0230, 0618, 0636, 0820, 1224, 1426, 1442, 1626, 2022, 2024, 2026, 2220, 2222, 2422, 2428, 2618, 2622, 2818, 2820, 2870, vc78
Vulpia bromoides p331 SU 0616, 1468, 2462, vc78
Vulpia myuros p331 ST 9272, SU 0292, 0496, 0638, 2268, 2292, 2462, vc78
Wahlenbergia hederacea slo p272 [SU 2814], vc8
Zannichellia palustris p308 SU 2068, 2268, 2470, 2870, 2872, vc78
Zelkova carpinifolia * nif ST 9418, vc8

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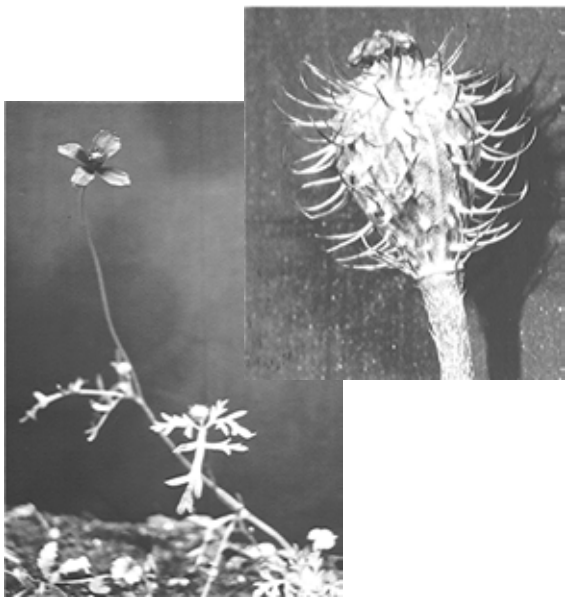
AFTER THE WILTSHIRE FLORA

3. TAXA IN THE 1993 FLORA WITH A MAP

Rough Poppy *(Papaver hybridum)*



A representative group

Of the taxa in this publication, approximately 277 had their distribution represented by a map in the 1993 Flora. The introduction gives instructions on how to use the Record List to compare subsequent records with the content of the maps. Here, an analysis of this additional data is presented.

The provision of a map in the 1993 Flora does not signify anything in particular about the taxon involved. On the whole, maps are provided for species sufficiently widespread to make them worthwhile. However, this is not always the case. The maps range from that for *Carex acuta* and *Ceratocapnos claviculata*, with only 5 tetrads each indicated, to that for *Crataegus monogyna*, where the coverage is so near complete that one feels its omission from any tetrad must have been an oversight. For the rarer species, there is a range from those confined to the New Forest area in the South-east, such as *Drosera rotundifolia*, to those more widely distributed, such as *Lathyrus aphaca*. It looks as though the authors, conscious of the impract-icability of illustrating the distribution of every species, were trying to provide as representative a selection as possible. Analysis of data in this group, therefore, is best seen as a means of exemplifying the patterns of occurrence which occur in taxa generally. The pictorial form of the maps is particularly helpful for this purpose.

Analysis in terms of number of new tetrads

The table below shows the number of taxa in this group with records in specified numbers of new tetrads since the 1993 Flora, up to and including 2003. The figures are approximate, because of uncert-ainties regarding the data for or the status of a small number of taxa. However, they are near enough for any purpose to which they are likely to be put.

No. of tetrads	0	1	2-3	4-9	10-19	20+
No. of taxa	42	35	79	104	13	4

The results most likely to be of interest are those for taxa where there is either a very small number of tetrads recorded since the Flora or a very large number. Below, therefore, we look at taxa with either no tetrads or one tetrad and those with 10 or more.

Taxa in no tetrads or one tetrad

Occurrence in no tetrads or one is not surprising for any species in the list, since all occurred in 3% or less of 1km squares in the Flora Mapping. However, 3% can represent over 100 squares, and this, combined with the attraction of the comparative rarity of the

species, does make it likely that they would have been recorded subsequently in some squares if they had appeared. It is, therefore, reasonable to assume that a 0 or 1 total means that, unless it has been overlooked in some way, the taxon has not appreciably increased its range. There are approximately 77 taxa in this category, and something can be said about most of them. Below is an examination of likely reasons for the low recording rates.

Some taxa were exceedingly rare to start with, so it is not surprising that this is still the case. The following taxa, with no tetrads or one since the 1993 Flora, for instance, were recorded for less than 1% of the 1km squares in the County in the Flora Mapping:
Carex acuta
Carex distans
Carex pulicaria
Cerastium arvense
Ceratocapnos claviculata
Diplotaxis muralis
Eleocharis uniglumis
Epilobium palustre
Fritillaria meleagris
Galeopsis angustifolia
Gaudinia fragilis
Glyceria declinata
Hydrocotyle vulgaris
Lactuca virosa
Lamium hybridum
Lathyrus aphaca
Lathyrus sylvestris
Linaria repens
Myosotis secunda
Oenanthe fluviatilis
Platanthera bifolia
Potamogeton lucens
Potamogeton nodosus
Potamogeton polygonifolius
Pyrus communis
Ranunculus fluitans
Ranunculus trichophyllus
Samolus valerandi
Scutellaria minor
Sedum dasyphyllum
Stachys x ambigua (S. sylvatica x S. palustris)
Trifolium arvense
Trifolium striatum
Vicia sylvatica

Nor is it surprising that taxa with nowhere to go have not increased their range. For instance, the following are normally found on acid soils, are restricted in Wiltshire to the New Forest in the South-east and are surrounded by chalk downland, which is an unsuitable habitat. It is, therefore, most unlikely that they will spread outside their current area.
Agrostis curtisii
Drosera rotundifolia
Erica tetralix
Erica cinerea
Hypericum elodes
Narthecium ossifragum
Salix repens
Trichophorum cespitosum

Others are restricted to the New Forest and some other acid habitats:
Vaccinium myrtillus
Eriophorum angustifolifolium
Montia fontana
Ulex minor
Deschampsia flexuosa

Similarly, *Crataegus laevigata* likes clay soils, is found mainly in the North and West, and is unlikely to spread to the other types of soil which surround it. *Fritillaria meleagris* likes unimproved or semi-improved water meadows and is largely restricted to a few isolated examples in the North. Elsewhere it's an introduction.

Many of the taxa with no tetrads or one may not actually be as rare as this, but could be overlooked for some reason. Grasses and sedges, for instance, are hard to identify and not everyone relishes the challenge. We cannot be sure, therefore, that we know much about the current range of:
Aira caryophylla
Apera spica-venti
Bromus racemosus
Carex acuta
Carex distans
Carex paniculata
Carex pulicaria
Carex viridula ssp. oedocarpa
Catapodium rigidum
Ceratochloa carinata
Danthonia decumbens
Deschampsia flexuosa
Festuca hetrophylla
X festulolium loliaceum (F. pratensis x L. perenne)
Gaudinia fragilis
Glyceria declinata

Other taxa which could be overlooked because of identification difficulties are:

- yellow crucifers such as *Brassica nigra, Raphanus raphanistrum* and *Sinapis alba*;
- other taxa not easily distinguished from relatives such as *Crataegus laevigata*, which hybridises freely with *C. monogyna* to confuse things more, *Dactylorhiza x grandis (D. fuchsii x D. praeter-0missa), Myosotis secunda*, and clovers such as *Trifolium hybridum* and *Trifolium medium*;
- taxa with an accessibility problem such as *Oenanthe fluviatilis* and *Potamogeton* spp;
- taxa whose comparative rarity may not be realised, so that they are not thought worth recording, such as *Brassica nigra*;

- plants which come and go such as *Cuscuta europaea*, known only beside a stretch of the Bristol Avon and hard to find in some years;
- saplings of introduced trees such as *Acer platanoides*;
- inconspicuous garden weeds such as *Sagina apetala ssp. erecta*.

There remains a group of plants where there is no obvious reason for a lack of spread, but which are sufficiently conspicuous to make it unlikely that they have been overlooked:
Centranthus ruber, which is extremely abundant where it occurs and has plumed seeds which can travel in the air for long distances
Clinopodium ascendens
Cruciata laevipes
Dipsacus pilosus
Erodium cicutarium
Medicago sativa ssp. sativa
Mimulus guttatus
Nuphar lutea
Pentaglottis sempervirens
Raphanus raphanistrum
Scutellaria galericulata

Taxa in more than 10 tetrads

In some cases, this will indicate an extension of range and/or increased occurrence. This is very probably the case for *Lactuca serriola* and *Conyza canadensis*. Both were reported in the 1993 Flora to have spread rapidly, and it seems likely to have continued. They easily colonise waste ground, such as abandoned industrial sites, or car parks and pavements which are not tidied regularly, as well as railway lines. Indeed, it is unusual when walking in a West Wiltshire town or village not to see *Lactuca serriola*. It could also be true for *Aquilegia vulgaris*. Though native in a few Wiltshire locations, it is more commonly a garden escape and is sufficiently common in gardens for this process to have continued. It is also a persistent perennial, so is likely to have remained in many of its previous sites. *Myosotis sylvatica* is another common garden plant which has had plenty of opportunities to continue escaping and seeds itself so prolifically that it stands a good chance of remaining in earlier sites. *Linaria purpurea* is a similar example.

For various other taxa the situation is confused by increasingly enthusiastic recording. Thus *Populus nigra ssp. betulifolia* has been recorded in 23 new tetrads since the Flora, but many of these were in surveys by David Green and helpers, who had added 53 new individual records by 1995. Left to casual recording, it is unlikely that so many new tetrads would have been found. There was also a survey of *Viscum album*, which by 2003 had the record number of new tetrads at 28. *Lemna minuta* has been specially recorded by Jack Oliver. First found in the county at Chippenham in 1987, it has spread rapidly along watercourses since, but it would need somebody with a special interest to detect this.

Arable weeds constitute another group of plants whose recording has also been influenced by a range of surveys in recent years. The taxa relevant here are *Legousia hybrida*, *Papaver hybridum* and *Thlaspi arvensis*. However, other factors have also been at work. Increased awareness of conservation issues has led to reduced spraying with herbicides in some places, so that plants that were dying out have had some chance of recovery. Since they are annuals, however, increased range does not necessarily suggest increased frequency of occurrence - they could have disappeared from more tetrads than have been added. The data here would not show that. The situation is complicated by the practice, among some conservation-minded people, of sowing seeds of these plants in suitable habitats.

There is uncertainty, also, about other taxa. *Ophrys apifera* has been recorded in 21 new tetrads, which, at first sight might suggest increased frequency. However, it has a life cycle in which the first few years are spent underground, living first on nutrients derived from a fungus and later with a few inconspicuous leaves. It may then flower for one year and die, or remain dormant for a while. Plants from its seeds are unlikely to be noticed for the next few years, and then only if no dormancy period is assumed. The new tetrads are not, therefore, necessarily new sites. The life cycle may have led to its being overlooked there when it briefly appeared in the past. For the same reason, it may not have been seen recently in some of its old sites, so the total frequency of observable plants may be not greater than before - or could even be less.

The 12 new tetrads for *Iris foetidissima* are difficult to interpret for different reasons. It is a widespread taxon and produces seed regularly, so has opportunity to spread. However, it can grow in woods difficult to access and could, therefore, simply have been undetected previously in the apparently new locations. *Dryopteris affinis*, with 13 new tetrads, could have been overlooked in the past for similar reasons, though interest in and skill at identifying *Dryopteris* species could also have played a part. *Tilia cordata* has 10 new tetrads, and 6 of them are in 5 new 10 km squares, which could indicate either an increase in range or that it has been overlooked previously. The same applies to *Sparganium emersum*, which has 11 new tetrads, of which 9 are in 6 new 10 km squares. *Hypericum pulchrum* also resists clear interpretation.

Where next?

The availability of distribution maps for species may suggest that we know enough about their occurrence.

The above shows that this is far from the case. The data collected by recorders from the end of Flora Mapping to 2003 raise more questions than they answer. Some readers may be able to throw light now on some of the questions that arise. For others, there are challenges which would justify a response. In the meantime, let us be pleased at the large number of records we have collected since the Flora Mapping and at the resulting new knowledge as to where particular taxa can be found.

Portrait of Downy Birch *(Betula pubescens)*

Betula pubescens provides a good example of how recording carried out without an overall systematic approach can miss important changes. Its distribution map in the 1993 Flora shows a very thin and patchy scatter of dots, and subsequent records to 2003 add only one new tetrad for it - ST9158 in the extreme South of the county. The main concentrations were in particular areas of the South-east and South-west, with another in the extreme North. Apart from tetrad SU3072, there were no records for the area stretching from West Woods east through Savernake Forest, the brails and Bedwyn Common to the Wiltshire north-east border, where it has been found in immense numbers in 2004-2005. Plainly, these have not appeared overnight, and must therefore have been unnoticed over a number of years. The tetrads in this area where they have been recorded newly in 2004-2005 are SU 1464, 1466, 1664, 1866, 2066, 2068, 2264, 2266, 2268, 2464, 2664, and 2862. The two commonest situations are cleared plantations and plantation fringes, whatever the main plantation tree species. They are not just occasional trees. Frequently there are hundreds, thousands or more, sometimes with saplings of different ages so densely crowded that one cannot squeeze between them.

Silver Birch *(Betula pendula)* has glabrous warty shoots, but Downy Birch can have either hairy or glabrous shoots (Stace 1977). Unfortunately, easy identification is undermined because of the hairiness of the regrowth shoots of some Silver Birches after deer-cropping; and because young Silver Birch saplings usually also have hairy shoots. Also, Downy Birches can have brown, grey or white trunks. Identifications of seedlings and young saplings must therefore be made on the leaves, as the two parent tree species now grow so often together in this part of Wiltshire.

The picture is further complicated by the undoubted presence of the third tall native birch, the hybrid between the two species *Betula x aurata*. The hybrid is usually downy, and tends to be closer in its characters to Downy Birch than to Silver Birch. It is hard to determine the frequency of the hybrid because of uncertainties as to where one species ends and the other begins. Further, *Betula pubescens* and known hybrids sometimes have the same chromosome number, so this number cannot always distinguish between the two, even assuming that it was practicable to do it for such large numbers of plants. This may explain why there was only one record in the 1993 Flora (in the extreme North of the county) and none during the subsequent period to 2003. Within the West Woods/Savernake/Bedwyn area there are thousands of intermediate trees with varying degrees of pubescence seemingly back-crossing readily with each other and with either parent. All that can be said is that Downy Birch has become very common in its pure form and in intermediate forms. All ranges of mixed or intermediate characters in trunks, leaves, seed-wings and shoots can be seen in abundance. The proportion of these that are true hybrids is uncertain

Portrait of Rough Poppy *(Papaver hybridum*)

Rough Poppy is one of the many annual agricultural weeds that used to flourish in land that was cultivated, because cultivation produced soil where they could grow with little competition from vigorous perennials and because the seeds were often inadvertently harvested with the crop and consequently sown with it. With the advent of herbicides and seed cleaning techniques, they became less common. Rough Poppy survived in scattered locations, mainly in South and East England. The rise of conservation has given it new opportunities. Strips at field edges are sometime left unsprayed to allow growth of weeds and some farmers now deliberately sow them. Rough Poppy is well-equipped to take advantage of such opportunities. It is normally self-pollinated, so a single plant is all that is needed for a new generation. The seeds remain viable in the soil for at least 80 years, so it is very likely that some will be there ready to germinate when conditions become right. There is evidence that it is becoming more common in at least some localities. A study in Oxfordshire found that it occurred in two out of 156 fields in 1962, but was in 12 of the original 104 fields that remained in 1997 (Stevenson et al 1999).

In Wiltshire, Rough Poppy was recorded in 41 1km squares in the Flora Mapping, which is roughly 2% of all such squares in the County, but they were virtually all in the south-west quarter. In this area, it was sometimes locally common. A 1999 survey concluded that it was “possibly increasing” in Wiltshire, mainly on the basis of new sites (Banks 2002). There were an encouraging 14 new tetrads added to the Flora Mapping count of 41 during the subsequent period up to 2003 - 34% of that original number.

The species can be distinguished from other poppies by a fruit about as long as broad covered in bristly hairs and a smallish, distinctively crimson flower. The fruits of other species are either not bristly or much longer than wide.

Portrait of Nuttall's Waterweed *(Elodea nuttalli*)

Elodea nuttallii was first reported in Wiltshire in 1978, in the Cotswold Water Park lakes. By 1987, this species had become abundant in these lakes, and had spread into the adjacent Thames and its tributaries in the northernmost part of the county. In 1986, it appeared to have totally replaced Canadian Pondweed *(E. canadensis*) at 15 sites along the Kennet and Avon Canal. The data in this issue for 1993-2003 show 3 additional tetrads - in ponds in Savernake Forest and Bentley Wood in the South of the county and in a canal at Swindon, so its spread is plainly continuing, though there are not enough observers to document this precisely. More recently it has been recorded on the River Avon at Malmesbury.

Nuttall's Waterweed has been seen growing very abundantly in a wide variety of conditions. Both by the Thames tributaries and along the Kennet and Avon Canal, waist-high, dark green, soggy mounds of vegetation dredged up from under water could be observed on the banks, with at least 95% of the plant material Nuttall's Waterweed, a species never previously recorded from these sites. It can grow just under the water surface, but more commonly it is deeper. It can thrive at 3m deep, and often forms dense dark green masses from 10-150cm down. In February 1986, when the central sections of the Kennet and Avon Canal were frozen over, bright green new young shoots were visible under the ice. Comparisons made at different times suggested that it was the only aquatic species capable of growth in refracted sunlight under the February ice, giving it a distinct advantage over other species.

There are six growth forms of *E. nuttallii* and three of *E. canadensis* (Simpson 1988). *E. nuttallii* has acute to acuminate leaf tips, whereas those of *E. canadensis* are obtuse to broadly acute (1988). Usually, the leaves of *E. nuttallii* are longer, much narrower, stiffer and more recurved then those of *E. canadensis*. If the recurved leaves touch the stem, it is always *E. nuttallii*. In practice in Wiltshire, there is rarely any overlap in form between the two species. Indeed, *E. nuttallii* is often more like Curly Pondweed (*Lagarosiphon major*) than *E. canadensis*.

Compared with Canadian Pondweed, stem elongation in Nuttall's Waterweed is more rapid and axillary shoot production significantly more productive, under a variety of light conditions in both nutrient-poor and enriched waters. (Simpson 1990). These differences may explain why it seems to have largely supplanted *E. canadensis* in Wiltshire over the past 15 years. The dense underwater mixed concentrations of *E. canadensis* of the 1980s are no longer to be seen, and Nuttall's Waterweed is now more common and widespread than *E. canadensis*. This is as Simpson (1990) predicted. I should be borne in mind, however, that, as with *E. canadensis*, a huge increase can be followed by a crash in numbers.

Portrait of Black Mustard (*Brassica nigra*)

As a yellow crucifer, Black Mustard brings recording problems because it is easily confused with its relatives. Its appearance, however, is typically striking - tall, sometimes 6-7 feet high, with wide-spreading branches. However, its leaves are very variable and its flowers and fruits very similar to a number of other species. Fortunately, its combination of yellow flowers and mature fruits closely appressed to the stem distinguishes it from most others. Most of the confusion is with Charlock (*Sinapis arvensis*) and the rare Hoary Mustard (*Hirschfeldia incana*). Charlock usually has ovate upper leaves which sometimes have a pair of narrow lobes at the base, while those of Black Mustard are lanceolate and usually undivided. The mature fruits of Charlock normally diverge from the stem. Hoary Mustard has a fruit with a swollen beak, as opposed to the slender one of Black Mustard. Flower differences are less reliable, though the petal claw of Hoary Mustard is usually markedly shorter than the limb and the sepals are erect or nearly so, while the claw of Black Mustard is not markedly shorter than the limb and the sepals usually diverge strongly, sometimes to the extent of pointing downwards. For more precise distinctions, see Rich (1991) and Presland (2001).

Black Mustard is an annual plant, so can vary in where it is found. Its Wiltshire distribution reflects the national pattern - widespread but local, and then often abundant. In Wiltshire, the 1993 Flora reported it as locally abundant along the Bristol Avon and Kennet and Avon Canal, where it is native, but also on railway embankments, and on disturbed or derelict land. In these habitats, it more probably originated by escapes from former cultivation for its seeds, which were used in mustard and in the manufacture of soap and medicines.

Surprisingly, there are no records of Black Mustard since the Flora, perhaps because it is dismissed as a common yellow crucifer. There is no doubt that it is still abundant locally.

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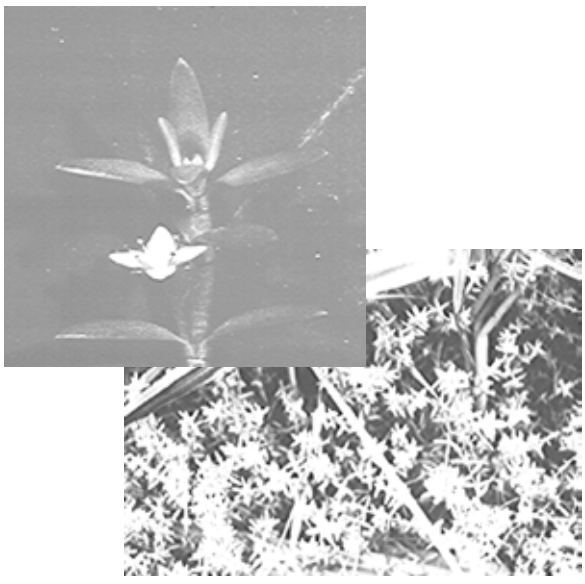
AFTER THE WILTSHIRE FLORA

4. TAXA IN THE 1993 FLORA WITH NO MAP

New Zealand Pigmyweed *(Crassula helmsii)*



Introduction to the group

This article looks at the eligible taxa which are included in the 1993 Flora but without a distribution map. They are, as a group, less frequently occurring than those provided with a map, but have nothing else in common apart from that absence. The data provided here is, however, different from that given for taxa with a map, in that the tetrads in which they were recorded during the Flora Mapping are listed in print, which has not previously been done. The introduction explains how to use the Record List to make comparisons between the records for the Flora and those collected since.

As far as the analysis here goes, it echoes themes already raised in the account of taxa with a map. Because of the enormous number of taxa involved (approximately 582), however, the treatment cannot be as comprehensive as for that group. It relies heavily on selected examples, though an attempt is made to use examples about which something helpful or interesting can be said.

Analysis in terms of number of new tetrads

The table below shows the number of taxa in this group with records in specified numbers of additional tetrads since the Flora Mapping up to 2003. The figures are again approximate, because of uncertainties over the data for or the status of a small number of taxa. However, they are again near enough for our purposes here.

No. of tetrads	0	1	2-4	5-9	10-19	20+
No. of taxa	288	128	121	36	5	3

As for taxa with a map, the data most likely to be of interest are those for taxa where there is either a very small number of tetrads recorded since the Flora Mapping or a relatively large number. Therefore, we are looking at taxa with either no tetrads or one tetrad and those with 5 or more.

Taxa in no tetrads or one

Most of the taxa here were recorded at very low levels of frequency in the Flora Mapping, so it is rarely surprising if they have not appeared or hardly appeared in records since. In fact, the very great majority of taxa (approximately 324) have been recorded either in one tetrad or none. Some of these are known to be rarities on any criterion, such as *Alisma lanceolatum*, *Aceras anthropomorphum*, *Apium inundatum*, *Descurainia sophia*, and *Vicia parviflora*. These occurred in only one tetrad each in the Flora Mapping, and are regarded as rare in Britain

generally. Other taxa may be rare locally, such as *Apium inundatum* and *Cerastium diffusum*.

Some taxa may, however, not be as rare as they seem, but have been overlooked for some reason. Grasses, sedges and their relatives are notoriously overlooked and misidentified, which could explain the virtual absence of records of *Avena sativa, Blysmus compressus, Carex digitata, Bromus lepidus*, and *Juncus compressus*. *Callitriche brutia* is hard to distinguish from other *Callitriche* species, and similar difficulties are exemplified by *Cerastium pumilum, Erophila majuscula, Hieracium sabaudum (= perpropinquum), Mentha spicata, Oenanthe aquatica, Potamogeton obtusifolius* and other *Potamogeton* species, and *Valerianella rimosa*. Others can be confused with a wider range of related taxa, such as the crucifers *Diplotaxis tenuifolia, Rorippa austriaca*, and *Hirschfeldia incana*, the umbels *Torilis nodosa* and *Carum carvi*, and *Trifolium ornithopodioides*. Other taxa are insignificant in appearance and might be overlooked totally, such as *Lepidium ruderale, Polygonum rurivagum* and *Radiola linoides*, while *Herminium monorchis* can be inconspicuous in grassland.

A number of taxa with no tetrads or one are more interesting because they were recorded for a notably greater number of tetrads in the Flora Mapping. For instance, *Equisetum fluviatile* was noted for 78 tetrads, *Chenopodium bonus-henricus* for 58, *Brassica rapa ssp. rapa* for 48, *Epilobium roseum* for 61, *Epilobium obscurum* for 55, *Mentha suaveolens* for 40, *Persicaria bistorta* for 32, *Polygala serpyllifolia* for 25, *Salix aurita* for 25, and *Lepidium campestre* for 23. It is, of course, possible that these were recorded under the discipline of the Flora Mapping when they would not have been otherwise, in which case more assiduous recording might turn up more instances. This must be likely for *Narcissus pseudonarcissus*, since a number have been newly seen in the Marlborough area alone and others have been recorded as subspecies. It is also possible that these taxa have just not spread beyond their original tetrads. It is more probable for most of them, however, that they are no longer thriving, and they could well be dying out from their original locations. Certainly, they have been little recorded anywhere since the 1993 Flora.

Certain cautions must, however, be taken into account in assessing these discrepancies. Perhaps the main reason why *Epilobium roseum* and *Epilobium obscurum* were not mapped, and only one specific location mentioned, was that the county recorders thought they had often been misidentified - ie they may not have been so frequent as they appeared to be from the Flora Mapping data. Misidentification may also play a part for further taxa. Some *Chenopodium bonus-henricus* records could really have been *Chenopodium rubrum*. There was some confusion between *Brassica rapa ssp. rapa* and *Brassica napus ssp. oleifolium*. *Persicaria bistorta* records could really have been terrestrial forms of *Persicaria amphibia*. *Polygala serpyllifolia* is sometimes confused with *Polygala vulgaris*. So there are question marks over most of these taxa.

However, there is good reason to assume decreasing numbers for some. *Equisetum fluviatile* was, at the time of the Flora Mapping, a locally common component of aquatic communities, sometimes in huge numbers covering entire ponds, so is unlikely to be overlooked now, yet it has been re-recorded in only one of its 1993 tetrads. *Salix aurita* was reported in the Flora to be decreasing in the southeast corner where it was formerly common, and has not been re-recorded there since the Flora, so the same could be happening generally. Likewise *Lepidium campestre* has not been re-recorded in any of its 1993 tetrads and *Mentha suaveolens* in only one.

Taxa in 5 or more tetrads

Records for 5 or more tetrads have been achieved for 43 taxa. In 8 of these the number is 10 or more, so they should be a helpful starting point. None of them were noted in more than 8 tetrads in the Flora Mapping. Unfortunately, most are associated in some degree with difficulties or changes in identification practices. Thus *Populus agg*. is a collection of introduced taxa whose identity was not always certain, which make comparisons with later records difficult. *Lolium x boucheanum*, the hybrid between *L. perenne* and *L. multiflorum*, was not recorded in the Flora Mapping because of the difficulty in separating it from its parents. *Polypodium interjectum* is difficult to distinguish from *Polypodium vulgare* and the hybrid between them, and only accurately determined material was accepted, which means that other genuine records could have been rejected. *Aster lanceolatus* could not, at the time of the Flora Mapping, be distinguished accurately from other escaped Michaelmas daisies, but now can be. *Galeopsis bifida* is not always clearly distinct from the common *G. tetrahit. Hyacinthoides x massartia*, the hybrid between *H. non-scripta* and *H. hispanica* could have been overlooked because it was thought to be the wild species, though this is less likely. Certainly, *H. hispanica* is known to be invading woodlands nationally, and the hybrid to be spreading, though the Wiltshire records are not yet sufficient to cause serious fear for the future of our native bluebell. There is little doubt about *Lamiastrum galeobdolon ssp. argentatum*, a garden throwout which naturalises aggressively in hedgebanks and woodland edges and has certainly been recorded in more tetrads since the Flora than it was in the Flora Mapping.

While, comparisons between 1993 Flora data and subsequent records is difficult, it is still reassuring that species such as *Galeopsis bifida* could be found in several new tetrads. It is equally reassuring that species whose frequency was difficult to determine earlier because of identification problems, such as *Aster lanceolatus*, can now be identified with greater certainty. This gives us the opportunity to determine their frequency more precisely, which, in this case some of our members have already made efforts to do. Up to 2003, it has been recorded in 37 tetrads.

In the remaining taxa with 5 or more tetrads since the Flora Mapping, the actual numbers of tetrads are not compelling, and comparisons are even harder to make. Again, however, we can take pleasure in the recording in new locations of such appealing plants as *Anagallis arvensis ssp. caerulea, Centaurium pulchellum, Epipactis phyllanthes, Hyoscyamus niger, Melissa officinalis, Populus alba, Rosa tomentosa, Rosa stylosa* and *Spergularia rubra*. Others to celebrate, if less immediately enticing, are *Callitriche obtusangula, Callitriche platycarpa, Euphorbia platyphyllos* and *Poa angustifolia*.

Changes in recording practice

Instances have been referred to above where interpreting the data has been complicated by difficulties in or changes in recording practice. A systematic look at this may be helpful, and is attempted below.

One of the problem areas has been difficulty in distinguishing accurately between species. Sometimes, this has not affected the approach to recording, but simply casts doubt on its accuracy - as with *Callitriche* species and a variety of others mentioned above.

In other cases there has been an explicit effect, either on the Flora Mapping, or on the preparation of the Flora or on recording since. Thus, recorders had difficulty with introductions from North America in the genera *Solidago* and *Aster*. Four *Aster* species and two hybrids were reported but not confirmed, so the Flora simply aggregated all the records as *Aster*. Since then, it has become possible to identify the taxa more accurately, and there are now reliable records of one species and two hybrids. Similarly, records of *Solidago canadensis* and *Solidago gigantea* were aggregated in the Flora, though there were some individual species records in the Flora Mapping data. Additional tetrads now number 2 for *S. canadensis* and 9 for *S. gigantea*.

Alien introductions have also confused recording of Poplars, and were treated as *Populus agg*. in the 1993 Flora, whereas we now have accepted tetrad records for *P. x canadensis (P. deltoides x P. nigra), P. candicans*, and *P. trichocarpa*.

There were also problems of this kind with native species. Thus *Erophila majuscula, E. verna* and *E. glabrescens* are all confusingly similar, so were simply treated as *Erophila agg*. in the Flora. Since then, records of the individual species have been made, with 5 tetrads for *E. glabrescens* and 6 for *E. verna*. In the case of *Epilobium obscurum* and *E. roseum*, the Flora simply concluded that, because of identification difficulties, the true distribution is simply not known. Little progress has been made since, though there is one additional tetrad for *E. roseum*. Possibly, the species are either absent or very rare in Wiltshire, but we do not know. Inevitably, *Rubus* was also a problem area, with many separate species being maintained because reproduction is largely vegetative. The Flora treated them as *Rubus fruticosus agg*., while listing a large number of more precise species which had been reported. Much progress has been made in this area since, but it is not, at the time of writing, fully reflected in our records. *Oenothera* species were also treated as an *agg.*, and it is now even more difficult to register a record of an individual species because the classification of the group is in chaos, with claims that a very large number of plants are hybrids which cannot be precisely identified.

Similar problems have occurred in the recording of subspecies and varieties. *Dryopteris affinis* has two subspecies, *ssp. affinis* and *ssp. borreri*, treated as an agg. in the Flora but recorded separately by some recorders since. *Pilosella aurantiaca* was also treated as an agg. in the Flora, but there have since been separate records for *ssp. aurantiaca* and *ssp. carpathicola*. The same applies to *Veronica hederiolia* and its *ssp. hederifolia* and *ssp. leucorum. Ranunculus penicillatus* and its *ssp. pseudofluitans* are another example, but *ssp. penicillatus* has not featured in additional tetrads. *Alchemilla* presents a somewhat different case. It is a genus with many very similar species. The Flora treated everything as *A. filicaulis ssp. vestita*, whereas our current records, in recognition of the difficulties, just use *Alchemilla vulgaris agg*.

Hybrids have also caused problems. *Aster* has already been mentioned. *Lolium x boucheanum (L. perenne x L. multiflorum)* could not be distinguished from its parent species in the Flora Mapping, but has since been recorded in 12 tetrads (up to 2003). *Prunus x fruticans (P. spinosa x P. domestica)* was treated as part of *Prunus domestica agg*. in the Flora, but has been recorded in 3 additional tetrads since.

Finally, there have been name changes. *Oxalis stricta* changed its name to *O. dillennii*, and *O. europaea* to

O. stricta about the time of publication of the Flora, so it is difficult to know which species is referred to in each of our records. There are, in any case, considerable difficulties in identification and *O. stricta* in our records could well have been misidentified *O. corniculata*. Both *Sedum rupestre* and *S. forsterianum*, have previously been known as *S. reflexum*, so there could be confusion in records of these species.

Where next?

The foregoing has shown some of the ways in which the listing in print of Flora Mapping data formerly held only in electronic form facilitates analysis of records before and after the Flora and comparisons between them. Many problems still exist in understanding the distribution of the taxa involved. Hopefully, awareness of these will inform future recording and clarification of some of the issues will ensue.

Portrait of Silvered Garden Yellow Archangel *(Lamiastrum galeobdolon ssp. argentatum)*

The 1993 Wiltshire Flora maps *Lamiastrum galeobdolon (*Yellow Archangel) as having a 96% 10 km² coverage throughout the County, and as found in 542 1 km squares (15% of the total). The Silvered Garden Yellow Archangel, *L. galeobdolon ssp. argentatum*, was mentioned as a "garden throw-out which naturalises aggressively in hedgebanks and woodland edges", but the subspecies were not mapped separately. *L. galeobdolon ssp. montanum*, the common native wild subspecies can also have a silvered form ('*variegatum*'), but this is much less distinctive, without the chocolate-maroon zones on the winter leaves which are seen in *ssp. argentatum* (see Rutherford & Stirling 1987 and Stace 1997 for differences). *Ssp. argentatum* is also much more robust and vigorous than the other subspecies, and is scattered over much of Britain. There is a third English subspecies (*ssp. gaeobdolon*) found only as a rarity in small area of North Lincolnshire.

The 1993 Flora noted this subspecies in one tetrad in Vc7 and 7 in Vc8, widely scattered. The subsequent records to 2003 added a further tetrad for Vc7 and 15 more for Vc8, also widely scattered. The number of sites is greater than this - since the 1993 Wiltshire Flora it has been noted at 50 more Wiltshire sites. Some of these patches were long established; others the consequence of dumped garden rubbish in the preceding 2 or 3 years, or direct spread from gardens, cemeteries or estates. The main colonisation is by continuous leafy rooting stems forming the attractive variegated compacted ground cover, with lax leafy stolons scrambling, arching and rooting through taller vegetation. This is a feature of vigorous spread from A-road lay-bys, often miles from towns or villages. Perhaps more important are the scattered more distant satellite dispersals from older primary patches, by re-rooted detached fragments. In West Woods, one third of an acre has been colonised in this way despite competition from brambles, Ivy, Bluebell, Stinging Nettle, White Dead-nettle and Hedge Woundwort and overhead shade from Beech, Lawson's Cypress and Western Red-Cedar. Another expanse over a third of an acre in extent was noted in Savernake Forest in September 2005 under brambles, nettles, Beech, Birch, Ash, Hazel, Oak, Sweet Chestnut, Rowan and Sycamore. Indeed shade tolerance is such a feature that Silvered Garden Yellow Archangel can survive or even thrive in nettlebeds, or under dense mature beech wood (one eighth acre, Savernake Forest). The patches can be large, for example: "for 80 yards"; "20 x 15 yards"; "80 sq. yards"; "25 metres"; "one eighth acre"; "one quarter acre"; "one third acre"; "scattered patches over half acre". Shaded and semi-shaded habitats are favoured (as with the 12 Savernake Forest sites), but the spread of this plant is certainly not confined to these. Riversides, walls, wall-pavement angles, embankments, linear roadside or other boundary fringes are alternative habitats recorded.

Another aptitude of Silvered Yellow Garden Archangel is its resistance to winter cold and spring frosts. New and lengthening stoloniferous shoots are apparent 8-10 weeks before vertical stinging nettle shoots start to elongate. This gives Silvered Yellow Archangel an advantage in March and April in nitrate and phosphate-rich agricultural areas, whether or not shaded, as the ground is carpeted in advance of tall herbs such as Stinging Nettle, Cleavers, Cow Parsley, Hogweed, brambles and thistles.

There has been concern expressed that Silvered Yellow Garden Archangel could influence some of the native flora and fauna on account of its vigour and invasiveness. There seems to be no evidence of this so far, as it seems to co-exist with bluebells and daffodils happily enough in West Woods. It is perhaps possible that some ground bryophytes and invertebrates could be adversely affected - but as a new addition to our flora the foliage is very appealing to the eye, especially in winter, when the silver and maroon-brown variegations are at their most distinctive.

Portrait of New Zealand Pigmyweed *(Crassula helmsii)*

New Zealand Pigmyweed or Swamp Stonecrop *(Crassula helmsii)* is an alien plant from Australasia, introduced to this country as an oxygenating plant for ponds or accidentally with ornamental aquatic plants. It is now well-established and abundant in ponds,

reservoirs and canals in widely scattered localities throughout the British Isles, and is increasing rapidly and already a threat to native vegetation in some areas. It was one of our members, Jack Oliver, who found the first British population in semi-saline water in a North Cornish coastal rockpool. There were bewildering Sedum-like, almost spherical leaves on very short stems (Dawson 1988) which he initially thought might have come from detached terrestrial plants. In fact, there are a number of growth forms (Dawson 1987, 1988; NERC 1992), which include:

1. underwater rosettes with elongated shoots, long internodes, plant to 1¼ metres long
2. floating mats
3. free-floating autumn turions
4. densely matted but rooted in shallow water
5. densely tangled infiltration of low damp vegetation, especially around ponds or in damp hollows.

Jack has seen only growth forms 4 and 5 in Wiltshire, where the plant looks superficially very like Water Starwort (*Callitriche spp.)*, especially when the leaves are elongated and somewhat flattened. Growth form 2 occurred in a Winsley pond. Flowers have often been present.

The plant was first recorded in Wiltshire in the Winsley pond above in 1979. The 1993 Flora recorded 6 sites, 4 in Vc7 and 2 in Vc8 and all in different tetrads. Two tetrads were added during 1993-2003. Nearly all the Wiltshire records have been from ponds, 11 formally recorded, widely scattered across the county. Three more sites at least are known to the Institute of Freshwater Ecology, including ponds at Lockeridge and Bedwyn Brail. Even so, it would seem that New Zealand Pigmyweed has not yet posed an ecological problem in Wiltshire, as it has in Hampshire and some other counties. It is easy to see how this plant could become a pest - in Crabtree Pond in Savernake Forest, for instance, it formed a green mat into the open water, and a dark green spongy turf extending out on to the land, despite efforts at control. The Winsley pond became totally choked, and had to be cleared out completely.

Portrait of Michaelmas Daisies (*Aster* species)

The only *Aster* species found wild in Wiltshire are the tall "Michaelmas-daisies" introduced from Canada and the USA from 1710 onwards. The Wiltshire Flora (Gillam, Green and Hutchison 1993) did not deal adequately with them. This was partly because of the very great problems in identification of species and hybrids, but also through underrecording, often due to flowering after the time at which the recording cards were handed in (mostly September to the end of November), and the mistaken assumption that all the clumps recorded were localised or transient garden escapes. Different taxa were all treated as an aggregate.

In North America, the Asters are extremely variable, with many races and subspecies and much hybridization, the hybrids often being fertile and therefore reproducing themselves. The taxa we now know to be present in Wiltshire are perennial, mostly 0.5 to 1.75 metres high, with densely packed rhizomes spreading to form large clumps which occlude competing vegetation at ground level. They have yellow disc florets and white, pink-lilac or purple ray florets. Practically all derive from three North American ancestral species - *A. lanceolatus* (Narrow-leaved Michaelmas-daisy), *A. laevis* (Glaucous Michaelmas-daisy), and *A. novi-belgii* (Confused Michaelmas-daisy). Of these, only *A. lanceolatus* has been confirmed as occurring in the county. Also occurring are the hybrids *A. x salignus (A. novi-belgii x A. lanceolatus)* (Common Michaelmas-daisy) and *A. x versicolor (A. laevis x A. novi-belgii)* (Late Michaelmas-daisy). The former varies according to the degree to which each parent is represented. They all occur throughout most of Wiltshire except in the South-west.

The number of tetrads in which each of these three taxa were recorded from 1993-2001 were as follows:

A. lanceolatus	38
A. x salignus (A. novi-belgii x A. lanceolatu)	29
A. x versicolor (A. laevis x A. novi-belgii)	13

A special study by members of Wiltshire Botanical Society in 1992-1996 (Oliver 1998) found 38 stands for *A. lanceolatus*, 48 for *A. x salignus* and 15 for *A. x versicolor*.

It seems likely that not all of these colonies are garden escapes. Some in MOD areas may well have come in with US and Canadian army vehicles during the two world wars. There is also evidence of self-seeding, but this needs ideal conditions. However, once a clump has formed, as long as there is no overhead shade, it is likely to persist on muddy riverbeds, riverbanks, roadsides, dry embankments, enriched farmland, nutrient-deficient chalk, soft or impacted soil, rubble or cracks in stonework.

A particularly interesting idea which features in the special study above is the conclusion that back-crossed intermediates between *A. lanceolatus* and *A. x salignus* may turn out to be better adapted to some Wiltshire habitats than the ancestral parents and hybrids. If so, this is evolution in action.

AFTER THE WILTSHIRE FLORA

5. TAXA NOT IN THE 1993 FLORA

Danish Scurvygrass *(Cochlearia danica)*

The additional taxa

Since the Flora Mapping and up to the end of 2003, approximately 175 taxa not in the 1993 Flora have been recorded. By definition, these are all eligible taxa. The introduction gives instructions on the use of the Record List for analysing these data and comparing them with records in floras earlier than the one published in 1993. The approximate figures for the number of new tetrads since the Flora are as follows:

Number of tetrads	1	2	3	4	5-9	10+
Number of taxa	134	27	7	2	4	1

That most of these taxa have been found in just one tetrad is not surprising, since they were not found at all in the surveys for the Flora. Indeed, the surprises are those taxa found in larger numbers of tetrads. Possible reasons for this will become apparent in the analysis below. Popular names are given where known and where not available in the 1993 Flora.

Taxa not new to the County since the Flora

Some of the taxa not in the 1993 Flora but recorded since are not actually new arrivals in the County since the Flora Mapping. Their absence from the Flora is the result of changes in recording methods. For instance, *Veronica serpyllifolia*, a commonly recorded species, was probably always present in Wiltshire as *ssp. serpyllifolia*, but was recorded only as the species. Records of the subspecies in 3 tetrads since therefore gives a misleading impression. *Galium palustre* has two British subspecies - *palustre* and *elongatum*, both of which were probably in the County when the Flora Mapping was undertaken. However, all recording was purely as *Galium palustre*. Since then, *ssp. elongatum*, the most common of the two, has been recorded and this gives a wrong impression of being new. That as many as 9 tetrads were recorded for *Carex divulsa spp. leersii* in our post-Flora period suggests that it was present in Wiltshire at the time of the Flora Mapping, but not recorded as such. *Elytrigia repens ssp. aristata* is really just the name for the common awned form of *ssp. repens* and is not normally treated as a subspecies at all - so again, it is not new. A fuller list is:

Carex divulsa ssp. leersii (Grey Sedge)
Elytrigia repens ssp. aristata
Festuca rubra ssp. megastachys
Galium palustre ssp. elongatum
Lamiastrum galeobdolon ssp. montanum
Salix fragilis var. fragilis
Sparganium erectum ssp. neglectum
Veronica serpyllifolia ssp. serpyllifolia

The same conclusion may also apply to:
Bromus hordeaceus 'longi-pedicillatus'
Carex viridula ssp. viridula
Dactylorhiza incarnata ssp. pulchella
Dactylorhiza praetermissa ssp. junialis
Elytrigia repens ssp. aristata
Gymnadena conopsea ssp. borealis
Lolium perenne var. cristata
Lolium perenne semipaniculata form
Molinia caerulea ssp. caerulea
Myosotis arvensis var. sylvestris
Ophrys apifera var. belgarum
Ranunculus ficaria ssp. bulbilifer
Ranunculus ficaria ssp. chrysocephalus (though this is a rarity)
Salix cinerea ssp. cinerea

Refound taxa

Other taxa, though not in the 1993 Flora, are not new to Wiltshire, since they were recorded either in Grose's (1957) Flora or Stearn's (1975) supplement. One of the taxa involved, *Quercus x rosacea* (*Q. petraea x Q. robur*) has been recorded in 7 tetrads since the Flora, so was probably overlooked during the Flora Mapping. The same may apply to *Rorippa x sterilis* (*R. nasturtium-aquatica x R. microphylla*), though there are only 3 tetrads since the Flora. *Bupleurum rotundifolium* is an intriguing inclusion here, being present in the Flora Mapping records but absent from the Flora. Presumably, this was either because it was added too late for inclusion in the Flora or because there was some doubt as to whether it might really have been the very similar *B. subovatum.* The complete list is:
Alopecurus aequalis (Orange Foxtail)
Antennaria dioica (Mountain Everlasting)
Briza maxima (Greater Quaking-grass)
Briza minor (Lesser Quaking-grass)
Bupleurum rotundifolium (Thorow-wax)
Cirsium acaule var. caulescens
Dianthus armeria (Deptford Pink)
Eryngium campestre (Field Eryngo)
Euphrasia anglica
Fumaria bastardii (Tall Ramping-fumitory)
Isatis tinctoria (Woad)
Juncus x diffusus (J. inflexus x J. effusus)
Lychnis flos-cuculi white form
Lycopodiella inundata (Marsh Clubmoss)
Nitella opaca (N. flexilis agg.) (A stonewort)
Panicum capillare (Millet)
Potentilla palustris (Marsh Cinquefoil)
Quercus robur var. cristata
Ranunculus parviflorus (Small-flowered Buttercup)
Rorippa x sterilis (R. nasturtium-aquatica x R. microphylla)
Rosa agrestis (Small-leaved Sweet-briar)
Salix x rubens (S. alba x S. fragilis)
Salix x rubra (S. purpurea x S. viminalis)
Vicia bithynica (Bithynian Vetch)

Hybrids

Another interesting category of records not in the 1993 Flora comprises hybrids. Some of these may, of course, have been overlooked during the Flora Mapping and simply recorded as one of the parent species, such as *Dryopteris x complexa (D. affinis x D. filix-mas)* and *Dryopteris x mantoniae (D. filix-mas x D. oreades).* One, however, *Carex x grossii (C. hirta x C. vesicaria),* is particularly notable because it is new to Britain. The taxa in this category are:
Carex x grossii (C. hirta x C. vesicaria)
Carex x pseudoaxillaris (C. otrubae x C. remota)
Dryopteris x complexa (D. affinis x D. filix-mas
Dryopteris x mantoniae (D. filix-mas x D. oreades
x Gymnanacamptis (Anacamptis pyramidalis x Gymnadena conopsea)
Hypericum x desetangsii (H. perforatum x H. maculatum)
Platanthera x hybrida (P. bifolia x P. chlorantha)
Polypodium x mantoniae (P. interjectum x P. vulgare)
Polystichum x bicknellii (P. aculeatum x P. setiferum)
Rosa x bishopii (R. agrestis x R. micrantha)
Rosa x verticillicantha (R. canina x R. arvensis)
Rumex x ruhmeri (R. conglomeratus x R. sanguineus)

British natives

A somewhat controversial area is the identification of taxa native to Britain but not to Wiltshire. The list here includes those noted as not Wiltshire natives in Stace (1993), but opinions may differ. Presumably, if a taxon is judged native to Wiltshire, it is not new to the County even if there are no records. *Cochlearia danica*, however, typically a coastal plant adapted to saline conditions, is indisputably new. It has been found in 15 tetrads, far more than any other species not in the Flora - see its portrait at the end of this article. The full list of "totally new" British natives is:
Allium sphaerocephalon (Round-headed Leek)
Cardamine impatiens (Narrow-leaved Bittercress)
Cochlearia danica (Danish Scurvygrass)
Cochlearia officinalis (Common Scurvygrass)
Hydrocharis morsus-ranae (Frogbit)
Puccinellia distans (Reflexed Saltmarsh-grass)
Stellaria pallida (Lesser Chickweed)
Urtica galeopsifolia
Utricularia minor (Lesser Bladderwort)

An interesting miscellany

A number of intesting new native or possibly native taxa are of special interest, puzzling, of uncertain status, or simply not looked for earlier:
Juncus foliosus (Leafy Rush)

Fagus sylvatica " Oak-barked Beech"
Thalictrum simplex ssp. galioides. This is a European taxon which is a new British native.
Chara globularis sensu strictu (a Stonewort)
Chara vulgaris ssp. vulgaris (a Stonewort)
Chara vulgaris var. longibracteata (a Stonewort)

Introduced taxa

The remaining new taxa are not native British plants, but aliens. Clement and Foster (1994) identify different categories, which form a basis for the groups delineated below. Some taxa belong to more than one group.

Plants in their original site of introduction. Some of these introduced plants were planted where they now stand. It may seem odd that they are recorded at all, but there are normally particular reasons for this. Some of the trees, for instance, have produced seedlings or suckers, none recorded in more than 2 tetrads, and most only in one. Usually, they have not spread far from the parent. Other plants may persist for some time after the garden in which they were planted has been abandoned - the "garden relics", but again, only *Alchemilla mollis* has been noted in more than 2 tetrads, and that only in three. In the list below, both types are included:
Abies cephalonica (Greek Fir)
Acer macrophyllum (Oregon Maple)
Ailanthus altissima (Tree-of-heaven)
Alchemilla mollis
Allium nigrum (Broad-leaved Onion)
Alnus viridis (Green Alder)
Araucaria araucana (Monkey-puzzle)
Buddleja globosa (Orange-ball-tree)
Crocus tommasinianus
Crocus vernus (Spring Crocus)
Daphne x burkwoodii (D. caucasia x D. cneorum)
Eccremocarpus scaber (Chilean Glory-flower)
Fagus sylvatica "Oak-barked Beech"
Galanthus caucasicus (Caucasian Snowdrop)
Helleborus orientalis (Lenten-rose)
Ilex x altaclerensis (I. aquifolium x I. perado) (Highclere Holly)
Lavatera thuringiaca (a garden Tree-mallow) - a group of species and a hybrid
Lonicera pileata (Box-leaved Honeysuckle)
Pinus radiata (Monterey Pine)
Populus x canadensis 'Serotina' (P. deltoides x nigra - a Black Poplar hybrid which originated in cultivation
Prunus cerasifera var. pissardii
Prunus conradinae
Quercus ilex (Holly Oak)
Quercus cerris x robur, though there is a view that all records are errors
Quercus robur var. cristata
Salix eleagnos (Olive Willow)
Sciadopitys verticillata (Umbrella Pine)
Scilla bithynica (Bithynian Squill)
Scilla siberica (Siberian Squill)
Sequoiadendron giganteum (Wellingtonia)
Sorbus domestica (Service-tree)
Vicia faba (Broad Bean)
Zelkova carpinifolia (Caucasian Elm)

Aliens escaped from cultivation. Most aliens are simply escapes from cultivation, either in gardens or from nurseries or farms - or probably so. Very few have been recorded in more than 2 tetrads. The greatest numbers of tetrads have been recorded for *Muscari armeniacum* (8), *Cotoneaster sternianus* (5), *Geranium x oxonianum (G. endressii x G. versicolor (3), Alchemilla mollis* (3), and *Campanula portenschlagiana* (3). The long list to which this applies follows below.
Alchemilla mollis
Allium nigrum (Broad-leaved Onion).
Arabis caucasica (Garden Arabis).
Berberis darwinii (Darwin's Barberry)
Brunnera macrophylla (Great Forget-me-not)
Buddleja globosa (Orange-ball-tree)
Calystegia x lucana (C. sepium x C. silvaticus)
Campanula portenschlagiana (Adria Bellflower)
Cephalaria gigantea (Great Scabious)
Chaerophyllum aureum (Golden Chervil)
Chionodoxa forbesii (Glory-of-the-snow)
Cotoneaster bullatus (Hollyberry Cotoneaster)
Cotoneaster salicifolium (Willow-leaved Cotoneaster) though records in the literature are inseparably confused with *C. franchetii* and *C. dielsianus*
Cotoneaster sternii (Stern's Cotoneaster)
Cotoneaster x watereri (Hybrid Tree-cotoneasters) - a group of hybrids of horticultural origin
Crataegus laciniata (Oriental Hawthorn)
Crocosmia paniculata (Aunt-Eliza)
Crocus tommasinianus
Crocus vernus (Spring Crocus)
Eccremocarpus scaber (Chilean Glory-flower)
Eruca vesicaria (Garden rocket)
Fallopia x bohemica (F. japonica x F. sachalinensis) (Hybrid of Japanese and Giant Knotweeds)
Fallopia sachalinensis (Giant Knotweed)
Galanthus caucasicus (Caucasian snowdrop)
Geranium macrorhizum "alba" (Rock Cranes-bill)
Geranium x oxonianum (*G. endressii x G. versicolor)* (Druce's Cranes-bill)
Gladiolus communis ssp. byzantinus
Gunnera tinctoria (Giant Rhubarb) but confused with *G. manicata*
Hedera colchica (Persian Ivy)
Helleborus orientalis (Lenten-rose)
Hemerocallus spp. (Day-lilies, including hybrids)
Iberis umbellata (Garden Candytuft) - of cultivated origin
Ilex x altaclerensis (I. aquifolium x I. perado) (Hybrid Holly)
Lavatera thuringiaca (a garden Tree-mallow) - a group of species and a hybrid

Lonicera pileata (Box-leaved Honeysuckle)
Mentha x villosonervata (M. spicata x M. longifolia) (Sharp-toothed Mint)
Muscari armeniacum (Garden Grape-hyacinth) - known incorrectly in horticulture as *M. botryoides* 'Heavenly Blue'
Muscari comosum (Tassel Hyacinth)
Narcissus x odorus (N. jonquilla x N. pseudnarcissus) (Hybrid Jonquil)
Oxalis exilis (Least Yellow-sorrel)
Oxalis incarnata (Pale Pink-sorrel)
Persicaria capitata (Pink-headed Knotweed)
Phuopsis stylosa (Caucasian Crosswort)
Primula 'Wanda' (P. juliae x P. vulgaris)
Prunus cerasifera var. pissardii
Prunus conradinae
Prunus domestica ssp. (one of the wild plums)
Ribes odoratum (Buffalo Currant)
Rosa multiflora (Many-flowered Rose)
Salix eleagnos (Olive Willow)
Sciadopitys verticillata (Umbrella Pine)
Scilla bithynica (Bithynian Squill)
Scilla siberica (Siberian Squill)
Senecio x subnebrodensis (S. squalidus x S. viscosus) (Hybrid of Oxford Ragwort and Sticky Groundsel)
Sorbaria sorbifolia (Sorbaria)
Sorbus domestica (Service-tree)
Sorbus hupehensis (Hupeh Rowan)
Symphytum 'Hidcote Blue' (S. asperum x S. grandiflorum x S. officinale) (Hidcote Comfrey)
Tanacetum balsamita (Costmary)
Tellima grandiflora (Fringe-cups)
Veronica austriaca (Large Speedwell)
Vicia faba (Broad Bean)
Viola x wittrockiana (V. altaica x V. lutea x V. tricolor) (Garden Pansy)

Other arrivals. The remainder of our aliens have found their way into our flora in a variety of interesting ways. Some are crop, or former crop plants, such as *Vicia alba* and *Fallopia sachalinensis* (formerly a forage crop). Usually, however, they have arrived as seeds, transported in:

- imported wool, to which they may have attached themselves by hooked or spined or otherwise adhesive fruits
- oil-seed (rape, flax, sunflower)
- other agricultural seed (carrot, grain, tomato, beetroot, lucerne, clovers)
- garden seed
- bird-seed
- fruits or seeds of spices on rubbish tips or waste ground
- esparto grass used in the paper industry
- bark used for tanning in the leather industry
- cotton

Taxa in this category are:
Amaranthus albus (White Pigweed)
Bidens pilosa (Black Jack)
Conringia austriaca
Cuscuta campestris (Yellow Dodder)
Eruca vesicaria (Garden Rocket)
Fallopia sachalinensis (Giant Knotweed)
Plantago arenaria (Branched Plantain)
Vicia faba (Broad Bean)

Alien hybrids. Alien taxa sometimes hybridise with other species, both native and alien. In some cases the resulting hybrid has been produced by horticultural breeding, and is not known to have existed in the wild before this, as is the case with:
Cotoneaster x watereri (C. frigidus x C. salicifolius) (Hybrid Tree-cotoneasters) - a group of hybrids of horticultural origin
Geranium x oxonianum (G. endressii x G. versicolor) (Druce's Crane's-bill)
Ilex x altaclerensis (I. aquifolium x I. perado) (Highclere Holly)
Narcissus x odorus (N. jonquilla x N. pseudonarcissus (Hybrid Jonquil)
Populus x canadensis 'Serotina' (P. deltoides x P. nigra) (a Black Poplar hybrid)
Primula 'Wanda' (P. juliae x P. vulgaris)
Symphytum 'Hidcote Blue' (S. asperum x S. grandiflorum x S. officinale (Hidcote Comfrey)
Viola x wittrockiana (V. altaica x V. lutea x V. tricolor) (Garden Pansy)

Hybridisation, however, appears spontaneous in:
Calystegia x lucana (C. sepium x C. silvaticus)
Fallopia x bohemica (F. japonica x F. sachalinensis)
Senecio x subnebrodensis (S. squalidus x S. viscosus)

In the rest, no information is to hand:
Daphne x burkwoodii (D. caucasia x D. cneorum)
Lavatera thuringiaca - a group of spp and a hybrid
Mentha x villosonervata (M. spicata x M. longifolia)
Quercus cerris x robur has been recorded but the records may be erroneous, and it is not known for certain whether such a hybrid exists.

Portrait of Danish Scurvy-grass

Danish Scurvygrass (*Cochlearia danica*) was not mentioned in the 1993 Flora, nor have any earlier Wiltshire records been located. This is not surprising, since it is typically a plant of sandy and rocky seashores and walls and banks near the sea. This does not appear to be because it requires salt, but rather because it is a low and slender annual which does not compete well with more vigorous plants, and its salt tolerance allows it to thrive in locations where such competitors can't. This explains why it is also found inland on railway ballast, roadsides, and in cracks in buildings. On roadsides, it is likely that competitors are discour-

aged by salt spread on road surfaces to prevent icing. It may also relate to regular mowing of grass in these situations, which reduces shading by more vigorous plants. It has also been suggested that C. danica is resistant to herbicides sometimes used on roadsides, such as Glyphosphate, and can also set seed, grow and fruit between applications (Greenwood 2001). It crops up increasingly on roadsides and central reservations of busy dual carriageways - within the cities of Birmingham and Nottingham, for instance. Here it can occur in large numbers, with either white or lilac flowers or both. It particularly favours central reservations, which may be because the salt concentration is higher there than at the sides. An alternative suggestion (Roper 1994) is that the centre is a less favourable environment for small animals that eat the plant.

It is on busy main roads that the species first made its entry into Wiltshire. This was probably in 1989 (since the record entry is the 1st of January 1990), when two patches were found on the central reservation of the M4 motorway, though it cannot be said which part because of inaccurate map references. In 1990 and 1991 it was found on the A303 near Bulford, Mere and Chicklade. In 1991, it appeared in a different kind of habitat - the base of a wall in Salisbury. In 1993 it had invaded other dual carriageways - the central reservation of the A429 at Kington Langley, north of Chippenham, and the Swindon-Chippenham stretch of the M4. In 1994 it was observed on the A420 at South Marston, northeast of Swindon. In 1999 it was abundant beside the A338 south of Bodenham, south of Salisbury, and on the A419 at Stratton St Margaret, where there were thousands of plants the following year, especially on the central reservation. It was also seen in ones and twos in 1999 at Beckhampton roundabout, west of Marlborough, and on a council gritting area by the A361/B4041 crossroads at Elm Cross, south of Wroughton. In 2001, it was found in imported gravel at Marlborough. Up to 2003, Danish Scurvygrass was recorded in 15 tetrads, and its spread seems certain to continue.

Portrait of Adria Bellflower
(Campanula portenschlagiana)

Adria Bellflower was not in the 1993 Flora, nor in previous Wiltshire floras, but the similar Trailing Bellflower *(Campanula poscharskyana)* was recorded for Whiteparish Common, where it was noted by Stearn (1975), when it had already been known there for about 30 years. The two species are often confused, and it is believed that they hybridise, which complicates the picture further. The pure species are, in fact, clearly distinct. *C. portenschlagiana* has purple-blue funnel-shaped flowers with petals divided ¼ to $^{2}/_{5}$ of the way to the base, whereas the paler violet-blue flowers of *C. poscharskyana* are flatter and star-shaped from above, with the petals divided ½ to ¾ of the way to the base (see photographs below). Both species occur on walls in southern and Central Britain, but *C. poscharskyana* usually has a rampantly speading habit, while *C. portenschlagiana* is more compact. Both species are from rocks and stony places in Western Yugoslavia and have been cultivated in gardens, escaped and naturalised.

Adria Bellflower perches impressively on the vertical sides of walls, rooted in the mortar, where it must have self-seeded. The walls are plainly a substitute for the mountain rocks it inhabits in Yugoslavia. The first Wiltshire record was in the West Wiltshire village of Winsley in 1995, when it was reported to be naturalised on walls and locally abundant. In 2003 it was recorded in the neighbouring village of Turleigh on stone steps. It occurs in various spots in the nearby town of Bradford-on-Avon. In 1998 it was seen on walls and pavements in Swindon, and in 2003 on vertical brick walls in Marlborough and walls and pavement angles in Malmesbury. It is hard to believe that it does not occur elsewhere in Wiltshire urban environments.

Campanula portenschlagiana

Campanula poscharskyana

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AFTER THE WILTSHIRE FLORA

6. RARE TAXA

Corncockle *(Agrostemma githago*)

Recording rare plants in Wiltshire

One of the functions of botanical recording is to keep track of rare plants. This is helpful to land managers, ecologists, conservation workers, and statutory and non-statutory wildlife bodies, all of whom will wish and/or are required by law to take account of such plants in planning their operations. Wiltshire botanists have been recording rare plants since their recording began, and their findings have been published in successive floras, in the journal *Wiltshire Botany* and elsewhere. *The Wiltshire Botanical Society* plant records include all known records since the early 1980s, and the records for after the Flora Mapping to the end of 2003 have contributed to the overall picture.

The Wiltshire Rare Plant Register

Within the *Botanical Society of the British Isles (BSBI)* there is currently much talk about production of county rare plant registers (CRPRs). Essentially, a CRPR is a mini-flora, which identifies a vice-county's rarest species by detailed location, except that a few species considered to be very rare and/or vulnerable are listed in the register, but, to protect them from unwanted attention, not given detailed locations. The *Wiltshire Rare Plant Register* is currently in preparation, and will be a double edition to include the Watsonian vice-counties of North Wiltshire (Vc7) and South Wiltshire (Vc8). It will be updated at regular intervals, and will thus hopefully enable clear monitoring of the rare species. The first edition should be published in 2007.

Criteria for inclusion

The *Wiltshire Rare Plant Register* has 300 plant species. To be included, these must be Wiltshire natives (or archaeophytes, i.e., introduced before 1500AD) and must meet at least one of the following criteria:

- Nationally rare (current JNCC list)
- Nationally scarce (current JNCC list)
- Rare in either vice-county (recorded in 1-3 sites separated by at least 1 km)
- Scarce in either vice-county (recorded in 4-10 sites separated by at least 1 km).

JNCC stands for *Joint Nature Conservation Committee*, which has representation from a wide range of national organisations concerned with plant conseration.

Many poorly-recorded species have been left out, and many (but not all) subspecies and hybrids, leaving a robust set of species. In Wiltshire, 61 species are nationally important, leaving 239 Vc rare or scarce species.

Where is the data coming from?

The list is mainly based on records gathered during the *Wiltshire Flora Mapping Project*, followed by the records compiled by the Wiltshire Botanical Society, and thus represents a reasonably accurate set of data in the county for the past 20 years. *Wiltshire and Swindon Biological Records Centre* has offered support for the *Wiltshire Rare Plant Register*, and are seeking other significant sources of records.

Many of the records are between 10 and 20 years old, and therefore of dubious current value. Volunteers are, therefore, carrying out targeted recording of pre-1996 records to try to make the information more accurate and up-to-date. Recording activities include adopting a botanical hotspot where many of the rare species have been recorded in the past, and surveying it to re-affirm the records, and maybe add new ones; and 'adopting' an area, for example a 1km or 10km OS square and attempting to re-find as many of the rarities previously recorded there as possible.

New tetrads for nationally rare plants

For the purposes of the Register, a plant is regarded as nationally rare if it is in 1-15 10km squares in the British Isles. There are 13 such taxa in the the *Wiltshire Rare Plant Register*, and there are additional tetrads recorded after the Flora Mapping to the end of 2003 for 6 of these. Indeed, for *Centaurea cyanus* there are 4 such tetrads. For *Agrostemma githago* there are 3, and there are two for *Adonis annua*. While this sounds very encouraging, it must be borne in mind that these are annuals, so that new records are not necessarily real additions - the plant may no longer be in some sites recorded during the flora mapping, so that we may just have changed locations. There is also another problem, in that seeds of these plants may well be in wild flower seed mixtures sown by various individuals or bodies. A record of *Centaurea cyanus* at a Westbury recreation ground, for instance, almost certainly originated from such a sowing by the District Council after some remodeling of the ground. There are also two additional tetrads for *Cirsium tuberosum*, and one each for *Dianthus armeria* and *Galium pumilum.*

New tetrads for nationally scarce plants

A plant is regarded as nationally rare if it is in 16-100 10km squares in the British Isles. There are 57 such taxa in the *Wiltshire Rare Plant Register*, and there are additional tetrads recorded after the Flora Mapping to the end of 2003 for 28 of these. *Gentianella anglica* has 8 additional tetrads, *Helleborus foetidus* 6, *Anagallis arvense ssp. foemina*, *Epipactis phyllanthes*, *Orchis ustulata* and *Phyteuma orbicularis* have 5 each, *Carex humilis* and *Fumaria parviflora* have 3 each, and *Aconitum napellus ssp. napellus, Leucojum aestivum, Ornithogalum pyrenaicum, Tephroseris integrifolia, Thesium humifusum* and *Torilis arvensis* 2 each. Single additional tetrads have been noted for *Aceras anthropomorphum, Briza minor, Bromus secalinus, Cardamine impatiens, Dianthus deltoides, Draba muralis, Epipactis leptochila, Fritillaria meleagris, Gaudinia fragilis, Isatis tinctoria, Lycopodiella inundata, Minuartia hybrida, Rosa agrestis* and *Vicia bithynica*.

Taxa rare and scarce in Vc7 or Vc8

A taxon is regarded as rare in one of our vice-counties if it is known in only 1-3 sites 1km or more apart; and scarce if it is known in 4-10 such sites. The numbers of taxa involved are considerably greater than for nationally rare and nationally scarce taxa. In Vc7, 71 taxa are rare and 82 scarce; in Vc8, 78 rare and 69 scarce. A complete list can be obtained from Sharon Pilkington (see end).

One important fact to establish is whether a taxon rare in a vice-county is still present there. An obvious way to check is to revisit the sites at which it was previously found - but the results would not be in the data here, which are for additional localities. However, finding it at all does establish its presence. The data show that the following taxa rare in Vc7 were observed there after the Flora Mapping to 2003:
Alchemilla filicaulis ssp. vestita
Aphanes australis
Carex binervis
Carex laevigata
Catabrosa aquatica
Euphorbia platyphyllos
Frangula alnus
Gnaphalium sylvaticum
Hypericum androsaemum
Populus nigra ssp. betulifolia
Ranunculus arvensis
Ranunculus omiophyllus
Scleranthus annuus
Ulex gallii
Vaccinium myrtillus

Rare Vc8 taxa recorded during this period were:
Antennaria dioica
Carex viridula ssp. viridula
Cerastium diffusum
Eleocharis quinqueflora
Epipactis muelleri (leptochila)
Epipactis purpurata
Erophila glabrescens
Filago vulgaris
Foeniculum vulgaris
Fumaria bastardii
Galeopsis bifida
Gaudinia fragilis
Gnaphalium sylvaticum
Juncus foliosus

Lactuca virosa
Papaver dubium ssp. lecoqii
Parentucellia viscosa
Persicaria minor
Polygonum rurivagum
Populus nigra ssp. betulifolia
Potentilla palustris
Rosa sherardii
Rosa tomentosa
Sagina nodosa
Sanguisorba officinalis
Smyrnium olusatrum
Stellaria pallida
Utricularia minor

The striking 24 additions for *Populus nigra ssp. betulifolia* (11 in Vc7, 12 in Vc8) are probably explained by an intensive survey of the taxon, which discovered many specimens previously overlooked.

Similar analyses could be carried out for locally scarce species, but they are less likely to have disappeared from a vice-county completely. It is of interest, however, to look at taxa where a surprising number of additional tetrads have been found in a vice-county in which they are scarce, since this gives hope for their survival. If we take 3 or more additional tetrads as a criterion, the taxa for Vc7, with the number of additional tetrads in brackets, are:
Callitriche platycarpa (5)
Centaurium pulchellum (4)
Schoenoplectus tabernaemontanum (4)
Smyrnium olusatrum (4)

In Vc8, they are:
Centaurium pulchellum (4)
Hyoscyamus niger (6)
Hypericum maculatum (3)
Lotus glaber (3)
Monotropa hypopitys (3)
Poa angustifolia (7)
Scandix pecten-veneris (4)
Spergularia rubra (3)
Ulex gallii (4)
Veronica agrestis (3)

Such data do not, however, necessarily mean that a taxon has increased, because gains could have been balanced by losses elsewhere, which is probably the case for *Hyoscyamus niger* and *Scandix pecten-veneris*, which come and go. Sometimes special factors are involved which invite a different interpretation. Thus the additional tetrads for *Callitriche platycarpa* could simply reflect difficulties in distinguishing it from other species of *Callitriche*. The additions for *Centaurium pulchellum* may reflect difficulties in distinguishing it from poorly growing specimens of *Centaurium erythraea*. *Poa angustifolia*, as a grass, could easily have been overlooked earlier. In all these cases, however, the finds help provide a more comprehensive account of the distribution of the taxa involved.

2004 onwards

Both new recording and follow-up of old records has been carried out in 2004 and 2005, and will continue in 2006. Even after publication in 2007, continuous updating of the register will be needed. Additional help would, therefore be gratefully received.

For guidance and further information, please contact:
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or call (evenings or weekends 01225 775945).

Portrait of Corncockle *(Agrostemma githago)*

Corncockle *(Agrostemma githago)* is a distinctive plant with its narrow hairy leaves, purple corolla up to 2 inches across and pointed sepals projecting well beyond them. It has been with us at least since Roman times. For most of that period it has been a common and serious agricultural weed, particularly in cornfields, since its poisonous seeds make wheat flour unwholesome. Its seeds were harvested and sown with the crop. When farmers learned to remove weed seeds from crop seed in the 19th century, however, the large size of its seeds made it an easy target. Further, the seeds were relatively short-lived, with, allegedly, few of them remaining dormant in the soil for more than a few years. By the outbreak of the Second World War, therefore, it was rare.

In Wiltshire, Corncockle had a brief resurgence after the war, when Grose, in his 1957 Wiltshire flora, reported it as common or frequent in various widespread parts of the county after old pastures were ploughed, with over 60 localities in the preceding ten years, which throws doubt on the claim that seed viability is short-lived. In the 1950s and 1960s it disappeared again, perhaps because of increased use of herbicides. In the Flora Mapping for the 1993 Flora, only 5 localities were found, 4 of them in Vc7, attributed to bird seed or garden escape. Vc8 had some brief excitement when many plants appeared at a Westbury recreation ground after grubbing out of a hedge, but it was afterwards reported that the local council had sown wild flower seed there. Corncockle is now grown in gardens, from which it periodically escapes, and it is also sown by conservation-minded farmers, probably including the one at Cholderton where the Society recorded it in 2002. As a genuinely wild flower, however, it is effectively extinct (Marren 1999). However, the only two other post-Flora-Mapping records are intriguing - one on a large building site at Trowbridge in 1995, and the other in a Bradford-on-Avon garden, where many plants appeared in 2000 that had not been intentionally planted.

PLANT RECORDS 2004

Pale Pink-sorrel *(Oxalis incarnata*)

Explanatory notes

- The following is a selection from WBS records received in 2004. Records of common species and updates of the 1993 Wiltshire Flora are not included unless there is some special reason. Unconfirmed records have been omitted.
- For new pre-2004 records, the year is inserted in brackets after the name of the recorder.
- Where a record is identified as being a new 10 km square record, this is relative to the period since the flora mapping in the 1980s and 1990s for the 1993 Wiltshire Flora and recorded there.
- For first ounty and vice-county records, an unqualified statement means that it is the first record ever, as far as is known. Where the word "recent" is inserted, it means that it is the first since the flora mapping, but had been recorded before this period.
- Where a recording square is only partly in Wiltshire, any comment on record status applies only to the part within Wiltshire.
- Recorders are identified by initials as follows:

AD - Tony Dale
AJS - Audrey Summers
BB - Brian Barrass
BL - Barbara Last
DJW - Jeremy Wood
ES - E Smith
JEO - Jack Oliver
JN - Joy Newton
JNo - John Notman
JO - John Ounstead
JP – John Presland
JRM - John Moon
JW - Jean Wall
LWa - Lesley Wallington
PD - Paul Darby
PMW - Pat Woodruffe
RAi - Richard Aisbitt
RChs - Richard Charles
SPi - Sharon Pilkington
SPr - Sarah Priest
WBS - Wiltshire Botanical Society (excursion)

Vc 7 records

Acer pseudoplatanus - JEO; Lockeridge; heterophyllous variant, 'Chestnut-leaved Sycamore'; spontaneous/natural occurrence; 1st county record.
Aira caryophyllea - JN; Marlborough; Savernake Forest; 1st 10km square record.
Alnus cordata - JEO; Swindon, SW; waste areas; seedlings and 3 saplings; 1st county record.
Antirrhinum majus - JEO; Marlborough; A4; vertical brick walls.
Aquilegia vulgaris - JEO; Swindon, SW; old railway path/cycle track. JEO/JW; Malmesbury; walls or pavement angles; 1st 10km square record.
Aster x salignus (A. lanceolatus x A. novi-belgi) - JEO; Pewsham; A4 linear fringe for 10-15 years.
Aubrieta deltoidea - JEO/JW; Malmesbury; walls or pavement angles; frequent; 1st 10km square record.
Barbarea intermedia - JW/JEO/WBS; Malmesbury; muddy ground at side of R Avon. SPi; R Avon at Malmesbury. Joint 1st 10km square records.
Berberis julianae - JEO; Marlborough NE; roadside; recent garden escape; 1st county record.
Betula pubescens - JEO; Marlborough; Savernake

Forest; common. JEO; Great Bedwyn; wood (occasional) and common (very common); JEO; Lockeridge; West Woods. Very common as seedlings and saplings in most sites, often with *B. pendula* and/or the B. *pendula x B. pubescens* hybrid *(B. x aurata).*

Borago officinalis - JEO; Swindon, SW; near dismantled railway cyclepath; dozens. JP; Turleigh; several plants on disturbed ground. JP; Great Ashley; one among shrubs. JEO; Calstone, near mill; c50.

Calendula officinalis - JEO; Swindon, SW; near dismantled railway cyclepath; 15 plants near gardens.

Callitriche obtusangula - JEO 1952; Preshute East; R. Kennet. JEO; Manton, Marlborough and Clatford; R. Kennet. JEO; Marlborough; R. Og. All foregoing with surface rosettes and under-water strap-leaves. JEO; East Kennet; Upper R. Kennet.

Campanula portenschlagiana - JEO; Marlborough; A4; vertical brick walls. JEO/JW; Malmesbury; walls or pavement angles; occasional; 1st 10km square record.

Campanula poscharskyana - JEO/JW; Malmesbury; walls or pavement angles; occasional; 1st 10km square record. JEO; Wootton Bassett; vertical walls; many; 1st 10km square record.

Centaurea montana - JEO; Marlborough; roadsides.

Cerastium tomentosum - JEO/JW; Malmesbury; wall tops; frequent; 1st 10km square record.

Cichorium intybus - JEO; Cherhill; fringe of A4; 100+ plants; 1st 10km square record.

Cornus sericea - JEO/JW; Malmesbury by R Avon; wall banks; 1st 10km square record.

Cotoneaster bullatus - JEO; Lockeridge; West Woods; JEO; Marlborough; roadside seedings.

Cotoneaster x watereri (C. frigidus x C. salicifolius) - JEO; Swindon SW; wall-pavement angle; 1st vc record.

Cotoneaster horizontalis - JEO/JW; Malmesbury; walls/pavement angles; rare; 1st 10km square record.

Cotoneaster integrifolius - JEO; Highworth; wall-pavement angle; 1st 10km square record.

Cotoneaster salicifolius - JEO; West Kennet; R Kennet; roadside seeding.

Crataegus laevigata - PD; Great Somerford; bank of Bristol Avon; one fairly mature bush.

Cryptomeria japonica - JEO; Great Bedwyn; wood; 2 seedlings progressing to saplings; 1st county record.

Cyclamen hederifolium - JP; Winsley; garden escapes in several places; 1st 10km square record. JEO; Marlborough; mown areas.

Elodea nuttallii - JEO/JW; Malmesbury; in R Avon; 1st 10km square record. SPi; Malmesbury; R Avon.

Erigeron acer - JN; Aldbourne; road bank.

Erysimum cheiri - JEO; Wootton Bassett; walls.

Euphorbia oblongata - JEO/JW; Malmesbury; walls or pavement angles; rare; 1st county record.

Fallopia sachalinensis - JN; Little Bedwyn; large mass in hedgerow; 1st 10km square record.

Foeniculum vulgare - JEO/JW; Malmesbury; walls or pavement angles; 1st 10km square record. JEO; Cherhill; A4 fringe; 3 plants; 1st 10km square record.

Galeopsis bifida - JEO; Avebury; 1st 10km square record.

Galinsoga quadriradiata - JP/LWa; Bowden Hill Nursery; neglected beds; locally abundant.

Helleborus foetidus - RAi; Between Broad Hinton and Wroughton; wood; single plant; edge of wood; flowers with purple edges to sepals; 1st 10km record.

Hieracium maculatum - JEO/JW; Malmesbury; top of wall; locally frequent.

Hyacinthoides hispanica - JEO/JW; Malmesbury; walls or pavement angles; occasional; blue and white forms; 1st 10km square record.

Hyacinthoides x massartia (H. non-scripta x H. hispanica) - JEO; Swindon, SW; old railway path/ cycle track; 1st 10km square record. JEO; Manton, Clatford and Fyfield; road verges. JEO; Marlborough; roadside verges and hedges.

Hyoscyamus niger - PD; Dauntsey; meadow recently reseeded from arable; 5 plants; near to many 10s seen summer 2003; 1st 10km square record.

Hypericum calycinum - JEO; Marlborough; roadside suckerings; 1st 10km square record. JEO/JW; Malmesbury; walls or pavement angles; occasional; 1st 10km square record.

Impatiens parviflora - PD; Grittleton; forestry wood-yard; several plants growing in disturbed soil/ sawdust/wood; 1st 10km square record.

Inula conyzae - JN; Ashton Keynes; one plant in hedge by lake; 1st 10km square record.

Iris foetidissima - JEO; Marlborough; Savernake Forest; 2 sites. JEO; Clatford; 2 plants.

Kickxia spuria - JN; Highworth; along field edge; 1st 10km square record.

Lactuca serriola - JEO; Lockeridge; fields, waste areas. JEO; Theobold's Green; many plants. JEO/JW; Malmesbury; walls or pavement angles; occasional.

Lagarosiphon major - JEO; Swindon, SW; several sites in Wilts and Berks Canal.

Lamiastrum galeobdolon subsp. argentatum - JEO; Marlborough; Savernake Forest; 2 sites, one with continuous carpet. JEO/JW; Malmesbury; walls or pavement angles; 1st 10km square record.

Lamium maculatum - JEO/JW; Malmesbury; walls or pavement angles; 3 plants; 1st 10km square record.

Lemna minuta - JEO; Swindon, SW; Wilts and Berks Canal; several sites. JEO; Wootton Rivers; wood; abundant in numerous water-filled ruts.

Lemna trisulca - JN; Ramsbury; pond in WWT reserve, seen each year since pond was excavated about 20 years ago; 1st 10km square record.

Leycesteria formosa - JEO; Clatford; field fence.

Lonicera nitida - JEO/JW; Malmesbury; locally frequent; 1st 10km square record.

Luzula multiflora ssp. congesta - JN; Great Bedwyn; Chisbury Wood; common; 1st 10km square record. JN; NW of Great Bedwyn; wood; abundant.

Luzula multiflora - JN; Great Bedwyn; Chisbury Wood; common. JN; NW of Great Bedwyn; wood; abundant; 1st 10km square record.

Luzula sylvatica - JEO; Great Bedwyn; Chisbury

Wood; abundant; 1st 10km square record.
Mahonia aquifolium - JEO; Marlborough; roadside seedings, garden escape; 1st 10km square record.
Melissa officinalis - JEO/JW; Malmesbury; walls or pavement angles; frequent; 1st 10km square record.
Mentha x villosa (M. spicata x M. suaveolens) - JP; Winsley; 1 plant by roadside; naturalised; 1st 10km square record.
Myosotis sylvatica - JEO/JW; Malmesbury; walls or pavement angles; locally frequent; 1st 10km square record. JEO; Swindon, SW; old train track, now a path/cycle track; several sites.
Nigella damascena - JEO/JW; Malmesbury; walls or pavement angles; rare.
Onopordum acanthium - JEO; Quemerford; bank of A4; 1 plant, 260cm high.
Ophrys apifera - JN; Quemerford; Cherhill Down; 20 counted. JN; Upper Minety; 3 plants - 2 normal, 1 with labellum all yellow/brown with no red spots, sepals pale pink; ?var bicolor.
Ophrys apifera var. chlorantha; JN; Cherhill; Cherhill Down; 1 flower with whitish sepals and plain greenish-yellow lip; 1st 10km square record.
Oxalis corniculata - JP; Winsley; abundant as garden weed, 1st 10km square record.
Oxalis incarnata - JP; Winsley; house wall/path angle, several, self-seeded from cultivated plants.
Papaver dubium subsp. lecoqii - JN; Aldbourne; road verge. JP; Bradford-on-Avon; pavement; a few.
Papaver somniferum - JP; Turleigh; clump on disturbed ground. JEO/JW; Malmesbury; walls or pavement angles; frequent; 1st 10km square record.
Picea sitchensis - JEO; Great Bedwyn; Chisbury Wood; 1 seedling; 1st 10km square record.
Poa compressa - JEO; Clatford; bridge stonework; 1st 10km square record.
Pseudotsuga menziesii - JEO; Great Bedwyn; common; 2 seedlings. JEO; Great Bedwyn; Chisbury Wood; several sites; extensive seeding and saplings.
Pulmonaria officinalis - JEO/JW; Malmesbury; walls or pavement angles; rare; 1st 10km square record. JEO; Stibb Green; woodland edge; 6 clumps.
Quercus petraea - JEO; Great Bedwyn; wood; about 15 trees noted. JEO; Marlborough; Savernake Forest; frequent at 2 sites. JEO; Lockeridge; West Woods; 1 tree, young, 15 foot tall; 1st 10km square record.
Quercus x rosacea (Q. petraea x Q. robur) - JEO; Great Bedwyn; wood; 2 sites; over 20 trees; commoner than Q. robur here. JEO; Marlborough; Savernake Forest; common, with both parent species. JEO; Theobold's Green; 1 young tree among several young Q. robur; 1st 10km square record. JEO; Great Bedwyn; Chisbury Wood; one tree.
Ribes sanguineum - JEO; Swindon; old train track, now a path/cycle track.
Robinia pseudoacacia - JEO; Great Bedwyn; common; occasional suckers.
Rorippa amphibia - JP; Melksham; riverside.
Rorippa sylvestris - JP; Melksham; riverside.
Rosa sherardii - JN; Aldbourne; 1 large shrub; 1st 10km square record.
Rosa x nitidula (R. canina x R. rubiginosa) - JN; Cherhill; on track to down; 1st 10km square record.
Rumex hydrolapathum - JEO; Swindon; canal.
Rumex x ruhmeri (R. conglomeratus x R. sanguineus) - JEO; Preshute and Marlborough; woods; joint 1st 10km square records. SPi; Malmesbury; R Avon; 1st 10km square record. JEO; Malmesbury; woods.
Salix x sericans (S. viminalis x S. caprea) - JEO; Shalbourne; streamside; 2 plants. JEO; Swindon, SW; 3 plants.
Saponaria officinalis - JEO; Cherhill; A4 fringe; c30 plants.
Saponaria officinalis - JN; Stitchcombe; roadside.
Saxifraga granulata - RAi; Crofton; grassy roadside bank; around 20 plants.
Sedum rupestre - JEO/JW; Malmesbury; walls or pavement angles; rare; 1st 10km square record.
Soleirolia soleirolii - JEO; Swindon, SW; urban damp alleyways; 1st 10km square record.
Spergula arvensis - JP/LWa; Bowden Hill; Bowden Park Nursery; neglected bed; locally frequent.
Symphoricarpos x chenaultii (S. microphyllus x S. orbicularis) - JEO; Swindon SW; old canal hard paths; 2 clumps; 1st county record.
Symphytum grandiflorum - JEO; West Overton; roadside linear strips; 1st 10km square record.
Thalictrum minus - JEO/JW; Malmesbury; walls and pavement angles; rare; 1st 10km square record.
Thuja plicata - JEO; Lockeridge; West Woods; semi-naturalised seedlings, saplings and layerings. JEO; Great Bedwyn; wood; occasional seedlings progressing to saplings; 1st 10km square record.
Tilia cordata - JEO; Stibb Green; farmland; girth 530cm. JEO; Marlborough; Savernake Forest.
Veronica catenata - JN; Swindon, S; Coate Water; 1 plant.
Vinca minor - JEO/JW; Malmesbury; walls or pavement angles; variegated; occasional.
Viola x wittrockiana (undefinable hybrid between V. arvensis and V. wittrockiana) - JP/LWa; Bowden Hill; nursery; neglected bed; locally frequent; wild *V. arvensis* in neighbouring field but no sign of Garden Pansy; 1st 10km square record.

Vc8 records

Aconitum napellus - BL; Berwick St James; edge of beech wood; 1st 10k record.
Aster lanceolatus - JEO; Chicklade; linear fringes of A303; 10-30 yards each; 1st 10km square record. JEO; Deptford; fringes of A303; 10-30 yards each.
Aster x salignus (A. lanceolatus x A. novi-belgi) - JEO; Deptford; linear fringes of A303; 10-30 yards each. JEO; Chicklade; linear fringes of A303; 10-30 yards each; 1st 10km square record.
Astragalus glycyphyllos - BB; Pitton.
Atropa belladonna - JN; Idmiston; Porton Down; several plants.

Betula pubescens - JEO; Urchfont; wood; several sites; very common; 1st 10km square record. JEO; Great Bedwyn; woodland; common; under-recorded reviously, probably increasing; with B. pendula and the *B. pendula x B. pubescens* hybrid *(B. x aurata).*
Borago officinalis - JEO; Urchfont; rubbish dumps.
Calendula officinalis - JEO; Urchfont; rubbish dumps; 1st 10km square record.
Callitriche obtusangula - JEO; East Dean; pond; the dominant plant.
Carex humilis - JN; Broad Chalke; downland; many.
Cephalaria gigantea - JEO; Great Bedwyn; by semi-derelict outbuildings; over 220cm high; 1st vc record.
Clinopodium acinos - JN; Idmiston; Porton Down; 1 plant.
Cochlearia danica - MDT 1992; Salisbury; wall base.
Coronopus didymus - AJS; Cholderton; wood.
Cotoneaster bullatus - JEO; Woodborough; road edge.
Cotoneaster dammeri - JEO; Salisbury; vertical roadside walls; including 2 seedlings; 1st county record.
Echinochloa crus-galli - JEO; Chirton; building site; 20 plants; 1st 10km square record.
Epilobium obscurum - AJS; Cholderton; wood; 1st 10km square record.
Epipactis phyllanthes - BL; Steeple Langford; Langford Lakes; c20 spikes; seems to be increasing.
Eranthis hyemalis - BL; Stapleford; road verge; 1st 10km square record.
Erigeron acer - SPr; Cholderton; set-aside; rare.
Euphorbia platyphyllos - SPi; Downton; stubble of rape field; other colonies reported from nearby fields.
Fritillaria meleagris - PMW; East Grimstead; Bentley Wood; 5 flowers (1 white, 1 purple, 3 intermediate); 1st 10km square record.
Fumaria parviflora var. symei - JR Moon; Upper Chute; stubble edge; 1 large plant; 1st county record.
Galeopsis angustifolia - JRM; Perham Down; edge of arable field; 1st 10km square record.
Galeopsis bifida - JEO; Urchfont; wood; fairly common; 1st 10km square record.
Gentianella anglica - JN; Broad Chalke; downland; 5 very minute specimens less than 1cm high.
Geranium pusillum - AD; Stratford-sub-Castle; 1st 10km square record.
Lactuca serriola - JP; Westwood; car park.
Legousia hybrida - BL; Berwick St James.
Lemna minuta - JEO; Great Bedwyn; pond; abundant.
Linaria purpurea - BL; Berwick St James; farm track.
Myosotis discolor - AJS; Cholderton; wood, 1st 10km square record.
Myosotis sylvatica - JEO; Burbage; roadside.
Ophrys apifera var. chlorantha - E Smith 1993; Bratton.
Papaver argemone - PMW; Whiteparish; cluster of 10+ plants in Wheat crop and 1 plant along headland. BL 2003; Berwick St James; 1st 10km square record. PMW/DJW; between West Grimstead and Whiteparish; 6+ plants amongst Oil Seed Rape. PMW; Whiteparish; 1 or 2 plants half way along public right of way; 1st 10km square record.
Papaver hybridum - BL 2003**;** Berwick St James; 1st 10km square record. BL 2003; Berwick St James, pasture. DJW/PMW; Pitton; waste ground around farm buildings; sparse; 1st 10km square record. BL 2003; Berwick St James; edge of arable.
Papaver somniferum ssp. somniferum - JEO; Cholderton; derelict garage forecourt; seeding on walls and broken pavements. JEO; Urchfont; dumps.
Petroselinum segetum - PMW/DJW; between West Grimstead and Whiteparish; 2 or 3 plants on edge of crop. 10km square record.
Picris hieracioides - SPr; Cholderton; set-aside field; locally frequent. AJS; Cholderton; wood. JEO; Cholderton; cemetery.
Platanthera chlorantha - JN; Bowerchalke.
Populus nigra ssp. betulifolia - JEO; Great Bedwyn; Bedwyn Brail, on a spring; girth 260cm at 5 feet. RChs; Great Bedwyn; Bedwyn Brail; boggy area near a spring; girth over 3m at 5 feet height.
Potamogeton natans - JEO; Great Bedwyn; Bedwyn Brail; pond; common.
Quercus cerris; JEO; Conkwell; wood; 1+ seedlings and occasional saplings; 1st 10km square record.
Quercus x rosacea (Q. petraea x Q. robur) - JEO; Urchfont; wood; 2 sites; 1st 10km square record.
Raphanus raphanistrum - AJS; Cholderton; wood.
Saxifraga tridactylites - JO; Downton; churchyard.
Scutellaria galericulata - JEO; Urchfont; wood; fairly common; 1st 10km square record. JNo; Middle Winterslow; Bentley Wood; 1st 10km square record.
Sedum rupestre - JEO; Cholderton; road and derelict garage forecourt; broken walls and pavement.
Spiraea japonica - JEO; Cholderton; derelict forecourt; seeding on walls and pavement; 1st county record.
Spiranthes spiralis - BL; Laverstock; one spike.
Thuja plicata - JEO; Conkwell; wood; one or more seedlings; 1st 10km square record.
Tilia cordata - BL; Berwick St James; planted copse.
Trifolium hybridum - BL; Berwick St James.
Typha angustifolia - JN; Heywood; wood; occasional; 1st 10km square record.
Verbascum blattaria - BL; Newton Tony; river channel; 3 plants; 1st recent vc record.
Verbascum nigrum - AJS; Cholderton; wood.

Non-vascular plants 2004 (all Vc7)

Chara vulgaris - JN; Ramsbury; pond in WWT reserve seen each year since pond was excavated about 20 years ago; 1st 10km square record.
Cinclidotus fontinaloides - JW/ JEO/WBS; Malmesbury; R Avon.
Marchantia polymorpha - JEO/JW; Malmesbury; base of wall; rare.

WILTSHIRE BOTANY 8 CORRECTIONS

Any scheme for processing large numbers of records is prone to error. Most of the errors are probably undetected. However, further analyses revealed that some of the data in the Record List were incorrect. This was due to such events as misidentification, mistakes in entering data into the records, or mistakes in transferring data from the records to the Record List or while updating the list. There has even been a case of electronic scrambling of data. The resulting corrections are noted below and are followed by corrections of consequent errors in the rest of the publication. The small number of typographical errors found have not been included, because they do not affect meaning.

Though these corrections are given to set the record straight, most of them have little significance in terms of interpreting the data. It is possible to ignore those without getting the wrong message.

RECORD LIST - The complete revised entry for each corrected taxon is normally given, with the changes stated in bold.

Aceras anthropomorphum **should be Aceras anthropophorum**.

Anagallis arvense ssp. caerulea slo p185 [ST 8070, SU 2060], vc7. **5 new tetrads deleted.**

Aphanes inexspectata p199 ST 9634, SU 0616, 0816, vc78. **1482 deleted.**

Aquilegia vulgaris p139 ST91, SU 02380616, 0814, 1066, 1466, 1468, 1668, 2034, 2268, vc78. **0614 and 2064 deleted.**

Aubrieta deltoides **should be Aubrieta deltoidea**.

Barbarea intermedia * slo p173 [SU 0652, 0654, 1466, 1832, 2614] SU 0812, 1824, 2036, vc78. **0616 deleted.**

Betula pubescens ssp. pubescens p150 ST 8856, 9418, 9618, SU 0616, 2268, vc78. **1468 deleted.**

Cardamine impatiens. **Deleted - record was an error.**

Carex pallescens p324 SU 2026, SU 0816, 2230, 2262, 2662, vc78. **2238 deleted.**

Carex panicea p324 SU 0812, vc78. **0616 deleted.**

Carex pilulifera p324 ST 8442, 9226, 9480, 9634, SU 0616, 2274, 2466, 2662, vc78. **8260 deleted.**

Cicerbita macrophylla ssp. uralensis * slo p287 [ST 8454, 9052, 9054, 9228, 9426, 9428, 9648, 9648, 9828, 9882, SU 0224, 0236, 0644, 0670, 0680, 0826, 0878, 1224, 1430, 1466, 1470, 1668, 1676, 1680, 1868, 1870, 1878, 1880, 2264, 2474, 2676,] SU 0438, 1426, vc78. **Re-ordered.**

Coeloglossum viride p360 ST 9218, SU 2034, 2050, 2092, vc78. **0422 deleted.**

Daphne laureola p217 ST 8060, 9684, 9886, SU 0286, 0484, 1824, 2818, vc78. **9418 and 9692 deleted.**

Dryopteris affinis agg. p129 ST 8442, 9216, 9418, 9618, SU 0614, 2026, 2034, 2066, 2264, 2464, 2662, Porton Thorney Down no mr, vc78. **0814 deleted**.

Dryopteris affinis ssp. afffinis nrif [Recorded only as agg.] SU 0614, 0616, 0816, 2026, 2068, 2424, 2464, vc78.

Dryopteris affinis ssp. borreri nrif [Recorded only as agg.] SU 0614, 0616, 2424, vc8. **0814 deleted.**

Epipactis helleborine p356 ST 8060, SU 2430, vc78. **2674 deleted.**

Epipactis purpurata var. chlorotica slo p354 [SU 0478], vc7. **11 tetrads deleted.**

Euphorbia cyparissias slo p222 [SU 0650, 0848, 1046, 1048, 1844, 2048] ST 7860, 7886, SU 1466, 1468, 1668, 2436, vc78. **93 deleted.**

Juniperus communis p133 ST 9424, SU 0228, 1662, vc78. **0616 deleted.**

Lamiastrum galeobdolon ssp. montanum nif SU 0616, 0816, vc8. **0614 deleted.**

Luzula sylvatica p314 ST 8822, 8830, 9436, SU 0614, 0816, vc78. **0814 deleted.**

Montia fontana ssp. minor slo p151 [SU 0490] SU 0812, vc7. **0515 deleted.**

Muscari armeniacum * nif SU 0052, 0816, 1660, 1664, 1668, 1868, 2818, vc78. **0628 deleted.**

Myosotis discolor p248 SU 0812, 0814, 0816, 1218, 1468, 1668, vc78. **0614 and 0616 deleted.**

Orchis ustulata p363 SU 1424, 1656, 2234, 2436, vc78. **1224 deleted.**

Ornithogalum pyrenaicum p352 SU 2228, vc78. **ST 8654 deleted.**

Pilosella aurantiaca agg. * nrif [ST 7860, 9228, 9660, 9858, SU 0022, 0052, 0054, 0430, 1230, 1460, 1466, 1680, 1682, 1878, 1880, 1888, 2024, 2026, 2268, 2418, 2422, 2676, 2816] SU 1062, 1626, 1668, 1874, vc78. **0816 deleted.**

Poa angustifolia slo p329 [ST8474, 8476, SU 0424, 2234] SU 0812, 0816, 1022, 1426, 2430, vc78. **0614 and 0616 deleted.**

Polystichum aculeatum p129 ST 9428, 9886, SU 0060, 0230, 1668, 1868, vc78. **0616 deleted.**

Populus nigra ssp. betulifolia p171 SU 0036, 0038, 0636, 0662, 0666, 0690, 0834, 0860, 1230, 1234, 1250, 1252, 1254, 1284, 1468, 1668, 1694, 1882, 1884, 2068, 2084, 2088, 2284, vc7. **1984 changed to 1884.**

Potamogeton natans p304 SU 0814, 1282, 2274, vc78. **0614 deleted.**

Prunus padus slo p198 [ST 9028, 9254, SU 0688] SU 0816, 2066, vc78. **0614 deleted.**

Ranunculus ficara ssp. bulbilifer nif SU 0814, 0816, 0868, 1466, 1866, 1488, vc7. **0614 deleted.**

Ranunculus hederaceus slo p137 [SU 0858, 2020, 2222, 2616, 2618, 2620, 2816, 2818] SU 0812, 2820, vc78. **0616 deleted.**

Ranunculus omiophyllus p139 SU 0812, 2664, vc8. **0616 deleted.**

Ranunculus penicillatus ssp. pseudofluitans nrif [recorded as species only]. **SU 0816, vc8 deleted.**

Spergularia rubra slo p155 [ST 9466, 9468, 9666, SU 2816, 2818] SU 0616, 2066, 2422, 2616, vc78. **1468 deleted.**
Thalictrum simplex ssp. galioides nif SU 0246, vc8. **asterisk deleted - it's a new British native.**
Thesium humifusum p220 SU 2234, vc78. **1424 deleted.**
Tilia platyphyllos nrif [Huge number but all listed in Flora as x vulgaris because of uncertainty over identification] SU 0816, 2428, 2430, 2448, 2464, vc8. **0614 deleted.**
Torilis arvensis slo p237 [ST 9052, SU 1026] SU 1222, vc8. **ST 9024 deleted.**
Vaccinium myrtillus p184 ST 8442, SU 0616, vc78. **1468 deleted.**
Veronica hederifolia ssp. lucorum nrif [recorded only as agg. in WFMP] ST 9428, 9626, SU 0616, 0812, 0816, 1012, 1426, vc78. **1468 deleted.**
Veronica serpyllifolia ssp. serpyllifolia nif SU 1426, vc8. **0614 and 2036 deleted.**
Vicia hybrida. **Deleted - names confused.**
Vulpia bromoides p331 SU 0616, 2462, vc78. **1468 deleted.**

OTHER CORRECTIONS - The correct version is given, with changes indicated by bold type.

P 22 table. Changed numbers are in bold -

No. of tetrads	0	1	2-3	4-9	10-19	20+
No. of taxa	**43**	**38**	**75**	**101**	13	4

P 23, line 7 - There are approximately **81** taxa in this category, and something can be said about most of them.

P 23, para 2, list from line 6 - *Anagallis arvensis* ssp *caerulea, Carex panicea* and *Torilis arvensis* added.

P 23, col 2, para 4, line 11 - *Carex panicea* added.

P 24, 1st subheading - Taxa in 10 tetrads or more.

P 24, col 2, para 4, line 7 - *Dryopteris affinis*, with **12** new tetrads, ---

P 25 para 2, lines 5-10 - --- scatter of dots, and subsequent records to 2003 add only **5 new tetrads** The main concentrations were in particular areas of the South-east and South-west, with another in the extreme North. Apart from tetrad SU3072, there were no records for the area stretching ---

P 25 para3, line1 - --- **60** 1km squares ---
line 8 - ---count of **43** ---
line 9 - - **33%** of that ---

P 27, para 2, line 4 - (approximately **578**), however, the treatment cannot

P 27, table. Changed numbers are in bold -

No. of tetrads	0	1	2-4	5-9	10-19	20+
No. of taxa	**290**	**125**	**122**	**33**	5	3

P 27. para 5, line 8 - *Aceras anthropophorum* - **spelling corrected.**

P 29. para 2, line 6 - Anagallis arvensis ssp caerulea deleted.

P. 32, para 1, line 2 - --- approximately **173** taxa ---

P 32, table. Changed numbers are in bold -

Number of tetrads	1	2	3	4	5-9	10+
Number of taxa	**133**	**28**	**5**	2	4	1

P 33, column 2, para 2. line 14 - Cardamine impatiens deleted.

P 38, para 4 - various corrections from line 6 onwards - complete paragraph shown -
A plant is regarded as nationally rare if it is in 16-100 10km squares in the British Isles. There are **56** such taxa in the *Wiltshire Rare Plant Register*, and there are additional tetrads recorded after the Flora Mapping to the end of 2003 for **26** of these. *Gentianella anglica* has 8 additional tetrads, *Helleborus foetidus* 6, *Epipactis phyllanthes*, and *Phyteuma orbicularis* have 5 each, ***Orchis ustulata*** **has 3,** *Carex humilis* and *Fumaria parviflora* have 3 each, and *Aconitum napellus ssp. napellus*, *Leucojum aestivum*, and *Tephroseris integrifolia*, 2 each. Single additional tetrads have been noted for ***Aceras anthropophorum***, *Briza minor, Bromus secalinus, Dianthus deltoides, Draba muralis, Epipactis leptochila, Fritillaria meleagris, Gaudinia fragilis, Isatis tinctoria, Lycopodiella inundata, Minuartia hybrida*, ***Ornithogalum pyrenaicum,*** *Rosa agrestis,* ***Thesium humifusum, Torilis arvensis*** and *Vicia bithynica*.
(***Anagallis arvense ssp. foemina*** **and** ***Cardamine impatiens*** **deleted.** ***Orchis ustulata, Ornithogalum pyrenaicum, Thesium humifusum*** **and** ***Torilis arvensis*** **moved position because of corrected numbers of tetrads. Spelling of** ***Aceras anthropophorum*** **corrected).**